

**U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY**

**BIBLIOGRAPHY OF PUBLICATIONS BY MEMBERS OF THE
BRANCH OF COAL GEOLOGY, OFFICE OF ENERGY AND
MARINE GEOLOGY, U.S. GEOLOGICAL SURVEY,
JANUARY 1, 1985 - SEPTEMBER 30, 1994**

by
Margaret S. Ellis

Open-File Report 95-65-A
On-Line Edition

This report is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

TABLE OF CONTENTS

	Page
This Report	1
Bibliographic database and software	1
Introduction	1
Bibliographic references (listed alphabetically)	3
Appendix (Phone numbers of Branch authors)	194

THIS REPORT

Administrative Reports are not included in this bibliography. Over 12 percent of the reports prepared by Branch members are administrative in nature. Abstracts and other non-U.S. Geological Survey publications are included in the bibliography.

The Branch of Coal Geology bibliographic database could not have been compiled without the generous cooperation of Linda Bragg, Bob Finkelman, Deanne Sorahan, Connie Gilbert, Judy Tucker, and other members of the Branch of Coal Geology.

BIBLIOGRAPHIC DATABASE AND SOFTWARE

The Branch of Coal Geology currently is using Papyrus bibliographic software from Research Software Design to store and retrieve references. A pared-down version of this software, Papyrus Retriever, is legal software designed for public use to access databases that are distributed by licensed users. Open-File Report 95-65-B contains the Papyrus Retriever bibliographic software, documentation for the software, the bibliographic database itself, and copies of this document in ASCII, Microsoft Word ver. 6.0, and WordPerfect ver. 5.1 formats are included on two 3 1/2-inch 1.44-MB disks. To use the software you must have an IBM-compatible personal computer (I recommend a 386 or higher) running DOS version 3.3 or later and a hard drive with at least 6 MB of free disk space.

When the files are uncompressed they will take up about 0.8 MB for the Retriever software, 0.08 MB for the Retriever documentation, 3.7 MB for the database files, and 0.7 MB for this document (in the format you have chosen). If you have a copy of Papyrus you can use the uncompressed database files as they are, and will not need to install Papyrus Retriever. The Retriever software will allow you to search for r

INTRODUCTION

The Branch of Coal Geology in the Office of Energy and Marine Geology, U.S. Geological Survey (USGS), is made up of approximately 80 workers split between offices in Reston, Virginia and Denver, Colorado. The following bibliography is part of our computerized bibliographic database of publications by Branch members.

In 1985 there was a change in programs within the Coal Branch. For that reason it was determined that a publication containing products since 1985 would reflect "recent" publications. Information on earlier publications by the Branch of Coal Geology can be obtained by calling one of the main offices of the Branch (Reston--703 648-6407 or Denver--303 236-7726). You may also receive information on areas of expertise of Branch members or on the studies described in these publications by contacting one of the Branch offices or the authors (see Appendix for addresses and phone numbers).

This bibliography consists of a total of 1,725 publications by members of the U.S. Geological Survey Branch of Coal Geology, from January 1, 1985 to September 30, 1994. The bibliographic database was compiled in 1993 and 1994. This bibliography is as complete and correct as possible, however, the bibliography may not contain all publications by former Branch members (not employed by the Branch in 1993 or 1994).

Reports prepared for internal use or for use by other government agencies (administrative reports) are not included references in several ways (such as by author, year, or subject). You can list and/or print the references in different formats. Retriever gives you options of listing references to the screen, a printer, or a file (to be accessed through whatever word processing package you are using). You can use the Retriever software to search for references that you are interested in, create lists of the references in specific formats (saved to files) and import the references into another bibliographic software package. Formats that I have included in the database are: brief, standard, AAPG (American Association of Petroleum Geologists), Endnote, GSA (Geological Society of America), Nature, Papx (Papyrus import format), Science, Silver Geo1, Silver Geo2, Silver Geo3, and Silver Geo4 (Silver Platter import formats), USGSimp (U.S. Geological Survey import format), USGSKwdk (U.S. Geological Survey format with keywords and key numbers), and USGSIst (U.S. Geological Survey format with no keywords or numbering).

Although the program in Open-File Report 95-65-B has been used by the U.S. Geological Survey, no warranty, expressed or implied, is made by the USGS as to the accuracy and functioning of the program and related program material, nor shall the fact of distribution constitute any such warranty, and no responsibility is assumed by the USGS in connection therewith.

Open-File Report 95-65-B is also available to be downloaded via 'anonymous ftp' from a USGS system named [greenwood.cr.usgs.gov](ftp://greenwood.cr.usgs.gov) (136.177.48.5). The files are located in a directory named `/pub/open-file-reports/ofr-95-65-b`.

The database manager is: Margaret S. Ellis
(303) 236-7775
mellis@dnrcrds0.cr.usgs.gov
U.S. Geological Survey
Box 25046, Mail Stop 972
Denver, CO 80225

This database, identified as BCGBIB, has been approved for release and publication by the Director of the USGS. Although this database has been subjected to rigorous review and is substantially complete, the USGS reserves the right to revise the data pursuant to further analysis and review. Furthermore, it is released on condition that neither the USGS nor the United States Government may be held liable for any damages resulting from its authorized or unauthorized use.

BIBLIOGRAPHY

References are sorted alphabetically by the first author's last name and by year. The numbers in front of each entry are the reference numbers used in the computer bibliographic database (Open-File Report 95-65-B). Keywords are shown in capitol letters.

1748. Geological Survey of Pakistan in collaboration with the U.S. Geological Survey under the auspices of U.S. Agency for International Development, 1988, National Coal Exploration Plan: U.S. Geological Survey Open-File Report 88-251. (COAL, INTERNATIONAL, OPEN-FILE, PAKISTAN)
2501. Abidi, S.H., Akhter, S.S., Bajwa, S., Durrani, N.A., Fatmi, S.F., Jaffery, A.A., Khalil, A., Khan, I.A., Khan, R.A., Khan, S.A., Khan, M.J., Khan, R.M., Khan, M.S., Khan, Z.M., Khanzada, M.I., Mengal, J.M., Naimatullah, Q., Qureshi, M.J., Rasheed, S., Shah, H., Zaidi, M., Bergin, M.J., Hildebrand, R.T., Landis, E.R., Meissner, C.R., Noble, E.A., Outerbridge, W.F., SanFilipo, J.R., Thomas, R.E., Warwick, P.D., and Wnuk, C., 1988, Appendix 1 - Lithologic logs, in Thomas, R.E., Landis, E.R., and Khan, R.A., eds., Report on Coal Resource Exploration Assessment Program drilling and related activities April 1986 to May 1987, southern Sind Province, Pakistan: U.S. Geological Survey Open-File Report 88-275, 791 p. (COAL, COAL RESOURCES, DRILLING, EXPLORATION, INTERNATIONAL, LITHOLOGIC LOGS, OPEN-FILE, PAKISTAN, SINDH PROVINCE)
1870. Abu, J.N.S., Kimberley, M.M., and Cavaroc, V.V., 1989, Mesozoic-Paleogene basin development within the eastern Mediterranean borderland: *Journal of Petroleum Geology*, v. 12, p. 419-435. (ASIA, BASALT, CONTINENTAL-MARGIN, ECONOMIC GEOLOGY, MEDITERRANEAN-REGION, MESOZOIC, MIDDLE-EAST, PALEOGENE, PALMYRA-BASIN, PETROLEUM, PLATE TECTONICS, SIRHAN-BASIN, STRUCTURAL-GEOLOGY, TECTONICS, TERTIARY, VULCANISM)
1028. Affolter, R.H., and Brownfield, M.E., 1987, Characterization of lower Williams Fork Formation coals from the eastern Yampa coal field, Routt County, Colorado: *Geological Society of America Abstracts with Programs*, v. 19, p. 567. (ABSTRACT, COAL, COLORADO, GREATER GREEN RIVER BASIN, WILLIAMS FORK FORMATION, YAMPA BASIN, YAMPA COAL FIELD)
3485. Affolter, R.H., and Hatch, J.R., 1993, Element composition of Rocky Mountain Province Cretaceous coals, in Chiang, Shiao-Hung, ed., *Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference*, p. 1038. (ABSTRACT, COAL, CRETACEOUS, GEOCHEMISTRY, HAPS, ROCKY MOUNTAIN REGION, TRACE ELEMENTS)
2171. Affolter, R.H., and Stricker, G.C., 1987, Offshore Alaska coal, in Scholl, D.W., Grantz, Arthur, and Vedder, J.G., eds., *Geology and resource potential of the continental margin of western North America and adjacent ocean basins: Circum-Pacific Council for Energy and Mineral Resources Earth Science Series*, v. 6, p. 639-647; Houston, Texas. (ALASKA, COAL, COAL RESOURCES, GEOLOGY)
778. Affolter, R.H., and Stricker, G.D., 1986, Geochemistry of some Tertiary alluvial lowland coals from the Capps and Chuitna coal fields, Cook inlet Region, Alaska, in Garbini, S., and Schweinfurth, S.,

- eds., Symposium Proceedings--A National Agenda for coal Quality research: U.S. Geological Survey Circular 979, p. 215. (ABSTRACT, ALASKA, CAPPS COAL FIELD, CHUITNA COAL FIELD, COAL, COOK INLET REGION, GEOCHEMISTRY, TERTIARY)
2168. Affolter, R.H., and Stricker, G.D., 1987, Geochemistry of coal from the Cretaceous Corwin and Chandler Formations, National Petroleum Reserve in Alaska, in Tailleux, I.L., and Weimer, Paul, eds., Alaskan North Slope Geology, Volumes I and II: Society of Economic Paleontologists and Mineralogists and the Alaskan Geological Society, Pacific Section, p. 217-224. (ALASKA, CHANDLER FORMATION, COAL, COAL-QUALITY, CORWIN FORMATION, CRETACEOUS, GEOCHEMISTRY, NORTH-SLOPE)
2174. Affolter, R.H., and Stricker, G.D., 1987, Variations in element distribution of coal from the Usibelli Mine, Healy, Alaska, in Rao, P.D., ed., Focus on Alaska's Coal, '86, Proceedings of the conference: Mineral Industry Research Laboratory Report, v. 72, p. 91-99. (ALASKA, COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, USIBELLI MINE)
2342. Affolter, R.H., and Stricker, G.D., 1988, Effects of paleolatitude on coal quality--a model for organic sulfur distribution in United States coal: American Association of Petroleum Geologists, v. 73, p. 326. (ABSTRACT, COAL, COAL-QUALITY, GEOCHEMISTRY, PALEOLATITUDE, SULFUR, USA)
2183. Affolter, R.H., and Stricker, G.D., 1990, Paleolatitude-a primary control on the sulfur content in United States coals, in Carter, L.M.H., ed., U.S. Geological Survey Research on energy resources, 1990: U.S. Geological Survey Circular 1060, p. 1. (ABSTRACT, COAL, GEOCHEMISTRY, PALEOLATITUDE, SULFUR, USA)
674. Affolter, R.H., Stricker, G.D., Flores, R.M., and Stanley, R., in press, Geochemical evaluation of low-sulfur coal from the Tertiary Usibelli Group, Usibelli Coal Mine, Inc: Focus on Alaska's Coal '93 Program, School of Mineral Engineering, University of Alaska and Society of Mining Engineers, p. 5. (ABSTRACT, ALASKA, COAL, COAL-QUALITY, GEOCHEMISTRY, SULFUR, TERTIARY, USIBELLI GROUP, USIBELLI MINE)
561. Affolter, R.H., Stricker, G.D., Roberts, S.B., and Brownfield, M.E., 1992, Geochemical variation of Arctic margin low-sulfur Cretaceous and Tertiary coals, North Slope Alaska: U.S. Geological Survey Open-File Report 92-391, p. 8. (ALASKA, COAL, CRETACEOUS, GEOCHEMISTRY, NORTH-SLOPE, OPEN-FILE, SULFUR, TERTIARY)
588. Affolter, R.H., Stricker, G.D., Roberts, S.B., and Brownfield, M.E., 1992, Geochemical variation of Arctic margin low-sulfur Cretaceous and Tertiary coals, North Slope, Alaska: International Conference on Arctic Margins, Abstracts and Program, Anchorage, Alaska, September 2-4, 1992, p. 1. (ABSTRACT, ALASKA, COAL, CRETACEOUS, GEOCHEMISTRY, NORTH-SLOPE, SULFUR, TERTIARY)
4117. Agard, S.S., Colton, R.B., and Kanizay, S.P., 1987, Landslide deposits in the Lodgegrass 30' X 60' quadrangle, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-1928, scale 1:24,000. (GEOLOGIC MAP, LANDSLIDES, LODGEGRASS, MAP, MONTANA, SEDIMENTS)

1927. Ahmad, N., and Simon, F.O., 1986, Chemical, physical, mineralogical, and petrologic characterization of coal and their economic and environmental significance, in Khan, M.N. and Pelofsky, A.H., eds., Coal development potential in Pakistan: Coalcon 1986, p. 187-199; First Pakistan national coal conference, Karachi, Feb. 22-26, 1986, 20 refs. (COAL, COAL-QUALITY, GEOCHEMISTRY, INTERNATIONAL, MINERAL-COMPOSITION, ORGANIC, PAKISTAN, PETROLOGY, PUBLICATION)
2894. Alexandri, R., Force, E.R., Cannon, W.F., and Spiker, E.C., 1985, The sedimentary manganese carbonate deposits of the Molango district, Mexico: Geological Society of America, Orlando, Florida. (ABSTRACT, MANGANESE, MEXICO, MINERALS, MOLANGO DISTRICT)
2264. Anderson, O.J., and Stricker, G.D., 1987, Stratigraphy and coal occurrences of the Tres Hermanos Formation and Gallup Sandstone, Upper Cretaceous, Zuni Basin, West-central New Mexico, in Roybal, G.H., Anderson, O.J., and Beaumont, E.C., eds., Coal deposits and facies changes along the southwestern margin of the Late Cretaceous seaway, West-central New Mexico: New Mexico Bureau of Mines and Mineral Resources Bulletin 121, p. 59-63. (COAL, CRETACEOUS, FACIES, GALLOP SANDSTONE, NEW MEXICO, STRATIGRAPHY, TRES HERMANOS FORMATION, ZUNI BASIN)
1410. Arndt, H.H., and Hardie, J.K., 1985, Lithic descriptions and geophysical logs of 83 U.S. Geological Survey coal exploratory holes in the eastern part of the Fort Peck Indian Reservation, Daniels, Roosevelt, and Sheridan Counties, Montana: U.S. Geological Survey Open-File Report 85-707, 254 p. (COAL, DRILL HOLES, DRILLING, ELECTRIC LOGS, FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, GEOPHYSICAL LOGS, INDIAN, INDIAN RESERVATION, LITHOLOGIC LOGS, MONTANA, OPEN-FILE, TERTIARY)
717. Ashley, R.P., Cunningham, C.G., Bostick, N.H., Dean, W.E., and Chou, I.M., 1991, Geology and geochemistry of three sedimentary-rock-hosted disseminated gold deposits in Guizhou Province, People's Republic of China: Ore Geology Review, Special Issue, W. Petruck, ed., 18 p. (CHINA, GEOCHEMISTRY, GEOLOGY, GOLD, GUIZHOU PROVINCE, SEDIMENTARY ROCKS)
478. Ayers, W.B., Jr., Bryer, J.A., and Finkelman, R.B., 1989, Depositional Setting of Texas Lignites: American Geophysical Union, 28th International Geologic Congress Field Trip Guidebook, v. 173; 37 p., Washington, D.C. (COAL, DEPOSITION, GUIDEBOOK, LIGNITE, PALEOENVIRONMENT, TEXAS)
3133. Bailey, A.M., Esterle, J.S., Cohen, A.D., and Neuzil, S.G., 1989, A laboratory investigation of changes induced by application of heat and pressure to peats from planar and domed peat bodies: Geological Society of America, Abstracts with Program, 1989 Annual Meeting, St. Louis, Missouri, v. 21, p. 163. (ABSTRACT, COAL, METAMORPHISM, PEAT, TECTONICS, THERMAL)
1528. Barker, C.E., Hatch, J.R., Goldstein, R.H., and Walton, A.W., 1990, Thermal maturity, organic geochemistry, and burial history of Pennsylvanian rocks, Cherokee basin, southeastern Kansas; in Abstracts - Source rocks, generation, and migration of hydrocarbons and other fluids in the Southern Midcontinent -a workshop: Oklahoma Geological Survey and the U.S. Department of Energy, p. 23. (ABSTRACT, CHEROKEE BASIN, GEOCHEMISTRY, HYDROCARBONS, KANSAS, ORGANIC, PENNSYLVANIAN, THERMAL, THERMAL MATURITY)

596. Bates, A.L., and Hatcher, P.G., 1989, Solid-state (13)C NMR studies of a large fossil gymnosperm from the Yallourn open cut, Latrobe Valley, Australia: *Organic Geochemistry*, v. 14, p. 609-617; 31 refs. (AUSTRALIA, COAL, COALIFICATION, ECONOMIC GEOLOGY, FLORA, GYMNOSPERM, LIGNIN, LIGNITE, ORGANIC, PALEOBOTANY, PEAT, PLANTS, PUBLICATION)
13. Bates, A.L., and Hatcher, P.G., 1991, Quantitative Solid-State 13C Nuclear Magnetic Resonance Spectrometric Analysis of Wood Xylem: Effect of Increasing Carbohydrate Content: *Organic Geochemistry*, v. 18, p. 407-416. (CARBOHYDRATE, GEOCHEMISTRY, NUCLEAR, WOOD)
576. Bates, A.L., Hatcher, P.G., Lerch, H.E., III, Cecil, C.B., Neuzil, S.G., and Supardi, 1991, Studies of a peatified angiosperm log cross section from Indonesia by nuclear magnetic resonance spectroscopy and analytical pyrolysis: *Organic Geochemistry*, v. 17, p. 37-45. (ANGIOSPERMS, ASIA, COAL, GEOCHEMISTRY, INDONESIA, INTERNATIONAL, LIGNIN, NUCLEAR, ORGANIC, PEAT, PEATIFICATION, SPECTROSCOPY, SUMATRA, WOOD)
2405. Bates, A.L., and Spiker, E.C., 1992, Chemical Changes and Carbon Isotope Variations in a Large Miocene Gymnospermous Log Cross Section: *Chemical Geology*, v. 101, p. 247-254. (CARBON, GEOCHEMISTRY, ISOTOPE, MIOCENE, PLANTS, TERTIARY)
3701. Bates, A.L., and Spiker, E.C., 1994, Speciation and isotopic composition of sulfur in the Florida Everglades: American Chemical Society, Conference in Washington D.C., August 1994. (ABSTRACT, EVERGLADES, FLORIDA, GEOCHEMISTRY, PEAT, SPECIATION, SULFUR, SWAMPS)
3698. Bates, A.L., Spiker, E.C., Hatcher, P.G., Stout, S.A., and Weintraub, V.C., in press, Sulfur geochemistry of organic-rich sediments from Mud Lake, Florida: Evidence for changes in depositional conditions: *Chemical Geology*. (FLORIDA, GEOCHEMISTRY, MUD LAKE, ORGANIC, ORGANIC MATTER, SULFUR)
3917. Bates, A.L., Spiker, E.C., and Orem, W.H., 1992, Sediments in Jellyfish Lake, Palau: Sulfur species and their isotopic composition: American Chemical Society, National Meeting, San Francisco, California, April, 1992. (ABSTRACT, GEOCHEMISTRY, INTERNATIONAL, ISOTOPE, JELLYFISH LAKE, PALAU, SULFUR)
2867. Bates, A.L., Spiker, E.C., and Orem, W.H., 1993, Speciation and isotopic composition of sulfur in sediments from Jellyfish Lake, Palau: *Chemical Geology*, v. 105, p. 63-76. (GEOCHEMISTRY, ISOTOPE, JELLYFISH LAKE, PALAU, SULFUR)
3594. Bayer, K.C., and Milici, R.C., 1986, Structural Profile of pre-Mesozoic rocks along U.S. Atlantic Continental Margin: *American Association of Petroleum Geologists Bulletin*, v. 70, p. 621. (ABSTRACT, CONTINENTAL-MARGIN, MESOZOIC, STRUCTURAL-GEOLOGY)
3557. Bayer, K.C., and Milici, R.C., 1987, Geology and petroleum potential of Mesozoic and Cenozoic rocks, offshore Virginia: Virginia Division of Mineral Resources Publication, 73, part D. (CENOZOIC, GEOLOGY, MESOZOIC, OIL AND GAS, PETROLEUM, VIRGINIA)
3600. Bayer, K.C., and Milici, R.C., 1988, Oil and gas potential of the continental margin, offshore

- Virginia, in Carter, L.M.H., ed., USGS research on energy resources - 1988 program and abstracts for the V.E. McKelvey forum on mineral and energy resources: U.S. Geological Survey Circular 1025, p. 2. (ABSTRACT, CONTINENTAL-MARGIN, ENERGY RESOURCES, OIL AND GAS, VIRGINIA)
3559. Bayer, K.C., and Milici, R.C., 1989, Petroleum geology of the mid-Atlantic continental margin, offshore Virginia: *Marine Geology*, 90, Elsevier Science Publishers, B.V. Amsterdam, p. 87-94. (CONTINENTAL-MARGIN, MARINE, OIL AND GAS, PETROLEUM, VIRGINIA)
245. Behar, F., and Hatcher, P.G., 1992, Experimental simulation of brown coal diagenesis: American Chemical Society, Abstracts of Papers, v. 203, p. GEOC 85; 203rd American Chemical Society national meeting, San Francisco, CA, April 5-10, 1992. (ABSTRACT, CLOSED-SYSTEMS, COAL, DIAGENESIS, LIGNITE, ORGANIC)
2454. Belt, E.S., and Lyons, P.C., 1989, A thrust-ridge paleodepositional model for the Upper Freeport coal bed and associated clastic facies, Upper Potomac coal field, Appalachian Basin, USA: *International Journal of Coal Geology*, v. 12, p. 293-328. (COAL)
266. Benner, R., Eadie, B.J., and Hatcher, P.G., 1991, Isolation by ultrafiltration of a new component of dissolved organic matter: American Chemical Society, Abstracts of Papers, v. 201, p. GEOC 11; 201st American Chemical Society national meeting, Atlanta, GA, April 14-19, 1991. (ABSTRACT, GEOCHEMISTRY, GULF OF MEXICO, LOUISIANA, ORGANIC, SEDIMENTOLOGY, USA)
609. Benner, R., Hedges, J.I., and Hatcher, P.G., 1989, Microbial transformations of mangrove leaves in a tropical estuary: American Chemical Society, Abstracts of Papers, v. 197, p. GEOC 74; 197th ACS national meeting, Dallas, TX, Apr. 9-14, 1989. (BAHAMAS, ENVIRONMENTAL GEOLOGY, ESTUARINE, ESTUARY, FACIES, GEOCHEMISTRY, LEAVES, LIGNIN, LIPIDS, MICROORGANISMS, ORGANIC, TROPICAL-ENVIRONMENT, WEST-INDIES)
579. Benner, R., Hatcher, P.G., and Hedges, J.I., 1990, Early diagenesis of mangrove leaves in a tropical estuary; bulk chemical characterization using solid-state (13)C NMR and elemental analyses: *Geochimica et Cosmochimica Acta*, v. 54, p. 2003-2013. (BAHAMAS, COAL, COMPOSITION, DIAGENESIS, ENVIRONMENTAL GEOLOGY, ESTUARINE, ESTUARY, FACIES, GEOCHEMISTRY, LEAVES, MANGROVE, ORGANIC, SEDIMENTARY-PETROLOGY, SWAMPS, TROPICAL-ENVIRONMENT, WEST-INDIES)
487. Benner, R., Pakulski, J.D., McCarthy, M., Hedges, J.I., and Hatcher, P.G., 1992, Bulk chemical characteristics of dissolved organic matter in the ocean: *Science*, v. 255, p. 1561-1564. (CARBON, GEOCHEMISTRY, ORGANIC, PUBLICATION)
4177. Berg, R.B., Colton, R.B., and Vuke-Foster, S.M., 1989, Preliminary geologic map of the Armington quadrangle, Montana: Montana Bureau of Mines and Geology Open-File Map 212. (ARMINGTON QUADRANGLE, GEOLOGIC MAP, GEOLOGY, MAP, MONTANA)
1455. Bergenback, R.E., and Lence, J., 1992, Depositional model of Mississippian Bangor Limestone exposed in Hugden Branch, Raccoon Mountain, Marion County, Tennessee: *Journal of the Tennessee Academy of Science*, v. 67, p. 21; Spring 1991 collegiate meetings.

(CARBONIFEROUS, DEPOSITION, ENVIRONMENTAL GEOLOGY, INTERTIDAL-ENVIRONMENT, MISSISSIPPIAN, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TENNESSEE, USA)

1452. Bergenback, R.E., Uren, J., and Wooten, C., 1992, Depositional model of meandering stream sequence, upper portion of Pennsylvanian Raccoon Mountain Formation exposed in Hugden Branch, Raccoon Mountain, Marion County, Tennessee: Journal of the Tennessee Academy of Science, v. 67, p. 21-22; Spring 1991 collegiate meetings. (CARBONIFEROUS, DEPOSITION, FLUVIAL, PENNSYLVANIAN, RACCOON MOUNTAIN FORMATION, SEDIMENTARY-PETROLOGY, SEDIMENTARY-STRUCTURES, TENNESSEE, USA)
1461. Bergenback, R.E., 1989, Laterally discontinuous porous zones in the subsurface Mississippian Monteagle Limestone (oolitic), northeastern Tennessee; how were they formed?: American Association of Petroleum Geologists Bulletin 73, p. 1027; AAPG Eastern Section meeting, Bloomington, IN, Sept. 10-13, 1989, abstract. (MISSISSIPPIAN, OOLITES, POROSITY, SEDIMENTARY ROCKS, SEDIMENTARY-PETROLOGY, TENNESSEE, USA)
1464. Bergenback, R.E., 1989, Proven and probable gas reserves on the Eagan Quadrangle, Claiborne County, Tennessee as of spring: Geological Society of America Abstracts with Programs, v. 21, p. 4. (CARBONIFEROUS, ECONOMIC GEOLOGY, MISSISSIPPIAN, NATURAL-GAS, NORTHEASTERN-TENNESSEE, POSSIBILITIES, RESERVES, TENNESSEE, USA, WELL-LOGGING)
1459. Bergenback, R.E., 1991, Laterally discontinuous porous zones in subsurface Mississippian limestone (oolitic), northeastern Tennessee; how were they formed?: Journal of the Tennessee Academy of Science, v. 66, p. 61. (CARBONIFEROUS, EUSTATIC, MISSISSIPPIAN, NORTHEASTERN-TENNESSEE, OOLITIC-TEXTURE, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TENNESSEE, USA)
1447. Bergenback, R.E., 1992, Comparison of modern siliciclastic and skeletal carbonate beach features; Edisto, South Carolina (1972), and San Salvador Island, Bahamas (1984): Journal of the Tennessee Academy of Science, v. 67, p. 34-38. (BAHAMAS, BEACHES, COMPOSITION, GEOCHEMISTRY, GEOMORPHOLOGY, RICE-BAY, SAN-SALVADOR, SHORE-FEATURES, SOUTH-CAROLINA, TEXTURES, USA, WEST-INDIES)
1458. Bergenback, R.E., 1992, Lower Pennsylvanian-Upper Mississippian deposystems, Monteagle Mountain, Tennessee: Journal of the Tennessee Academy of Science, v. 67, p. 12-13; 101st meeting, Murfreesboro, TN, Nov. 21-22, 1991. (CARBONIFEROUS, CYCLIC PROCESSES, FLUVIAL, MISSISSIPPIAN, PENNSYLVANIAN, SEDIMENTARY-PETROLOGY, SEDIMENTARY-STRUCTURES, TENNESSEE, USA)
1462. Bergenback, R.E., and Churnet, H.G., 1986, Devonian-Mississippian clastic sedimentation in northern Tennessee: American Association of Petroleum Geologists Abstracts with Programs, v. 3, p. 9; Society of Economic Paleontologists and Mineralogists, annual midyear meeting, Raleigh, NC, Sept. 26-28, 1986. (DEVONIAN, MISSISSIPPIAN, NORTHERN-TENNESSEE, PENNINGTON-FORMATION, STRATIGRAPHY, STRUCTURAL-GEOLOGY, TECTONICS, TENNESSEE, USA)

1457. Bergenback, R.E., Fields, R., and Keith, T., 1992, Depositional model of deltaic sequence, lower portion of Pennsylvanian Raccoon Mountain Formation exposed in Hugden Branch, Raccoon Mountain, Marion County, Tennessee: *Journal of the Tennessee Academy of Science*, v. 67, p. 21; Spring 1991 collegiate meetings. (CARBONIFEROUS, DELTAIC, DEPOSITS, ENVIRONMENTAL GEOLOGY, PENNSYLVANIAN, RACCOON MOUNTAIN FORMATION, SEDIMENTARY-PETROLOGY, SEDIMENTARY-STRUCTURES, TENNESSEE, USA)
1456. Bergenback, R.E., and Landreth, M., 1992, Depositional model of Pennington Formation exposed in Hugden Branch, Raccoon Mountain, Marion County, Tennessee: *Journal of the Tennessee Academy of Science*, v. 67, p. 21; Spring 1991 collegiate meetings. (CARBONIFEROUS, DEPOSITION, ENVIRONMENTAL GEOLOGY, MISSISSIPPIAN, PENNINGTON-FORMATION, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TENNESSEE, USA)
1469. Bergenback, R.E., and Litchford, R.G., 1989, Tectonic control of carbonaceous sedimentation; Yarbrough, David: *Journal of the Tennessee Academy of Science*, v. 64, p. 44; Ninety-eighth meeting of the Tennessee Academy of Science, Cookeville, TN, Nov. 17-18, 1988. (ALABAMA, CARBONIFEROUS, FORE ARC BASINS, GEORGIA, MISSISSIPPIAN, PENNSYLVANIAN, SALE CREEK BASIN, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TECTONICS, TENNESSEE, USA)
2330. Bernknopf, R.L., and Watson, W.D., 1987, Effects of land use regulation on coal supply, in *National energy review: U.S. Geological Survey Bulletin 1850*. (COAL)
813. Biewick, L.H., Blake, D., and Krohn, K.K., 1986, Developing a working area on the Branch of Coal Resources PRIME minicomputer as a tool for stratigraphic research using the National Coal Resources Data System, NCRDS: *U.S. Geological Survey Open-File Report 86-88*, 61 p. (COAL, COAL RESOURCES, COMPUTER, COMPUTER APPLICATIONS, NCRDS, OPEN-FILE, STRATIGRAPHY)
1427. Biewick, L.H., Hardie, J.K., Williamson, C., and Arndt, H.H., 1990, Evaluation of coal resources in the eastern part of the Fort Peck Indian Reservation, Montana: *U.S. Geological Survey Bulletin 1869*, 136 p. (COAL, COAL RESOURCES, FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, INDIAN, LIGNITE, MONTANA, PALEOCENE, POWDER RIVER BASIN, RESERVATION, TERTIARY)
537. Biewick, L.H., Medlin, A.L., Hunter, J.F., and Krohn, K.K., 1991, Coal resources of the San Juan Basin, New Mexico, in Molnia, C.L., Jobin, D.A., O'Connor, J.T., and Kottlowski, F.E., eds., *Coalfields of New Mexico, Geology and resources: U.S. Geological Survey Bulletin 1972*, 169 p. (COAL, COAL RESOURCES, COAL-FIELDS, GEOLOGY, NEW MEXICO, SAN JUAN BASIN)
134. Biewick, L.R.H., 1989, Using the Interactive Surface Modeling program to generate coal isopach maps: a method to force isopachs to stop at a boundary: *First International Dynamic Graphics Users Meeting*, p. 1-7; 4 figs. (COAL, COMPUTER, COMPUTER APPLICATIONS, ISOPACH-MAPS, MAPPING TECHNIQUES)
542. Biewick, L.R.H., 1994, Maps and diagrams showing thickness and morphology of the Paleocene

- Canyon coal bed in the northern Powder River Basin, western part of the Broadus 30' x 60' quadrangle, Montana and Wyoming: U.S. Geological Survey Coal Investigations Map C-143, 35 p. (BROADUS, CANYON COAL BED, COAL, MAP, MONTANA, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYOMING)
541. Biewick, L.R.H., and Ellis, M.S., 1992, Three-dimensional modeling and on-screen slide show of the Eocene Brunner Coal Measures, Buller Coal Field, New Zealand: GeoTech '92 Proceedings, p. 17-24. (BRUNNER COAL MEASURES, BULLER COAL FIELD, COAL, COMPUTER APPLICATIONS, COMPUTER MODELING, EOCENE, FACIES, NEW ZEALAND, TERTIARY)
539. Biewick, L.R.H., Ellis, M.S., Blake, D., Flores, R.M., Sykes, R., and Molnia, C.L., 1992, Interactive Volume Modeling of coal and associated depositional systems, Eocene Brunner Coal Measures, Buller Coal Field, New Zealand, in Carter, L.M.H., ed., U.S. Geological Survey Research on Energy Resources, 1992, Program and Abstracts, 8th V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1074, p. 5-7. (ABSTRACT, BRUNNER COAL MEASURES, BULLER COAL FIELD, COAL, COMPUTER APPLICATIONS, COMPUTER MODELING, DEPOSITIONAL ENVIRONMENT, EOCENE, INTERNATIONAL, NEW ZEALAND, SOUTH ISLAND, TERTIARY)
8. Biewick, L.R.H., and McLellan, M.W., 1990, Isopach maps, perspective projections, and correlation diagrams of the Paleocene Flowers-Goodale coal resource unit in the northern Powder River Basin, Birney and Broadus 30' X 60' quadrangles, Montana-Wyoming: U.S. Geological Survey, Coal Investigations Map C-136-A, scale 1:100,000. (BIRNEY, BROADUS, COAL, COAL RESOURCES, CONTOUR-MAPS, CORRELATION, FLOWERS-GOODALE COAL, ISOPACH-MAPS, MAP, MONTANA, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYOMING)
1740. Bliss, C., Landis, E., Butcher, T., Kimel, E.G.M., and Festin, P., 1985, Introducing indigenous coal-water-mix fuels to the Philippines, Assessment of Project feasibility: Proceedings Seventh International Symposium on Coal Slurry Fuels Preparation and Utilization, p. 811-826. (COAL, ENERGY RESOURCES, FUEL RESOURCES, FUELS, INTERNATIONAL, PHILIPPINES)
1741. Bliss, C.B.T., Festin, P.M., Gordon, M., Kimel, E.A., and Landis, E.R., 1985, Indigenous coal-water-fuel in the Philippines, A case study: Synfuels 5th Worldwide Symposium; Washington, D. C., November 11-13, 1985. (ABSTRACT, COAL, FUEL RESOURCES, FUELS, INTERNATIONAL, PHILIPPINES)
39. Boger, L.W., 1986, Stratigraphic Analysis Techniques System (STRATS) User's Manual: U.S. Geological Survey Open-File Report 86-102, 24 p.; 4 figs. (COMPUTER, COMPUTER APPLICATIONS, MANUAL, OPEN-FILE, STRATIGRAPHY)
41. Boger, L.W., 1988, GEOSTAT: A Computer System for Spherical Semi-Variogram Modeling and Kriging: U.S. Geological Survey Open-File Report 88-684, 47 p. (COMPUTER, COMPUTER MODELING, OPEN-FILE, STATISTICS)
42. Boger, L.W., and Medlin, A.L., 1991, Reliability of Coal Resources Data in the San Juan Basin, in Molnia, C.L., Jobin, D.A., and O'Connor, J.T., Kottlowski, F.E., Coalfields of New Mexico,

- Geology and Resources: U.S. Geological Survey Bulletin 1972. (COAL, COAL RESOURCES, NEW MEXICO, SAN JUAN BASIN)
877. Bohor, B.F., 1985, Diagenesis of rhyolitic ash in coal-forming environments: International Clay Conference Book of Abstracts, Denver, Colorado, August 1985, p. 27. (ABSTRACT, ASH, CLAY, COAL, DEPOSITIONAL ENVIRONMENT, DIAGENESIS, RHYOLITE, TONSTEIN)
891. Bohor, B.F., 1987, Microspherules and the dualistic nature of the K-T boundary clay: Meteoritics, v. 22, p. 333. (ABSTRACT, CLAY, CRETACEOUS, K/T, SPHERULES, TERTIARY)
897. Bohor, B.F., 1988, K-T boundary claystone is a distal ejecta deposit: Meteoritics, v. 23, p. 258-259. (ABSTRACT, CLAYSTONE, CRETACEOUS, DISTAL EJECTA, K/T, TERTIARY)
898. Bohor, B.F., 1988, Shocked quartz and more: Impact signatures in K-T boundary clays and claystones: Abstracts of the Global Catastrophes in Earth History Conference, Snowbird, Utah: LPI contribution no. 673, p. 17-18. (ABSTRACT, CLAYSTONE, CRETACEOUS, IMPACT, K/T, SHOCKED QUARTZ, TERTIARY)
899. Bohor, B.F., 1988, Ejecta components and thickness of K-T boundary clays and claystones: Indicators of crater location: EOS, Transactions of the American Geophysical Union, v. 699, p. 1291. (ABSTRACT, CLAY, CLAYSTONE, CRATERS OF THE MOON, EJECTA, K/T)
903. Bohor, B.F., 1989, REE patterns of K-T claystones and altered volcanic ashes: EOS, Transactions of the American Geophysical Union, v. 70, p. 1179. (ABSTRACT, CLAY, CLAYSTONE, K/T, REE, VOLCANIC-ASH)
904. Bohor, B.F., 1990, Shock-induced microdeformations in quartz and other mineralogical indications of an impact event at the Cretaceous-Tertiary boundary: Tectonophysics, v. 171, p. 359-372. (CRETACEOUS, IMPACT, K/T, SHOCKED QUARTZ, TERTIARY)
907. Bohor, B.F., 1990, Shocked quartz and more: Impact signatures in K-T boundary clays and claystones, in Proceedings of Global Catastrophes in Earth History: Geological Society of America Special Paper 247, p. 335-342. (CLAY, CLAYSTONE, CRETACEOUS, IMPACT, K/T, SHOCKED QUARTZ, TERTIARY)
1379. Bohor, B.F., 1990, Comment on Origin of microlayering in worldwide distributed Ir-rich marine Cretaceous/Tertiary boundary clays: Geology, v. 18, p. 87-94. (CLAY, CRETACEOUS, DENMARK, IMPACT, INTERNATIONAL, K/T, SHOCKED QUARTZ, TERTIARY)
575. Bohor, B.F., 1992, Large meteorite impacts, The K/T model, in International Conference on Large Meteorite Impacts and Planetary Evolution, Sudbury, Canada: Lunar and Planetary Institute, contribution no. 7990, p. 8-9. (ABSTRACT, CRETACEOUS, IMPACT, K/T, METEORITE, TERTIARY)
3894. Bohor, B.F., 1994, Arroyo el Mimbral and La Lajilla K/T boundary deposits, NE Mexico: Single pulse debris flow turbidite clastic units associated with impact, in Keller, G., Stinnesbeck, W., Adatte, T., and MacLeod, N., eds., Cretaceous-Tertiary Boundary Sections in NE Mexico, A Field Guide. (CRETACEOUS, FIELD GUIDE, IMPACT, INTERNATIONAL, K/T, MEXICO,

TERTIARY, TURBIDITE)

4110. Bohor, B.F., 1994, Stevns Klint revisited: Anatomy of a K/T boundary site in Denmark: Geological Society of America Abstracts with Programs, v. 26, p. A335. (ABSTRACT, DENMARK, IMPACT, INTERNATIONAL, K/T, STEVNS KLINT)
896. Bohor, B.F., and Betterton, W.J., 1988, Are the hollow spherules in K-T boundary claystones altered microtektites?: Meteoritics, v. 23, p. 259. (ABSTRACT, AGE DATING, CLAY, CLAYSTONE, CRETACEOUS, MICROTEKTITES, SPHERULES, TERTIARY)
801. Bohor, B.F., and Betterton, W.J., 1989, Glauconite spherules and shocked quartz at the K-T boundary in DSDP site 603 B: Lunar and Planetary Science Conference XX; Lunar and Planetary Institute, Houston, Texas, pt. 1, p. 92-93. (ABSTRACT, CRETACEOUS, GLAUCONITE, K/T, SHOCKED QUARTZ, SPHERULES, TERTIARY)
804. Bohor, B.F., and Betterton, W.J., 1990, K-T spherules - clarifying the concept: Lunar and Planetary Science Conference XXI; Lunar and Planetary Institute, Houston, Texas, pt. 1, p. 107-108. (ABSTRACT, CRETACEOUS, K/T, SPHERULES, TERTIARY)
545. Bohor, B.F., and Betterton, W.J., 1991, Mineralogy of the K/T boundary in a deep-sea core: DSDP 596: Lunar and Planetary Science Conference XXII; Lunar and Planetary Institute, Houston, Texas, part 1, p. 119-120. (ABSTRACT, CRETACEOUS, K/T, MARINE, MINERALOGY, TERTIARY)
547. Bohor, B.F., and Betterton, W.J., 1991, K/T spherules are altered microtektites: Meteoritics, v. 26, p. 320. (CRETACEOUS, K/T, MICROTEKTITES, SPHERULES, TERTIARY)
548. Bohor, B.F., and Betterton, W.J., 1991, Maximum shocked grain dimensions from K/T ejecta, Western Interior: Meteoritics, v. 26, p. 321. (ABSTRACT, CRETACEOUS, EJECTA, K/T, SHOCKED, TERTIARY, WESTERN INTERIOR)
549. Bohor, B.F., and Betterton, W.J., 1992, Ejection and dispersal mechanisms of the K/T impact: Lunar and Planetary Science Conference XXIII; Lunar and Planetary Institute, Houston, Texas, Part 1, p. 135-136. (ABSTRACT, CRETACEOUS, IMPACT, K/T, TERTIARY)
550. Bohor, B.F., and Betterton, W.J., 1992, Shocked zircons in the Onaping Formation, Further proof of impact origin: International Conference on Large Meteorite Impacts and Planetary Evolution, Sudbury, Canada, August 31-September 2, 1992, LPI Contribution #790, Houston, Texas, p. 9-10. (ABSTRACT, IMPACT, INTERNATIONAL, K/T, ONAPING FORMATION, SHOCKED ZIRCON, ZIRCON)
551. Bohor, B.F., and Betterton, W.J., 1992, Shocked zircon in the Onaping Formation, Further proof of impact origin: U.S. Geological Survey Open-File Report 92-391, p. 27-28. (ABSTRACT, IMPACT, INTERNATIONAL, ONAPING FORMATION, SHOCKED ZIRCON, ZIRCON)
552. Bohor, B.F., and Betterton, W.J., 1993, Arroyo el Mimbral, Mexico, K/T unit, Origin as debris flow/turbidite, not a tsunami deposit: Lunar and Planetary Science Conference XXIV; Lunar and Planetary Institute, Houston, Texas, Part 1, p. 143-144. (ABSTRACT, AGE DATING,

CRETACEOUS, DEBRIS FLOW, INTERNATIONAL, K/T, MEXICO, TERTIARY,
TURBIDITITE)

4109. Bohor, B.F., and Betterton, W.J., 1994, Debris flow/ turbidite clastic units at the KT boundary, northeastern Mexico, in *New Developments Regarding the KT Event and Other Catastrophes in Earth History: Lunar and Planetary Institute, Houston, Texas, contribution no. 825*, p. 13-14. (ABSTRACT, INTERNATIONAL, K/T, MEXICO, TURBIDITE)
799. Bohor, B.F., Betterton, W.J., and Foord, E.E., 1988, Coesite, glass, and shocked quartz at DSDP site 612: Evidence for nearby impact in the Late Eocene: *Lunar and Planetary Science Conference XIX, Lunar and Planetary Institute, Houston, Texas, part 1*, p. 114-115. (ABSTRACT, COESITE, EOCENE, IMPACT, SHOCKED QUARTZ, TERTIARY)
805. Bohor, B.F., Betterton, W.J., and Foord, E.E., 1990, Shocked zircon and chromite in K/T boundary claystone: *Meteoritics*, v. 25, p. 350. (CHROMITE, CLAY, CLAYSTONE, K/T, SHOCKED ZIRCON, ZIRCON)
802. Bohor, B.F., Betterton, W.J., Jablonski, D., and Chen, C.Z., 1989, Permian-Triassic boundary clay in China is volcanic, not impact ejecta: *Lunar and Planetary Science Conference XX; Lunar and Planetary Institute, Houston, Texas, pt. 1*, p. 94-95. (ABSTRACT, CHINA, CLAY, IMPACT, INTERNATIONAL, PERMIAN, TRIASSIC, VOLCANIC-ASH)
3892. Bohor, B.F., Betterton, W.J., and Krough, T.E., 1993, Impact-shocked zircons: Discovery of shock-induced textures reflecting increasing degrees of shock metamorphism: *Earth and Planetary Science Letters*, v. 119, p. 419-424. (AGE DATING, IMPACT, METAMORPHISM, SHOCKED ZIRCON, ZIRCON)
570. Bohor, B.F., Brett, R., Grieve, R.A.F., and Stöffler, D., 1992, No evidence of shock metamorphism in Cuba at K/T boundary: *Lunar and Planetary Science Conference XXIII; Lunar and Planetary Institute, Houston*, p. 137-138. (ABSTRACT, CRETACEOUS, CUBA, K/T, METAMORPHISM, SHOCKED, TERTIARY)
569. Bohor, B.F., Dalrymple, G.B., Triplehorn, D., and Kirschbaum, M., 1991, Argon/Argon dating of tonsteins from the Dakota Formation, Utah: *Geological Society of America Abstracts with Programs*, v. 23, p. A85. (ABSTRACT, AGE DATING, DAKOTA SANDSTONE, TONSTEIN, UTAH)
887. Bohor, B.F., and Foord, E.E., 1987, Magnesioferrite from a non-marine K-T boundary clay in Wyoming: in *Lunar Planet. Sci. XVIII, Lunar Planet. Inst., Houston, pt. 1*, p. 101-102. (ABSTRACT, CLAY, CRETACEOUS, K/T, MAGNESIOFERRITE, TERTIARY, WYOMING)
803. Bohor, B.F., Foord, E.E., and Betterton, W.J., 1989, Trace minerals in K-T boundary clays and claystones: *Meteoritics*, v. 24, p. 253. (ABSTRACT, CLAY, CLAYSTONE, CRETACEOUS, IMPACT, K/T, TERTIARY, TRACE MINERALS)
884. Bohor, B.F., Foord, E.E., and Ganapathy, R., 1986, Magnesioferrite from the Cretaceous-Tertiary boundary, Caravaca, Spain: *Earth and Planetary Science Letters*, v. 81, p. 57-66. (CARAVACA, CRETACEOUS, INTERNATIONAL, K/T, MAGNESIOFERRITE, SPAIN, SPINEL,

TERTIARY)

876. Bohor, B.F., Foord, E.E., and Modreski, P.J., 1985, Extraterrestrially-derived magnesioferrite at the K-T boundary, Caravaca, Spain: Lunar and Planetary Science Conference XVI, Lunar Planetary Institute, Houston, pt. 1, p. 77-78. (ABSTRACT, CRETACEOUS, INTERNATIONAL, K/T, MAGNESIOFERRITE, METEOR, SPAIN, TERTIARY)
879. Bohor, B.F., Foord, E.E., and Modreski, P.J., 1985, Shocked quartz and microspherules: Indicators of extraterrestrial impact at the K/T boundary: Gwatt Conference on Rare Events in Geology, IGCP Project 199, Geological Institute, Zurich, Switzerland, May 20-22, p. 5. (ABSTRACT, AGE DATING, CRETACEOUS, IMPACT, K/T, MICROSPHERULES, SHOCKED QUARTZ, TERTIARY)
553. Bohor, B.F., Glass, B.P., and Betterton, W.J., 1993, K/T spherules from Haiti and Wyoming, Origin, diagenesis, and similarity to some microtektites: Lunar and Planetary Science Conference XXIV; Lunar and Planetary Institute, Houston, Texas, Part 1, p. 145-146. (ABSTRACT, CRETACEOUS, DIAGENESIS, K/T, MICROTEKTITES, SPHERULES, TERTIARY, WYOMING)
882. Bohor, B.F., and Izett, G.A., 1986, Worldwide size distribution of shocked quartz at the K/T boundary: Evidence for a North American impact site: Lunar and Planetary Science Conference, XV11, Lunar Planetary Institute, Houston, pt. 1, p. 68-69. (CRETACEOUS, IMPACT, K/T, NORTH-AMERICA, SHOCKED QUARTZ, TERTIARY)
574. Bohor, B.F., Krogh, T.E., and Kamo, S.L., 1992, U-Pb isotopic ages of the K/T impact event and its target rocks from shocked zircons: Meteoritics, v. 27, p. 205. (ABSTRACT, AGE DATING, CRETACEOUS, IMPACT, ISOTOPE, SHOCKED ZIRCON, TERTIARY, ZIRCON)
906. Bohor, B.F., and Meier, A.L., 1990, REE abundances of tonsteins and K-T boundary claystones by ICP-MS: Lunar and Planetary Science XXI, Lunar and Planetary Institute, Houston, p. 109-110. (ABSTRACT, CLAY, CLAYSTONE, CRETACEOUS, ICP-MS, K/T, REE, TERTIARY, TONSTEIN)
875. Bohor, B.F., Modreski, P.J., and Foord, E.E., 1985, A search for shock-metamorphosed quartz at the K-T boundary: Lunar and Planetary Science Conference XVI, Lunar Planetary Institute, Houston, pt. 1, p. 79-80. (ABSTRACT, AGE DATING, CRETACEOUS, IMPACT, K/T, SHOCKED QUARTZ, TERTIARY)
889. Bohor, B.F., Modreski, P.J., and Foord, E.E., 1987, Shocked quartz in the Cretaceous-Tertiary boundary clays: Evidence for a global distribution: Science, v. 236, p. 705-709. (CRETACEOUS, INTERNATIONAL, K/T, SHOCKED QUARTZ, TERTIARY)
908. Bohor, B.F., and Seitz, R., 1990, Cuban K/T catastrophe: Nature, v. 344, p. 593. (CRETACEOUS, CUBA, INTERNATIONAL, K/T, TERTIARY)
910. Bohor, B.F., and Seitz, R., 1990, The K/T impact--A Cuban connection: Meteoritics, v. 25, p. 350-351. (ABSTRACT, CRETACEOUS, CUBA, IMPACT, INTERNATIONAL, K/T, TERTIARY)

874. Bohor, B.F., and Triplehorn, D.M., 1985, Tonsteins in the C coal, Ferron Sandstone Member of the Mancos Shale, Emery County, Utah: Guidebook #6, Clays and Clay Minerals, Western Colorado and Eastern and Central Utah. International Clay Conference, Denver, August, 1985, p. 20-23. (CLAY, COAL, CRETACEOUS, EMERY COUNTY, FERRON SANDSTONE MEMBER, MANCOS SHALE, TONSTEIN, UTAH)
888. Bohor, B.F., and Triplehorn, D.M., 1987, Flyash: An analog for spherules in K-T boundary clays: Lunar and Planetary Science XVIII, Lunar and Planetary Institute, Houston, pt. 1, p. 103-104. (ABSTRACT, CLAY, CRETACEOUS, FLY ASH, K/T, SPHERULES, TERTIARY)
737. Bohor, B.F., and Triplehorn, D.M., 1993, Tonsteins: Altered volcanic ash layers in coal-bearing sequences: Geological Society of America Special Paper, 44 p., v. 285. (ASH, COAL, TONSTEIN, VOLCANIC-ASH)
555. Bohor, B.F., Triplehorn, D.M., and Betterton, W.J., 1993, Chemical disaggregation of kaolinitic claystones: 10th International Clay Conference Abstracts with Programs, Abstracts with Programs, CSIRO, Glen Osmond, South Australia, July 18-26, 1993, v. 5064, p. 1-20. (ABSTRACT, CHEMISTRY, CLAY, CLAYSTONE, GEOCHEMISTRY, KAOLINITE)
890. Bohor, B.F., Triplehorn, D.M., Nichols, D.J., and Millard, H.T., Jr., 1987, Dinosaurs, spherules, and the "magic" layer: A new K-T boundary clay site in Wyoming: Geology, v. 15, p. 896-899. (CRETACEOUS, DINOSAURS, K/T, SPHERULES, TERTIARY, WYOMING)
1925. Bolanos, I.K., Landis, E.R., Roberts, S.B., and Weaver, J.N., 1986, Coal Exploration Stage 1, Uatsi Project, Baja Talamanca, Costa Rica, Results and Recommendations: U.S. Geological Survey Open-File Report 86-121, 23 p. (BAJA TALAMANCA COAL AREA, COAL, COAL EXPLORATION, COSTA RICA, ENERGY RESOURCES, EXPLORATION, INTERNATIONAL, OPEN-FILE)
254. Bortiatynski, J.M., Hatcher, P.G., Selifonov, S.A., and Bollag, J.M., 1992, Tracing the interaction of (13)C labeled xenobiotics with humic substances using (13)C NMR as a nondestructive probe: American Chemical Society, Abstracts with Papers, v. 203, p. GEOC 66; 203rd American Chemical Society national meeting, San Francisco, CA, April 5-10, 1992. (ABSTRACT, CARBON, GEOCHEMISTRY, GROUND-WATER, HUMATES, NMR-SPECTRA, ORGANIC, POLLUTION, STABLE-ISOTOPES)
3710. Bostic, J.L., Brady, L., Howes, M.R., Burchett, R.R., and Pierce, B.S., 1993, Preliminary results of the coal properties and the potential for coal-bed methane in the Forest City basin: U.S. Geological Survey Open-File Report 93-576. (COAL, ENERGY-SOURCES, FOREST CITY BASIN, GAS, IOWA, KANSAS, METHANE, MISSOURI-RIVER, NEBRASKA, OPEN-FILE)
3711. Bostic, J.L., Brady, L., Howes, M.R., Burchett, R.R., and Pierce, B.S., 1993, Preliminary results of the coal properties and the potential for coal-bed methane in the Forest City basin, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1056-1062. (ABSTRACT, COAL, ENERGY-SOURCES, FOREST CITY BASIN, GAS, IOWA, KANSAS, METHANE, MISSOURI-RIVER, NEBRASKA)
2822. Bostic, J.L., Nuelle, L.M., Smith, D.C., Carter, M.D., Rega, N.H., and Krohn, K.K., 1990,

- Calculation of coal resources of the Bronaugh 7 1/2' quadrangle, southwestern Missouri, using the National Coal Resources Data System: U.S. Geological Survey Circular 1043, p. 3. (BRONAUGH QUADRANGLE, COAL, COAL RESOURCES, COMPUTER APPLICATIONS, MISSOURI-RIVER, NCRDS, QUADRANGLE)
965. Bostick, N.H., 1986, Difference in vitrinite reflectance and pyrolysis products possibly connected with difference in vitrinite type: Society of Organic Petrology Newsletter, v. 3, p. 6-7. (COAL, COAL ANALYSES, PETROLOGY, PYROLYSIS, TESTING, VITRINITE)
966. Bostick, N.H., 1986, Smoothness and relief of polished sections: Society of Organic Petrology Newsletter, v. 3, p. 4-6. (METHODS, PETROLOGY)
967. Bostick, N.H., 1986, Etching polished coal preparations with a low temperature asher, LTA to reveal internal structure of vitrinite: Society of Organic Petrology Newsletter, v. 3, p. 4-7. (COAL, METHODS, PETROLOGY, VITRINITE)
973. Bostick, N.H., 1987, Petrology of some California coals: The Society for Organic Petrology, Annual meeting abstract volume, p. 7. (ABSTRACT, CALIFORNIA, COAL, PETROLOGY)
1381. Bostick, N.H., 1987, Phytoclasts from a Cretaceous siltstone intruded by an igneous dike near Cascade, Montana: The Mountain Geologist, v. 24, no. 2, p. 54. (CRETACEOUS)
974. Bostick, N.H., 1988, Petrographic and chemical character of Tertiary coals in northern California: McKelvey Forum, U.S. Geological Survey Circular 1025, p. 4-6. (COAL, TERTIARY)
975. Bostick, N.H., 1988, Vitrinite reflectance determined lithotemperatures of sedimentary rock intruded by an igneous dike near Dulce, Rio Arriba County, New Mexico: New Mexico Geology, v. 10, no. 4, p. 95. (NEW MEXICO)
977. Bostick, N.H., 1988, Information retrieval from the Bibliography of Coal Technology and General Organic Petrography, CBIB using automatic key-word indexing on a personal computer: The Society for Organic Petrology, 5th Annual Meeting, Abstract with Program, p. 5. (COAL)
580. Bostick, N.H., 1993, Implications for organic maturation studies of evidence for a geologically rapid increase and stabilization of vitrinite reflectance at peak temperature, Discussion: American Association of Petroleum Geologists Bulletin, v. 77, p. 670-672. (COAL, COAL CHARACTERISTICS, TEMPERATURE, VITRINITE)
224. Bostick, N.H., 1994, Vitrinite reflectance: To increase the value in exploration, consider special sampling, give sample background to the analyst, and ask for information, not just numbers: American Association of Petroleum Geologists Abstracts with Programs, Annual Meeting, 1994. (ABSTRACT, COAL, COAL ANALYSES, COAL CHARACTERISTICS, COALIFICATION, SAMPLING, VITRINITE)
546. Bostick, N.H., Betterton, W.J., Gluskoter, H.J., and Islam, M.N., 1991, Petrography of Permian "Gondwana" coals from boreholes in northwestern Bangladesh, based on semiautomated reflectance scanning: Organic Geochemistry, v. 17, p. 399-413. (BANGLADESH, COAL, INTERNATIONAL, PERMIAN, PETROGRAPHY)

964. Bostick, N.H., Clayton, C.L., and King, J.D., 1985, Petrography and geochemistry of sedimentary organic matter in Cretaceous shale heated by igneous dikes: American Chemical Society, Division of Geochemistry, 190th National Meeting, Chicago, Abstract No. 42. (ABSTRACT, COAL, CRETACEOUS, DIKES, GEOCHEMISTRY, IGNEOUS-ROCKS, ORGANIC MATTER, PETROGRAPHY, SHALE, VOLCANIC ROCKS)
968. Bostick, N.H., and Clayton, J.L., 1986, Organic petrology applied to study of thermal history and organic geochemistry of igneous contact zones and ore deposits in sedimentary rocks, in Dean, W.E., and others, eds., Symposium on Organics and Ore Deposits: Denver Region Exploration Geologists Society, p. 33-55. (GEOCHEMISTRY)
969. Bostick, N.H., and Collins, B.A., 1986, Petrography and programmed pyrolysis of coking coal intruded by an igneous dike, Coal Basin, Colorado: Society of Organic Petrology, Program and Abstracts, p. 56. (COAL, COLORADO)
972. Bostick, N.H., and Collins, B.A., 1987, Petrography and programmed pyrolysis of coal and natural coke intruded by an igneous dike, Coal Basin, Pitkin County, Colorado: Geological Society of America Abstracts with Programs, v. 19, no. 5, p. 262. (COAL, COLORADO)
720. Bostick, N.H., and Daws, T.A., 1990, Relationships between data from Rock-Eval pyrolysis and from proximate, ultimate, petrographic, and physical analyses of 150 diverse U.S. coals: Seventh Annual Meeting of the Society for Organic Petrology, Calgary, Canada, Abstracts and Program, p. 51-52. (ABSTRACT, COAL, COAL ANALYSES, PETROGRAPHY, PETROLOGY, PYROLYSIS, UNITED STATES)
988. Bostick, N.H., and Daws, T.A., unknown, Relationships between data from Rock-Eval pyrolysis and proximate, ultimate, petrographic, and physical analyses of 142 diverse U.S. coal samples: Organic Geochemistry, v. 21. (ANALYSES, COAL, GEOCHEMISTRY, PETROGRAPHY, ROCK-EVAL, USA)
2930. Bostick, N.H., Gluskoter, H.J., Islam, M.N., and Rahman, Q.M.A., 1990, Petrography of Permian "Gondwana" coal from boreholes in Northwestern Bangladesh: U.S. Geological Survey Circular 1060, p. 10; Program and Abstracts, 1990 McKelvey Forum. (BANGLADESH, COAL)
3613. Bostick, N.H., Hardie, J.K., and Betterton, W.J., 1993, Microscopic and macroscopic analysis of coal/spar contact textures and structures to determine the origin and distribution of rock spar bodies in Cretaceous coals of western Colorado and central Utah: Tenth Annual Meeting of the Society for Organic Petrology, Extended Abstracts and Program, v. 10, p. 61-63. (ABSTRACT, COAL, COLORADO, CRETACEOUS, PETROLOGY, STRUCTURE, TEXTURES, UTAH)
971. Bostick, N.H., Hatch, J.R., Daws, T.A., Love, A.H., and Lubeck, S.C.M., 1987, Organic geochemistry and organic petrography, in Roehler, H., ed., Geological Investigations of the Vermillion Creek Coal Bed in the Eocene Niland Tongue of the Wasatch Formation, Sweetwater County, Wyoming: U.S. Geological Survey Professional Paper 1314-H, p. 134-163. (COAL, EOCENE, GEOCHEMISTRY, NILAND TONGUE, ORGANIC, TERTIARY, VERMILLIAN CREEK COAL BED, WASATCH-FORMATION, WYOMING)

982. Bostick, N.H., and Rahman, Q.M.A., 1989, Petrography of Permian "Gondwana" coals from boreholes in northwestern Bangladesh: The Society for Organic Petrology, Annual Meeting abstracts, 2 p. (ABSTRACT, BANGLADESH, COAL, PERMIAN, PETROGRAPHY)
976. Bostick, N.H., Senftle, J., and Kelkreuth, W., 1988, Report on the 41st Meeting of the International Committee for Coal Petrology, Aachen, Germany, September 2-11, 1988: Society of Organic Petrology Newsletter, v. 5, p. 1-7. (COAL, COAL PETROLOGY, INTERNATIONAL, PETROLOGY)
583. Bostick, N.H., and Thompson-Rizer, C.L., 1990, "Bitumen-" and "Amorph-" Solid Organic Matter in Rocks: Geological Society of America Abstracts with Programs, Annual Meeting, Symposium on Metalliferous Black Shales and Related Ore Deposits, 1 p. (ABSTRACT, BITUMENS, BLACK SHALE, COAL, ORGANIC MATTER, SHALE)
4201. Bowers, W.E., 1990, Geologic map of the Bryce Canyon National Park and vicinity, southwestern Utah: U.S. Geological Survey Miscellaneous Investigations Series Map I-2108. (BRYCE CANYON, BRYCE CANYON NATIONAL PARK, GEOLOGIC MAP, GEOLOGY, MAP, NATIONAL PARK, UTAH)
4202. Bowers, W.E., 1991, Geologic map and coal deposits of the Horse Mountain quadrangle, Kane County, Utah: U.S. Geological Survey Coal Investigations Map C-137. (COAL, COAL RESOURCES, GEOLOGIC MAP, GEOLOGY, HORSE MOUNTAIN QUADRANGLE, KANE COUNTY, MAP, QUADRANGLE, UTAH)
4203. Bowers, W.E., 1991, Geologic map of the Fourmile Bench quadrangle, Kane County, Utah: U.S. Geological Survey Coal Investigations Map C-140. (FOURMILE BENCH QUADRANGLE, GEOLOGIC MAP, GEOLOGY, KANE COUNTY, MAP, QUADRANGLE, UTAH)
4204. Bowers, W.E., 1993, Geologic map of the Horse Flat quadrangle, Kane County, Utah: U.S. Geological Survey Coal Investigations Map C-144. (GEOLOGIC MAP, GEOLOGY, HORSE FLAT QUADRANGLE, KANE COUNTY, MAP, QUADRANGLE, UTAH)
4127. Braddock, W.C., Houston, R.G., Colton, R.B., and Cole, J.C., 1988, Geologic map of the Lyons quadrangle, Boulder County, Colorado: U.S. Geological Survey Geologic Quadrangle Map GQ-1629. (BOULDER COUNTY, COLORADO, GEOLOGIC MAP, LYONS, MAP)
4126. Braddock, W.C., Nutalaya, P., and Colton, R.B., 1988, Geologic map of the Cart Lake Reservoir quadrangle, Boulder and Larimer Counties, Colorado: U.S. Geological Survey Geologic Quadrangle Map GQ-1628. (BOULDER COUNTY, CART LAKE RESERVOIR, COLORADO, GEOLOGIC MAP, LARIMER COUNTY, MAP)
500. Bragg, L.J., Finkelman, R.B., and Tewalt, S.J., 1991, Distribution of chlorine in U.S. coal, in Stringer, J., and Banerjee, D.D., eds., Chlorine in Coal: Coal Science and Technology, v. 17, p. 3-10; Elsevier, N.Y. (CHLORINE, COAL, GEOCHEMISTRY)
4014. Bragg, L.J., Oman, C.L., Tewalt, S.J., and Finkelman, R.B., in press, COALQUAL: The new USGS Coal Quality Database (CD-ROM version 1.3), in Carter, L.H.M., ed., U.S. Geological Survey Research on Coal Resources, V.E. McKelvey Forum: U.S. Geological Survey Circular.

(ABSTRACT, COAL, COAL-QUALITY, COMPUTER, COMPUTER APPLICATIONS, DATABASES)

3980. Bragg, L.J., Oman, J.K., Tewalt, S.J., Oman, C.L., Rega, N.H., Washington, P.M., and Finkelman, R.B., 1994, U.S. Geological Survey Coal Quality (COALQUAL) Database: version 1.3: U.S. Geological Survey Open-File Report 94-205, CD-ROM. (ANALYSES, ASH, BTU, COAL, COAL-QUALITY, COMPUTER, COMPUTER APPLICATIONS, DATABASES, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
1606. Brooks, G.R., and Holmes, C.W., 1985, Offbank transport of carbonate sands in the Northern Straits of Florida: a function of sea level: American Association of Petroleum Geologists Bulletin, v. 69. (ABSTRACT, CARBONATES, DEPOSITIONAL ENVIRONMENT, EUSTACY, FLORIDA, PALEOENVIRONMENT, SEA LEVEL, SEDIMENTOLOGY, SHORE-FEATURES)
1609. Brooks, G.R., and Holmes, C.W., 1987, Recent carbonate slope development on the Southwest Florida Continental Margin: American Association of Petroleum Geologists Bulletin, v. 71, p. 1356. (CARBONATES, CONTINENTAL-MARGIN, FLORIDA, SLOPES)
1611. Brooks, G.R., and Holmes, C.W., 1989, Recent carbonate slope sediments and sedimentary processes bordering a non-rimmed platform, Southwest Florida Continental Margin in Carvello, P. D. Wilson, J. R., Sarg, S. J., and Read, J. F., eds., Controls of Carbonate Platform and Basin Development: Society of Economic Paleontologists and Mineralogists Special Paper 44, p. 259-274. (CARBONATES, CONTINENTAL-MARGIN, CONTINENTAL-SLOPE, FLORIDA, SEDIMENTS, SLOPES)
1617. Brooks, G.R., and Holmes, C.W., 1990, Modern configuration of the southwest Florida carbonate margin, Development by shelf progradation: Marine Geology, v. 94., p. 301-315. (CARBONATES, CONTINENTAL-SHELF, FACIES, FLORIDA, MARINE)
1981. Brown, T.L., Sanchez, J.D., and Ellis, E.G., 1987, Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the East Mountain and Gentry Mountain areas of the Wasatch Plateau coal field, Manti 30' x 60' quadrangle, Sanpete and Emery Counties, Utah: U.S. Geological Survey Coal Investigations Map C-94-D, scale 1:100,000. (BLACKHAWK FORMATION, COAL, COAL RESOURCES, CORRELATION, CRETACEOUS, EMERY COUNTY, GEOLOGY, MAP, SANPETE COUNTY, STRATIGRAPHY, UTAH, WASATCH PLATEAU COAL FIELD)
1030. Brownfield, M.E., and Affolter, R.H., 1988, Characterization of coals in the lower part of the Williams Fork Formation, Twentymile Park District, eastern Yampa coal field, Routt County, Colorado, in Carter, L.M.H., ed., USGS Research on Energy Resources, 1988 Program and Abstracts: U.S. Geological Survey Circular 1025, p. 6. (ABSTRACT, COAL, COLORADO, ENERGY RESOURCES, ROUTT COUNTY, TWENTYMILE PARK DISTRICT, WILLIAMS FORK FORMATION, YAMPA COAL FIELD)
785. Brownfield, M.E., Affolter, R.H., and Stricker, G.D., 1987, Crandallite group minerals in the Capps and Q coal beds, Tyonek Formation, Beluga Energy Resource Area, upper Cook inlet, south-central Alaska, in Rao, P.D., ed., Proceedings from Focus on Alaska's Coal 1986: Mineral Research Laboratory Report, p. 142-149. (ALASKA, BELUGA COAL FIELD, COAL, CRANDALLITE,

GEOCHEMISTRY, MINERALS, TYONEK FORMATION)

584. Brownfield, M.E., Affolter, R.H., and Stricker, G.D., 1991, High chromium contents in Tertiary coals, northwestern Washington - A key to their depositional history: Geological Society of America Abstracts with Programs, v. 23, p. 144. (ABSTRACT, CHROMIUM, COAL, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, HAPS, PROVENANCE, TERTIARY, TRACE ELEMENTS, WASHINGTON)
797. Brownfield, M.E., Affolter, R.H., and Stricker, G.D., 1991, High chromium content in Tertiary coals, northwestern Washington - a key to their depositional history, in Abstracts of the U.S. Geological Survey, Central Region, 1991 Poster Review: U.S. Geological Survey Open-File Report 91-582, p. 35; Collected abstracts of selected USGS poster papers presented at scientific meetings. (ABSTRACT, CHROMIUM, COAL, GEOCHEMISTRY, OPEN-FILE, TERTIARY, WASHINGTON)
3484. Brownfield, M.E., Affolter, R.H., Stricker, G.D., and Hildebrand, R.T., 1993, High chromium contents in Tertiary coal deposits of northwestern Washington--a key to their depositional history: 20 p. (ABSTRACT, CHROMIUM, COAL, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, HAPS, TERTIARY, TRACE ELEMENTS, WASHINGTON)
3889. Brownfield, M.E., Affolter, R.H., Stricker, G.D., and Hildebrand, R.T., 1994, High chrome contents in Tertiary coal deposits of northwestern Washington- A key to their depositional history: Journal of International Coal. (ABSTRACT, CHROME, COAL, DEPOSITIONAL ENVIRONMENT, INTERNATIONAL, PALEOENVIRONMENT, TERTIARY, WASHINGTON)
1027. Brownfield, M.E., and Anderson, K., 1988, Geologic map and coal sections of the Lay SE quadrangle, Moffat County, Colorado: U.S. Geological Survey Coal Investigations Map C-117. (COAL, COAL SECTIONS, COLORADO, GEOLOGIC MAP, MAP, MOFFAT COUNTY)
1033. Brownfield, M.E., Baldwin, E.M., and Orr, W.N., 1988, Section 5--Eugene Area, in Lindberg, F.A., ed., Northwest Region Correlation Chart, Correlation of Stratigraphic Units in North America: American Association of Petroleum Geologists Correlation Chart Series. (CORRELATION, OREGON, STRATIGRAPHY)
1034. Brownfield, M.E., and Beeson, M.H., 1988, Section 7 McMinnville-Sheridan Area, in Lindberg, F.A., ed., Northwest Region Correlation Chart. Correlation of Stratigraphic Units in North America: American Association of Petroleum Geologists, Correlation Chart Series. (STRATIGRAPHY)
1022. Brownfield, M.E., Brownfield, I.K., and Foord, E.E., 1986, Geology and mineralogy of uranium-vanadium deposits in the Skull Creek area, Colorado, in Stone, D.S., ed., New interpretations of northwest Colorado geology: Rocky Mountain Association of Geologists, p. 293-295. (COLORADO, URANIUM)
3887. Brownfield, M.E., and Cathcart, J.D., 1994, Evidence for climate change in the coal-bearing Goose Creek Basin, Cassia County, Idaho: American Association of Petroleum Geologists, 1994 Annual Convention Official Program, v. 3, p. 112. (ABSTRACT, CLIMATE, COAL, GOOSE CREEK BASIN, IDAHO, PALEOCLIMATE, PALEOENVIRONMENT)

3890. Brownfield, M.E., and Foord, E.E., 1994, Electron microprobe analyses for crandallite-group minerals from Maine pegmatites, in King, V.T., ed., Mineralogy of the State of Maine: Maine Geological Survey, Augusta, Maine. (ABSTRACT, ANALYSES, CRANDALLITE, CRANDALLITE-GROUP, ELECTRON MICROPROBE, MAINE, MINERALS, PEGMATITE)
592. Brownfield, M.E., Foord, E.E., Sutley, S.J., and Botinelly, T., 1993, Kosnarite, $KZr_2(PO_4)_3$, a new mineral from Mt. Mica and Black Mountain, Oxford County, Maine: American Mineralogist, v. 78, p. 653-656. (KOSNARITE, MAINE, MINERALOGY, MT MICA, OXFORD COUNTY)
1018. Brownfield, M.E., and Hildebrand, R.T., 1985, Clinoptilolite and associated authigenic minerals in Miocene tuffaceous rocks in the Goose Creek Basin, Cassia County, Idaho: Geological Society of America Abstracts with Programs, v. 17, p. 533. (GOOSE CREEK BASIN, IDAHO, MINERALS, MIOCENE, TERTIARY, VOLCANIC ROCKS)
1016. Brownfield, M.E., and Johnson, E.A., 1985, Geologic map index of the Meeker 1° X 1/2° quadrangle, Garfield, Moffat, Rio Blanco, and Routt Counties, Colorado: U.S. Geological Survey Open-File Report 85-523; scale 1:100,000. (COLORADO, GARFIELD COUNTY, GEOLOGIC MAP, MAP, MAP INDEX, MEEKER, MEEKER QUADRANGLE, MOFFAT COUNTY, OPEN-FILE, RIO BLANCO COUNTY, ROUTT COUNTY)
1021. Brownfield, M.E., and Johnson, E.A., 1986, A regionally extensive altered air-fall ash for use in correlation of lithofacies in the Upper Cretaceous Williams Fork Formation, northeast Piceance Creek and southern Sand Wash basins, Colorado, in Stone, D.S., ed., New interpretations of northwest Colorado geology: Rocky Mountain Association of Geologists, p. 165-169. (ASH, COLORADO, CRETACEOUS)
1036. Brownfield, M.E., and Johnson, E.A., 1988, Selected references on the geology of the Danforth Hills Coal Field, eastern Uinta coal region, Moffat and Rio Blanco Counties, Colorado, in Selected references on the geology and coal resources of central and western Colorado coal fields and regions: Colorado Geological Survey Information Series 25, p. 1-26. (COAL, COLORADO)
589. Brownfield, M.E., and Weaver, J.N., 1992, Paleogeography and stratigraphy of Cretaceous coal deposits of North Africa, in McCabe, P.J. and Parrish, J.T., eds., Controls on the distribution and quality of Cretaceous coals: Geological Society of America Special Paper 267, p. 369-383. (AFRICA, COAL, COAL RESOURCES, CRETACEOUS, INTERNATIONAL, PALEOGEOGRAPHY, STRATIGRAPHY)
3766. Burden, E.T., and Robbins, E.I., 1993, A role for exploration geology in environmental monitoring in urban developments and wetlands in Newfoundland and Labrador: The Scientific Challenge of Our Changing Environment, Conference at Memorial University of Newfoundland, Program and Abstracts, p. 14. (ABSTRACT, ENVIRONMENTAL GEOLOGY, EXPLORATION, GEOLOGY, LABRADOR, NEWFOUNDLAND, WETLANDS)
1523. Burruss, R.C., and Hatch, J.R., 1987, Regional variations in crude oil geochemistry, Anadarko Basin, Oklahoma, Texas and Kansas, Evidence for multiple sources, mixing and migration distances: American Association of Petroleum Geologists Bulletin, v. 71, p. 535. (ANADARKO BASIN, GEOCHEMISTRY, KANSAS, OIL, TEXAS)

1490. Burruss, R.C., and Hatch, J.R., 1989, Geochemistry of oils and hydrocarbon source rocks, greater Anadarko basin - evidence for multiple sources of oils and long distance oil migration: Oklahoma Geological Survey Circular 90, p. 53-64. (ANADARKO BASIN, GEOCHEMISTRY, HYDROCARBONS, MIGRATION, OIL, OIL AND GAS, OKLAHOMA, RESERVOIR ROCKS)
1529. Burruss, R.C., and Hatch, J.R., 1990, Geochemistry of Pennsylvanian oils and hydrocarbon source rocks, Greater Anadarko basin, Oklahoma, Kansas and Texas; in Abstracts - Source rocks, generation, and migration of hydrocarbons and other fluids in the Southern Midcontinent - a workshop: Oklahoma Geological Survey and the U.S. Department of Energy, p. 19. (ABSTRACT, ANADARKO BASIN, GEOCHEMISTRY, KANSAS, OIL, OIL AND GAS, OKLAHOMA, PENNSYLVANIAN, TEXAS)
2571. Cameron, C.C., Esterle, J., and Palmer, C.A., 1989, The geology, botany, and chemistry of selected peat forming environments from temperate and tropical latitudes, in Lyons, P.C., and Alpern, B., eds., Peat and Coal: origin, facies, depositional models: International Journal of Coal Geology, v. 12, p. 105-156. (BOTANY, COAL, DEPOSITIONAL ENVIRONMENT, FACIES, GEOCHEMISTRY, GEOLOGY, LATITUDES, PALEOENVIRONMENT, PALEOLATITUDE, PEAT)
2597. Cameron, C.C., Esterle, J., and Palmer, C.A., 1989, The Geology of selected peat forming environments in temperate and tropical latitudes: International Geological Congress, Abstracts with Programs, v. 1, p. 229-230; invited paper for 28th International Geological Congress (Washington, D.C., July 9-19, 1989). (COAL, PALEOENVIRONMENT, PEAT)
2576. Cameron, C.C., Esterle, J., and Palmer, C.A., 1990, Discussion of the geology of selected peat forming environments in temperate and tropical latitudes, in Peat and Coal: Origin facies and Coalification, Lyons, P.C., Callcott, T.G., and Alpern, B., eds: International Journal of Coal Geology, v. 16, p. 127-130. (COAL, COALIFICATION, GEOLOGY, PEAT)
1934. Carey, M.A., Roberts, S.B., and Clark, A.C., 1988, Chemical analyses for nine coal samples from the Sagwon Member, Tertiary of the Sagavanirktok Formation, North Slope, Alaska: U.S. Geological Survey Open-File Report 88-678. (ALASKA, ANALYSES, COAL, GEOCHEMISTRY, OPEN-FILE, TERTIARY)
114. Carter, M.D., 1989, Coal resource assessment -- An integrated approach: Geochautauqua, 18th Geochautauqua, Programs and Abstracts, October 13-14, 1989, Newark, Delaware, p. 9-10. (COAL, COAL ASSESSMENT, COAL RESOURCES, COAL-QUALITY)
342. Carter, M.D., Cobb, J.C., and Eggleston, J.R., 1987, Available Coal Resources of the Matewan Quadrangle, Pike County, Kentucky and Regional Implications: Geological Society of America Abstracts with Programs, v. 19, p. 613. (COAL, COAL RESOURCES, KENTUCKY)
107. Carter, M.D., Cobb, J.C., Eggleston, J.R., and Gardner, N.K., 1988, Available coal resources: Matewan quadrangle, Pike County, Kentucky: McKelvey Forum; March 1-2, 1988. (COAL, COAL RESOURCES, KENTUCKY)
346. Carter, M.D., Cobb, J.C., Eggleston, J.R., and Gardner, N.K., 1988, Coal Resources Available for Development, Matewan Quadrangle, Eastern Kentucky: American Association of Petroleum

Geologists, Eastern Section, Program with Abstracts. (ABSTRACT, COAL, COAL RESOURCES, KENTUCKY, MATEWAN QUADRANGLE)

113. Carter, M.D., and Gardner, N.K., 1989, An assessment of coal resources available for development: Central Appalachian Region -- First Year Summary: U.S. Geological Survey Open-File Report 89-362, 52 p. (APPALACHIAN REGION, APPALACHIANS, COAL, COAL RESOURCES, OPEN-FILE)
3707. Carter, M.D., and Gardner, N.K., 1993, Coal availability studies: A Federal and State cooperative program, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1040-1043. (ABSTRACT, COAL, COAL AVAILABILITY, COAL RESOURCES, COMPUTER APPLICATIONS, ENERGY RESOURCES)
3938. Carter, M.D., and Gardner, N.K., 1994, Coal availability studies: The impact of restrictions on the development potential of coal resources, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 1, p. 1-5. (ABSTRACT, COAL, COAL AVAILABILITY, COAL RESOURCES, COMPUTER APPLICATIONS, RESOURCES)
3708. Carter, M.D., Gardner, N.K., Boger, L., and Miller, W., 1993, Coal resource estimation at the U.S. Geological Survey: Customizing GRASS: 8th Annual GRASS GIS Conference and Exhibition, Conference Agenda and Abstracts, p. 51. (ABSTRACT, CARS, COAL, COAL AVAILABILITY, COMPUTER APPLICATIONS, GIS, GRASS)
119. Carter, M.D., Gardner, N.K., Cobb, J.C., Sites, R.S., and Fedorko, N., III, 1992, Coal availability studies: How much of our nation's coal is actually minable?: Geological Society of America; 1992 Northeastern Section Meeting, Harrisburg, Pennsylvania, March 26-28, 1992, talk given at Symposium on Coal Geology of the Northern Appalachian Basin. (ABSTRACT, COAL, COAL AVAILABILITY, GEOLOGY, MINING)
120. Carter, M.D., Gardner, N.K., Cobb, J.C., Sites, R.S., and Fedorko, N., III, 1992, Coal availability studies: An update, in Carter, L.H., ed., 8th Annual McKelvey Forum on Energy Resources: U.S. Geological Survey Circular 1074, p. 13-14. (ABSTRACT, COAL, COAL AVAILABILITY, COAL RESOURCES, COMPUTER APPLICATIONS, ENERGY RESOURCES)
109. Carter, M.D., Gardner, N.K., and Eggleston, J.R., 1988, Coal resources available for development -- A new study in southwestern Virginia: Virginia Division of Mineral Resources Open-File Report 88-3, 41 p. (COAL, COAL AVAILABILITY, COAL RESOURCES, DEVELOPMENT, OPEN-FILE, VIRGINIA)
528. Carter, M.D., Gardner, N.K., Sergeant, R.E., Campbell, E.V.M., and Fedorko, N., III, 1990, Coal availability studies -- A progress report: U.S. Geological Survey Circular 1060, Sixth V.E. McKelvey Forum, Houston, TX, February 20-22, 1990, p. 13-14. (COAL, COAL RESOURCES)
529. Carter, M.D., Tewalt, S.J., Bragg, L.J., and Finkelman, R.B., 1990, Sulfur in coal, NCRDS applications: U.S. Geological Survey Circular 1060, Sixth V.E. McKelvey Forum, Houston, TX, February 20-22, 1990, p. 14-16. (ABSTRACT, COAL, COMPUTER, COMPUTER

APPLICATIONS, GEOCHEMISTRY, NCRDS, SULFUR)

476. Casagrande, D.J., Finkelman, R.B., and Caruccio, F.L., 1989, The nonparticipation of organic sulfur in acid mine drainage generation: *Environmental Geochemistry and Health*, v. 11, p. 187-192. (ACID MINE DRAINAGE, COAL-QUALITY, ENVIRONMENTAL STUDY, GEOCHEMISTRY, MINING, ORGANIC, ORGANIC-SULFUR, SULFUR)
246. Caudron, M., Thorez, J., and Flores, R.M., 1994, Climate, provenance, and tectonic implications of clay minerals and their distribution and evolution in some Late Cretaceous, Paleocene, and Eocene paleosols, Wyoming, U.S.A: *International Association of Sedimentologists Abstracts of Papers, 15th European Regional Meeting, Ischia, Italy*. (ABSTRACT, CLAY, CLIMATE, CRETACEOUS, EOCENE, PALEOCENE, PALEOCLIMATE, PALEOSOLS, TERTIARY, WYOMING)
273. Cavaroc, V.V., and Flores, R.M., 1994, Paleocene deep basin coals related to a transpressional zone of the Laramide Deformational Front, in Chiang, Shiao-Hung, ed., *Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings*, v. 2, p. 1100-1101. (BASINS, COAL, LARAMIDE, LARAMIDE-OROGENY, LDF, PALEOCENE, TECTONICS, TERTIARY, WYOMING)
1351. Cavaroc, V.V., Flores, R.M., Nichols, D.J., and Perry, W.J., in press, Paleocene tectono-facies relationships between the Hanna, Carbon, and Cooper Lake basins, Wyoming: *American Association of Petroleum Geologists Bulletin*. (CARBON, CARBON BASIN, COOPER LAKE BASIN, FACIES, HANNA BASIN, PALEOCENE, TECTONICS, TERTIARY, WYOMING)
1862. Cavaroc, V.V., and Flores, R.M., 1991, Red beds of the Triassic Chugwater Group, southwestern Powder River basin, Wyoming: *U.S. Geological Survey Bulletin*, p. E1-E17; 45 refs. (CLASTIC ROCKS, ENVIRONMENTAL GEOLOGY, FACIES, PALEOENVIRONMENT, RED-BEDS, SEDIMENTARY ROCKS, SEDIMENTOLOGY, STRATIGRAPHY, TRIASSIC, WYOMING)
1259. Cavaroc, V.V., Jr., and Flores, R.M., 1987, Low-gradient, fluvial-dominated Triassic red beds of north-central Wyoming: *Society of Economic Paleontologists and Mineralogists Midyear Meeting Abstracts Volume*, p. 14-15.
3976. Cecil, C.B., 1994, Climate model for the Pennsylvanian system of the contiguous United States: *American Association of Petroleum Geologists, 1994 Annual Convention Official Program*, v. 3, p. 119. (ABSTRACT, CLIMATE, PALEOCLIMATE, PALEOENVIRONMENT, PENNSYLVANIAN, UNITED STATES)
262. Cecil, C.B., and Dulong, F.T., 1986, Sulfur content of the coal resources of the United States: *Society of Mining Engineers, AIME; Presentation at Annual Meeting, New Orleans, LA, March 2-6, 1986. Reprint No. 86-84*. (COAL, COAL RESOURCES, GEOCHEMISTRY, SULFUR, USA)
280. Cecil, C.B., and Dulong, F.T., 1990, Coastal lowland soils of equatorial Indonesia as modern analogues for Pennsylvanian underclays: *Clay Mineral Society 27th Annual Meeting, Program and Abstracts*, p. 32.
282. Cecil, C.B., and Dulong, F.T., 1991, The Sunda Shelf, a possible analogue for cyclic sedimentation

- in the Pennsylvanian System of the Eastern United States: American Association of Petroleum Geologists, Society of Economic Paleontologists and Mineralogists Special Publication; SEPM, Portland, OR, August 1991. (PENNSYLVANIAN, SEDIMENTATION)
267. Cecil, C.B., Dulong, F.T., Cobb, J.C., Suparti, Soebaxty, A.D., and Turnbull, P., 1988, Allogenic processes in the central Sumatra basin - A modern analog for the origin of lower Pennsylvanian coal bearing strata in the eastern United States: U.S. Geological Survey Circular 1025; in Carter, L.M.H., ed., U.S. Geological Survey Research on Energy Resources - 1988 Program and Abstracts, V.E. McKelvey Forum on Mineral Resources, p. 8. (COAL, INDONESIA, INTERNATIONAL, SUMATRA, USA)
284. Cecil, C.B., Dulong, F.T., and Fedorko, N., 1991, Late Pennsylvanian paleoclimate cycles, sediment flux, and organic productivity in the Appalachian basin: American Association of Petroleum Geologists, Sept 1991, Pittsburgh, PA. (ABSTRACT, APPALACHIAN BASIN, CLIMATE, ORGANIC, PALEOCLIMATE, PENNSYLVANIAN)
3975. Cecil, C.B., Dulong, F.T., Neuzil, S.G., and Edgar, N.T., 1994, The epicontinental system of western Indonesia as an analog for cyclic stratigraphy in ancient tropical epiheric seaways: American Association of Petroleum Geologists, 1994 Annual Convention Official Program, v. 3, p. 119. (ABSTRACT, INDONESIA, INTERNATIONAL, MARINE, PALEOENVIRONMENT, STRATIGRAPHY)
2090. Cecil, C.B., Dulong, F.T., Whelan, J.F., Stanton, R.W., and Spiker, E.C., 1986, Stable isotope geochemistry of calcite and pyrite in the Upper Freeport coal bed, west-central Pennsylvania, in Carter, L.M.H., ed., Second Annual McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 974, p. 9. (ABSTRACT, CALCITE, COAL, FREEPORT COAL BED, GEOCHEMISTRY, ISOTOPE, PENNSYLVANIA, PYRITE, UPPER FREEPORT COAL BED)
203. Cecil, C.B., and Englund, K.J., 1985, Origin of quartzarenites in Upper Mississippian and Lower Pennsylvanian of the Appalachian Basin: American Association of Petroleum Geologists Bulletin, v. 69, p. 1434. (ABSTRACT, APPALACHIAN BASIN, MISSISSIPPIAN, PENNSYLVANIAN, QUARTZARENITES)
206. Cecil, C.B., and Englund, K.J., 1985, Geologic controls of sedimentation and peat formation in the Carboniferous of the Appalachian basin, in Englund, K.J., and others, eds., Characteristics of the Mississippian-Pennsylvanian boundary and associated coal-bearing rocks in the southern Appalachians, Geological Society of America Annual Meeting Guidebook: U.S. Geological Survey Open-File Report 85-577, p. 27-33. (APPALACHIAN BASIN, APPALACHIANS, CARBONIFEROUS, COAL, MISSISSIPPIAN, OPEN-FILE, PALEOENVIRONMENT, PEAT, PENNSYLVANIAN, SEDIMENTATION-RATES)
2119. Cecil, C.B., and Englund, K.J., 1986, Geologic controls on sedimentation and peat formation in the Carboniferous of the Appalachian Basin, in Englund, K.J., Gillespie, W.H., Cecil, C.B., Windolph, J.F., Jr., Crawford, T.J., eds., Characteristics of the Mississippian-Pennsylvanian boundary and associated coal-bearing rocks in the Southern Appalachians: U.S. Geological Survey. (ABSTRACT, APPALACHIAN BASIN, APPALACHIANS, BOUNDARY, CARBONIFEROUS, CLIMATE, COAL, MISSISSIPPIAN, NORTH-AMERICA, ORGANIC, PALEOCLIMATE,

PEAT, PENNSYLVANIAN, SEDIMENTARY ROCKS, SEDIMENTOLOGY,
STRATIGRAPHY)

2104. Cecil, C.B., and Englund, K.J., 1989, Origin of coal deposits and associated rocks in the Carboniferous of the Appalachian Basin, in Englund, K.J., ed., Coal and Hydrocarbon Resources of North America, Volume 2, Characteristics of the Mid-Carboniferous Boundary and Associated Coal-bearing Rocks in the Central and Southern Appalachian Basin: 28th International Geological Congress Field Trip Guidebook, T352B, Washington, D.C., American Geophysical Union, July, 1989, p. 67-72. (ABSTRACT, APPALACHIAN BASIN, APPALACHIANS, CARBONIFEROUS, CLAST, CLIMATE, COAL, CYCLIC PROCESSES, DEPOSITIONAL ENVIRONMENT, ECONOMIC GEOLOGY, NORTH-AMERICA, ORGANIC, PALEOCLIMATE, PALEO GEOGRAPHY, REGRESSION, SEDIMENTOLOGY, STRATIGRAPHY, TECTONICS)
2034. Cecil, C.B., and Stanton, R.W., 1988, Lithologic indicators of geochemical conditions of sedimentation in Pennsylvanian age rocks of the Appalachian basin, in A Walk through the Paleozoic of the Appalachian Basin-- Appalachian basin core workshop: American Association of Petroleum Geologists Abstracts with Programs, p. 116-126; Eastern Section Meeting, Charleston, WV; Sept. 13, 1988. (GEOCHEMISTRY, PALEOZOIC)
2081. Cecil, C.B., Stanton, R.W., Dulong, F.T., Neuzil, S.G., and Ruppert, F.T., 1985, Experimentally induced compaction and coalification in peat from the Okefenokee Swamp: Geological Society of America Abstracts with Programs, v. 17, p. 541. (ABSTRACT, COAL, COALIFICATION, COMPACTION, OKEFENOKEE SWAMP, PEAT)
1854. Cecil, C.B., Stanton, R.W., Neuzil, S.G., Dulong, F.T., Ruppert, L.F., and Pierce, B.S., 1985, Paleoclimate controls on late Paleozoic sedimentation and peat formation in the central Appalachian basin, U.S.A: International Journal of Coal Geology, v. 5, p. 195-230. (APPALACHIAN BASIN, CLIMATE, COAL, COAL GEOLOGY, PALEOCLIMATE, PALEOZOIC, PEAT, SEDIMENTATION)
3131. Cecil, C.B., Supardi, and Neuzil, S.G., 1987, Domed peat deposits in Indonesia: a modern analog of coal formation: Geological Society of America Abstracts with Programs, v. 19, p. 615; 100th Annual Meeting, Phoenix, AZ. (COAL, INDONESIA, PEAT)
2007. Cecil, C.B., and Medlin, J.H., 1987, Coal basin analysis and synthesis; Anonymous. Coal exploration, evaluation and exploitation: ESCAP Series on Coal, ST/ESCAP/467, v. 5, p. 33-36; Training course on economic aspects of coal exploration, evaluation and exploitation, Bandung, Jan. 1986. (BASINS, COAL, ORGANIC)
2147. Chao, E.C., Back, J.M., and Minkin, J.A., 1986, Pyrite of transported origin in reworked fragments from the I coal bed of the Upper Cretaceous Ferron Sandstone Member of the Mancos Shale, central Utah; Carter, L. M. H., USGS research on energy resources, 1986; program and abstracts, V.E. McKelvey Forum on mineral and energy resources: U.S. Geological Survey Circular, p. 9-11. (ABSTRACT, COAL, CRETACEOUS, ECONOMIC GEOLOGY, ORGANIC, PALEOENVIRONMENT, PYRITE, SEDIMENTARY ROCKS, SULFIDES, TEXTURES, TRANSPORT, UTAH)

2140. Chao, E.C.T., Back, J.M., Minkin, J.A., and Ren, Y., 1992, Host-rock controlled epigenetic, hydrothermal metasomatic origin of the Bayan Obo REE-Fe-Nb ore deposit, Inner Mongolia, P.R.C; Yuan Zhongxin, Sorensen, Henning. Minerals for future materials. Chinese Academy of Geological Sciences, Institute of Mineral Deposits, Beijing, China. Applied-Geochemistry. 7. (5). p. 443-458. 18 Refs; 15th general meeting of the International Mineralogical Association ; symposium on Minerals for future materials, Beijing, June 28-July 3, 1990. (ASIA, CHINA, ECONOMIC GEOLOGY, EPIGENE-PROCESSES, GEOCHEMISTRY, HYDROTHERMAL, IRON-ORES, METAL ORES, METASOMATISM, MINERAL DEPOSITS, NIOBIUM-ORES, NORTHERN-CHINA, PROCESSES, RARE EARTH DEPOSITS)
218. Chao, E.C.T., Minkin, J.A., Back, J.M., and Crowley, S.S., 1985, Upgraded quantitative petrologic and facies characterization of coal based on modern methodology: Symposium Proceedings, A National Agenda for Coal-Quality Research: U.S. Geological Survey Circular 979, p. 221. (ABSTRACT, COAL, COAL ANALYSES, COAL-QUALITY, FACIES, METHODOLOGY, PETROLOGY)
220. Chao, E.C.T., Minkin, J.A., Back, J.M., and Crowley, S.S., 1986, Petrologic study of the characterization of coals of autochthonous and allochthonous origin, in U.S. Geological Survey Research on Energy Resources - 1986 Program and Abstracts, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 974, p. 11. (ABSTRACT, COAL, PETROLOGY)
2144. Chao, E.C.T., Minkin, J.A., Back, J.M., and Crowley, S.S., 1986, Upgraded quantitative petrologic and facies characterization of coal based on modern methodology; Garbini, Susan, Schweinfurth, Stanley P. Symposium proceedings; A national agenda for coal-quality research: U.S. Geological Survey Circular, Symposium proceedings; A national agenda for coal-quality research, Reston, VA, April 9-11, 1985, p. 221-222. (ABSTRACT, COAL, GEOCHEMISTRY, LITHOFACIES, MINERAL-COMPOSITION, ORGANIC, PETROLOGY, QUALITY, SEDIMENTARY ROCKS)
2145. Chao, E.C.T., Minkin, J.A., Back, J.M., and Crowley, S.S., 1986, Petrographic documentation and interpretation of principal mineral occurrences in coal; Garbini, Susan, Schweinfurth, Stanley P. Symposium proceedings; A national agenda for coal-quality research: U.S. Geological Survey Circular, p. 220. (ABSTRACT, ASH, COAL, GEOCHEMISTRY, HAPS, INERTINITE, MACERALS, MINERAL-COMPOSITION, ORGANIC, PETROGRAPHY, SEDIMENTARY ROCKS, SULFUR, TRACE ELEMENTS, VITRINITE)
3309. Chao, E.C.T., Minkin, J.A., Back, J.M., Erickson, R.L., Drew, L.J., Okita, P.M., McKee, E.H., Conrad, J.E., Turrin, B., Tatsumoto, M., Wang, J., Edwards, C.A., Buden, R.V., Hou, Z., Ren, Y., Meng, Q., and Sun, W., 1989, Epigenetic, hydrothermal-metasomatic origin of the Bayan Obo Fe-Nb-REE ore deposit of Inner Mongolia, China: 28th International Geological Congress Abstracts. (ABSTRACT, CHINA, INTERNATIONAL, ORES)
2142. Chao, E.C.T., Minkin, J.A., Back, J.M., McKee, E.H., Edwards, C.A., Ren, Y., and Sun, W., 1988, Origin and episodic mineralization of the H8 dolomite host rock of the Bayan Obo Fe-Nb-REE ore deposit of inner Mongolia, China: Geological Society of America Abstracts with Programs, v. 20, no. 7, p. 143. (ABSTRACT, CHINA, ECONOMIC GEOLOGY, HYDROTHERMAL, IRON-ORES, METAL ORES, METAMORPHISM, MINERALIZATION, NORTHERN-CHINA, PRECAMBRIAN, PROTEROZOIC, RARE EARTH DEPOSITS)

2143. Chao, E.C.T., Minkin, J.A., Back, J.M., Okita, P.M., McKee, E.H., Tosdal, R.M., Tatsumoto, M., Wang, J., Edwards, C.A., Ren, Y., and Sun, W., 1989, The H8 dolomite host rock of the Bayan Obo iron-niobium-rare-earth-element ore deposit of Inner Mongolia, China; origin, episodic mineralization, and implications; Schindler, Katharine S., ed., USGS research on mineral resources, 1989; program and abstracts, V.E. McKelvey Forum on mineral and energy resources: U.S. Geological Survey Circular 1035, p. 8-10. (ABSTRACT, ASIA, CHINA, ECONOMIC GEOLOGY, IRON-ORES, METAL ORES, MINERAL DEPOSITS, NIOBIUM-ORES, NORTHERN-CHINA, POLYMETALLIC-ORES, RARE EARTH DEPOSITS)
2141. Chao, E.C.T., Tatsumoto, M., Erickson, R.L., Minkin, J.A., Back, J.M., Buden, R.V., Okita, P.M., Hou, Z., Meng, Q., Ren, Y., Sun, W., McKee, E.H., Turrin, B.D., Wang, J., Li, X., and Edwards, C.A., 1990, Origin and ages of mineralization of Bayan Obo, the world's largest rare earth ore deposit, Inner Mongolia, China: U.S. Geological Survey Open-File Report 90-538, 11 p. (ASIA, CHINA, ECONOMIC GEOLOGY, EPIGENE-PROCESSES, GEOCHEMISTRY, HAPS, INNER MONGOLIA, INTERNATIONAL, METAL ORES, METAMORPHIC ROCKS, MINERAL DEPOSITS, NORTHERN-CHINA, OPEN-FILE, RARE EARTH DEPOSITS, TRACE ELEMENTS)
1342. Charpentier, R.R., Dyman, T.S., Flores, R.M., and Hemeida, A., 1991, Fluvial to subtidal deposition - Cambrian Sawatch Quartzite and lower part of Peerless Formation, Manitou Springs, Colorado: Geological Society of America Abstracts with Programs, v. 23, p. A286. (ABSTRACT, COLORADO)
3726. Chase, H.B., Jr., and Lyons, P.C., 1993, Coal mining history of southern New England: Geological Society of America, Coal Geology Division, Geological Society of America Fieldtrip Guidebook, p. 105-110. (COAL, GUIDEBOOK, HISTORY, MINING, NEW-ENGLAND)
3619. Church, S.E., Holmes, C.W., Briggs, P.H., Vaughn, R.B., Cathcart, J., and Marot, M., 1993, Geochemical and lead-isotopes data from stream and lake sediments, and cores from the upper Arkansas River drainage: Effects of mining at Leadville, Colorado on heavy metal concentrations in the Arkansas River: U.S. Geological Survey Open-File Report 93-534. (ARKANSAS RIVER, COLORADO, CONTAMINANTS, ENVIRONMENTAL GEOLOGY, GEOCHEMISTRY, HEAVY METAL, LEAD-ISOTOPES, LEADVILLE, MINING, OPEN-FILE)
1468. Churnet, H.G., and Bergenback, R.E., 1986, Depositional systems of Pennsylvanian rocks in the Cumberland Plateau of southern Tennessee: Georgia Geological Society Guidebook, v. 6. (CRAB ORCHARD MOUNTAIN, NEWTON-SHALE, PENNSYLVANIAN, RACCOON MOUNTAIN FORMATION, SEWANEE-CONGLOMERATE, SIGNAL POINT SHALE, STRATIGRAPHY, TENNESSEE, VANDEVER-FORMATION, WARREN POINT SANDSTONE, WHITWALL-SHALE)
2021. Chyi, L.L., and Medlin, J.H., 1990, Geochemical characteristics of the Springfield (western Kentucky No. 9) Coal in western Kentucky, in Chyi, L. Lynn, and Chou, C. L., eds., Recent advances in coal geochemistry: Geological Society of America Special Paper 248, p. 41-54. (COAL, COAL-SEAMS, ECONOMIC GEOLOGY, GEOCHEMISTRY, HAPS, KENTUCKY, ORGANIC, PITTSBURGH-COAL, SAMPLING, SEDIMENTARY ROCKS, SPRINGFIELD COAL MEMBER, TRACE ELEMENTS, USA)

2587. Chyi, L.L., and Palmer, C.A., 1986, Vitrinite geochemistry of the Herrin coal (No. 11) as determined by quinoline extraction: Geological Society of America Abstracts with Programs, v. 18, p. 283. (COAL, GEOCHEMISTRY, VITRINITE)
970. Clayton, J.L., and Bostick, N.H., 1986, Temperature effects on kerogen and on molecular and isotopic composition of organic matter in Pierre Shale near an igneous dike: Organic Geochemistry, v. 10, p. 135-143.
963. Clayton, J.L., Bostick, N.H., and King, J.D., 1985, Temperature effects on amount and molecular and isotopic composition of organic matter in Pierre Shale near a dike contact: 12th International Meeting on Organic Geochemistry, 1985, p. 32. (ABSTRACT, COAL, CRETACEOUS, DIKES, GEOCHEMISTRY, ISOTOPE, METAMORPHISM, ORGANIC MATTER, PIERRE SHALE, SHALE)
1096. Coates, D.A., 1985, Late Paleozoic glacial patterns in the central Transantarctic Mountains, in Geology of the central Transantarctic Mountains, Antarctic Research Series Volume 36: American Geophysical Union, Paper 13, p. 325-338. (ANTARCTICA, GEOLOGY, GLACIAL GEOLOGY, PALEOENVIRONMENT, PALEOZOIC, TRANSANTARCTIC MOUNTAINS)
1382. Coates, D.A., 1987, The role of natural coal burning in late Cenozoic landscape development in the Powder River Basin, northern Great Plains, USA: International Association for Quaternary Research XII International Congress, Ottawa, Canada, Program with Abstracts, p. 145. (COAL)
1107. Coates, D.A., 1988, Clinker produced by natural burning of Tertiary coal beds in the Powder River Basin and its effect on landscape: Geological Society of America Field Trip Guidebook, Professional Contributions - Colorado School of Mines Number 12, p. 220-221. (CLINKER, COAL, TERTIARY)
1115. Coates, D.A., and Alam, A.K.M.K., 1990, The Mymensingh Terrace--Evidence of Holocene deformation in the delta of the Brahmaputra River, Central Bangladesh: Geological Society of America Abstracts with Programs, v. 22, p. A310. (ABSTRACT, BANGLADESH, BRAHMAPUTRA RIVER, DELTAIC, DEPOSITIONAL ENVIRONMENT, HOLOCENE, INTERNATIONAL, MYMENSINGH, SEDIMENTARY ENVIRONMENTS)
3813. Coates, D.A., and Alam, A.K.M.K., in press, Geologic setting of Bangladesh: Constraints on flood control: Second South Asia Geological Congress, Colombo, Sri Lanka. (ABSTRACT, ASIA, BANGLADESH, FLOOD, GEOLOGY, INTERNATIONAL)
1097. Coates, D.A., Holmes, C.W., and Verbeek, E.R., 1987, New origin of columnar joints--dehydration of clays during heating of clinker in Williston Basin, North Dakota: Geological Society of America Abstracts with Programs, v. 199, p. 266. (ABSTRACT, CLAY, CLINKER, COAL, COLUMNAR JOINTS, DEHYDRATION, NORTH DAKOTA, WILLISTON-BASIN)
3814. Coates, D.A., and Norman, K.A., 1993, Environment and people: Related priorities in national development: Geological Society of America Abstracts with Programs, v. 25, p. A-290. (ABSTRACT, DEVELOPMENT, ENVIRONMENTAL GEOLOGY, INTERNATIONAL, PEOPLE)

3815. Coates, D.A., and Norman, K.A., 1993, Role, status, and activities of women: Factors critical to environmental quality in Third World development: Geological Society of America Abstracts with Programs, v. 25, p. 22. (ABSTRACT, DEVELOPMENT, ENVIRONMENTAL GEOLOGY, GLOBAL, INTERNATIONAL, WOMEN, WORLD)
1103. Coates, D.A., Sanchez, J.D., Malavassi, L., Obando, L., Garcia, A., Estrada, R., and Alvarado, F., 1989, Geology and coal deposits of the Miocene Venado Formation, northern Costa Rica: Revista Geologica de America Central, 56 p. (COAL, COSTA RICA, GEOLOGY, INTERNATIONAL, MIOCENE, TERTIARY, VENADO FORMATION)
599. Coates, D.A., Sawatzky, D.L., and Alam, A.K.M.K., 1992, Geomorphic evidence of Holocene deformation along the eastern margin of the Indian plate, one key to understanding flooding in Bangladesh: First South Asian Geological Congress, p. 10. (ABSTRACT, BANGLADESH, DEFORMATION, GEOMORPHOLOGY, HOLOCENE, INDIAN, INDIAN PLATE, INTERNATIONAL, PLATE TECTONICS, TECTONICS)
2347. Coates, D.A., Stricker, G.D., and Landis, E.R., 1988, Permian coal in the Transantarctic Mountains, Antarctica--quality and quantity, in Barker, C.E., and Coury, A.B., compilers, Abstracts of the U.S. Geological Survey, Central Region, 1990 Poster Review: U.S. Geological Survey Open-File Report 90-656, p. 1. (ABSTRACT, ANTARCTICA, COAL, INTERNATIONAL, OPEN-FILE, PERMIAN, TRANSANTARCTIC MOUNTAINS)
1109. Coates, D.A., Stricker, G.D., and Landis, E.R., 1989, Permian coal in the Transantarctic Mountains, Antarctica--Quality and Quantity: American Association of Petroleum Geologists Bulletin, v. 73, p. 345. (ABSTRACT, ANTARCTICA, COAL, COAL RESOURCES, COAL-QUALITY, INTERNATIONAL, PERMIAN, TRANSANTARCTIC MOUNTAINS)
2343. Coates, D.A., Stricker, G.D., and Landis, E.R., 1990, Coal geology, coal quality, and coal resources in Permian rocks, of the Beacon Supergroup, Transantarctic Mountains, Antarctica, in Mineral Resources of Antarctica: Antarctic Research Series, v. 51, p. 133-162. (ANTARCTICA, BEACON SUPERGROUP, COAL, COAL GEOLOGY, COAL RESOURCES, COAL-QUALITY, ENERGY RESOURCES, INTERNATIONAL, MINERALS, PERMIAN, TRANSANTARCTIC MOUNTAINS)
1117. Coates, D.A., Stricker, G.D., and Landis, E.R., 1991, Permian coal in Transantarctic Mountains--quality and quantity, in Barker, C.E., and Coury, A.B., compilers, Abstracts of the U.S. Geological Survey, Central Region, 1990 Poster Review: U.S. Geological Survey Open-File Report 90-656. (ABSTRACT, COAL, COAL RESOURCES, COAL-QUALITY, INTERNATIONAL, OPEN-FILE, PERMIAN)
1108. Coates, D.A., Whitney, J.W., Alam, A.K.M.K., and Huq, M.A., 1988, Evidence of neotectonic activity on the Bengal delta, Bangladesh: Geological Society of America Abstracts with Programs, v. 20, p. A54-A55. (ABSTRACT, BANGLADESH, BENGAL DELTA, DEPOSITIONAL ENVIRONMENT, INTERNATIONAL, SEDIMENTATION, TECTONICS)
1118. Coates, D.A., Whitney, J.W., Sawatzky, D.L., and Alam, A.K.M.K., 1991, Holocene deformation in the Ganges-Brahmaputra delta--a factor in flood distribution in Bangladesh: EOS, Transactions of

- the American Geophysical Union, AGU Fall meeting, v. 72, p. 501. (ABSTRACT, BANGLADESH, BRAHMAPUTRA RIVER, DEFORMATION, DEPOSITIONAL ENVIRONMENT, FLOOD, GANGES DELTA, HOLOCENE, INTERNATIONAL, SEDIMENTARY ENVIRONMENTS)
3765. Cobb, J.C., and Cecil, C.B., eds., 1993, Modern and ancient coal-forming environments: Geological Society of America Special Paper 286, p. 198. (COAL, DEPOSITIONAL ENVIRONMENT, PALEOGEOGRAPHY)
2558. Coleman, S.L., 1986, Arsenic distribution in U.S. coal: Geological Society of America Abstracts with Programs, North-Central Section. (ABSTRACT, ARSENIC, COAL, COAL QUALITY, TRACE ELEMENTS)
2542. Coleman, S.L., and Bragg, L.J., 1990, Arsenic in U.S. coal, in Chyi, L.L., ed., Geochemistry of Coal: Geological Society of America Special Publication 246, p. 13-26. (ARSENIC, COAL, GEOCHEMISTRY)
2544. Coleman, S.L., Bragg, L.J., and Finkelman, R.B., 1993, Distribution and mode of occurrence of selenium in U.S. coals: Environmental Geochemistry and Health, v. 15, p. 215-227. (COAL, ENVIRONMENTAL STUDY, GEOCHEMISTRY, HAPS, MODE OF OCCURRENCE, SELENIUM, TRACE ELEMENTS)
2559. Coleman, S.L., and Crawford, T.J., 1986, Coal quality in the area of Sand Mountain and Lookout Mountain, Southern Appalachian Mountains, Georgia, Tennessee, and Alabama: American Association of Petroleum Geologists; Annual Meeting, Atlanta, GA, June 1986. (ALABAMA, COAL, GEORGIA, TENNESSEE)
2541. Coleman, S.L., Crawford, T.J., and Medlin, J.H., 1987, Analyses of coal from Northwest Georgia: Georgia Geological Survey Information Circular 76, 321 p. (COAL)
510. Coleman, S.L., Finkelman, R.B., and Bragg, L.J., in press, Distribution and mode of occurrence of selenium in U.S. coals: Environmental Geochemistry and Health. (COAL, COAL-QUALITY, ENVIRONMENTAL STUDY, GEOCHEMISTRY, HAPS, SELENIUM, TRACE ELEMENTS)
2560. Coleman, S.L., Finkelman, R.B., Bragg, L.J., and Oman, C.L., 1987, Concentration and mode of occurrence of selenium in U.S. coals: Geological Society of America Abstracts with Programs, v. 19, p. 624. (COAL, GEOCHEMISTRY, HAPS, MODE OF OCCURRENCE, SELENIUM, TRACE ELEMENTS)
3914. Coleman, S.M., Krabanov, E.B., Williams, D.F., Hearn, P.P., Jr., King, J.W., Orem, W.H., Bradbury, J.P., Shanks, W.C., III, Jones, G.A., and Carter, S.W., 1992, Lake Baikal paleoclimate project southeastern Siberia: initial dating and paleoenvironmental results: IPPCCE Newsletter, 6, p. 30-39. (AGE DATING, CLIMATE, INTERNATIONAL, LAKE BAIKAL, PALEOCLIMATE, PALEOENVIRONMENT, SIBERIA)
3915. Coleman, S.M., Krabanov, E.B., Williams, D.F., Hearn, P.P., Jr., King, J.W., Orem, W.H., Bradbury, J.P., Shanks, W.C., III, Jones, G.A., and Carter, S.W., 1992, Initial results of the U.S./Soviet paleoclimate study of Lake Baikal: EOS, Transactions of the American Geophysical

- Union, 73, p. 457 and 460-462. (AGE DATING, CLIMATE, INTERNATIONAL, LAKE BAIKAL, PALEOCLIMATE, PALEOENVIRONMENT, SIBERIA)
3919. Coleman, S.M., Orem, W.H., Kuptsov, V.M., and Jones, G.A., 1992, Radiocarbon ages from Lake Baikal, Siberia, and their relation to sources and residence times of organic carbon: American Geophysical Union, National Meeting, San Francisco, California, December, 1990. (ABSTRACT, AGE DATING, CARBON, INTERNATIONAL, LAKE BAIKAL, RADIOCARBON, SIBERIA, USSR)
2871. Colman, S., and Lake Baikal Paleoclimate Project Members, 1992, Initial results of U.S.-Soviet paleoclimate study of Lake Baikal: EOS, Transactions of the American Geophysical Union, v. 73, p. 457-462. (CLIMATE, GEOCHEMISTRY, INTERNATIONAL, LAKE BAIKAL, PALEOCLIMATE, RUSSIA, SIBERIA)
4176. Colton, R.B., 1990, Landslide deposits in the Log 30' X 60' quadrangle, Utah, Wyoming, and Idaho: U.S. Geological Survey Open-File Report 90-45. (GEOLOGIC MAP, GEOLOGY, IDAHO, LANDSLIDES, MAP, OPEN-FILE, SEDIMENTS, UTAH, WYOMING)
4171. Colton, R.B., 1991, Landslide deposits in the Ogden 30' X 60' quadrangle, Utah and Wyoming: U.S. Geological Survey Open-File Report 91-297. (GEOLOGIC MAP, LANDSLIDES, OGDEN QUADRANGLE, OPEN-FILE, QUADRANGLE, SEDIMENTS, UTAH, WYOMING)
4170. Colton, R.B., 1994, Landslide deposits in the Grouse Creek 30' X 60' quadrangle, Utah, Nevada, and Idaho: U.S. Geological Survey Open-File Report 91-298. (GEOLOGIC MAP, GROUSE CREEK QUADRANGLE, IDAHO, LANDSLIDES, NEVADA, OPEN-FILE, QUADRANGLE, SEDIMENTS, UTAH)
4175. Colton, R.B., and Bryant, B.H., 1989, Landslide deposits in the Duchesne 30' X 60' quadrangle, Utah: U.S. Geological Survey Open-File Report 89-460. (DUCHESNE QUADRANGLE, GEOLOGIC MAP, GEOLOGY, LANDSLIDES, MAP, OPEN-FILE, SEDIMENTS, UTAH)
4188. Colton, R.B., Ellis, M.S., Klockenbrink, J.L., Grout, M.A., and Heffern, E.L., 1995, Photogeologic and reconnaissance geologic map of the Rosebud and Thurlow quadrangles, Rosebud County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2290, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, POWDER RIVER BASIN, QUADRANGLE, ROSEBUD COUNTY, ROSEBUD QUADRANGLE, THURLOW QUADRANGLE)
4187. Colton, R.B., Ellis, M.S., Klockenbrink, J.L., Grout, M.A., Heffern, E.L., Bierbach, P.R., and Kiefer, M.C., 1995, Photogeologic and reconnaissance geologic map of the Griffin Coulee NE and NW quadrangles, Rosebud County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2289, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, GRIFFIN COULEE NE QUADRANGLE, GRIFFIN COULEE NW, MAP, MONTANA, POWDER RIVER BASIN, QUADRANGLE, ROSEBUD COUNTY)
4114. Colton, R.B., and Fullerton, D.S., 1986, Proglacial lakes long the Laurentide Ice Sheet margin in Montana: Geological Society of America Abstracts with Programs, v. 18, p. 347. (ABSTRACT, GLACIATION, LAKES, LAURENTIDE ICE SHEET)

4121. Colton, R.B., Klockenbrink, J.L., Durst, S.L., Grout, M.A., Heffern, E.L., and Bierbach, P.R., 1987, Photogeologic and reconnaissance geologic map of the Miller Creek SW quadrangle, Custer and Rosebud Counties, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2012, scale 1:24,000. (CUSTER COUNTY, GEOLOGIC MAP, MAP, MILLER CREEK SW, MONTANA, ROSEBUD COUNTY)
4122. Colton, R.B., Klockenbrink, J.L., Durst, S.L., Grout, M.A., Heffern, E.L., and Bierbach, P.R., 1987, Photogeologic and reconnaissance geologic map of the Miller Creek quadrangle, Custer and Rosebud Counties, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2013, scale 1:24,000. (CUSTER COUNTY, GEOLOGIC MAP, MAP, MILLER CREEK, MONTANA, ROSEBUD COUNTY)
4124. Colton, R.B., Klockenbrink, J.L., Durst, S.L., Heffern, E.L., and Bierbach, P.R., 1987, Photogeologic and reconnaissance geologic map of the Moon Creek School quadrangle, Custer County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2015, scale 1:24,000. (CUSTER COUNTY, GEOLOGIC MAP, MAP, MONTANA, MOON CREEK SCHOOL)
4184. Colton, R.B., Klockenbrink, J.L., Ellis, M.S., and Heffern, E.L., 1994, Photogeologic and reconnaissance geologic map of the Schultz Coulee quadrangle, Rosebud County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2281, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, POWDER RIVER BASIN, QUADRANGLE, ROSEBUD COUNTY, SCHULTZ COULEE QUADRANGLE)
4119. Colton, R.B., Klockenbrink, J.L., Grout, M.A., and Bierbach, P.R., 1987, Photogeologic and reconnaissance geologic map of the Donleys Reservoir quadrangle, Rosebud County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2010, scale 1:24,000. (DONLEYS RESERVOIR, GEOLOGIC MAP, MAP, MONTANA, ROSEBUD COUNTY)
4120. Colton, R.B., Klockenbrink, J.L., Grout, M.A., and Bierbach, P.R., 1987, Photogeologic and reconnaissance geologic map of the Black Coulee quadrangle, Rosebud County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2011, scale 1:24,000. (BLACK COULEE, GEOLOGIC MAP, MAP, MONTANA, ROSEBUD COUNTY)
4118. Colton, R.B., Klockenbrink, J.L., Grout, M.A., Heffern, E.L., and Bierbach, P.R., 1987, Photogeologic and reconnaissance geologic map of the Finch NE quadrangle, Rosebud County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2009, scale 1:24,000. (FINCH NE, GEOLOGIC MAP, MAP, MONTANA, ROSEBUD COUNTY)
4123. Colton, R.B., Klockenbrink, J.L., Heffern, E.L., and Bierbach, P.R., 1987, Photogeologic and reconnaissance geologic map of the Miller Creek NW quadrangle, Custer and Rosebud Counties, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-2014, scale 1:24,000. (CUSTER COUNTY, GEOLOGIC MAP, MAP, MILLER CREEK NW, MONTANA, ROSEBUD COUNTY)
4131. Colton, R.B., McGraw, J.P., and Bozeman, D.K., 1994, Geologic map of the Berry School quadrangle, McCone and Prairie Counties, Montana: U.S. Geological Survey Open-File Report 88-

632. (BERRY SCHOOL, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4136. Colton, R.B., McGraw, J.P., and Bozeman, D.K., 1994, Geologic map of the Circle quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-630. (CIRCLE, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE)
4141. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Heitz School quadrangle, Prairie and McCone Counties, Montana: U.S. Geological Survey Open-File Report 88-608. (GEOLOGIC MAP, HEITZ SCHOOL, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4142. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Johnson Coulee East quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-610. (GEOLOGIC MAP, JOHNSON COULEE EAST, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE)
4143. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Johnson Reservoir quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-609. (DAWSON COUNTY, GEOLOGIC MAP, JOHNSON RESERVOIR, MAP, MONTANA, OPEN-FILE)
4145. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Johnson Reservoir NW quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-613. (DAWSON COUNTY, GEOLOGIC MAP, JOHNSON RESERVOIR NW, MAP, MONTANA, OPEN-FILE)
4147. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Lindsay SW quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-615. (DAWSON COUNTY, GEOLOGIC MAP, LINDSAY SW, MAP, MONTANA, OPEN-FILE)
4149. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the North Coulee quadrangle, Prairie County, Montana: U.S. Geological Survey Open-File Report 88-619. (GEOLOGIC MAP, MAP, MONTANA, NORTH COULEE, OPEN-FILE, PRAIRIE COUNTY)
4154. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Upper Cracker Box School quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-623. (DAWSON COUNTY, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, UPPER CRACKER BOX SCHOOL)
4155. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Watkins quadrangle, Prairie and McCone Counties, Montana: U.S. Geological Survey Open-File Report 93-521. (GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY, WATKINS)
4158. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Woodworth Hill quadrangle, McCone and Dawson Counties, Montana: U.S. Geological Survey Open-File Report 88-626. (DAWSON COUNTY, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA,

OPEN-FILE, WOODWORTH HILL)

4159. Colton, R.B., McGraw, J.P., and Bozeman, D.K., in press, Geologic map of the Youngquist Mine quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-627. (GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, YOUNGQUIST MINE)
4144. Colton, R.B., McGraw, J.P., Bozeman, D.K., and Durst, S.L., in press, Geologic map of the Johnson Reservoir NE quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-611. (DAWSON COUNTY, GEOLOGIC MAP, JOHNSON RESERVOIR NE, MAP, MONTANA, OPEN-FILE)
4150. Colton, R.B., McGraw, J.P., Bozeman, D.K., and Durst, S.L., in press, Geologic map of the Olson Coulee North quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-620. (DAWSON COUNTY, GEOLOGIC MAP, MAP, MONTANA, OLSON COULEE NORTH, OPEN-FILE)
4128. Colton, R.B., McGraw, J.P., and Durst, S.L., 1988, Geologic map of the Bearshack Creek quadrangle, McCone and Prairie Counties, Montana: U.S. Geological Survey Open-File Report 88-634. (BEARSHACK CREEK, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4129. Colton, R.B., McGraw, J.P., and Durst, S.L., 1988, Geologic map of the Becker Dam quadrangle, Prairie County, Montana: U.S. Geological Survey Open-File Report 88-633. (BECKER DAM, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4130. Colton, R.B., McGraw, J.P., and Durst, S.L., 1994, Geologic map of the Beauty Creek quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-636. (BEAUTY CREEK, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE)
4133. Colton, R.B., McGraw, J.P., and Durst, S.L., 1994, Geologic map of the Big Sheep Mountain NW quadrangle, McCone and Prairie Counties, Montana: U.S. Geological Survey Open-File Report 93-622. (BIG SHEEP MOUNTAIN NW, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4134. Colton, R.B., McGraw, J.P., and Durst, S.L., 1994, Geologic map of the Brockway quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 93-623. (BROCKWAY, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE)
4135. Colton, R.B., McGraw, J.P., and Durst, S.L., 1994, Geologic map of the Brockway NE quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-631. (BROCKWAY NE, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE)
4137. Colton, R.B., McGraw, J.P., and Durst, S.L., 1994, Geologic map of the Circle SW quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-629. (CIRCLE SW, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE)
4138. Colton, R.B., McGraw, J.P., and Durst, S.L., 1994, Geologic map of the Deer Creek Church

- quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-628. (DAWSON COUNTY, DEER CREEK CHURCH, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE)
4148. Colton, R.B., McGraw, J.P., and Durst, S.L., 1994, Geologic map of the Mount Antelope quadrangle, McCone and Dawson Counties, Montana: U.S. Geological Survey Open-File Report 88-616. (DAWSON COUNTY, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, MOUNT ANTELOPE, OPEN-FILE)
4132. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Big Sheep Mountain quadrangle, Prairie County, Montana: U.S. Geological Survey Open-File Report 93-52. (BIG SHEEP MOUNTAIN, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4139. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Diamond G Butte quadrangle, Dawson, McCone, and Prairie Counties, Montana: U.S. Geological Survey Open-File Report 88-625. (DAWSON COUNTY, DIAMOND G BUTTE, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4140. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Diamond G Butte NW quadrangle, McCone, and Prairie Counties, Montana: U.S. Geological Survey Open-File Report 88-607. (DIAMOND G BUTTE NW, GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY)
4146. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Lindsay quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-614. (GEOLOGIC MAP, LINDSAY, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE)
4151. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Olson Coulee South quadrangle, Dawson County, Montana: U.S. Geological Survey Open-File Report 88-621. (DAWSON COUNTY, GEOLOGIC MAP, MAP, MONTANA, OLSON COULEE SOUTH, OPEN-FILE)
4152. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Quick Reservoir quadrangle, McCone County, Montana: U.S. Geological Survey Open-File Report 88-618. (GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, QUICK RESERVOIR)
4153. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Union School quadrangle, Dawson and Prairie Counties, Montana: U.S. Geological Survey Open-File Report 88-622. (DAWSON COUNTY, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, PRAIRIE COUNTY, UNION SCHOOL)
4156. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Watkins SE quadrangle, Prairie and McCone Counties, Montana: U.S. Geological Survey Open-File Report 88-624. (GEOLOGIC MAP, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, PRAIRIE COUNTY, WATKINS SE)
4157. Colton, R.B., McGraw, J.P., and Durst, S.L., in press, Geologic map of the Woodrow quadrangle,

- Dawson County, Montana: U.S. Geological Survey Open-File Report 88-625. (DAWSON COUNTY, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, WOODROW)
4115. Colton, R.B., Naeser, N.D., and Naeser, C.W., 1986, Drainage changes in eastern Montana and western North Dakota during late Cenozoic time: Geological Society of America Abstracts with Programs, v. 18, p. 347. (ABSTRACT, CENOZOIC, DRAINAGE-PATTERNS, GLACIAL GEOLOGY, GLACIATION, MONTANA, NORTH DAKOTA)
4113. Colton, R.B., Patton, T.W., Bergantino, R.M., and Bartholomew, M.J., 1985, Evidence of catastrophic flooding near Turner, north-central Montana: Geological Society of America, Abstract of Paper. (ABSTRACT, FLOODING, MONTANA, SEDIMENTOLOGY)
2383. Colton, R.B., Patton, T.W., Bergantino, R.N., and Bartholomew, M.J., 1985, Evidence of Pleistocene catastrophic flooding near Turner, north central Montana: Geological Society of America Abstracts with Programs, 17, p. 213; The Geological Society of America, Rocky Mountain Section, 38th annual meeting, Boise, ID, Apr. 22-24, 1985. (CLASTIC ROCKS, GLACIAL GEOLOGY, GRAVEL, MONTANA, PLEISTOCENE, QUATERNARY, RETIRED, RIPPLE-MARKS, SEDIMENTARY-STRUCTURES, STRATIGRAPHY, USA, WISCONSINAN)
4173. Colton, R.B., Whitaker, S.T., and Ehler, W.C., 1989, Geologic map of the Glasgow 30' X 60' quadrangle, Valley and McCone Counties, Montana: U.S. Geological Survey Open-File Report 89-171. (GEOLOGIC MAP, GLASGOW QUADRANGLE, MAP, MCCONE COUNTY, MONTANA, OPEN-FILE, QUADRANGLE, VALLEY COUNTY)
4174. Colton, R.B., Whitaker, S.T., and Ehler, W.C., 1989, Geologic map of the Opheim 30' X 60' quadrangle, Valley and Daniels Counties, Montana: U.S. Geological Survey Open-File Report 89-319. (DANIELS COUNTY, GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, OPEN-FILE, OPHEIM QUADRANGLE, QUADRANGLE, VALLEY COUNTY)
260. Comer, V.J., Spiker, E.C., and Hatcher, P.G., 1992, Chemical and carbon isotopic composition of refractory components in leaves: American Chemical Society, Abstracts with Papers, v. 203, p. GEOC 48; 203rd American Chemical Society national meeting, San Francisco, CA, April 5-10, 1992. (ABSTRACT, CARBON, COAL, FOSSIL, LEAVES, NMR-SPECTRA, ORGANIC, PEAT, STABLE-ISOTOPES, WEATHERING)
184. Congdon, R.D., 1987, Petrology and geochemistry of the Honeycomb Hills rhyolite, Utah: Salt Lake City, University of Utah, M.S. thesis, 139 p. (GEOCHEMISTRY, HONEYCOMB HILLS, PETROLOGY, RHYOLITE, THESIS, UTAH)
197. Congdon, R.D., Lyons, P.C., and Outerbridge, W.F., 1992, Use of silicate-melt inclusions in determining magmatic source of kaolinized volcanic ash beds (tonsteins) in coal beds in the Appalachian basin: Geological Society of America Abstracts with Programs, v. 24, p. 13. (ABSTRACT, APPALACHIAN BASIN, ASH, COAL, TONSTEIN, VOLCANIC ROCKS, VOLCANIC-ASH)
2694. Congdon, R.D., Lyons, P.C., and Outerbrige, W.F., 1992, Use of silicate-melt (glass) inclusions in determining magmatic source of kaolinized volcanic ash beds (tonsteins) in coal beds in the Appalachian basin: Geological Society of America Northeastern Section Meeting, Harrisburg, PA,

- March 26-28, 1992. (ABSTRACT, APPALACHIAN BASIN, ASH, COAL, TONSTEIN, VOLCANIC)
3739. Congdon, R.D., Lyons, P.C., and Spears, D.A., 1993, Westphalian tonsteins in Western European coal measures: Geological Society of America Abstracts with Programs, v. 25, p. A77. (ABSTRACT, COAL, EUROPE, TONSTEIN, VOLCANIC-ASH, WESTPHALIAN)
194. Congdon, R.D., and Marsh, B.D., 1988, Crystal capture by solidification and differentiation in the Shonkin Sag laccolith, Montana: Geological Society of America Abstracts with Programs, v. 20, no. 7, p. A157. (ABSTRACT, MONTANA)
195. Congdon, R.D., and Marsh, B.D., 1989, The Shonkin Sag laccolith, experimental phase equilibria: Geological Society of America Abstracts with Programs, v. 21, no. 6, p. A262. (ABSTRACT, VOLCANIC)
196. Congdon, R.D., and Marsh, B.D., 1990, Crystal size distributions and differentiation in the Shonkin Sag laccolith, Montana: EOS, Transactions of the American Geophysical Union, American Geophysical Union, v. 71, no. 17, p. 646. (ABSTRACT, LACCOLITH, MONTANA, VOLCANIC)
191. Congdon, R.D., and Nash, W.P., 1986, Differentiation of high-fluorine rhyolite, Honeycomb Hills, Utah: Abstracts with Programs - Fourteenth General Meeting of the International Mineralogical Association, p. 80. (ABSTRACT, FLUORINE, HONEYCOMB HILLS, RHYOLITE, UTAH)
192. Congdon, R.D., and Nash, W.P., 1986, High fluorine rhyolites of the Honeycomb Hills, western Juab County, Utah: Geological Society of America Abstracts with Programs, v. 18, p. 347-348. (ABSTRACT, FLUORINE, GEOCHEMISTRY, IGNEOUS-ROCKS, RHYOLITE, UTAH)
185. Congdon, R.D., and Nash, W.P., 1988, High fluorine rhyolite - An eruptive pegmatite magma at the Honeycomb Hills, Utah: Geology, v. 16, no. 11, p. 1018-1021. (UTAH, VOLCANIC)
186. Congdon, R.D., and Nash, W.P., 1990, The solidification of the Shonkin Sag laccolith - Mineralogy, petrology, and experimental phase equilibria: Baltimore, The Johns Hopkins University, Ph.D. thesis, 363 p., 73 figs. (LACCOLITH, THESIS, VOLCANIC)
187. Congdon, R.D., and Nash, W.P., 1991, Eruptive pegmatite magma - Rhyolite of the Honeycomb Hills, Utah: American Mineralogist, v. 76, p. 1261-1278. (UTAH, VOLCANIC)
3149. Congdon, R.D., Watson, W.D., Root, D.M., and Lyons, P.C., 1993, A statistical method for displaying uncertainty in ternary plots: Geological Society of America Abstracts with Programs. (ABSTRACT, ECONOMICS, STATISTICS, TERNARY)
94. Connor, C.W., and Biewick, L.R.H., 1989, Drill hole and surface section data, Fort Union Formation, Bull Mountain coal field, south-central Montana--209 records as entered in the National Coal Resource Data System: U.S. Geological Survey Open-File Report 89-6, 305 p. (BULL MOUNTAIN BASIN, COAL, COMPUTER, COMPUTER APPLICATIONS, DATABASES, DRILL HOLES, FORT UNION FORMATION, MEASURED SECTIONS, MONTANA, NCRDS, OPEN-FILE, PALEOCENE, TERTIARY)

600. Cooper, J.A.G., and Flores, R.M., 1991, Shoreline deposits and diagenesis resulting from two Late Pleistocene highstands near +5 and +6 meters Durban, South Africa: *Marine Geology*, v. 97, p. 325-343. (AFRICA, COAL, ENVIRONMENTAL GEOLOGY, FACIES, INTERNATIONAL, MARINE, PALEOENVIRONMENT, PLEISTOCENE, SEDIMENTOLOGY, SHORE-FEATURES)
1112. Cosca, M.A., Essene, E.J., Geissman, J.W., Simmons, W.B., and Coates, D.A., 1989, Pyrometamorphic rocks associated with naturally burned coal seams, Powder River Basin, Wyoming: *American Mineralogist*, v. 74, p. 85-100. (CLINKER, COAL, METAMORPHIC ROCKS, POWDER RIVER BASIN, PYROMETAMORPHIC, WYOMING)
3168. Couzens, B.A., Englund, K.J., and Thomas, R.E., 1991, Geology of the coal-bearing portion of Tazewell North, Tip Top, and Gary quadrangles, Virginia: Virginia Division of Mineral Resources Publication, 110; scale 1:24,000. (COAL, GEOLOGIC MAP, GEOLOGY, MAP, QUADRANGLE, VIRGINIA)
1485. Coveney, R.M., Jr., Leventhal, J.S., Glascock, M.D., and Hatch, J.R., 1987, Origins of metals and organic matter in Mecca Quarry Shale and stratigraphic equivalent beds across the midwest: *Economic Geology*, v. 82, p. 915-933. (GEOCHEMISTRY, HEAVY-MINERALS, MECCA QUARRY SHALE, METAL ORES, ORGANIC, STRATIGRAPHY)
2244. Covington, H.R., and Weaver, J.N., 1989, Geologic map and profile of the north wall of the Snake River Canyon, Bliss, Hagerman, and Tuttle quadrangles, Idaho: U.S. Geological Survey Miscellaneous Investigations Series Map I-1947-A, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, IDAHO, MAP, QUADRANGLE, SNAKE RIVER CANYON)
2226. Covington, H.R., Whitehead, R.L., and Weaver, J.N., 1985, Ancestral canyon of the Snake River: Geology and geohydrology of the canyon-fill deposits in the Thousand Springs area, south-central Snake River Plain, Idaho: Geological Society of America Field Trip Guidebook, 38th Annual Meeting, Boise, Idaho. (CLASTIC ROCKS, FIELD GUIDE, GEOLOGY, HYDROLOGY, IDAHO, SEDIMENTOLOGY, SNAKE RIVER CANYON)
207. Crowley, S.S., 1987, The effects of volcanic ash partings on maceral composition and chemistry of the C coal bed, Ferron Sandstone Member of the Mancos Shale, Utah: George Washington University, M.S. Thesis, 105 p. (ASH, COAL, THESIS, TONSTEIN, VOLCANIC-ASH)
3933. Crowley, S.S., Dufek, D.A., Stanton, R.W., and Ryer, T.A., 1994, The effects of volcanic ash disturbances on a peat-forming environment: Environmental disruption and taphonomic consequences: *Palaios*, v. 9, p. 158-174. (ASH, COAL, MIRE, PALEOENVIRONMENT, PEAT, SWAMPS, VOLCANIC-ASH)
3751. Crowley, S.S., Ruppert, L.F., Belkin, H.E., Stanton, R.W., and Moore, T.A., 1993, Factors affecting the geochemistry of a thick, subbituminous coal bed in the Powder River Basin: Volcanic, detrital, and peat-forming processes: *Organic Geochemistry*, v. 20, p. 843-853. (DETRITAL, GEOCHEMISTRY, PEAT, POWDER RIVER BASIN, SUBBITUMINOUS COAL BED, TERTIARY, VOLCANIC-ASH)
3961. Crowley, S.S., Ruppert, L.F., Stanton, R.W., Belkin, H.E., and Moore, T.A., 1994, Geochemical

- studies of the Anderson-Dietz 1 coal bed, Powder River Basin: origin of inorganic elements and environmental implications, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide: Wyoming Geological Survey Public Information Circular, p. 173-184; (P). (ANDERSON DIETZ, COAL, ENVIRONMENTAL STUDY, GEOCHEMISTRY, ORGANIC, POWDER RIVER BASIN, WYOMING)
2036. Crowley, S.S., Simon, F.O., and Stanton, R.W., 1988, Chemical composition of the C Coal Bed, Emery Coal Field, Utah: U.S. Geological Survey Open-File Report 88-526, 88 p. (COAL, EMERY COAL FIELD, GEOCHEMISTRY, OPEN-FILE, UTAH)
2099. Crowley, S.S., and Stanton, R.W., 1987, Effects of volcanic ash layers on maceral and inorganic composition of the C coal bed, Ferron Sandstone Member Cretaceous, Mancos Shale, Utah: Geological Society of America Book of Abstracts, Rocky Mountain Section Meeting, v. 19, p. 268. (ABSTRACT, ANALYSES, ASH, COAL, CRETACEOUS, FERRON SANDSTONE MEMBER, GEOCHEMISTRY, MANCOS SHALE, UTAH)
2105. Crowley, S.S., and Stanton, R.W., 1988, Correlation of facies using chemical and maceral data in the C coal bed, Emery Coal Field, Utah, in Carter, L.M.H., ed., 1988, McKelvey Forum, U.S. Geological Survey Research on Energy Resources 1988: U.S. Geological Survey Circular 1025, p. 10-11. (ANALYSES, COAL, CRETACEOUS, EMERY COAL FIELD, FACIES, FERRON SANDSTONE MEMBER, GEOCHEMICAL-INDICATORS, GEOCHEMISTRY, HAPS, MANCOS SHALE, PALEOENVIRONMENT, TRACE ELEMENTS, UTAH)
2108. Crowley, S.S., and Stanton, R.W., 1989, Petrographic correlation of cores in the C coal bed, Ferron Sandstone Member of the Mancos Shale, U.S.A: International Geological Congress, Abstracts with Programs, v. 1, p. 1-345. (ABSTRACT, COAL, EMERY COAL FIELD, FERRON SANDSTONE MEMBER, GEOCHEMISTRY, MANCOS SHALE, PETROGRAPHY, UTAH)
3944. Crowley, S.S., and Stanton, R.W., 1994, Air Toxics in coal: distribution and abundance of selected trace elements in the Powder River Basin, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1102-1105. (ABSTRACT, AIR TOXICS, COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, MONTANA, PALEOCENE, POWDER RIVER BASIN, TERTIARY, TRACE ELEMENTS, WYOMING)
3948. Crowley, S.S., and Stanton, R.W., 1994, Distribution of environmentally sensitive trace elements in coal beds of the Powder River Basin, Wyoming and Montana: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 15-17. (ABSTRACT, COAL, ENVIRONMENTAL STUDY, GEOCHEMISTRY, HAPS, MONTANA, POWDER RIVER BASIN, TRACE ELEMENTS, WYOMING)
222. Crowley, S.S., Stanton, R.W., Bragg, L.J., and Oman, C.L., 1987, Chemical variation associated with volcanic ash layers in the C coal bed, Ferron Sandstone Member of the Mancos Shale (Cretaceous), Utah: Society for Organic Petrology, Abstracts with Programs, 4th Annual Meeting of the Society for Organic Petrology, San Francisco, p. 58-59. (ABSTRACT, ASH, COAL, CRETACEOUS, EMERY COAL FIELD, FERRON SANDSTONE MEMBER, GEOCHEMISTRY, MANCOS SHALE, PETROLOGY, UTAH, VOLCANIC-ASH)

3759. Crowley, S.S., Stanton, R.W., and Ruppert, L.F., 1993, The distribution of eleven selected trace elements in the Anderson-Dietz 1 coal bed, Powder River Basin, Montana, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1050-1051. (ABSTRACT, ANDERSON COAL BED, ANDERSON DIETZ, COAL BED, GEOCHEMISTRY, HAPS, MONTANA, POWDER RIVER BASIN, TRACE ELEMENTS)
3754. Crowley, S.S., Stanton, R.W., and Ruppert, L.F., 1994, Air toxics in coal: The distribution of twelve trace elements in a thick, subbituminous coal bed and impact on mining applications: Journal of Coal Quality, v. 12, p. 141-146. (COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, MINING, MINING APPLICATIONS, SUBBITUMINOUS COAL BED, TRACE ELEMENTS)
210. Crowley, S.S., Stanton, R.W., and Ryer, T.A., 1989, The effects of volcanic ash on the maceral and chemical composition of the C coal bed, Emery Coal Field, Utah: Organic Geochemistry, v. 14, p. 315-331. (ASH, COAL, EMERY COAL FIELD, FERRON SANDSTONE MEMBER, GEOCHEMISTRY, HAPS, MANCOS SHALE, TRACE ELEMENTS, UTAH, VOLCANIC-ASH)
227. Crowley, S.S., Stanton, R.W., Triplehorn, D.M., and Ruppert, L.F., 1990, Origin and distribution of inorganic elements in the Wyodak-Anderson coal bed, Powder River Basin, Wyoming, Carter, L.M.H., ed.: U.S. Geological Survey Circular 1060, p. 19-20. (ANDERSON COAL BED, COAL, GEOCHEMISTRY, HAPS, PALEOCENE, PALEOENVIRONMENT, POWDER RIVER BASIN, TERTIARY, TRACE ELEMENTS, WYODAK COAL, WYOMING)
211. Crowley, S.S., Stanton, R.W., and Warwick, P.D., 1989, Coal quality from the Wyodak- Anderson coal bed, southeastern Powder River Basin, Wyoming: U.S. Geological Survey Open-File Report 89-81, 32 p. (ANALYSES, ANDERSON COAL BED, COAL, COAL-QUALITY, GEOCHEMISTRY, OPEN-FILE, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYODAK COAL, WYOMING)
2331. Csejtey, B., Jr., Mullen, M.W., Cox, D.P., Gilbert, W.G., Yeend, W.E., Smith, T.E., Wahrhaftig, C., Craddock, C., Brewer, W.M., Sherwood, K.W., Hickman, R.G., Stricker, G.D., St.Aubin, D.R., and Goerz, D.J., III, 1986, Geology and geochronology of the Healy Quadrangle, Alaska: U.S. Geological Survey Open-File Report 86-396, 92 p.; 4 sheets. (ALASKA, CHRONOLOGY, FAULTS, GEOCHRONOLOGY, GEOLOGY, OPEN-FILE)
2368. Csejtey, B., Jr., Mullen, M.W., Cox, D.P., and Stricker, G.D., 1992, Geology and geochronology of the Healy Quadrangle, south-central Alaska: U.S. Geological Survey, Miscellaneous Geological Investigations I-1961, scale 1:250,000; 2 sheets, pamphlet. (ALASKA, CHRONOLOGY, GEOCHRONOLOGY, GEOLOGIC MAP, GEOLOGY, HEALY, MAP, QUADRANGLE)
2825. Currens, J.C., Bragg, L.J., and Hower, J.C., 1986, Analyses of coal samples from the Princess District, Kentucky (Boyd, Carter, Greenup, and Lawrence Counties and part of Lewis County): Kentucky Geological Survey Information Circular 18, Series XI, 128 p. (ANALYSES, BOYD COUNTY, CARTER COUNTY, COAL, COAL SAMPLES, COAL-QUALITY, GEOCHEMISTRY, GREENUP COUNTY, KENTUCKY, LAWRENCE COUNTY, LEWIS COUNTY, PRINCESS RESERVE DISTRICT, STRATIGRAPHY, USCHEM)

2828. Currens, J.C., Bragg, L.J., and Hower, J.C., 1987, Analyses of coal samples from the Hazard District, Kentucky (Breathitt, Knott, Leslie, and Perry Counties, and parts of Letcher and Harlan Counties): Kentucky Geological Survey Information Circular 19, Series XI, 381 p. (ANALYSES, BREATHITT COUNTY, COAL, COAL SAMPLES, COAL-QUALITY, GEOCHEMISTRY, HARLAN COUNTY, HAZARD RESERVE DISTRICT, KENTUCKY, KNOTT COUNTY, LESLIE COUNTY, LETCHER COUNTY, PERRY COUNTY, STRATIGRAPHY, USCHEM)
2829. Currens, J.C., Bragg, L.J., and Hower, J.C., 1987, Analyses of coal samples from the Big Sandy District, Kentucky (Floyd, Johnson, Martin, and Pike Counties): Kentucky Geological Survey Information Circular 20, Series XI, 421 p. (ANALYSES, BIG SANDY RESERVE DISTRICT, COAL, COAL SAMPLES, COAL-QUALITY, FLOYD COUNTY, GEOCHEMISTRY, JOHNSON COUNTY, KENTUCKY, MARTIN COUNTY, PIKE COUNTY, STRATIGRAPHY, USCHEM)
2830. Currens, J.C., Bragg, L.J., and Hower, J.C., 1987, Analyses of coal samples from the Upper Cumberland District, Kentucky (parts of Bell, Harlan, Letcher, and Whitley Counties): Kentucky Geological Survey Information Circular 22, Series XI, 178 p. (ANALYSES, BELL COUNTY, COAL, COAL SAMPLES, COAL-QUALITY, GEOCHEMISTRY, HARLAN COUNTY, KENTUCKY, LETCHER COUNTY, STRATIGRAPHY, UPPER CUMBERLAND RESERVE DISTRICT, USCHEM, WHITLEY COUNTY)
2831. Currens, J.C., Bragg, L.J., and Hower, J.C., 1987, Analyses of coal samples from the Licking River District, Kentucky (Elliott, Magoffin, Morgan, and Wolfe Counties, and parts of Menifee, Powell and Rowan Counties): Kentucky Geological Survey Information Circular 23, Series XI, 127 p. (ANALYSES, COAL, COAL SAMPLES, COAL-QUALITY, ELLIOTT COUNTY, GEOCHEMISTRY, KENTUCKY, LICKING RIVER RESERVE DISTRICT, MAGOFFIN COUNTY, MENIFEE COUNTY, MORGAN COUNTY, POWELL COUNTY, ROWEN COUNTY, STRATIGRAPHY, USCHEM, WOLFE COUNTY)
3074. Currens, J.C., Bragg, L.J., and Hower, J.C., 1987, Analyses of coal samples from the Southwestern District, Kentucky (Clay, Jackson, Knox, Laurel, Lee, McCreary, Owsley, Whitley, and parts of Bell, Clinton, Estill, Madison, Pulaski, Rockcastle, and Wayne Counties): Kentucky Geological Survey Information Circular 21, Series XI, 338 p. (ANALYSES, BELL COUNTY, CLAY COUNTY, CLINTON COUNTY, COAL, COAL SAMPLES, COAL-QUALITY, GEOCHEMISTRY, JACKSON COUNTY, KENTUCKY, KNOX COUNTY, LAUREL COUNTY, LEE COUNTY, MADISON COUNTY, MCCREARY COUNTY, OWSLEY COUNTY, PULASKI-COUNTY, ROCKCASTLE COUNTY, SOUTHWESTERN RESERVE DISTRICT, STRATIGRAPHY, USCHEM, WAYNE COUNTY, WHITLEY COUNTY)
2384. Daniel, F.E., Colton, R.B., and Brabb, E.E., 1985, Preliminary landslide map of Montana: Geological Society of America Abstracts with Programs, v. 17, p. 215; Rocky Mountain Section, 38th annual meeting, Boise, ID, Apr. 22-24, 1985. (ABSTRACT, FAULTS, GEOMORPHOLOGIC-MAPS, GEOMORPHOLOGY, LANDSLIDES, MAP, MONTANA, QUATERNARY, RETIRED, USA)
332. Daniels, E.J., Altaner, S.P., Marshak, S., and Eggleston, J.R., 1990, Hydrothermal Alteration in Anthracite from Eastern Pennsylvania: Implications for Mechanisms of Anthracite Formation: Geology, v. 18, p. 247-250. (ANTHRACITE, COAL, COAL RANK, COAL-QUALITY,

COALIFICATION, HYDROTHERMAL, PENNSYLVANIA)

334. Daniels, E.J., Altaner, S.P., Marshak, S., Eggleston, J.R., and Lyons, P.C., 1991, Comment and Reply on Hydrothermal Alteration in Anthracite from Eastern Pennsylvania: Implications for Mechanisms of Anthracite Formation: *Geology*, v. 19, p. 188-189. (ANTHRACITE, COAL, COAL RANK, COAL-QUALITY, COALIFICATION, HYDROTHERMAL)
3639. Day, K.W., and Filipek, L.H., 1986, Processes controlling the vertical distribution of selected trace metals in Filson Creek Bog, Lake County, Minnesota: American Chemical Society Meeting, Denver, Colorado, p. A-19. (ABSTRACT, FILSON CREEK BOG, GEOCHEMISTRY, MINNESOTA, TRACE-METALS, WETLANDS)
3641. Day, K.W., and Filipek, L.H., 1986, A comparison of ground-water sample collection devices-- More problems with ceramic cup lysimeters: *American Geophysical Union, EOS*, v. 67, p. 944. (ABSTRACT, EQUIPMENT, GEOHYDROLOGY, GROUND-WATER, HYDROLOGY, SAMPLING, WATER, WATER SAMPLING)
3644. Day, K.W., and Filipek, L.H., 1987, A seasonal reversal in the vertical hydrologic gradient, Filson Creek fen, Minnesota: *American Geophysical Union, EOS, Annual Spring Meeting, Baltimore*, v. 68, p. 324. (ABSTRACT, FEN, FILSON CREEK FEN, HYDROLOGIC, MINNESOTA, SEASONAL, WETLANDS)
3642. Day, K.W., Filipek, L.H., and Kolm, K.E., 1987, Hydrologic controls on trace-element transport in Filson Creek fen which overlies the INCO Cu-Ni sulfide deposit, Minnesota: *Geological Society of America Abstracts with Programs, North-Central Section*, v. 19, p. 195. (ABSTRACT, COPPER, FEN, GEOCHEMISTRY, HAPS, HYDROLOGIC, MINNESOTA, NICKEL, SULFIDES, TRACE ELEMENTS, WETLANDS)
3666. Day, K.W., Filipek, L.H., and Papp, C.S.E., 1986, Processes controlling the vertical distribution of selected trace metals in Filson Creek Bog, Lake County, in Averett, R.C., and McKnight, D.M., eds., *Chemical Quality of Water and the Hydrologic Cycle*: Lewis Publishers, Chelsea, Michigan, p. 367-372. (FILSON CREEK BOG, GEOCHEMISTRY, HYDROLOGIC, MINNESOTA, TRACE-METALS, WATER, WATER QUALITY, WETLANDS)
978. Dean, W.E., Bostick, N.H., Bartel, A.J., and others, 1988, Data on the geochemistry and thermal maturation of sedimentary-rock hosted disseminated gold deposits and associated rocks, southwestern Guizhou Province People's Republic of China: *U.S. Geological Survey Open-File Report 88-271*, 22 p. (CHINA, GEOCHEMISTRY, GOLD, GUIZHOU PROVINCE, MATURATION, OPEN-FILE, SEDIMENTARY ROCKS, THERMAL, THERMAL MATURITY)
243. Derenne, S., Le, B.F., Largeau, C., Hatcher, P., Connan, J., and Raynaud, J.F., 1992, Formation of ultralaminae in marine kerogens via selective preservation of thin resistant outer walls of microalgae, in Eckardt, C.B., Maxwell, J.R., Larter, S.R., and Manning, D.A.C., eds., *Advances in organic geochemistry 1991; part II, Advances and applications in energy and the natural environment: Proceedings of the 15th International Meeting on Organic Geochemistry, Manchester, September, 1991*. (ALGAE, ENERGY-SOURCES, GEOCHEMISTRY, KEROGEN, LACUSTRINE, MARINE, OIL-SHALE)

394. Derenne, S., Largeau, C., and Hatcher, P.G., 1992, Structure of *Chlorella fusca* algaenan; relationships with ultralaminae in lacustrine kerogens; species- and environment-dependent variations in the composition of fossil ultralaminae: *Organic Geochemistry*, v. 18, p. 417-422. (ALGAE, ENVIRONMENTAL GEOLOGY, KEROGEN, LACUSTRINE, MARINE, NMR-SPECTRA, ORGANIC, PALEOENVIRONMENT, PLANAR BEDDING STRUCTURES, SEDIMENTARY-STRUCTURES)
681. Desborough, G.A., Hatch, J.R., and Leventhal, J.S., 1991, Geochemical and mineralogical comparison of the Upper Pennsylvanian Stark Shale Member of the Dennis Limestone, East-central Kansas, with the middle Pennsylvanian Mecca Quarry Shale Member of the Carbondale Formation in Illinois and the Linton Formation in Indiana, in Grauch, R.I., and Huyck, H.L.O., eds., *Metalliferous Black Shales and Related Ore Deposits: U.S. Geological Survey Circular 1058*, p. 12-30. (BLACK SHALE, CARBONDALE FORMATION, DENNIS LIMESTONE, GEOCHEMISTRY, ILLINOIS, INDIANA, KANSAS, LINTON FORMATION, MECCA QUARRY SHALE, MINERALS, OREGON, PENNSYLVANIAN, STARK SHALE MEMBER, STRATIGRAPHY)
684. Desborough, G.A., Hatch, J.R., and Leventhal, J.S., 1992, Some mineralogical and geochemical aspects of Middle and Upper Pennsylvanian marine black shales in part of the Midcontinent Region: *U.S. Geological Survey Bulletin 1989 A-C*, p. 1-21. (BLACK SHALE, GEOCHEMISTRY, MINERALOGY, MINERALS, PENNSYLVANIAN, SHALE)
4212. DeVanney, K., and Stanton, R.W., 1993, The need for standardization of vitrinite reflectance measurements: *American Chemical Society Symposium Series, on Reevaluation of vitrinite reflectance as a maturity parameter: petrologic, kinetic, and geochemical factors*, August 22, 1993. (ABSTRACT, COAL, COAL-QUALITY, MATURITY, METHODS, PETROLOGY, VITRINITE, VITRINITE REFLECTANCE)
3560. deWitt, W., Jr., and Milici, R.C., 1989, Energy resources of the Appalachian orogen: The Appalachian orogen in the United States, in Hatcher, R.D. Jr., Thomas, W.A., and Viele, G.W., eds., *Decade of North American Geology: Geological Society of America*, v. F-2, p. 495-510. (APPALACHIANS, COAL, ENERGY RESOURCES)
3566. deWitt, W., Jr., and Milici, R.C., 1991, Petroleum geology of the Appalachian basin, in Gluskoter, H.J., Rice, D.D., and Taylor, R.B., eds., *Economic Geology U.S., Decade of North American Geology: Geological Society of America*, v. P-2. (APPALACHIAN BASIN, ENERGY-SOURCES, GEOLOGY, OIL AND GAS)
1819. Dickey, D.D., and M'Gonigle, J.W., 1990, Map showing swelling clays in the Kemmerer 30' x 60' quadrangle, Lincoln, Uinta, and Sweetwater Counties, Wyoming: *U.S. Geological Survey, Miscellaneous Investigations Map I-2080*, scale 1:100,000. (CLAY, GEOLOGIC MAP, GEOLOGY, LINCOLN COUNTY, MAP, SWEETWATER COUNTY, UINTA COUNTY, WYOMING)
3448. Dillinger, J.K., 1989, Map showing the Mammoth coal bed, Paleocene Fort Union Formation in the Bull Mountains, Musselshell and Yellowstone Counties, Montana Grants 30' X 60' quadrangle, west-central New Mexico: *U.S. Geological Survey Coal Investigations Map C-118-B*, scale

- 1:100,000. (COAL, COAL RESOURCES, CRETACEOUS, FORT UNION FORMATION, GEOLOGY, MAP, NEW MEXICO, PALEOCENE, TERTIARY)
3450. Dillinger, J.K., 1990, Geologic and structure contour maps of the Gallop 30' X 60' quadrangle, McKinley County, New Mexico: U.S. Geological Survey, Miscellaneous Geological Investigations I-2009, scale 1:100,000. (COAL, CONTOUR-MAPS, CRETACEOUS, GEOLOGIC MAP, GEOLOGY, MAP, MCKINLEY COUNTY, NEW MEXICO, STRATIGRAPHY, STRUCTURE)
3451. Dillinger, J.K., 1990, Geologic map of the Grants 30' X 60' quadrangle, west-central New Mexico: U.S. Geological Survey Coal Investigations Map C-118-A, scale 1:100,000. (COAL, CRETACEOUS, GEOLOGIC MAP, GEOLOGY, MAP, NEW MEXICO, SAN JUAN BASIN)
2744. Dillinger, J.K., Kirschbaum, M.A., Korzendorfer, B., and Hildebrand, R.T., 1986, Geophysical Logs, Lithologic Descriptions, and Geochemical Results from Federal Coal Drilling, Castle Valley Ridge North Tract Area, Utah, 1985: U.S. Geological Survey Open-File Report 86-439, 27 p. (COAL, COAL DRILLING, GEOCHEMISTRY, GEOPHYSICAL LOGS, LITHOLOGY, LOGS, OPEN-FILE, UTAH)
1822. Dover, J.H., and M'Gonigle, J.W., 1993, Geologic map of the Evanston 30 x 60' quadrangle, southwestern Wyoming: U.S. Geological Survey Miscellaneous Geological Investigations I-2168, scale 1:100,000. (GEOLOGIC MAP, GEOLOGY, MAP, WYOMING)
2907. Downing, P.B., and Watson, W.D., 1992, The economics of enforcing pollution controls, in Oates, W.E., ed, *in* The Economics of the Environment: Cheltenham, U.K., Elgar Publishing Ltd. (AIR POLLUTION, ECONOMICS, ENVIRONMENTAL GEOLOGY, GEOCHEMISTRY, HAPS, HAZARDOUS AIR POLLUTANTS, POLLUTION, REGULATIONS, RESTRICTIONS, STATISTICS, TRACE ELEMENTS)
1598. Doyle, L.J., and Holmes, C.W., 1985, Shallow structure and carbonate sedimentation of the West Florida Upper Continental Slope: American Association of Petroleum Geologists Bulletin, v. 68, p. 471. (CARBONATES, CONTINENTAL-SLOPE, FLORIDA)
1602. Doyle, L.J., and Holmes, C.W., 1985, Carbonate sedimentation on the West Florida Upper Continental Slope: American Association of Petroleum Geologists Bulletin, v. 69, p. 1152-1161. (CARBONATES, COASTLINE, CONTINENTAL-SLOPE, DEPOSITIONAL ENVIRONMENT, FLORIDA, SEDIMENTATION, SEDIMENTATION-RATES)
490. Dreesen, R., Bossiroy, D., Duser, M., Flores, R.M., and Verkaeren, P., 1993, Coal-seam discontinuities influenced by synsedimentary tectonics and paleofluvial systems in the Westphalian C, Campine Basin, Belgium: European Coal Conference '93, The Geological Society of London, Leicester University, England, p. 8. (ABSTRACT, BELGIUM, CAMPINE BASIN, COAL, FLUVIAL, PALEOGEOGRAPHY, SEDIMENTOLOGY, TECTONICS, WESTPHALIAN)
3849. Dreher, G.B., and Finkelman, R.B., 1992, Selenium mobilization in a surface coal mine, Powder River Basin, Wyoming: Environmental Geology and Water Science, v. 19, p. 155-167. (COAL, COAL MINES, GEOCHEMISTRY, HAPS, PALEOCENE, POWDER RIVER BASIN, SELENIUM, STRIP MINES, SURFACE-MINING, TERTIARY, TRACE ELEMENTS, WYOMING)

257. Dulong, F.T., and Cecil, C.B., 1985, Arsenic concentration, variability and inorganic affinity for selected coal beds of the Central Appalachian basin: American Association of Petroleum Geologists Abstracts with Programs. (APPALACHIAN BASIN, ARSENIC, COAL, COAL-QUALITY, GEOCHEMISTRY)
270. Dulong, F.T., and Cecil, C.B., 1989, Stratigraphic variation in bulk sample mineralogy of Pennsylvanian underclays from the central Appalachian basin, in Cecil, C.B. and Eble, C., eds., Carboniferous Geology of the Eastern United States: Field Trip Guidebook, T 143, p. 112-117. (APPALACHIAN BASIN, CARBONIFEROUS, CLAY, FIELD GUIDE, MINERALOGY, PENNSYLVANIAN, STRATIGRAPHY)
279. Dulong, F.T., and Cecil, C.B., 1990, Stratigraphic variation in the mineralogy Pennsylvanian underclays from the central Appalachian basin: Clay Mineral Society 27th Annual Meeting, Program and Abstracts, p. 43. (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, CLAY, FIELD GUIDE, MINERALOGY, PENNSYLVANIAN, STRATIGRAPHY)
274. Dulong, F.T., Cecil, C.B., Cronin, T.M., and Cobb, J.C., 1989, A reconnaissance study of the sedimentology associated with Indonesian peat deposits: Geological Society of America Abstracts with Programs, v. 21, p. A26. (ABSTRACT, COAL, COALIFICATION, INDONESIA, PALEOENVIRONMENT, PEAT, SEDIMENTOLOGY)
258. Dulong, F.T., Cecil, C.B., and Kilgroe, J.D., 1986, Elemental variability and characterization by physical coal cleaning: Arsenic, a case study: in Garbini, Susan and Schweinfurth, S.P., eds., Symposium Proceedings: U.S. Geological Survey Circular 979, p. 226. (ANALYSES, ARSENIC, COAL, COAL-QUALITY, GEOCHEMISTRY)
263. Dulong, F.T., Cecil, C.B., and Stanton, R.W., 1986, Regional and local variation of coal quality parameters in the Upper Freeport coal bed, western Pennsylvania: Geological Society of America Abstracts with Programs, v. 18, p. 589. (ABSTRACT, COAL, COAL-QUALITY, FREEPORT COAL BED, PENNSYLVANIA, UPPER FREEPORT COAL BED)
2100. Dulong, F.T., Cecil, C.B., and Stanton, R.W., 1987, Stratigraphic variation in bulk sample mineralogy of Pennsylvanian underclays from the central and northern Appalachian Basin: Geological Society of America Abstracts with Programs, v. 19, p. 648. (ABSTRACT, APPALACHIAN BASIN, CLAY, MINERALOGY, PENNSYLVANIAN, STRATIGRAPHY)
532. Dulong, F.T., Spiker, E.C., Cecil, C.B., and Stanton, R., 1985, Calcite genesis in the Upper Freeport coal bed as indicated by stable isotope geochemistry: Geological Society of America Abstracts with Programs, v. 17. (ABSTRACT, CALCITE, COAL, GEOCHEMISTRY, PENNSYLVANIA, UPPER FREEPORT COAL BED)
259. Dulong, F.T., Spiker, E.C., Cecil, C.B., and Stanton, R.W., 1986, Stable isotope geochemistry of calcite in the Upper Freeport coal bed, in Garbini, Susan, and Schweinfurth, S.P., eds., A national agenda for coal-quality research, Symposium proceedings, April 9-11, 1985: U.S. Geological Survey Circular 979, p. 227. (CALCITE, COAL, COAL-QUALITY, FREEPORT COAL BED, GEOCHEMISTRY, ISOTOPE, PENNSYLVANIA, UPPER FREEPORT COAL BED)

453. Dunn, P.J., Peacor, D.R., Criddle, A.J., and Finkelman, R.B., 1986, Laphamite, an arsenic selenite analogue of orpiment, from burning anthracite deposits in Pennsylvania: *Mineralogical Magazine*, v. 50, p. 279-282. (ANTHRACITE, ARSENIC, COAL, COAL-QUALITY, GEOCHEMISTRY, LAPHAMITE, PENNSYLVANIA, SELENITE)
2723. Durrani, N.A., and Warwick, P.D., 1990, Regional characterization and resource evaluation of Paleocene and Eocene coal-bearing rocks in Pakistan: Abstract Volume, Second Pakistan Geological Congress, Peshawar. (ABSTRACT, COAL, COAL RESOURCES, EOCENE, INTERNATIONAL, PAKISTAN, PALEOCENE, RESOURCES, TERTIARY)
3829. Durrani, N.A., and Warwick, P.D., 1991, Regional characterization and resource evaluation of Paleocene and Eocene coal-bearing rocks in Pakistan: *University of Peshawar Geological Bulletin*, v. 24, p. 229-237. (COAL, EOCENE, INTERNATIONAL, PAKISTAN, PALEOCENE, RESOURCES, TERTIARY)
1129. Eakins, W., and Ellis, M.S., 1986, Coal resources of the Castle Rock 1/2° X 1° quadrangle and adjoining area, Colorado: *Colorado Geological Survey Resource Series 25*, 135 p., scale 1:100,000. (CASTLE ROCK, COAL, COAL CORRELATIONS, COAL RESOURCES, COLORADO, COMPUTER, GEOLOGY, MAP)
3652. East, D.R., Filipek, L.H., de Villiers, A., and Wildeman, T.R., 1994, Design of a tailing facility to mitigate potential acid rock drainage: *Hydrometallurgy '94*, London, England, Jan. 1994, 9 p. (ACID MINE DRAINAGE, ACID ROCK DRAINAGE, MINING, MINING WASTES, TAILINGS)
143. Eaton, J.G., Kirkland, J.I., Gustason, E.R., Nations, J.D., Franczyk, K.J., Ryer, T.A., and Carr, D.A., 1988, Stratigraphy, correlation, and tectonic setting of Late Cretaceous rocks in the Kaiparowits and Black Mesa basins, in Davis, G.H. and VandenDolder, E.M., eds., *Geologic diversity of Arizona and its margins; excursions to choice areas: Arizona Bureau of Geology and Mineral Technology Special Paper 5*, p. 113-125. (ARIZONA, BLACK MESA BASIN, COAL, CRETACEOUS, KAIPAROWITS-PLATEAU, ROUGH ROCK SANDSTONE, STRAIGHT CLIFFS FORMATION, STRATIGRAPHY, STRUCTURAL-GEOLOGY, TECTONICS, TEREVA-FORMATION, TROPIC-SHALE, UTAH)
4042. Ebert, L.B., Robbins, E.I., Rose, K.D., Kastrup, R.V., Scanlon, J.C., Gebhard, L.A., and Garcia, A.R., 1990, Chemistry and palynology of carbon seams and associated rocks from the Witwatersrand goldfields, South Africa: *Ore Geology Reviews*, v. 5, p. 423-444. (CARBON, CHEMISTRY, GOLD, INTERNATIONAL, ORES, PALYNOLOGY, SOUTH AFRICA)
255. Ebert, L.B., Rose, K.D., Scanlon, J.C., and Robbins, E.I., 1989, Characterization of carbonaceous materials. *The Carbon Leader of the Witwatersrand System, South Africa: 19th Bennial Conference on Carbon, Pennsylvania State University, University Park, PA, Abstracts with Programs*, p. 152-153; extended abstract. (ABSTRACT, AFRICA, CARBON, CARBONACEOUS SHALE, INTERNATIONAL, SOUTH AFRICA)
331. Edmunds, W.E., and Eggleston, J.R., 1989, T352-Part 1 - Characteristics of the Mid-Carboniferous Boundary and Associated Coal-Bearing Rocks in the Northern Appalachian Basin: *International Geological Congress Field Trip Guidebook, American Geological Institute*, 33 p.

(APPALACHIAN BASIN, CARBONIFEROUS, COAL, FIELD GUIDE, PENNSYLVANIA)

339. Eggleston, J.R., 1985, The Pennsylvania Anthracite Industry--A Past... and a Future?: American Association of Petroleum Geologists, Eastern Section, Program with Abstracts. (ABSTRACT, ANTHRACITE, COAL, MINING, PENNSYLVANIA)
3983. Eggleston, J.R., 1992, Sedimentology of the Upper Pennsylvanian Redstone Limestone, northern Appalachian Basin, in Cecil, C.B. and Eble, C.F., eds., Paleoclimate Controls on Carboniferous Sedimentation and Cyclic Stratigraphy in the Appalachian Basin: U.S. Geological Survey Open-File Report 92-546, p. 120-128. (APPALACHIAN BASIN, CLIMATE, OPEN-FILE, PALEOCLIMATE, PENNSYLVANIA, REDSTONE LIMESTONE, SEDIMENTOLOGY, STRATIGRAPHY, UPPER PENNSYLVANIAN)
3981. Eggleston, J.R., 1993, Lacustrine sedimentation in the Upper Pennsylvanian Redstone Limestone, northern Appalachian Basin: Geological Society of America Abstracts with Programs, Eastern Section, v. 25, p. 13. (ABSTRACT, APPALACHIAN BASIN, LACUSTRINE, PENNSYLVANIAN, REDSTONE LIMESTONE, SEDIMENTATION, UPPER PENNSYLVANIAN)
3984. Eggleston, J.R., 1994, The facies and depositional environment of an Upper Pennsylvanian limestone, northern Appalachian Basin, in Lomando, A.J., Schreiber, B.C., and Harris, P.M., eds., Lacustrine Reservoirs and Depositional Systems: SEPM Core Workshop, p. 297-319. (APPALACHIAN BASIN, DEPOSITIONAL ENVIRONMENT, FACIES, LIMESTONE, PENNSYLVANIAN, UPPER PENNSYLVANIAN)
344. Eggleston, J.R., Carter, M.D., and Cobb, J.C., 1988, Available coal Resources--A Pilot Study, in L.M.H. Carter ed., U.S. Geological Survey Research on Energy Resources: U.S. Geological Survey Circular 1025, p. 15. (ABSTRACT, COAL, COAL AVAILABILITY, COAL RESOURCES, COMPUTER, COMPUTER APPLICATIONS, NCRDS)
117. Eggleston, J.R., Carter, M.D., and Cobb, J.C., 1990, Coal resources available for development -- A methodology and pilot study: U.S. Geological Survey Circular 1055, 15 p. (COAL, COAL AVAILABILITY, COMPUTER, COMPUTER APPLICATIONS, NCRDS)
341. Eggleston, J.R., Carter, M.D., Cobb, J.C., and Watson, W.D., Jr., 1987, Geologic, Environmental, and Engineering Restrictions and their Impact on Available Coal Resources of the United States: Geological Society of America Abstracts with Programs, v. 19, p. 652. (ABSTRACT, COAL, COAL RESOURCES, ENGINEERING, ENVIRONMENTAL GEOLOGY, GEOLOGY, USA)
110. Eggleston, J.R., Carter, M.D., Gardner, N.K., and Cobb, J.C., 1988, A pilot study of the available coal for development in the Central Appalachian Basin: American Association of Petroleum Geologists, Eastern Section Meeting Abstracts. (ABSTRACT, APPALACHIAN BASIN, COAL, COAL AVAILABILITY, COAL RESERVES, COMPUTER, COMPUTER APPLICATIONS, NCRDS, PENNSYLVANIA)
340. Eggleston, J.R., and DeWitt, W., Jr., 1986, Depositional Setting of the Berea Sandstone (Lower Mississippian) in the Central Appalachian Basin: Geological Society of America Abstracts with Programs, v. 18, p. 592. (ABSTRACT, APPALACHIAN BASIN, BEREA SANDSTONE,

DEPOSITION, FACIES, MISSISSIPPIAN, PALEOENVIRONMENT, SEDIMENTOLOGY)

283. Eggleston, J.R., and Dulong, F.T., 1991, Sedimentology and mineralogy of the Upper Pennsylvanian nonmarine limestones of the northern Appalachian basin: Geological Society of America Abstracts with Programs, v. 23, p. A66. (ABSTRACT, APPALACHIAN BASIN, LIMESTONE, MINERALOGY, PENNSYLVANIAN, SEDIMENTOLOGY)
330. Eggleston, J.R., and Edmunds, W.E., 1989, T242-Anthracite Basins of Eastern Pennsylvania: International Geological Congress Field Trip Guidebook, American Geological Institute, 29 p. (ANTHRACITE, COAL, GUIDEBOOK, PENNSYLVANIA)
349. Eggleston, J.R., and Edmunds, W.E., 1991, Origin and Significance of the Upper Pennsylvanian Mill Creek Limestone, Northeastern Pennsylvania: Geological Society of America Abstracts with Programs, Northeast and Southeast Sections, v. 23, p. 25. (ABSTRACT, LIMESTONE, MILL CREEK LIMESTONE, PALEOENVIRONMENT, PENNSYLVANIA, PENNSYLVANIAN)
348. Eggleston, J.R., and Ferdinand, L.F., 1990, The Occurrence of Freshwater Limestones in the Upper Pennsylvanian and Lower Permian of the Northern Appalachian Basin: American Association of Petroleum Geologists Bulletin. (ABSTRACT, APPALACHIAN BASIN, LIMESTONE, PENNSYLVANIAN, PERMIAN)
4011. Eggleston, J.R., and Finkelman, R.B., in press, Environmental aspects of limestone use in energy generation, in Carter, L.M.H., ed., U.S. Geological Survey Research in Energy Resources, V.E. McKelvey Forum: U.S. Geological Survey Circular. (ABSTRACT, ENERGY RESOURCES, ENVIRONMENTAL STUDY, LIMESTONE)
327. Eggleston, J.R., Kehn, T.M., and Wood, G.H., Jr., in press, Mineral Resources-Anthracite, in Schultz, Charles H., ed., The Geology of Pennsylvania: Pennsylvania Geological Survey Mineral Resource Report. (ANTHRACITE, COAL, COAL RESOURCES, GEOLOGY, MINERALOGY, MINERALS, PENNSYLVANIA)
343. Eggleston, J.R., Wnuk, C., and Edmunds, W.E., 1988, The Age of the Upper Part of the Llewellyn Formation in the Pennsylvania Anthracite Region: Journal of the Pennsylvania Academy of Science, v. 82, p. 45. (ANTHRACITE, COAL, LLEWELLYN FORMATION, PENNSYLVANIA)
1128. Ellis, M.S., 1987, Coal resources, in Roehler, H.W., and Martin, P.L., eds., Geological investigations of the Vermillion Creek coal bed in the Eocene Niland tongue of the Wasatch Formation, Sweetwater County, Wyoming: U.S. Geological Survey Professional Paper 1314-L, p. 191-202. (COAL, COAL RESOURCES, EOCENE, TERTIARY, VERMILLIAN CREEK COAL BED, WASATCH-FORMATION, WYOMING)
1134. Ellis, M.S., 1989, Geologic map of the Powder River Basin and surrounding area, Wyoming, Montana, South Dakota, North Dakota, and Nebraska: U.S. Geological Survey Miscellaneous Field Studies Map MF-2095, scale 1:500,000. (COAL, CRETACEOUS, GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, NEBRASKA, NORTH DAKOTA, POWDER RIVER BASIN, SOUTH-DAKOTA, TERTIARY, WYOMING)

2279. Ellis, M.S., and Colton, R.B., 1994, Geologic map of the Powder River Basin and surrounding area, Wyoming, Montana, North Dakota, South Dakota, and Nebraska: U.S. Geological Survey Miscellaneous Investigations Series Map I-2298, scale 1:500,000. (GEOLOGIC MAP, MAP, MONTANA, NEBRASKA, NORTH DAKOTA, POWDER RIVER BASIN, REFERENCES, SOUTH-DAKOTA, STRATIGRAPHY, WYOMING)
544. Ellis, M.S., Biewick, L.R.H., Flores, R.M., Blake, D., and Molnia, C.L., 1993, Interactive Volume Modeling of coal and related detrital rocks in the Eocene Brunner Coal Measures, Buller Coal Field, New Zealand: in Application Frontiers, Studies in Visual Computer Modeling: Dynamic Graphics, Inc., p. 71-72. (BRUNNER COAL MEASURES, BULLER COAL FIELD, COAL, COMPUTER, COMPUTER APPLICATIONS, COMPUTER MODELING, EOCENE, FACIES, INTERNATIONAL, NEW ZEALAND, TERTIARY)
1130. Ellis, M.S., Freeman, V.L., and Donnell, J.R., 1987, Coal correlations and cross sections in the Carbondale 30' X 60' quadrangle, west-central Colorado: U.S. Geological Survey Coal Investigations Map C-97-B, scale 1:100,000. (CARBONDALE, COAL, COAL CORRELATIONS, COLORADO, CRETACEOUS, CROSS SECTIONS, GEOLOGIC MAP, GEOLOGY, MAP)
1133. Ellis, M.S., and Gabaldo, V., 1989, Geologic map and cross sections of parts of the Grand Junction and Delta 30' X 60' quadrangles, west-central Colorado: U.S. Geological Survey Coal Investigations Map C-124, scale 1:100,000. (COAL, COAL CORRELATIONS, COLORADO, CRETACEOUS, CROSS SECTIONS, GEOLOGIC MAP, GEOLOGY, GRAND JUNCTION, MANCOS SHALE, MAP, MESAVERDE FORMATION, ROLLINS SANDSTONE)
1131. Ellis, M.S., Gaskill, D.L., and Dunrud, C.R., 1987, Geologic map of the Paonia and Gunnison area, west-central Colorado: U.S. Geological Survey Coal Investigations Map C-109, scale 1:100,000. (COAL, COLORADO, CRETACEOUS, GEOLOGIC MAP, GEOLOGY, GUNNISON, MAP, MESAVERDE FORMATION, PAONIA)
3466. Ellis, M.S., and Hopeck, J., 1985, Geologic map of Bitter Creek Well, Harley Dome, Westwater 4 SE, and Westwater 4 SW quadrangles, Utah, showing coal beds in the Dakota Sandstone: U.S. Geological Survey, Miscellaneous Field Studies Map MF-1800, scale 1:50,000. (COAL, COAL CORRELATIONS, CRETACEOUS, CROSS SECTIONS, DAKOTA SANDSTONE, GEOLOGIC MAP, GEOLOGY, MAP, MEASURED SECTIONS, UTAH)
1132. Ellis, M.S., and Kelso, B.S., 1987, Cross sections showing stratigraphic framework of Upper Cretaceous Dakota Sandstone, Mancos Shale, Mesaverde Group, and Mesaverde Formation, and Lower Tertiary Wasatch Formation, west-central Piceance basin, Garfield County, Colorado: U.S. Geological Survey Miscellaneous Field Studies Map MF-2008-A, scale 1:100,000. (COAL, COLORADO, CRETACEOUS, CROSS SECTIONS, DAKOTA SANDSTONE, GARFIELD COUNTY, GEOLOGIC MAP, GEOLOGY, MANCOS SHALE, MAP, MESAVERDE FORMATION, STRATIGRAPHY, TERTIARY, WASATCH-FORMATION)
2193. Ellis, M.S., and Stricker, G.D., 1991, Coal rank trends from selected Paleocene basins, Rocky Mountain Region: Geological Society of America Abstracts with Programs, v. 23, p. 19. (ABSTRACT, BIGHORN BASIN, BULL MOUNTAIN BASIN, COAL, COAL RANK, HANNA BASIN, PALEOCENE, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, TERTIARY,

WILLISTON-BASIN)

2271. Ellis, M.S., and Stricker, G.D., 1991, Coal rank trends from selected Paleocene basins, Rocky Mountain Region: Colorado School of Mines, Quarterly Review of Methane from Coal Seams Technology, v. 9. (BIGHORN BASIN, COAL, COAL RANK, COAL-QUALITY, DENVER BASIN, GREATER GREEN RIVER BASIN, HANNA BASIN, MSE, NORTH PARK BASIN, PALEOCENE, POWDER RIVER BASIN, RATON BASIN, ROCKY MOUNTAIN REGION, TERTIARY, WILLISTON-BASIN)
2369. Ellis, M.S., Stricker, G.D., and Flores, R.M., 1992, Laramide deformation front--effects on coal quality in Paleocene coal basins, Northern Rocky Mountain Region: American Association of Petroleum Geologists Abstracts with Programs, v. 76, p. 1258. (ABSTRACT, ANALYSES, COAL, COAL-QUALITY, GEOCHEMISTRY, LARAMIDE-OROGENY, PALEOCENE, ROCKY MOUNTAIN REGION, TERTIARY)
3945. Ellis, M.S., Stricker, G.D., and Flores, R.M., 1994, Distribution of hazardous air pollutant trace elements, total sulfur, and ash in coals from five Tertiary basins in the Rocky Mountain Region, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1106-1110. (ABSTRACT, AIR TOXICS, ASH, BULL MOUNTAIN BASIN, COAL, COAL-QUALITY, COLORADO, GEOCHEMISTRY, HANNA BASIN, HAPS, MONTANA, NORTH PARK BASIN, PALEOCENE, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, SULFUR, TERTIARY, TRACE ELEMENTS, WILLISTON-BASIN, WYOMING)
669. Ellis, M.S., Stricker, G.D., Flores, R.M., Roberts, S.B., Stanton, R.W., Pierce, B.S., and Perry, W.J., Jr., 1993, The effects of tectonic activity on the quality and rank of Paleocene coals from Tertiary basins, Rocky Mountain region, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1026-1029. (ABSTRACT, BIGHORN BASIN, BULL MOUNTAIN BASIN, COAL, COAL RANK, COAL-QUALITY, HANNA BASIN, PALEOCENE, PALEOENVIRONMENT, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, TECTONICS, TERTIARY, VITRINITE REFLECTANCE, WILLISTON-BASIN)
520. Englund, K.J., 1989, Depositional model for the Lower Mississippian (Tournaisian) rocks of Virginia and West Virginia, U.S.A: 28th International Geological Congress Abstracts, Washington, D.C., July, 1989, p. I454-I455. (ABSTRACT, DEPOSITION, DEPOSITIONAL ENVIRONMENT, MISSISSIPPIAN, VIRGINIA, WEST VIRGINIA)
3272. Englund, K.J., 1989, Coal and hydrocarbon resources of North America; Volume 2, Characteristics of the Mid-Carboniferous boundary and associated coal-bearing rocks in the central and southern Appalachian Basin: 28th International Geological Congress Field Trip Guidebook, American Geophysical Union, p. 41-118. (APPALACHIAN BASIN, COAL, ENERGY-SOURCES, HYDROCARBONS, NORTH-AMERICA)
559. Englund, K.J., 1991, Carboniferous plate tectonics and coalfield distribution in the Appalachian basin, U.S.A: 12th International Congress on Carboniferous and Permian Geology and Stratigraphy Abstracts, Buenos Aires, September, 1991, p. 35. (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, COAL, COAL-FIELDS, PLATE TECTONICS, TECTONICS)

581. Englund, K.J., 1992, Tectonic and sedimentary controls on coal distribution in the Appalachian basin: Geological Society of America Abstracts with Programs, Northeastern Section Meeting, p. 19. (ABSTRACT, APPALACHIAN BASIN, COAL, DEPOSITION, DEPOSITIONAL ENVIRONMENT, PALEOENVIRONMENT, SEDIMENTOLOGY, TECTONICS, TECTONISM)
3121. Englund, K.J., Arndt, H.H., Schweinfurth, S.P., and Gillespie, W.H., 1986, Pennsylvanian system stratotype sections, West Virginia, in Neathery, T. L., ed: Geological Society of America, Southwestern Section, Centennial Field Guide, v. 6, p. 59-68. (FIELD GUIDE, PENNSYLVANIAN, STRATIGRAPHY, STRATOTYPE, WEST VIRGINIA)
519. Englund, K.J., Brown, S.E., and Dutro, J.T., Jr., 1988, The Pocono Dome, West Virginia--Catskill Island or Fantasy Island?: American Association of Petroleum Geologists Bulletin, v. 72, p. 961. (ABSTRACT, DOME, ISLAND, PALEOENVIRONMENT, POCONO DOME, WEST VIRGINIA)
2101. Englund, K.J., Cecil, C.B., and Gillespie, W.H., 1987, Evolution of major Carboniferous depositional and erosional events in the central Appalachian Basin, USA: 11th International Congress of Carboniferous Stratigraphy and Geology Abstracts of Papers, Beijing, China, August-September, 1987, p. 166. (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, CLASTIC ROCKS, CYCLIC PROCESSES, DEPOSITION, DEPOSITIONAL ENVIRONMENT, ENVIRONMENTAL GEOLOGY, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, STRATIGRAPHY, USA)
3271. Englund, K.J., and Couzens, B.A., 1991, Geology of the coal-bearing portion of the Richlands Quadrangle, Virginia: Virginia Division of Mineral Resources Publication, 109. (COAL, GEOLOGY, RICHLANDS QUADRANGLE, VIRGINIA)
543. Englund, K.J., and ed., 1989, Characteristics of the Mid-Carboniferous boundary and associated coal-bearing rocks in the central and southern Appalachian basin: 28th International Geological Congress Field Trip Guidebook, T352B, Washington, D.C., American Geophysical Union, July, 1989, p. 40-118. (APPALACHIAN BASIN, CARBONIFEROUS, COAL, FIELD GUIDE, GUIDEBOOK, STRATIGRAPHY)
173. Englund, K.J., Gillespie, W.H., Cecil, C.B., Windolph, J.F., Jr., and Crawford, T.J., 1985, Characteristics of the Mississippian-Pennsylvanian boundary and associated coal-bearing rocks in the southern Appalachians, in Geological Society of America Annual Meeting Guidebook: U.S. Geological Survey Open-File Report 85-577, 83 p. (APPALACHIANS, COAL, GUIDEBOOK, MISSISSIPPIAN, OPEN-FILE, PENNSYLVANIAN, STRATIGRAPHY)
2137. Englund, K.J., Gillespie, W.H., Johnson, P.L., and Pfefferkorn, H.W., 1986, Depositional model for Upper Mississippian and Lower Pennsylvanian rocks of southwestern Virginia, in McDowell, R. C., Glover, Lynn, III, Rodgers, John, Bambach, R. K., Gray, D. R., eds., The Lowry Volume: Studies in Appalachian geology: Virginia Tech. Department of Geological Sciences Memoir 3, p. 37-45. (APPALACHIAN BASIN, APPALACHIANS, COAL, DEPOSITIONAL ENVIRONMENT, ECONOMIC GEOLOGY, ENVIRONMENTAL GEOLOGY, LITHOFACIES, MISSISSIPPIAN, NEARSHORE-ENVIRONMENT, PENNSYLVANIAN, POCAHONTAS-FORMATION, SEDIMENTARY ROCKS, SEDIMENTARY-PETROLOGY, USA, VIRGINIA)

508. Englund, K.J., Henry, T.W., Gillespie, W.H., Pfefferkorn, H.W., and Gordon, McK., Jr., 1986, Boundary stratotype for the base of the Pennsylvanian System, east-central Appalachian basin, U.S.A: Tenth International Congress of Carboniferous Stratigraphy and Geology, Madrid, Spain, September, 1983, *Compte Rendu*, v. 4, p. 371-382. (APPALACHIAN BASIN, PENNSYLVANIAN, STRATIGRAPHY)
497. Englund, K.J., and Thomas, R.E., 1985, The Richlands Channel--Part of an Early Pennsylvanian depocenter in east-central Appalachian basin: *American Association of Petroleum Geologists Bulletin*, v. 69, p. 1436. (ABSTRACT, APPALACHIAN BASIN, BASINS, DEPOCENTER, PENNSYLVANIAN, RICHLANDS CHANNEL, SEDIMENTATION-RATES)
1041. Englund, K.J., and Thomas, R.E., 1985, Characteristics of the Mississippian-Pennsylvanian boundary and associated coal-bearing strata in the central Appalachian Basin, in Englund, K.J., Gillespie, W.H., Cecil, C.B., Windolph, J.F., Jr., Crawford, T.J., eds., *Characteristics of the Mississippian-Pennsylvanian boundary and associated coal-bearing rocks in the Southern Appalachians*: U.S. Geological Survey Open-File Report 85-577, p. 1-7. (APPALACHIAN BASIN, APPALACHIANS, BOUNDARY, CARBONIFEROUS, COAL, MISSISSIPPIAN, NORTH-AMERICA, OPEN-FILE, ORGANIC, PENNSYLVANIAN, SEDIMENTARY ROCKS, STRATIGRAPHY)
1035. Englund, K.J., and Thomas, R.E., 1986, Geologic setting of thick, low-sulfur coal in the Lower Pennsylvanian Pocahontas Formation, Virginia and West Virginia, in Garbini, Susan and Schweinfurth, S.P., eds., *Symposium proceedings; A national agenda for coal-quality research*: U.S. Geological Survey Circular 979, p. 229. (abstract, CARBONIFEROUS, COAL, DELTAIC, ECONOMIC GEOLOGY, GEOCHEMISTRY, ORGANIC, PENNSYLVANIAN, QUALITY, SEDIMENTARY ROCKS, SEDIMENTOLOGY, SULFUR, VIRGINIA, WEST VIRGINIA)
3169. Englund, K.J., and Thomas, R.E., 1986, Origin, geometry, and distribution of orthoquartzite in Mississippian clastic sequences of the central Appalachian Basin: *American Association of Petroleum Geologists Abstracts with Programs, Society of Economic Paleontologists and Mineralogists Annual Mid-year Meeting*, v. 3, p. 33. (ABSTRACT, APPALACHIAN BASIN, CLASTIC ROCKS, MISSISSIPPIAN, ORTHOQUARTZITE)
980. Englund, K.J., and Thomas, R.E., 1988, Depositional trends in late Paleozoic coal-bearing strata of the central Appalachian Basin, in Schultz, A.P., ed., *Appalachian Basin Symposium, Program and Extended Abstracts*, Reston, Virginia, November, 1988: U.S. Geological Survey Open-File Report 88-585, p. 31-32. (ABSTRACT, APPALACHIAN BASIN, APPALACHIANS, COAL, DETRITAL-SEDIMENTATION, NORTH-AMERICA, OPEN-FILE, ORGANIC, PALEOZOIC, PLATE TECTONICS, SEDIMENTARY-BASINS, SEDIMENTOLOGY, STRATIGRAPHY, TECTONICS)
1029. Englund, K.J., and Thomas, R.E., 1988, Basin evolution and upper Paleozoic coal deposits in the central Appalachian Basin, in Carter, L.M.H., ed., *U.S. Geological Survey Research on Energy Resources, 1988, Program and Abstracts, Fourth Annual V. E. McKelvey Forum on Mineral and Energy Resources*, Denver, Colorado: U.S. Geological Survey Circular 1025, p. 16-17. (ABSTRACT, APPALACHIAN BASIN, APPALACHIANS, COAL, COLORADO, DEPOSITIONAL ENVIRONMENT, ECONOMIC GEOLOGY, NORTH-AMERICA, ORGANIC,

PALEOZOIC)

913. Englund, K.J., and Thomas, R.E., 1989, The Mississippian-Pennsylvanian boundary and associated coal-bearing strata in the central Appalachian Basin, in Englund, K.J., ed., Coal and Hydrocarbon Resources of North America, Characteristics of the Mid-Carboniferous Boundary and Associated Coal-bearing Rocks in the Central and Southern Appalachian Basin: American Geophysical Union, Washington, D.C., v. 2, p. 45-50. (APPALACHIAN BASIN, APPALACHIANS, CARBONIFEROUS, COAL, ENVIRONMENTAL GEOLOGY, MISSISSIPPIAN, ORGANIC, PENNSYLVANIAN, SEDIMENTARY ROCKS, SEDIMENTOLOGY, STRATIGRAPHY, VIRGINIA, WEST VIRGINIA)
917. Englund, K.J., and Thomas, R.E., 1989, Depositional trends in late Paleozoic coal-bearing strata of the central Appalachian Basin, in Schultz, A.P., ed., Appalachian Basin Symposium Program and Extended Abstracts: U.S. Geological Survey Circular 1028, p. 8-9. (ABSTRACT, APPALACHIAN BASIN, APPALACHIANS, COAL, DEPOSITIONAL ENVIRONMENT, DETRITAL-SEDIMENTATION, NORTH-AMERICA, ORGANIC, PALEOZOIC, PLATE TECTONICS, SEDIMENTARY-BASINS, SEDIMENTOLOGY, STRATIGRAPHY, TECTONICS)
912. Englund, K.J., and Thomas, R.E., 1990, Late Paleozoic depositional trends in the central Appalachian Basin, Evolution of sedimentary basins; Appalachian Basin: U.S. Geological Survey Bulletin 1839-F, p. 1-19. (APPALACHIAN BASIN, APPALACHIANS, DEPOSITION, DEPOSITIONAL ENVIRONMENT, KENTUCKY, LITHOSTRATIGRAPHY, NORTH-AMERICA, PALEOGEOGRAPHY, PALEOZOIC, SEDIMENTARY ROCKS, SEDIMENTARY-BASINS, SEDIMENTOLOGY, STRATIGRAPHY, VIRGINIA, WEST VIRGINIA)
3167. Englund, K.J., and Thomas, R.E., 1991, Coal resources of Tazewell County, Virginia, 1980: U.S. Geological Survey Bulletin 1913, 17 p. (COAL, COAL RESOURCES, TAZEWELL COUNTY, VIRGINIA)
4112. Englund, K.J., and Thomas, R.E., 1994, The Waverly arch-Eastern Kentucky's enigmatic structure: Geological Society of America Abstracts with Programs, Southeastern Section Meeting, v. 26, p. 12. (ABSTRACT, KENTUCKY, STRUCTURE)
3847. Englund, K.J., Thomas, R.E., and Roen, J.B., 1993, Geology of the Cumberland Gap area, Kentucky, Tennessee, and Virginia, in Eastern Energy, Environment, and Education for the 21st Century, American Association of Petroleum Geologists 1993 Eastern Section Meeting, Williamsburg, Virginia: American Association of Petroleum Geologists Bulletin, v. 77, p. 14. (COAL, CUMBERLAND GAP, GEOLOGY, KENTUCKY, TENNESSEE, VIRGINIA)
3844. Englund, K.J., Thomas, R.E., and Roen, J.B., 1994, Geology of the Cumberland Gap area, Kentucky, Tennessee, and Virginia, in Schultz, A.P., and Rader, Gene, ed., Studies in Eastern Energy and the Environment, American Association of Petroleum Geologists Eastern Section Special Volume: Virginia Division of Mineral Resources Publication, 132, Charlottesville, Virginia. (CUMBERLAND GAP, ENERGY RESOURCES, ENVIRONMENTAL GEOLOGY, GEOLOGY, KENTUCKY, TENNESSEE, VIRGINIA)
518. Englund, K.J., Windolph, J.F., Jr., and Thomas, R.E., 1986, Origin of thick, low-sulfur coal in the

- Lower Pennsylvanian Pocahontas Formation, Virginia and West Virginia, in Lyons, P.C., and Rice, C.L., eds., *Paleoenvironmental and tectonic controls in coal-forming basins in the United States: Geological Society of America Special Paper 210*, p. 49-61. (COAL, GEOCHEMISTRY, PALEOENVIRONMENT, PEAT, PENNSYLVANIAN, POCAHONTAS-FORMATION, SULFUR, USA)
603. Ertel, J.R., Behmel, P., Christman, R., Flaig, W.J.A., Haider, K.M., Harvey, G.R., Hatcher, P.G., Hedges, J.I., Martin, J.P., Pfaender, F.K., and Shulten, H.R., 1988, Genesis; group report; Frimmel, F. H., Christman, R. F. Humic substances and their role in the environment: *Life Sciences Research Reports*, v. 41, p. 105-112; Dahlem workshop on Humic substances and their role in the environment, Berlin, Mar. 29-Apr. 3, 1987, Karlsruhe University, Engler-Bunte Inst., Karlsruhe, Federal Republic of Germany. (GEOCHEMISTRY, HUMIC-ACIDS, ORGANIC, PUBLICATION)
112. Eshet, Y., and Robbins, E.I., 1986, Sedimentologic and tectonic patterns in the Dead Sea rift and their application to hydrocarbon exploration: *American Association of Petroleum Geologists Bulletin*, v. 70, p. 587. (ABSTRACT, DEAD SEA RIFT, EXPLORATION, HYDROCARBONS, SEDIMENTOLOGY, TECTONICS)
1251. Ethridge, F.G., Flores, R.M., and Harvey, M.D., eds., 1987, Recent developments in fluvial sedimentology: *Society of Economic Paleontologists and Mineralogists, Special Publication 39*, 380 p.
3601. Evans, N.H., and Milici, R.C., 1988, Structural style and tectonic shortening across the central-southern Appalachian juncture zone: *Geological Society of America Abstracts with Programs*, p. A125. (ABSTRACT, APPALACHIAN BASIN, APPALACHIANS, FAULTS, STRUCTURAL-ANALYSIS, STRUCTURE, TECTONICS)
3607. Evans, N.H., and Milici, R.C., 1990, Transverse structures on the Gate City-Duffield trend, Southwest Virginia, Implications for hydrocarbon exploration east of the Allegheny structural front: *Geological Society of America Abstracts with Programs*, p. A141. (ABSTRACT, ALLEGHANY, COAL, HYDROCARBONS, OIL AND GAS, STRUCTURE, TECTONICS, VIRGINIA)
3935. Evans, N.H., and Milici, R.C., 1994, Stratigraphic relations and structural chaos on the southeastern limb of the Blue Ridge anticlinorium and points east, central Virginia Piedmont: *Geological Society of America Field Trip Guidebook, Southeast Section Meeting*. (ANTICLINE, BLUE RIDGE, GUIDEBOOK, STRATIGRAPHY, STRUCTURAL-GEOLOGY, VIRGINIA, VIRGINIA PIEDMONT)
3874. Feder, G.L., Orem, W.H., and Finkelman, R.B., 1992, A comparison of C13-NMR spectra of lignites from areas of known Balkan Endemic Nephropathy with lignites from non-endemic areas: 34th Rocky Mountain Conference on Analytical Chemistry, abstract no. 352. (ABSTRACT, BALKAN, COAL, GROUND-WATER, INTERNATIONAL, LEACHING, LIGNITE, PLIOCENE, SPECTRA, TERTIARY)
503. Feder, G.L., Radovanovic, Z., and Finkelman, R.B., 1991, Relationship between weathered coal deposits and the etiology of Balkan endemic nephropathy: *Kidney International*, v. 40, supplement no. 34, p. s9-s11. (BALKAN, COAL, CONTAMINATION, INTERNATIONAL)

522. Feder, G.R., Finkelman, R.B., Orem, W.H., and Hall, P.H., III, in press, Balkan endemic nephropathy: possible link to leaching of Pliocene lignites by groundwater: V.M. Goldschmidt Conference Program and Abstracts, p. A33. (ABSTRACT, BALKAN, COAL, GROUND-WATER, LEACHING, LIGNITE, PLIOCENE, TERTIARY)
3640. Filipek, L.H., 1986, Timing of the Midcontinent Mississippi Valley-Type deposits--A hydrodynamic perspective: American Geophysical Union Annual Spring Meeting, Baltimore. (ABSTRACT, DEEP-BASIN FLOW, DEPOSITIONAL ENVIRONMENT, MISSISSIPPI VALLEY, MVT DEPOSITS)
3664. Filipek, L.H., 1986, Influence of Fe and Mn on the chemical partitioning of Cu, Zn, and Cr during early diagenesis in outer continental-shelf sediments from the Gulf of Mexico, in Studies in Diagenesis: U.S. Geological Survey Bulletin 1578, p. 31-50. (CHROMIUM, CONTINENTAL-SHELF, COPPER, DIAGENESIS, GEOCHEMISTRY, GULF OF MEXICO, IRON, MANGANESE, MARINE, SEDIMENTARY ROCKS, SHELF-ENVIRONMENT, ZINC)
3645. Filipek, L.H., 1987, The National Geochemical Environmental Assessment Program--A proposed new U.S. Geological Survey Initiative: Virginia Academy of Science, 65th Annual Meeting, Norfolk, Virginia. (ABSTRACT, ENVIRONMENTAL GEOCHEMISTRY, ENVIRONMENTAL GEOLOGY, GEOCHEMISTRY, USGS)
3669. Filipek, L.H., 1988, A challenge to geoscientists--Can we learn to make the elephant move? in Marikos, M.A., and Hansman, R.H., eds., Geologic Causes of Natural Radionuclide Anomalies: GEORAD Conference Proceedings, April 21, St Louis, Missouri, p. 175-180; (Banquet address). (ANOMALIES, GEOCHEMISTRY, RADIONUCLIDE)
3646. Filipek, L.H., 1990, Hydrodynamics of deep-basin flow--Constraints on timing of Midcontinent MVT deposits and a mechanism for heating Pennsylvanian coal: Workshop on Source Rocks, Generation, and Migration of Hydrocarbons and Other Fluids in the Southern Midcontinent, Norman, Oklahoma. (PENNSYLVANIAN, ABSTRACT, BASINS, COAL, DEEP-BASIN FLOW, DEPOSITIONAL ENVIRONMENT, MVT DEPOSITS)
3650. Filipek, L.H., 1993, Passive treatment of cyanide seepages: Rocky Mountain Association of Environmental Professionals Annual Meeting, Denver. (ABSTRACT, CONSTRUCTED WETLANDS, CYANIDE, ENVIRONMENTAL GEOLOGY, MINING, MINING WASTES, PASSIVE TREATMENT, SEEPAGES, TREATMENT, WETLANDS)
3694. Filipek, L.H., 1993, The fate of cyanide in an accidental release from a tailing facility -- A case study: Proceedings of the Society of Economic Geologists and Mineralogists Symposium on the Environmental Geochemistry of Mineral Deposits, 20 p. (ABSTRACT, CYANIDE, LEACHING, MINING WASTES, TAILINGS)
3651. Filipek, L.H., Filas, B.A., Stonehouse, J.M., and Wen, R., 1994, Potential reclamation of the Brewer Pit by addition of phosphate rock: Third International Conference on Abatement of Mine Drainage, Pittsburgh, Pennsylvania, April 1994. (ABSTRACT, ACID MINE DRAINAGE, BREWER PIT, ENVIRONMENTAL GEOLOGY, MINING, OPEN PIT, PHOSPHATE ROCK, TREATMENT)

3675. Filipek, L.H., Gormley, J.T., Ewing, R., and Ellsworth, D., 1991, Kinetic acid-prediction studies as aids to waste-rock and water management during advanced exploration of a massive sulfide deposit: Proceedings of the Second International Conference on the Abatement of Acidic Drainage, Montreal, Quebec, September 16-18, p. 191-207. (ACID MINE DRAINAGE, DRAINAGE-PATTERNS, ENVIRONMENTAL GEOLOGY, LEACHING, MASSIVE SULFIDES, MINING, ORES, SULFIDES, WASTE DISPOSAL, WASTE ROCK, WATER QUALITY)
3636. Filipek, L.H., Gruebel, K.A., Ficklin, W.H., and Papp, C.S.E., 1985, Copper and zinc transport from streams to nearshore seawater, Southeast Alaska: American Geophysical Union, Annual Spring Meeting, Baltimore, Maryland. (ABSTRACT, ALASKA, COPPER, MARINE, STREAM, ZINC)
3647. Filipek, L.H., Gusek, J.J., Gormley, J.T., and Wildeman, T.R., 1991, Increasing the lifetime of constructed wetlands to control acid rock drainage: The Annual Conference of the Rocky Mountain Association of Environmental Professionals, Vail, Colorado, May 29-30. (ABSTRACT, ACID, ACID MINE DRAINAGE, ENVIRONMENTAL GEOLOGY, GROUND-WATER, MINING, TREATMENT, WATER QUALITY, WETLANDS)
3668. Filipek, L.H., and McNeal, J.M., 1987, Environmental geochemistry: Geotimes, February, 1987, p. 18-20. (ENVIRONMENTAL GEOCHEMISTRY, ENVIRONMENTAL GEOLOGY, GEOCHEMISTRY)
3667. Filipek, L.H., Nordstrom, D.K., and Ficklin, W.H., 1987, The interaction of acid mine drainage with waters and sediments of Squaw Creek in the West Shasta mining district, California: Environmental Science and Technology, v. 21, p. 388-396. (ACID MINE DRAINAGE, CALIFORNIA, ENVIRONMENTAL GEOLOGY, LEACHING, MINING, MINING WASTES, SQUAW CREEK, WATER, WATER QUALITY, WEST SHASTA MINING DISTRICT)
3643. Filipek, L.H., Papp, C.S.E., and Smith, K.S., 1987, Relative specificity of five common extractants used to dissolve organic matter in sediments: Workshop on Metal Speciation, Jekyll Island, Georgia; May 20-22. (ABSTRACT, EXTRACTANTS, GEOCHEMISTRY, ORGANIC MATTER, SEDIMENTS)
247. Filley, T.R., and Hatcher, P.G., 1992, Organic sulfur speciation in Mud Lake, Florida; a fresh water, alkaline, sulfate reducing environment: American Chemical Society, Abstracts of Papers, v. 203, p. GEOC 79; 203rd American Chemical Society national meeting, San Francisco, CA, April 5-10, 1992. (ABSTRACT, ENVIRONMENTAL GEOLOGY, FLORIDA, GEOCHEMISTRY, LIPIDS, ORGANIC, ORGANIC-SULFUR, REDUCTION, SULFATE-ION, SULFUR, USA)
506. Finkelman, A.C., Wong, C.J.J., Cheng, A.C., and Finkleman, R.B., 1991, Bibliography of publications containing major, minor, and trace element data from the National Coal Resources Data System: U.S. Geological Survey Open-File Report 91-123, 18 p. (ANALYSES, BIBLIOGRAPHY, COAL, COMPUTER, COMPUTER APPLICATIONS, GEOCHEMISTRY, HAPS, NCRDS, OPEN-FILE, TRACE ELEMENTS)
448. Finkelman, R.B., 1985, Mode of occurrence of accessory sulfide and selenite minerals in coal: Neuvieme Congress International de Stratigraphic et de Geologic du Carbonifere, Compte Rendu, Cross, A.T., ed., v. 4, p. 407-412. (COAL, COAL ANALYSES, GEOCHEMISTRY, HAPS,

MINERALS, MODES, MODES OF OCCURRENCE, SELENITE, SULFIDES, TRACE ELEMENTS)

449. Finkelman, R.B., 1985, Characterization of the inorganic constituents in coal: Materials Research Society Final Program and Abstracts, p. 646-647. (ABSTRACT, COAL, COAL ANALYSES, GEOCHEMISTRY, MINERALS)
452. Finkelman, R.B., 1986, Characterization of the inorganic constituents in coal: in Fly Ash and Coal Conversion By-Products: Characterization, utilization and Disposal II, G.J. McCarthy, F.P. Glasser, and D.M. Roy, eds., Materials Research Society Symposia Proceedings, v. 65, p. 71-76. (ASH, BYPRODUCTS, COAL, COAL ANALYSES, COAL-QUALITY, FLY ASH)
461. Finkelman, R.B., 1987, A rapid procedure for determining pyritic sulfur in coal: Journal of Coal Quality, v. 6, p. 50-52. (COAL, COAL-QUALITY, GEOCHEMISTRY, METHODS, PYRITE, PYRITIC SULFUR, SULFUR)
466. Finkelman, R.B., 1988, Analcime in coals of the Wasatch Plateau, Utah: Geological and Technological Significance, 1988, programs and abstracts, in Carter, L.M.H., ed., V.E. McKelvey Forum on Energy and Mineral Resources: U.S. Geological Survey Circular 1025, p. 16-17. (ABSTRACT, ANALCIME, COAL, CRETACEOUS, UTAH, WASATCH PLATEAU COAL FIELD)
468. Finkelman, R.B., 1988, The inorganic geochemistry of coal: Scanning Microscopy, v. 2, p. 97-105. (COAL, COAL-QUALITY, GEOCHEMISTRY)
484. Finkelman, R.B., 1990, Coal geochemistry: practical applications, in Bryers, R.W., and Vorres, K.S., eds., Mineral matter and ash deposition from coal: Engineering Foundation Conferences, N.Y., v. 4, p. 1-12. (ASH, COAL, GEOCHEMISTRY, MINERAL MATTER)
485. Finkelman, R.B., 1990, What we don't know about the occurrence and distribution of elements in coal: International Journal of Coal Quality, v. 8, p. 63-66. (COAL, COAL-QUALITY, ELEMENTS, GEOCHEMISTRY, HAPS, MODES OF OCCURRENCE, TRACE ELEMENTS)
507. Finkelman, R.B., 1991, The use of coal characterization for enhanced assessment of the environmental impact of coal utilization: Proceedings of the Engineering Foundation Conference on Environmental and Economic Impacts on Coal Utilization. (COAL, COAL UTILIZATION, COAL-QUALITY, ENVIRONMENTAL ASSESSMENT, ENVIRONMENTAL STUDY)
512. Finkelman, R.B., 1991, Distribution and Significance of Analcime in Wasatch Plateau Coals, in Chidsey, T.C., Jr., ed., Geology of East-Central Utah: Utah Geological Association Publication, p. 173-181. (ANALCIME, COAL, CRETACEOUS, UTAH, WASATCH PLATEAU COAL FIELD)
513. Finkelman, R.B., 1991, We are not alone: Low-Rank Coal Newsletter, v. 1, Spring, 1991, p. 2. (COAL, LIGNITE)
516. Finkelman, R.B., 1991, Review of "Recent Advances in Coal Geochemistry.": Geochimica et Cosmochimica Acta, v. 55, p. 3909. (COAL, COAL-QUALITY, GEOCHEMISTRY)

3850. Finkelman, R.B., 1992, Characteristics of acid-forming materials in coal, in Proceedings of the American Society of Surface Mining and Reclamation, in Acid Forming Materials Symposium, Billings, Montana, 1987: Montana Reclamation Research Publication, p. 1-16. (ACID, COAL, GEOCHEMISTRY)
3851. Finkelman, R.B., 1992, Coal: Geotimes, v. 37, p. 14. (COAL)
3875. Finkelman, R.B., 1992, Controls on the epigenetic cleat-filling mineralization in bituminous coal samples: V.M. Goldschmidt Conference Program and Abstracts, p. 35. (ABSTRACT, BITUMINOUS-COAL, CLEAT, COAL, MINERAL DEPOSITS, MINERALOGY)
3854. Finkelman, R.B., 1993, Air toxics: Abundance, distribution, modes of occurrence, and textural relations, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, University of Pittsburgh, p. 801-805. (ABSTRACT, AIR TOXICS, COAL, COAL ANALYSES, GEOCHEMISTRY, HAPS, MODES OF OCCURRENCE, TRACE ELEMENTS)
3855. Finkelman, R.B., 1993, Hazardous trace elements in coal: Can we rely on modes of occurrence information to predict their removal?, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, University of Pittsburgh, p. 311-313. (ABSTRACT, AIR TOXICS, COAL, COAL ANALYSES, GEOCHEMISTRY, HAPS, MODES OF OCCURRENCE, TRACE ELEMENTS)
3856. Finkelman, R.B., 1993, Review of "Coal: Classification, Coalification, Mineralogy, Trace-element chemistry, and Oil and Gas Potential", Lyons, P.C., and Alpern, B., eds: Earth Science Reviews, v. 34, p. 65-66. (BOOK REVIEW, CLASSIFICATION, COAL, COALIFICATION, GEOCHEMISTRY, HAPS, MODES, MODES OF OCCURRENCE, OIL AND GAS, TRACE ELEMENTS)
3857. Finkelman, R.B., 1993, Trace and minor elements in coal, in Organic Geochemistry: Principles and Applications, Engel, M., and Macko, S.A., eds: Plenum Publication, New York, p. 593-607. (COAL, COAL ANALYSES, GEOCHEMISTRY, HAPS, MINOR ELEMENTS, TRACE ELEMENTS)
3858. Finkelman, R.B., 1993, What do the FBI and laundry detergents have in common?, in Stover, S.G., and Macdonald, R.H., eds., On the rocks: Earth Science Activities for Grades 1-8: Society for Sedimentary Geology, p. 200-204. (EDUCATIONAL OUTREACH, GRADE SCHOOL, OUTREACH, SCIENCE)
3880. Finkelman, R.B., 1993, Problems and promises of the USGS's coal quality data base and geochemical information: Fuel Supply Seminar, Electric Power Research Institute, EPRI RP 2369-12. (ABSTRACT, CHEMISTRY, COAL-QUALITY, COMPUTER, COMPUTER APPLICATIONS, DATABASES, GEOCHEMISTRY, NCRDS)
2441. Finkelman, R.B., 1994, Hazardous trace elements in coal: Can we rely on modes of occurrence information to predict their removal?: Proceedings of the Eleventh Annual International Pittsburgh Coal Conference. (ABSTRACT, CLEANING, COAL, ELEMENTS, GEOCHEMISTRY, HAPS,

MODES, MODES OF OCCURRENCE, TRACE ELEMENTS)

3869. Finkelman, R.B., 1994, Trace elements in coal: A USGS perspective of the Clean Air Act: American Chemical Society, Division of Fuel Chemistry Preprints, v. 39, p. 519-523. (AIR TOXICS, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
3883. Finkelman, R.B., 1994, Trace elements in coal: A Clean Air Act perspective: 207th National American Chemical Society Conference, Part 1; abstract no. 108. (ABSTRACT, AIR TOXICS, COAL, ELEMENTS, ENVIRONMENTAL GEOLOGY, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
3977. Finkelman, R.B., 1994, Mitigating environmental impacts of coal use: American Association of Petroleum Geologists, 1994 Annual Convention Official Program, v. 3, p. 148. (ABSTRACT, AIR TOXICS, COAL, COAL-QUALITY, ENVIRONMENTAL STUDY, HAPS, MODES, MODES OF OCCURRENCE)
4010. Finkelman, R.B., 1994, The need for enhanced domestic and international coal quality databases: The International Conference on Environment, Energy, and Society Proceedings Abstracts, Southern Illinois University, Carbondale, Illinois; unpaginated. (ABSTRACT, COAL, COAL-QUALITY, COMPUTER, COMPUTER APPLICATIONS, DATABASES, INTEWRNATIONAL)
521. Finkelman, R.B., in press, Modes of occurrence -- an essential compliment to element to elemental analysis of coal: Proceedings of the 2nd International Conference on elemental analysis of coal and its by-products, G. Vourvopouls, ed. (ABSTRACT, COAL, COAL ANALYSES, COAL-QUALITY, GEOCHEMISTRY, HAPS, MODES OF OCCURRENCE, TRACE ELEMENTS)
3861. Finkelman, R.B., in press, Abundance, source, and mode of occurrence of the inorganic constituents in coal, in ch. 8 of Kural, O., ed., Coal. (COAL, COAL ANALYSES, COAL-QUALITY, GEOCHEMISTRY, HAPS, MODES, MODES OF OCCURRENCE, TRACE ELEMENTS)
3862. Finkelman, R.B., in press, Modes of occurrence of environmentally sensitive trace elements in coal, in ch. 3 of Swaine, D.J., and Goodarzi, F., eds., Environmental Aspects of Trace Elements in Coal: Kluwer Press. (COAL, ENVIRONMENTAL GEOLOGY, GEOCHEMISTRY, HAPS, MODES OF OCCURRENCE, TRACE ELEMENTS)
3863. Finkelman, R.B., in press, Modes of occurrence of hazardous trace elements in coal: Level of confidence: Fuel Processing Technology. (AIR TOXICS, COAL, GEOCHEMISTRY, HAPS, MODES OF OCCURRENCE, TRACE ELEMENTS)
3864. Finkelman, R.B., in press, The use of modes of occurrence information to predict the removal of the hazardous air pollutants: Journal of Coal Quality, 5 p. (AIR TOXICS, CLEANING, COAL, COAL ANALYSES, ENVIRONMENTAL GEOLOGY, GEOCHEMISTRY, HAPS, MODES, MODES OF OCCURRENCE, TRACE ELEMENTS)
4012. Finkelman, R.B., in press, Coal quality: A Clean Air Act perspective, in Carter, L.H.M., ed., U.S. Geological Survey Research on Energy Resources, V.E. McKelvey Forum: U.S. Geological Survey Circular. (ABSTRACT, AIR POLLUTANTS, COAL-QUALITY, ENVIRONMENTAL STUDY, GEOCHEMISTRY, HAPS)

4013. Finkelman, R.B., in press, Environmental impact of trace elements in coal: Strategies for mitigation: Proceedings of the Polish Institute of Geology. (CLEANING, COAL, COAL-QUALITY, ENVIRONMENTAL STUDY, GEOCHEMISTRY, HAPS, MITIGATION, TRACE ELEMENTS)
2983. Finkelman, R.B., Aruscavage, P.J., Krasnow, M.R., Palmer, C.A., and Sellers, G.A., 1989, Modes of occurrence of some elements in the Argonne Premium coal samples: American Chemical Society, Abstracts, Chemical Congress of Pacific Basin Societies, Part 1, Abstract No. 05-696. (ABSTRACT, COAL, COAL SAMPLES, ELEMENTS, GEOCHEMISTRY, HAPS, MODES, TRACE ELEMENTS)
458. Finkelman, R.B., and Bhuyan, K., 1986, Inorganic Geochemistry of Texas Lignite, in Finkelman, R.B., and Casagrande, D.J., eds., Geology of Gulf Coast Lignites: Geological Society of America Field Guidebook, p. 187-197. (COAL, GEOCHEMISTRY, GUIDEBOOK, GULF COAST, GULF OF MEXICO, LIGNITE, TEXAS)
3949. Finkelman, R.B., Bostick, N.H., and Congdon, R.D., 1994, Inorganic geochemistry of lignite in the Ione Formation from the vicinity of the Mother Lode Gold Deposit, Amador County, California: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 25-27. (ABSTRACT, AMADOR COUNTY, CALIFORNIA, COAL, GEOCHEMISTRY, GOLD, IONE FORMATION, LIGNITE, MOTHER LODE GOLD DEPOSIT)
3876. Finkelman, R.B., Bostick, N.H., and Dulong, F.F., 1992, Influence of an igneous intrusion on the element distribution of a bituminous coal from Pitkin County, Colorado: Ninth Annual Meeting of the Society for Organic Petrology, Program and Abstracts, p. 112-114. (ABSTRACT, BITUMINOUS-COAL, COAL, COLORADO, ELEMENTS, IGNEOUS-PROCESSES, INTRUSIONS, PITKIN-COUNTY)
582. Finkelman, R.B., Bostick, N.H., and Dulong, F.T., 1992, Influence of an igneous intrusion on the element distribution of a bituminous coal from Pitkin County, Colorado: The Society for Organic Petrology, Abstracts and Program, p. 112-114. (ABSTRACT, BITUMINOUS-COAL, COAL, COKING COAL, COLORADO, CONTACT METAMORPHISM, IGNEOUS-ROCKS, PITKIN-COUNTY)
3865. Finkelman, R.B., Bragg, L.J., and Dulong, F.T., in press, Chemical and mineralogical analyses of selected samples from the Interior Coal Province, Western Region: U.S. Geological Survey Open-File Report. (CHEMISTRY, COAL, COAL ANALYSES, GEOCHEMISTRY, INTERIOR COAL PROVINCE, MINERALOGY, OPEN-FILE, WESTERN REGION)
489. Finkelman, R.B., Bragg, L.J., and Tewalt, S.J., 1990, Byproduct recovery from high-sulfur coals, in Markuszewski, R., and Wheelock, T.D., eds., Processing and Utilization of High-Sulfur Coals III: Elsevier, p. 89-96. (BYPRODUCTS, COAL, GEOCHEMISTRY, SULFUR)
477. Finkelman, R.B., and Brown, R.D., 1989, Mineral resources and geochemical exploration potential of coal that has anomalous metal concentrations, in U.S. Geological Survey Research on Mineral Resources, V.E. McKelvey Forum, 1989 Program and Abstracts: U.S. Geological Survey Circular 1035, p. 18-19. (ABSTRACT, COAL, EXPLORATION, GEOCHEMISTRY, METALS, MINERAL-RESOURCES, MINERALS)

499. Finkelman, R.B., and Brown, R.D., Jr., 1991, Coal as a host or as an indicator of mineral resources, in Peters, D.C., ed., *Geology and Coal Resource Utilization: Textbooks*, Fairfax, Virginia, p. 471-482. (COAL, COAL UTILIZATION, MINERAL-RESOURCES)
2444. Finkelman, R.B., and Cardott, B.J., 1993, Trace-element content of solid hydrocarbons from Oklahoma: *Oklahoma Geological Notes*, v. 53, p. 136-143. (GEOCHEMISTRY, HAPS, HYDROCARBONS, OKLAHOMA, TRACE ELEMENTS)
460. Finkelman, R.B., and Casagrande, D.J., 1986, *Geology of Gulf Coast Lignites: Geological Society of America Field Trip Guidebook*, Coal Division Fieldtrip, Environmental and Coal Associates, Houston, 224 p. (COAL, FIELD TRIP, GEOLOGY, GUIDEBOOK, GULF COAST, LIGNITE)
479. Finkelman, R.B., and Dulong, F.T., 1989, Development and evaluation of deterministic models for predicting fouling deposit weight of coal: U.S. Geological Survey Open-File Report 89-208, 155 p. (COAL, OPEN-FILE)
504. Finkelman, R.B., Feder, G.L., Orem, W.H., and Radovanovic, Z., 1991, Relation between low-rank coal deposits and Balkan endemic nephropathy: *Association of Geoscientists for International Development Newsletter, AGID News*, p. 23. (BALKAN, COAL, CONTAMINATION, INTERNATIONAL, LIGNITE)
2966. Finkelman, R.B., and Gluskoter, H.J., 1991, Characterization of coals to assess the wear potential of fluidized bed combustors, *Proceeding: Workshop on wear potential of bed material in fluidized-bed combustors: Electric Power Research Institute, EPRI TR-100056*, p. 293-296. (COAL, COMBUSTORS, ENERGY RESOURCES, TECHNOLOGY)
457. Finkelman, R.B., and Griffin, D.E., 1986, Hydrogen peroxide oxidation: An improved method for rapidly assessing acid generating potential of sediments and sedimentary rocks: *Reclamation and Revegetation Research*, v. 5, p. 521-534. (ACID, ACID MINE DRAINAGE, CHEMISTRY, GEOCHEMISTRY, HYDROGEN PEROXIDE, OXIDATION, RECLAMATION, SEDIMENTARY ROCKS, SEDIMENTS)
3877. Finkelman, R.B., Kaiser, W., Tewalt, S.J., and Luppens, J.A., 1992, Gulf Coast Lignites-the needs of the 90's, in *U.S. Geological Survey Research on Energy Resources, 1992: U.S. Geological Survey Circular 1074*, p. 27. (ABSTRACT, COAL, COAL RESOURCES, ENERGY RESOURCES, GULF COAST, LIGNITE)
511. Finkelman, R.B., and Krasnow, M.K., 1991, Combustion and leaching behavior of elements in the U.S. Geological Survey Coal Standard CLB-1: U.S. Geological Survey Open-File Report 91-616, 24 p. (COAL, COMBUSTION, GEOCHEMISTRY, HAPS, LEACHING, OPEN-FILE, TRACE ELEMENTS)
2730. Finkelman, R.B., Krasnow, M.R., and Palmer, C.A., 1988, Volatility of some chemical elements during heating of coal: *Geological Society of America Abstracts with Programs*, v. 20, p. 90. (ABSTRACT, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, VOLATILE MATTER)
3870. Finkelman, R.B., Oman, C.L., Bragg, L.J., and Tewalt, S.J., 1994, *The U.S. Geological Survey's*

- Coal Quality Database: U.S. Geological Survey Open-File Report 94-177, 46 p. (COAL, COAL ANALYSES, COAL-QUALITY, COMPUTER, COMPUTER APPLICATIONS, DATABASES, OPEN-FILE)
2445. Finkelman, R.B., Oman, C.L., and Dulong, F.T., 1993, Chemistry and mineralogy of some anthracite coal samples from the Narragansett Basin, Rhode Island and Massachusetts: Geological Society of America, 1993 Annual meeting, v. 25, p. 30. (ABSTRACT, ANTHRACITE, CHEMISTRY, COAL, ELEMENTS, GEOCHEMISTRY, MASSACHUSETTS, NARRAGANSETT BASIN, RHODE ISLAND)
3878. Finkelman, R.B., Palmer, C.A., and Holub, V., 1992, Modes of occurrence of sulfide minerals and chalcophile elements in several high sulfur Czechoslovakian coals: 29th International Geologic Conference, Abstract Volume 1, no. 3, p. 216. (ABSTRACT, CHALCOPHILE, COAL, CZECHOSLOVAKIA, GEOCHEMISTRY, INTERNATIONAL, MINERALS, MODES, MODES OF OCCURRENCE, SULFIDES, SULFUR)
281. Finkelman, R.B., Palmer, C.A., Krasnow, M.R., Aruscavage, P.J., Sellers, G.A., and Dulong, F.T., 1990, Combustion and leaching behavior of elements in the Argonne Premium Coal Samples: Energy and Fuels, v. 4, p. 755-766. (COAL, COAL SAMPLES, ELEMENTS, GEOCHEMISTRY, HAPS, LEACHING, TRACE ELEMENTS)
515. Finkelman, R.B., and Peters, D.C., eds., 1991, Proceedings of the Symposium on the Practical Applications of Coal Geology: Journal of Coal Quality, v. 10, p. 10A-132. (COAL, COAL-QUALITY, GEOLOGY)
474. Finkelman, R.B., and Tewalt, S.J., 1988, The geochemical cycle of selenium in the Powder River Basin: Proceedings of the American Water Resources Association, Wyoming Section. (GEOCHEMISTRY, HAPS, MONTANA, POWDER RIVER BASIN, SELENIUM, TRACE ELEMENTS, WYOMING)
3866. Finkelman, R.B., and Tewalt, S.J., in press, Platinum-group elements in coal, in Peterson, J., ed., Platinum-group Elements in Sedimentary Environments: U.S. Geological Survey Bulletin, 2049, 6 p. (COAL, COAL ANALYSES, ELEMENTS, GEOCHEMISTRY, HAPS, PLATINUM, PLATINUM-GROUP ELEMENTS, SEDIMENTARY ROCKS, TRACE ELEMENTS)
481. Finkelman, R.B., Tewalt, S.J., Dulong, F.T., and Krasnow, M.R., 1989, Low-rank coal activities of the U.S. Geological Survey, in Ness, H.M., ed., Proceedings of the Fifteenth Biennial Low-Rank Fuels Symposium, DOI/METC 90/6109, p. 59-69. (COAL, EXPLORATION, LIGNITE)
469. Finkelman, R.B., and Yeakel, J.D., 1988, A new model for quantitative prediction of fouling deposit weight of coal: American Chemical Society, Third Chemical Congress of North America Abstracts, Fuel Chemistry Division Paper. (ABSTRACT, COAL)
463. Finkelman, R.B., Yeakel, J.D., and Harrison, W.J., 1987, Sodium in Upper Cretaceous coal beds of the Wasatch Plateau, Utah: Mode of occurrence, geologic controls, possible source, and effects on coal utilization: Geological Society of America Abstracts with Programs, v. 19, p. 663. (ABSTRACT, COAL, CRETACEOUS, GEOLOGY, SODIUM, UTAH, WASATCH-FORMATION)

472. Finkelman, R.B., Yeakel, J.D., and Tewalt, S.J., 1988, Controls on sodium distribution in the Fort Union lignites: American Association of Petroleum Geologists, Proceedings-SEPM-EMD Rocky Mountain Section Meeting, Bismark. (ABSTRACT, COAL, FORT UNION FORMATION, GEOCHEMISTRY, LIGNITE, MONTANA, NORTH DAKOTA, ROCKY MOUNTAIN REGION, SODIUM, WYOMING)
1253. Flores, R.M., 1987, Coal models in Tertiary alluvial and Cretaceous coastal-attached environments, Rocky Mountains region, USA, in Proceedings of the Geological Survey of India and United States Geological Survey Coal Basin Analysis Workshop: Proceedings of the Geological Survey of India and United States Geological Survey Coal Basin Analysis Workshop, 9 p. (COAL, CRETACEOUS, PALEOENVIRONMENT, ROCKY MOUNTAIN REGION, SEDIMENTOLOGY, TERTIARY)
1256. Flores, R.M., 1987, Sedimentology of Upper Cretaceous and Tertiary siliciclastics and coals in the Raton Basin, New Mexico and Colorado, in Lucas, S. and Hunt, A., eds., Northeastern New Mexico: New Mexico Geological Society Guidebook, 38th Field Conference, p. 255-264. (COAL, COLORADO, CRETACEOUS, NEW MEXICO, TERTIARY)
1263. Flores, R.M., 1987, Rates of regression and coal development in Upper Cretaceous rocks, U.S. Rocky Mountain region: First International Symposium on Cretaceous Correlation, International Geological Correlations Program, Project 245, Program Abstracts Volume, p. 48-49. (ABSTRACT, COAL, CRETACEOUS)
1271. Flores, R.M., 1988, The role of the Bighorn uplift in the tectonic evolution of the Tertiary Powder River Basin - Petrofacies and provenance analyses: Geological Society of America Abstracts with Programs, Rocky Mountain Section, Abstracts with Programs, v. 20, p. 414-415. (ABSTRACT, TERTIARY)
1281. Flores, R.M., 1988, Early Tertiary Gilbert-type deltas in the North Park Basin, Colorado: Geological Society of America Abstracts with Programs, p. 265-266. (ABSTRACT, COLORADO, TERTIARY)
1282. Flores, R.M., 1988, Depositional systems in peat/coal forming environments: U.S. Geological Survey Open File Report 88-406, 115 p. (COAL, PEAT)
1285. Flores, R.M., 1988, Economic applications to depositional systems and their peat and coal-forming environments: Department of Mines, INIEX Belgium and University of Liege, Belgium, p. 102. (COAL, DEPOSITIONAL ENVIRONMENT, PEAT)
1287. Flores, R.M., 1988, The role of sedimentology in coal development and exploration: Geological Society of South Africa, 22nd Biannum International Meeting, Abstracts Volume, p. 190. (ABSTRACT, COAL, INTERNATIONAL, SEDIMENTOLOGY, SOUTH AFRICA)
1288. Flores, R.M., 1988, Transverse and longitudinal Tertiary Gilbert-type deltas, North Park Basin, Colorado, U.S.A.: International Workshop on Fan Deltas with Emphasis on Gilbert-Type Systems, Universita della Calabria, Italy, p. 23. (ABSTRACT, COLORADO, TERTIARY)

1290. Flores, R.M., 1989, Guide to the Wasatch Plateau Cretaceous coalfield, Utah: American Geophysical Union, 28th International Geological Congress Field Trip Guidebook p. 40-47. (COAL, CRETACEOUS, UTAH, WASATCH PLATEAU)
1295. Flores, R.M., 1989, Rocky Mountain Tertiary coal basin models and their applicability to some world basins; in Lyons, P.C. and Alpern, B., eds., Peat and Coals: Origin, Facies, and Depositional Models: International Journal of Coal Geology, p. 767-798. (COAL, GLOBAL, INTERNATIONAL, PEAT, TERTIARY, WORLD)
1301. Flores, R.M., 1989, Diversity of fluvio-lacustrine depositional systems in Cenozoic U.S. coal basins: 4th International Conference on Fluvial Sedimentology, Abstracts with Programs, p. 131. (ABSTRACT, COAL)
606. Flores, R.M., 1990, Transverse and longitudinal Gilbert-type deltas, Tertiary Coalmont Formation, North Park Basin, Colorado, U.S.A., in Colella, A., ed., Coarse-Grained Deltas: International Association of Sedimentologists Special Publication No. 10, Blackwell Scientific Publications, Oxford, p. 223-233. (COLORADO, NORTH PARK BASIN, TERTIARY)
644. Flores, R.M., 1991, Eocene Brunner Coal Measures and Kaiata Formation, A facies continuum from drowned paleovalleys to paralic plains, South Island, New Zealand: International Symposium on Origin, Sedimentation and Tectonics of Late Mesozoic to Early Cenozoic Sedimentary Basins at the Eastern Margin of the Asian Continent, Program and Abstracts, Kyushu University, Fukuoka, Japan, p. 34. (ABSTRACT, COAL, EOCENE, TERTIARY)
624. Flores, R.M., 1992, Prologue to Mesozoic geological excursions: 1992 Theme Meeting, Society of Economic Paleontologists and Mineralogists, p. 1-4. (MESOZOIC)
628. Flores, R.M., 1992, Field guidebook Mesozoic of the Western Interior: Rocky Mountain Section, SEPM Society for Sedimentary Geology, p. 87. (ABSTRACT, MESOZOIC)
662. Flores, R.M., 1992, The making of Paleogene coal basins in Wyoming, A depositional, tectonic, and climatic synthesis: The Contact Newsletter, Wyoming Geological Association, v. XXXIX, p. 5. (CLIMATE, COAL, PALEOCLIMATE, PALEOGENE, TECTONICS, WYOMING)
1270. Flores, R.M., 1992, Sedimentology of Upper Cretaceous and Paleocene coal-bearing regressive sequences, Williston Basin, Montana: Montana Bureau of Mines and Geology Special Volume, p. 1-20. (COAL, CRETACEOUS, MONTANA, NORTH DAKOTA, PALEOCENE, SEDIMENTOLOGY, TERTIARY, WILLISTON-BASIN)
1274. Flores, R.M., 1992, Coal architecture in Cretaceous regressive sequences in the southern U.S. Rocky Mountain region: China Ocean Press, Beijing, p. 283-295. (COAL, CRETACEOUS, FACIES, MONTANA, NORTH DAKOTA, PALEOCENE, REGRESSION, ROCKY MOUNTAIN REGION, TERTIARY, WYOMING)
482. Flores, R.M., 1993, Paleocene coal basins in Wyoming, U.S.A.: Depositional, tectonic, and climatic synthesis: Universite de Liege, Belgique, Miscellanea Geologica, XIV, v. 2, p. 1. (ABSTRACT, BASINS, CLIMATE, COAL, DEPOSITIONAL ENVIRONMENT, PALEOCENE, PALEOCLIMATE, TECTONICS, TERTIARY, WYOMING)

3898. Flores, R.M., 1993, Lith-log facies descriptions of 1-km-thick cores of the Eocene Kapuni Group from 13 wells in the Taranaki Basin, New Zealand: Institute of Geological and Nuclear Sciences Limited Open-File Report, 67 p. (DRILL CORE, EOCENE, FACIES, INTERNATIONAL, KAPUNI GROUP, LITHOLOGIC LOGS, NEW ZEALAND, TARANAKI BASIN, TERTIARY)
3904. Flores, R.M., 1993, Geologic and geomorphic controls on coal development in some Tertiary Rocky Mountain basins, U.S.A., in Cross, A.T., ed., World Class Coal Deposits: International Journal of Coal Geology, v. 23, p. 43-73. (COAL, GEOMORPHOLOGY, GLOBAL, INTERNATIONAL, PALEOGEOGRAPHY, ROCKY MOUNTAIN REGION, TERTIARY, WORLD)
3906. Flores, R.M., 1993, Coal-bed and related depositional environments in methane-gas producing sequences, in Law, B.E., and Rice D.D., eds., Hydrocarbons from Coal: American Association of Petroleum Geologists Studies in Geology, p. 13-37. (COAL, DEPOSITIONAL ENVIRONMENT, ENERGY-SOURCES, GAS, HYDROCARBONS, METHANE)
3950. Flores, R.M., 1994, Tertiary coal basins of the Wyoming Rockies: Events and processes: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 28-32. (ABSTRACT, BASINS, BIGHORN BASIN, BIOZONES, BULL MOUNTAIN BASIN, CARBON BASIN, COAL, COOPER LAKE BASIN, GREATER GREEN RIVER BASIN, HANNA BASIN, LARAMIDE, LDF, PALEOCENE, PALEOENVIRONMENT, POWDER RIVER BASIN, TECTONICS, TERTIARY, WIND RIVER BASIN, WYOMING)
665. Flores, R.M., Beggs, J.M., and King, P.R., 1993, Sedimentology of tide-dominated reservoir sandstones in the Eocene Kapuni Group, Taranaki Basin, New Zealand: American Association of Petroleum Geologists Bulletin, p. 102. (ABSTRACT, EOCENE, FACIES, KAPUNI GROUP, MARINE, NEW ZEALAND, SEDIMENTOLOGY, TARANAKI BASIN, TERTIARY)
3806. Flores, R.M., Bossiroy, D., Thorez, J., Kalbusch, S., Perry, W.J., Jr., Roberts, S.B., Keighin, C.W., and Nichols, D.J., 1994, Mineralogic and genetic hallmarks of smectite species in coal bearing Tertiary basins in the northern Rocky Mountain region, U.S.A: International Association of Sedimentologists Abstracts of Papers, Annual Meeting, Milan, Italy. (ABSTRACT, CLAY, COAL, GENETICS, MINERALOGY, ROCKY MOUNTAIN REGION, SEDIMENTOLOGY, SMECTITE, TERTIARY)
2257. Flores, R.M., Bossiroy, D., Weaver, J.N., and Thorez, J., 1990, Genesis of clay-mineral assemblages and micropaleoclimatic implications in Tertiary rocks of the Powder River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, v. 74, p. 655. (POWDER RIVER BASIN, TERTIARY, WYOMING)
631. Flores, R.M., Clark, A.C., and Keighin, C.W., 1993, Paleovalley conglomerates of the Fort Union Formation and their aquifer potential in the western Wind River Basin, in Keefer, W.R., and Metzger, W., eds, Special Guidebook to Oil and Gas and Other Resources of the Wind River Basin: Wyoming Geological Association, 21 p. (AQUIFER, FACIES, FORT UNION FORMATION, PALEOCENE, SEDIMENTOLOGY, TERTIARY, WIND RIVER BASIN, WYOMING)
1268. Flores, R.M., and Cross, T.A., 1991, Cretaceous and Tertiary coals of the Rocky Mountains and

- Great Plains regions, in Gluskoter, H.J., Rice, D.D., and Taylor, R.B., eds., *Economic Geology, Decade of North American Geology: Geological Society of America, Economic Geology*, v. P-2, p. 547-571. (COAL, CRETACEOUS, NORTHERN GREAT PLAINS, ROCKY MOUNTAIN REGION, TERTIARY)
1294. Flores, R.M., Dyman, T.S., Weaver, J.N., and Tysdal, R.G., 1989, Cretaceous fluvio-lacustrine facies of the Upper Kootenai Formation and the Flood Member of the Blackleaf Formation, southwestern Montana: *American Association of Petroleum Geologists Bulletin*, p. 1155. (ABSTRACT, CRETACEOUS)
1296. Flores, R.M., and editor, 1989, T-132 Tertiary and Cretaceous Rocky Mountain coal geology: *American Geophysical Union, 28th International Geological Congress Field Trip Guidebook*, 60 p. (COAL, CRETACEOUS, TERTIARY)
602. Flores, R.M., Hohman, J.C., and Ethridge, F.G., 1991, Heterogeneity of Upper Cretaceous Gallup regressive facies, Gallup sag, New Mexico, in Nations, D. and Eaton, J., eds., *Stratigraphy, Depositional Environments and Sedimentary Tectonics of the Western Margin, Cretaceous Western Interior Seaway: Geological Society of America Special Publication 260*, p. 189-209. (CRETACEOUS, NEW MEXICO, STRATIGRAPHY)
1245. Flores, R.M., and Keighin, C.W., 1986, Petrology and diagenesis of Late Quaternary sands in the Mustang Island-Corpus Christi Bay area, South Texas, in Shideler, G.L., ed., *Stratigraphic Studies of Late Quaternary Barrier-type Coastal Complex, Mustang Island, Corpus Christi Bay Area, South Texas Gulf Coast: U.S. Geological Survey Professional Paper 1328*, chap. D, p. 65-81. (DIAGENESIS, STRATIGRAPHY, TEXAS)
1250. Flores, R.M., and Keighin, C.W., 1986, Lithofacies description and interpretation of selected intervals in the upper part of the Ordovician Simpson Group in a core from the Mazur well, southeast Anadarko Basin, Oklahoma: *U.S. Geological Survey Open-File Report 86-564*, p. 39. (CORRELATION, OKLAHOMA, OPEN-FILE, ORDOVICIAN, SIMPSON GROUP, STRATIGRAPHY)
1266. Flores, R.M., and Keighin, C.W., 1989, Petrology and depositional facies of siliciclastic rocks of the Upper Ordovician Simpson Group, Mazur Well, southeast Anadarko Basin, Oklahoma: *U.S. Geological Survey Bulletin 1866-E*, 45 p. (ANADARCO BASIN, DEPOSITIONAL ENVIRONMENT, SIMPSON GROUP)
626. Flores, R.M., and Keighin, C.W., 1992, Facies and stratigraphic framework of Lower Member of the Fort Union Formation, Shotgun Butte area, Wind River Basin, Wyoming, in Sundell, K., and Anderson, T.C., eds., *Wind River Basin Field Trip # 1: Road Log Volume for Rediscover the Rockies, American Association of Petroleum Geologists and Society for Sedimentary Geology Meeting, Casper, Wyoming*, p. 48-52. (FORT UNION FORMATION, PALEOCENE, STRATIGRAPHY, TERTIARY)
632. Flores, R.M., and Keighin, C.W., 1993, Reservoir anisotropy and facies stratigraphic framework in the Fort Union Formation, western Wind River Basin, in Keefer, W.R., and Metzger, W., eds., *Special Guidebook to Oil and Gas and Other Resources of the Wind River Basin: Wyoming Geological Association*, p. 121-141. (FACIES, FORT UNION FORMATION, PALEOCENE,

RESERVOIRS, SEDIMENTOLOGY, STRATIGRAPHY, TERTIARY, WIND RIVER BASIN)

661. Flores, R.M., and Keighin, C.W., in press, Petrology and siliciclastic facies of the Middle Ordovician Simpson Group, Mazur Well southeastern Anadarko Basin, Oklahoma: Oklahoma Geology, v. 52, p. 70. (ANADARKO BASIN, FACIES, MAZUR WELL, OKLAHOMA, ORDOVICIAN, PETROLOGY, SEDIMENTOLOGY, SIMPSON GROUP)
1313. Flores, R.M., Keighin, C.W., and Keefer, W.R., 1990, Reservoir-sandstone paradigms, Paleocene Fort Union Formation, Wind River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, v. 74, p. 1323. (ABSTRACT, FORT UNION FORMATION, PALEOCENE, TERTIARY)
642. Flores, R.M., Keighin, C.W., and Keefer, W.R., 1991, Basinwide reservoir architecture of the Fort Union Formation, Wind River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, v. 75, p. 1126; AAPG Annual Meeting. (FORT UNION FORMATION, PALEOCENE, TERTIARY, WIND RIVER BASIN, WYOMING)
655. Flores, R.M., Keighin, C.W., and Keefer, W.R., 1992, Paleodepositional dip perspective of Fort Union sandstone reservoir architecture, western Wind River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, v. 76, p. 1258. (ABSTRACT, FORT UNION FORMATION, WIND RIVER BASIN, WYOMING)
625. Flores, R.M., Keighin, C.W., and Nichols, D.J., 1992, Sedimentology, conglomerate petrology, and palynostratigraphy of the Fort Union Formation, Castle Gardens, Wind River Basin, Wyoming, in Sundell, K., and Anderson, T.C., eds., Wind River Basin Field Trip # 1: Road Log Volume for Rediscover the Rockies, American Association of Petroleum Geologists and Society for Sedimentary Geology Meeting, Casper, Wyoming, p. 21-27. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
3966. Flores, R.M., Keighin, C.W., and Roberts, S.B., 1994, Road log and general geology of the Wind River Basin, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 39-52. (COAL, FIELD GUIDE, GEOLOGY, PALEOCENE, ROAD LOG, ROCKY MOUNTAIN REGION, WIND RIVER BASIN)
3970. Flores, R.M., Keighin, C.W., and Roberts, S.B., 1994, Road log and general geology of the Bighorn Basin, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 109-124. (BIGHORN BASIN, FIELD GUIDE, GEOLOGY, PALEOCENE, PALEOENVIRONMENT, ROAD LOG, ROCKY MOUNTAIN REGION, WYOMING)
3974. Flores, R.M., Keighin, C.W., and Roberts, S.B., 1994, Road log and general geology of the northwestern Powder River Basin, Wyoming and Montana, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 149-152. (COAL, FIELD GUIDE, GEOLOGY, MONTANA, PALEOCENE,

POWDER RIVER BASIN, ROAD LOG, ROCKY MOUNTAIN REGION, WYOMING)

1260. Flores, R.M., and McMillan, T.L., 1987, Stratigraphy, lithofacies, and sedimentation of Lower Permian carbonates of the Leonard Mountain area, Glass Mountains, western Texas, Reprint Series, in Cromwell, D., and Mazzullo, L., eds., The Leonardian Facies in W. Texas and SE New Mexico and Guidebook to the Glass Mountains, West Texas: Society of Economic Paleontologists and Mineralogists, Permian Basin Section Publication, 87-27, p. p. 47-56. (NEW MEXICO, STRATIGRAPHY, TEXAS)
3960. Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., 1994, Organics and the Rockies Field Guide: Wyoming Geological Survey Public Information Circular; editors. (BIGHORN BASIN, BULL MOUNTAIN BASIN, COAL, COLORADO, FIELD GUIDE, GREATER GREEN RIVER BASIN, HANNA BASIN, MONTANA, NORTH DAKOTA, OIL AND GAS, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, SOUTH-DAKOTA, WILLISTON-BASIN, WIND RIVER BASIN, WYOMING)
1273. Flores, R.M., and M'Gonigle, J.W., 1988, Marginal lacustrine carbonate-clastic facies in Tertiary deposits, Medicine Lodge and Horse Prairie Basins, southwest Montana: Society of Economic Paleontologists and Mineralogists Midyear Meeting Abstracts Volume, p. 18-19. (ABSTRACT, FACIES, HORSE PRAIRIE BASIN, LACUSTRINE, MEDICINE LODGE BASIN, MONTANA, TERTIARY)
618. Flores, R.M., and M'Gonigle, J.W., 1991, Oligocene-Miocene lacustrine rudite-dominated alluvial-fan delta, southwest Montana, U.S.A., in Dabrio, C.J., Zazo, L., and Goy, J.L., eds., The Dynamics of Coarse-Grained Deltas, Second Fan Delta Workshop Special Issue: Cuadernos de Geologia Iberica, Universidad Complutense de Madrid, Spain, p. 241-278. (DELTAIC, FAN, LACUSTRINE, MIOCENE, MONTANA, OLIGOCENE, PALEOENVIRONMENT, PALEOGEOGRAPHY, SEDIMENTOLOGY, TERTIARY)
1291. Flores, R.M., M'Gonigle, J.W., Roberts, S.B., and Weaver, J.N., 1989, Variations in coal environments in Tertiary intermontane closed lake basins, Colorado and Montana, U.S.A.: International Geological Congress, Abstracts with Programs, v. 1, p. 495-496. (ABSTRACT, COAL, COLORADO, DEPOSITIONAL ENVIRONMENT, LACUSTRINE, LAKES, MONTANA, TERTIARY)
3973. Flores, R.M., and Moore, T.A., 1994, Mechanisms of splitting of the Anderson-Dietz coal bed in the Decker area, Montana: A synthesis, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 153-162. (ANDERSON DIETZ, COAL, FIELD GUIDE, MONTANA, PALEOCENE, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, SPLITTING)
1248. Flores, R.M., and Pillmore, C.L., 1987, Tectonic control on alluvial paleoarchitecture of the Cretaceous and Tertiary Raton Basin, Colorado and New Mexico, in Ethridge, F.G., Flores, R.M., and Harvey, M.D., eds., Recent Developments in Fluvial Sedimentology: Society of Economic Paleontologists and Mineralogists Special Publication 39, pages 311-320. (COLORADO, CRETACEOUS, NEW MEXICO, TERTIARY)

620. Flores, R.M., Rice, D.D., and Gruber, J., 1991, Coalbed gas potential and reservoir heterogeneity, Tertiary Fort Union Formation, Powder River Basin, Montana: Energy Mineral Division field Trip Guidebook, American Association of Petroleum Geologists - Society of Economic Paleontologists and Mineralogists Rocky Mountain Section Meeting, Billings, Montana, 26 p. (ENERGY MINERALS, FORT UNION FORMATION, GAS, MONTANA, PALEOCENE, POWDER RIVER BASIN, RESERVOIR ROCKS, TERTIARY)
3963. Flores, R.M., Roberts, S.B., and Perry, W.J., Jr., 1994, Paleocene paleogeography of the Wind River, Bighorn, and Powder River Basins, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 1-16. (BASINS, BIGHORN BASIN, COAL, FIELD GUIDE, PALEOGEOGRAPHY, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, WIND RIVER BASIN)
1331. Flores, R.M., Roberts, S.B., Perry, W.J., Jr., and Nichols, D.J., 1991, Evolution of Paleocene depositional systems and coal basins in a tectonic continuum, Rocky Mountain region: Geological Society of America Abstracts with Programs, v. 23, p. 22. (ABSTRACT, COAL, DEPOSITIONAL ENVIRONMENT, PALEOCENE, PALEOENVIRONMENT, ROCKY MOUNTAIN REGION, TECTONICS, TERTIARY)
1350. Flores, R.M., and Stricker, G.D., 1991, Some facies aspects of Upper Kenai Group, Southern Kenai Peninsula, in Bradley, D.C., and Dusel-Bacon, Cynthia, eds., Geologic Studies in Alaska by the U.S. Geological Survey, 1991: U.S. Geological Survey Bulletin, 2041, p. 160-170. (ALASKA, FACIES, KENAI GROUP, KENAI PENINSULA)
2364. Flores, R.M., and Stricker, G.D., 1992, Some facies aspects of upper part of the Kenai Group, southern Kenai Peninsula, Alaska, in Bradley, D.C., and Dusel-Bacon, C., Geological studies in Alaska by the U.S. Geological Survey, 1991: U.S. Geological Survey Bulletin, 2041, p. 160-170. (ALASKA, COAL, FACIES, KENAI GROUP, KENAI PENINSULA, SEDIMENTOLOGY)
629. Flores, R.M., and Stricker, G.D., 1993, Early Cenozoic depositional systems, Wishbone Hill District, Matanuska coal field, Alaska, in Dusel-Bacon, C. and Till, A.B., eds., Geologic Studies in Alaska by the U.S. Geological Survey, 1992: U.S. Geological Survey Bulletin, 2068, p. 101-117. (ALASKA, CENOZOIC, COAL, DEPOSITIONAL ENVIRONMENT, MATANUSKA COAL FIELD, SEDIMENTOLOGY, WISHBONE HILL DISTRICT)
630. Flores, R.M., and Stricker, G.D., 1993, Reservoir framework architecture in the type Clamgulchian Pliocene Sterling Formation, Kenai Peninsula, Alaska, in Dusel-Bacon, C. and Till, A.B., eds., Geologic Studies in Alaska by the U.S. Geological Survey, 1992: U.S. Geological Survey Bulletin 2068, p. 118-129. (ALASKA, CLAMGULCHIAN, KENAI PENINSULA, PLIOCENE, STERLING FORMATION, TERTIARY)
3900. Flores, R.M., and Stricker, G.D., 1994, Responses of coal splitting and associated drainage patterns to syntectonism in the Paleocene and Eocene Chickaloon Formation, Matanuska coal field, Alaska, in Rao, P.D., ed., Focus on Alaska's Coal '93 Proceedings: Mineral Industry Research Laboratory Report, University of Alaska, 19 p. (ALASKA, CHICKALOON FORMATION, COAL, DRAINAGE-PATTERNS, EOCENE, MATANUSKA COAL FIELD, PALEOCENE, PALEOENVIRONMENT, SYNTECTONISM, TECTONISM, TERTIARY)

3902. Flores, R.M., and Stricker, G.D., 1994, Interfluvial-channel facies models in the Miocene Beluga Formation near Homer, South Kenai Peninsula, Alaska, in Till, A.B. and Moore, T.E., eds., Geologic Studies in Alaska by the U.S. Geological Survey, 1993: U.S. Geological Survey Bulletin, 32 p. (ALASKA, BELUGA FORMATION, COAL, FACIES, KENAI PENINSULA, MIOCENE, PALEOENVIRONMENT, TERTIARY)
671. Flores, R.M., and Stricker, G.D., in press, Paleocene Chickaloon coal-forming environments, Matanuska Valley, south-central Alaska: Focus on Alaska's Coal '93 Program, by Title, School of Mineral Engineering, University of Alaska and Society of Mining Engineers, p. 5. (ALASKA, CHICKALOON FORMATION, COAL, DEPOSITIONAL ENVIRONMENT, MATANUSKA VALLEY, PALEOCENE, PALEOGEOGRAPHY, TERTIARY)
672. Flores, R.M., and Stricker, G.D., in press, Comparison of the Miocene and Pliocene Sterling and Beluga coal-bearing facies, Kenai Peninsula, south-central Alaska: Focus on Alaska's Coal '93 Program, Program by Title, School of Mineral Engineering, University of Alaska and Society of Mining Engineers, p. 5. (ABSTRACT, ALASKA, BELUGA FORMATION, COAL, FACIES, KENAI PENINSULA, MIOCENE, PLIOCENE, STERLING FORMATION, TERTIARY)
3903. Flores, R.M., Stricker, G.D., and Roberts, S.B., 1994, Miocene coal-bearing strata of the Tyonek Formation: Braided stream deposits in the Chuit Creek-Chuitna River drainage basin, southern Alaska, in Till, A.B., and Moore, T.E., eds., Geologic Studies in Alaska by the U.S. Geological Survey, 1993: U.S. Geological Survey Bulletin, 33 p. (ALASKA, BRAIDED-STREAM, CHUITNA RIVER, COAL, FLUVIAL, MIOCENE, PALEOENVIRONMENT, TERTIARY, TYONEK FORMATION)
1305. Flores, R.M., and Sykes, R., 1989, Megaforesets in fluvial channel-margin and in-channel sandstones, Eocene Brunner coal measures, New Zealand: 4th International Conference on Fluvial Sedimentology, Abstracts with Programs, p. 132. (ABSTRACT, COAL, EOCENE, TERTIARY)
607. Flores, R.M., and Sykes, R., 1990, Lithofacies framework of the Eocene Brunner Coal Measures, Charleston coalfield, South Island, New Zealand: Open-file Report, New Zealand Geological Survey. (COAL, EOCENE, TERTIARY)
616. Flores, R.M., and Sykes, R., 1990, Lithofacies types and frameworks of the Eocene Brunner Coal Measures, Buller coalfield, South Island, New Zealand, in Salsbury, G.P., ed: American Association of Petroleum Geologists, 1990 Circum-Pacific Transactions Volume, 20 p. (BRUNNER COAL MEASURES, BULLER COAL FIELD, COAL, EOCENE, FACIES, INTERNATIONAL, LITHOLOGY, NEW ZEALAND, SOUTH ISLAND, TERTIARY)
1308. Flores, R.M., and Sykes, R., 1990, Retrogradational fluvio-paralic coal-forming environments, South Island, New Zealand: American Association of Petroleum Geologists Bulletin, v. 74, p. 972. (ABSTRACT, COAL, NEW ZEALAND)
1321. Flores, R.M., and Sykes, R., 1990, Lithofacies framework of the Eocene Brunner Coal Measures, Mount Rockfort area, Buller coalfield, South Island, New Zealand: Open-file Report, New Zealand Geological Survey. (COAL, EOCENE, TERTIARY)

1322. Flores, R.M., and Sykes, R., 1990, Lithofacies framework of the Eocene Brunner Coal Measures, Waimangaroa - Mount William Range area, Buller coalfield, South Island, New Zealand: Open-file Report, New Zealand Geological Survey. (COAL, EOCENE, TERTIARY)
1323. Flores, R.M., and Sykes, R., 1990, Lithofacies framework of the Eocene Brunner Coal Measures, Stockton 2A, 2B, and 2C mine areas and vicinity, Buller coalfield, South Island, New Zealand: Open-file Report, New Zealand Geological Survey. (COAL, EOCENE, TERTIARY)
1324. Flores, R.M., and Sykes, R., 1990, Lithofacies framework of the Eocene Brunner Coal Measures, Mt. William Mine - Fly Creek area, South Island, New Zealand: Open-file Report, New Zealand Geological Survey. (COAL, EOCENE, TERTIARY)
1325. Flores, R.M., and Sykes, R., 1990, Lithofacies framework of the Eocene Brunner Coal Measures, Webb Mine area, Buller coalfield, South Island, New Zealand: Open-file Report, New Zealand Geological Survey. (COAL, EOCENE, TERTIARY)
1326. Flores, R.M., and Sykes, R., 1990, Lithofacies framework of the Eocene Brunner Coal Measures, Millerton area, Buller coalfield, South Island, New Zealand: Open-file Report, New Zealand Geological Survey. (COAL, EOCENE, TERTIARY)
3908. Flores, R.M., and Sykes, R., 1990, Lithofacies types and frameworks of the Eocene Brunner Coal Measures, Buller coal field, South Island, New Zealand, in Salisbury, G.P., and Salisbury, A.C., eds., 1990 Circum-Pacific Energy and Minerals for an Expanding Economy (Fifth Circum-Pacific Energy and Mineral Resources Conference, Honolulu, 1990): Circum-Pacific Council for Energy and Mineral Resources Earth Science Series, p. 207-219. (BRUNNER COAL MEASURES, BULLER COAL FIELD, COAL, ENERGY RESOURCES, EOCENE, FACIES, INTERNATIONAL, LITHOFACIES, NEW ZEALAND, SOUTH ISLAND, TERTIARY)
636. Flores, R.M., and Sykes, R., 1993, Depositional controls on coal distribution and quality in the Eocene Brunner coal measures, Buller Coalfield, South Island, New Zealand: International Journal of Coal Geology, 26 p. (BRUNNER COAL MEASURES, BULLER COAL FIELD, COAL, COAL-QUALITY, DEPOSITIONAL ENVIRONMENT, EOCENE, NEW ZEALAND, SOUTH ISLAND, TERTIARY)
1275. Flores, R.M., Warwick, P.D., and Moore, T.A., 1988, A review of depositional aspects and a guide to Paleocene coal-bearing sequences, northern Powder River Basin: Geological Society of America Field Trip Guidebook, Colorado School of Mines, p. 176-186. (COAL, DEPOSITIONAL ENVIRONMENT, MONTANA, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYOMING)
2706. Flores, R.M., Warwick, P.D., and Moore, T.A., 1989, Depositional aspects and a guide to Paleocene coal-bearing sequences, Powder River Basin, in Tertiary and Cretaceous coals in the Rocky Mountains region, Field Trip Guidebook T132: 28th International Geological Congress Field Trip Guidebook, p. 1-10. (COAL, CRETACEOUS, GUIDEBOOK, PALEOCENE, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, TERTIARY)
1257. Flores, R.M., Warwick, P.D., Moore, T.A., and Weaver, J.N., 1987, Field geology of Tertiary coals in the Powder River Basin, Wyoming and Montana: Canadian Society of Petroleum Geologists

- Coal Group Field Trip, p. 1-34. (COAL, GEOLOGY, MONTANA, POWDER RIVER BASIN, TERTIARY, WYOMING)
593. Foord, E.E., Brownfield, M.E., and Lichte, F.E., 1993, McCrillisite, the Cs-analogue of gainesite, from Mt. Mica, Oxford County, Maine: American Mineralogist. (MAINE)
451. Foord, E.E., Heyl, A.V., Smith, D.K., Brookmyer, B., Anne, M., Finkelman, R.B., Fainberg, A.H., and O'Neil, T., 1985, Nakauriite from Cedar Hill Quarry, Lancaster County: A new mineral for Pennsylvania: Friends of Mineralogy, Pennsylvania Chapter Newsletter, v. 13, p. 4-12. (CEDAR HILL QUARRY, LANCASTER COUNTY, MINERALOGY, MINERALS, NAKAURIITE, PENNSYLVANIA)
2853. Force, E.R., Back, W., Spiker, E.C., and Knauth, P., 1986, A groundwater mixing model for the origin of the Imini manganese deposit (Cretaceous) of Morocco: Economic Geology, v. 81, p. 65-79. (CRETACEOUS, GROUND-WATER, IMINI MANGANESE DEPOSIT, INTERNATIONAL, MOROCCO)
4043. Foster, C.B., Robbins, E.I., and Bone, Y., 1990, Organic tissues, graphite, and hydrocarbons in host rocks of the Rum Jungle Uranium Field, northern Austria: Ore Geology Reviews, v. 5, p. 509-523. (AUSTRIA, GRAPHITE, HYDROCARBONS, INTERNATIONAL, ORGANIC MATTER, RUM JUNGLE URANIUM FIELD, URANIUM)
4179. Vuke-Foster, S.M., Berg, R.B., and Colton, R.B., 1989, Preliminary geologic map of the Belt NE quadrangle, Montana: Montana Bureau of Mines and Geology Open-File Map 212. (BELT NE QUADRANGLE, GEOLOGIC MAP, GEOLOGY, MAP, MONTANA)
4180. Vuke-Foster, S.M., Berg, R.B., and Colton, R.B., 1989, Preliminary geologic map of the Blythe quadrangle, Montana: Montana Bureau of Mines and Geology Open-File Map 212. (BLYTHE QUADRANGLE, GEOLOGIC MAP, GEOLOGY, MAP, MONTANA)
4181. Vuke-Foster, S.M., Berg, R.B., and Colton, R.B., 1989, Preliminary geologic map of the Byrne Creek quadrangle, Montana: Montana Bureau of Mines and Geology Open-File Map 212. (BYRNE CREEK QUADRANGLE, GEOLOGIC MAP, GEOLOGY, MAP, MONTANA)
4183. Vuke-Foster, S.M., Berg, R.B., and Colton, R.B., 1989, Preliminary geologic map of the Raynesford quadrangle, Montana: Montana Bureau of Mines and Geology Open-File Map 212. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, POWNAL QUADRANGLE)
4182. Vuke-Foster, S.M., and Colton, R.B., 1989, Preliminary geologic map of the Pownal quadrangle, Montana: Montana Bureau of Mines and Geology Open-File Map 212. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, POWNAL QUADRANGLE)
2122. Fouch, T.D., Kent, B.H., Schmoker, J.W., Ridgley, J.L., Englund, K.J., and Bird, K.J., 1986, The U. S. Geological Survey Evolution of Sedimentary Basins Program; Carter, L.M.H., ed., USGS Research on Energy Resources, 1986; program and abstracts, Second V. E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 974, p. 76-77. (ABSTRACT, COAL, ECONOMIC GEOLOGY, ENERGY RESOURCES, ENERGY-SOURCES, FUEL RESOURCES, MINERAL-RESOURCES, PALEOGEOGRAPHY, RESOURCES, SURVEY-

ORGANIZATIONS, USA)

1261. Franczyk, K.J., Flores, R.M., and Carr, D.A., 1987, Implications of Late Cretaceous depositional sequences in northeastern Arizona and northwestern New Mexico: Geological Society of America Abstracts with Programs, v. 19, p. 667. (ABSTRACT, CRETACEOUS, NEW MEXICO)
3638. Fujii, R., and Filipek, L.H., 1985, Partitioning of selenium and arsenic in sediments of Kesterson Reservoir: American Chemical Society Annual Meeting, New York. (ABSTRACT, ARSENIC, GEOCHEMISTRY, KESTERSON RESERVOIR, PHASE PARTITIONING, SELENIUM)
2385. Fullerton, D.S., and Colton, R.B., 1986, Stratigraphy and correlation of the glacial deposits on the Montana plains; in Sibrava, Vladimir, Bowen, D. Q., Richmond, Gerald M. eds., Quaternary glaciations in the Northern Hemisphere: UNESCO, Earth Science Division, Paris France, Quaternary Science Review 5, p. 69-82. (CLASTIC ROCKS, DEPOSITION, ENVIRONMENTAL GEOLOGY, GLACIAL GEOLOGY, GREAT-PLAINS, LITHOSTRATIGRAPHY, MONTANA, NORTH-AMERICA, PLEISTOCENE, QUATERNARY, RETIRED, SEDIMENTOLOGY, STRATIGRAPHY, USA)
1399. Ganow, H.C., 1987, Summary of In Situ Stress Measurements in, Spent Fuel Test Climax, An Evaluation of the Technical Feasibility of Geologic Storage of Spent Fuel in Granite, compiled by Patrick, W. C: Lawrence Livermore National Laboratory UCRL-53702.
3062. Garbini, S., and Schweinfurth, S.P., 1986, Symposium proceedings: a national agenda for coal-quality research: U.S. Geological Survey Circular 979, p. 334 p. (COAL, COAL-QUALITY)
103. Gardner, N.K., and Carter, M.D., 1986, Geologic application of the Interactive Surface Modeling Program (ISM): U.S. Geological Survey Open-File Report 86-87, 58 p. (COMPUTER, COMPUTER MODELING, GEOLOGY, OPEN-FILE)
587. Gillespie, W.H., and Englund, K.J., 1992, Biostratigraphic framework for strata across the Mississippian-Pennsylvanian boundary in the Appalachian basin: Geological Society of America, Northeastern Section Meeting Abstracts with Programs, p. 23. (ABSTRACT, APPALACHIAN BASIN, BIOSTRATIGRAPHY, MISSISSIPPIAN, PENNSYLVANIAN, STRATIGRAPHY)
554. Glass, B.P., Bohor, B.F., and Betterton, W.J., 1993, Cretaceous-Tertiary boundary spherules and Cenozoic microtektites, Similarities and differences: Lunar and Planetary Science Conference XXIV; Lunar and Planetary Institute, Houston, Texas, Part 2, p. 539-540. (ABSTRACT, CENOZOIC, CRETACEOUS, K/T, MICROTEKTITES, SPHERULES, TERTIARY)
2906. Glenn, J.L., Peterson, C.D., and Spiker, E.C., 1991, Comparison of Holocene sedimentation in an east coast and west coast estuary, U.S.A: Abstract, Spring Estuaries Meeting. (ABSTRACT, ESTUARIES, ESTUARY, FACIES, HOLOCENE, SEDIMENTATION)
2965. Gluskoter, H.J., 1989, Coal quality of geological drill hole 45, Geological Survey of Bangladesh: Administrative Progress Report, Geological Survey of Bangladesh, 8 p. (COAL)
2967. Gluskoter, H.J., 1991, Economic geology: coal a brief overview: in Gluskoter, H.J., Rice, D.D., and Taylor, R.B., eds., Economic Geology: Geological Society of America, Decade of North American

- Geology (DNAG) volume, p. 463-467. (COAL)
2969. Gluskoter, H.J., 1991, Book review of advances in coal geochemistry: *Economic Geology*, v. 86, No. 3 p. (COAL, GEOCHEMISTRY)
2970. Gluskoter, H.J., 1991, Availability and future utilization of coal resources: *Geological Society of America, GSA Today*, v. 1, No. 4, p. 76, 85. (COAL)
2931. Gluskoter, H.J., 1992, Coal utilization in the 21st century: 29th International Geological Congress, Kyoto, Japan, v. 1, p. 14; Kyoto, Japan, Abstracts. (ABSTRACT, COAL)
2968. Gluskoter, H.J., Rice, D.D., and Taylor, R.B., 1991, editors, *Economic Geology: Geological Society of America, Decade of North American Geology (DNAG) volume, The Geology of North America*, v. P2, 622 p.
2591. Golightly, D.W., Dorrzapf, A.F., Jr., Scott, B.A., Aruscavage, P.J., and Palmer, C.A., 1988, Current Analytical Methods for Determining the Inorganic Composition of Coals, in *Symposium Proceedings, A National Agenda for Coal Quality Research* (Garbini, S., and Schweinfurth, S., eds.): U.S. Geological Survey Circular 979, p. 232; *A National Agenda for Coal Quality Research* (Garbini, S., and Schweinfurth, S., eds.). (COAL, GEOCHEMISTRY)
1937. Golightly, D.W., and Simon, F.O., 1989, Appendix; reference materials for coal analysis, in Golightly, D. W., Simon, F. O., eds., *Methods for sampling and inorganic analysis of coal: U.S. Geological Survey Bulletin 1823*, p. 69-72. (ANALYSES, COAL, ORGANIC, SEDIMENTARY ROCKS, STANDARD-MATERIALS)
1938. Golightly, D.W., and Simon, F.O., 1989, Methods for sampling and inorganic analysis of coal; introduction, in Golightly, D. W., Simon, F. O., eds., *Methods for sampling and inorganic analysis of coal: U.S. Geological Survey Bulletin 1823*, p. 1-5. (COAL, GEOCHEMISTRY, ION SELECTIVE ELECTRODE, NEUTRON ACTIVATION ANALYSIS, ORGANIC, SAMPLING, SEDIMENTARY ROCKS, SPECTROSCOPY, X RAY FLUORESCENCE)
1941. Golightly, D.W., and Simon, F.O., 1989, Methods for sampling and inorganic analysis of coal: U.S. Geological Survey Bulletin 1823, 72 p. (ASH, COAL, GEOCHEMISTRY, ORGANIC, SAMPLING, SEDIMENTARY ROCKS)
3134. Grady, W.C., Eble, C.F., and Neuzil, S.G., 1989, Distribution of petrographic components in a modern domed tropical Indonesian peat: a possible analog for maceral distributions in Middle Pennsylvanian coal beds of the Appalachian basin: *Geological Society of America, 1989 Annual Meeting, St. Louis, Missouri; Abstracts with Program*, v. 21, no. 6, p. A25. (ABSTRACT, COAL, PEAT, PETROGRAPHY)
3125. Grady, W.C., Eble, C.F., and Neuzil, S.G., 1993, Brown coal macerals distribution in a modern domed tropical Indonesian peat and a comparison with maceral distribution in Middle Pennsylvanian Age Appalachian bituminous coal beds, in Cobb, J.C., and Cecil, C.B., eds., *Modern and Ancient Coal-Forming Environments: Geological Society of America Special Paper 286*, p. 63-82. (APPALACHIAN COAL FIELD, BITUMINOUS-COAL, COAL, INDONESIA, MACERALS, PEAT, PENNSYLVANIAN)

895. Gratz, A., Pongratz, P., Preisinger, A., Christie, J., Bohor, B.F., and Frey, I., 1988, Optical microscopy and TEM of shocked material from the Clear Creek, Colorado K/T "magic layer": Lunar and Planetary Science Conference XIX, Lunar and Planetary Institute, Houston, pt. 1, p. 419-420. (ABSTRACT, COLORADO, CRETACEOUS, K/T, MICROSCOPY, TEM, TERTIARY)
3327. Green, M.W., Mytton, J.W., Sandberg, D.T., and Gardner, N.K., 1991, Geologic framework and major coal-bearing formations of the San Juan Basin, in Coalfields of New Mexico: U.S. Geological Survey Bulletin 1972, p. 1-14; Prepared in cooperation with the New Mexico Bureau of Mines and Mineral Resources. (COAL, COAL RESOURCES, COAL-FIELDS, FORMATIONS, GEOLOGY, NEW MEXICO, SAN JUAN BASIN, STRATIGRAPHY)
150. Gustason, E.R., Ryer, T.A., and Odland, S.K., 1988, Stratigraphy and depositional environments of the Muddy Sandstone, northwestern Black Hills, Wyoming: Earth Science Bulletin, v. 20, p. 49-60. (BLACK HILLS, CRETACEOUS, LITHOFACIES, NEWCASTLE-SANDSTONE, PALEOGEOGRAPHY, SEDIMENTARY ROCKS, SKULL CREEK SHALE, STRATIGRAPHY, THERMOPOLIS-SHALE, WYOMING)
1815. Hait, M.H., and M'Gonigle, J.W., 1988, Implications of Cenozoic extension to interpretation of Tertiary basin paleogeography and thrust plate paleotectonics: Geological Society of America Abstracts with Programs, v. 20, p. 108. (ABSTRACT, CENOZOIC, PALEOGEOGRAPHY, TECTONICS, TERTIARY)
1812. Hait, M.H., Jr., and M'Gonigle, J.W., 1987, Piggyback transport of the Cabin thrust plate in the northern Tenday and central Beaverhead Mountains, Idaho-Montana: Geological Society of America Abstracts with Programs, Phoenix, Arizona, p. 690. (ABSTRACT, BEAVERHEAD MOUNTAINS, CABIN THRUST PLATE, IDAHO, MONTANA, TENDAY MOUNTAINS)
1267. Hanley, J.H., and Flores, R.M., 1987, Taphonomy and paleoecology of nonmarine Mollusca as an indicator of alluvial plain lacustrine sedimentation, upper part of the Tongue River Member, Fort Union Formation, Paleocene, Northern Powder River Basin, Wyoming and Montana: Palaios Special Issue, v. 2, p. 479-496. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
4185. Hansen, D.E., 1986, Laramide tectonics and depositional history of the Ferris and Hanna formations, south-central Wyoming: American Association of Petroleum Geologists Memoir, 41, p. 481-495. (CLASTIC ROCKS, COAL, CONGLOMERATE, CRETACEOUS, LARAMIDE-OROGENY, ORGANIC, PALEOGENE, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TECTONICS, TERTIARY, WYOMING)
214. Hansen, D.E., 1987, Laramide tectonics and depositional history of the Ferris and Hanna formations, south-central Wyoming; in Barker, C.E., and Coury, A.B., eds., Abstracts of the U. S. Geological Survey, central region; 1987 poster review: U.S. Geological Survey Open-File Report 87-608, p. 15. (ABSTRACT, CLASTIC ROCKS, COAL, CONGLOMERATE, CRETACEOUS, LARAMIDE-OROGENY, OPEN-FILE, ORGANIC, PALEOGENE, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TECTONICS, TERTIARY, WYOMING)
3618. Hansley, P.L., Barnhill, M.L.M., and Holmes, C.W., 1993, Diagenesis of lower Pennsylvanian sandstones in Indiana: Relation to depositional environment and basinwide fluid movement, in

- Kvale, ed., Symposium on the Economic resources of the lower Pennsylvanian of the Illinois Basin: Indiana Geological Survey Open-file Report 93-534. (DEPOSITIONAL ENVIRONMENT, DIAGENESIS, FLUID MOVEMENT, ILLINOIS BASIN, INDIANA, OPEN-FILE, PENNSYLVANIAN)
1415. Hardie, J.K., 1985, High Sulfur Coal Exports - a book review: International Journal of Coal Geology, v. 4, p. 374-375. (BOOK REVIEW, COAL, EXPORTS, GEOCHEMISTRY, INTERNATIONAL, SULFUR)
1428. Hardie, J.K., 1990, Cross sections showing coal stratigraphy of the southwestern Powder River Basin, Wyoming: U.S. Geological Survey Miscellaneous Investigations Series Map I-1959, 2 sheets, scales 1:100,000 and 1:500,000. (COAL, CORRELATION, MAP, POWDER RIVER BASIN, STRATIGRAPHY, WYOMING)
1430. Hardie, J.K., 1990, Innovative approaches to mined land reclamation - a book review: International Journal of Coal Geology, v. 15, p. 71-72. (BOOK REVIEW, COAL, ENVIRONMENTAL GEOLOGY, MINING, RECLAMATION)
738. Hardie, J.K., 1991, Dolomite-rich clastic dikes and sills intruding Campanian coals of central Utah, Abstracts of the U.S. Geological Survey Central Region 1991 Poster Review: U.S. Geological Survey Open-File Report 91-582, p. 2. (ABSTRACT, CAMPANIAN, COAL, DIKES, DOLOMITE, OPEN-FILE, SILLS, UTAH, VOLCANIC ROCKS)
1432. Hardie, J.K., 1991, Dolomite-rich clastic dikes and sills intruding Campanian coals of central Utah: Geological Society of America Abstracts with Programs, v. 23, no. 5, p. A144. (ABSTRACT, COAL, DIKES, UTAH)
680. Hardie, J.K., 1992, Clastic dikes in Campanian coals, controlled by tectonics in western Colorado and by sedimentary architecture in central Utah: SEPM 1992 Theme Meeting Abstracts, Mesozoic of the Western Interior, p. 29. (ABSTRACT, CAMPANIAN, COAL, COLORADO, DIKES, SEDIMENTARY-STRUCTURES, SILLS, TECTONICS, UTAH, VOLCANIC ROCKS)
2281. Hardie, J.K., in press, Dolomite and siliciclastic dikes and sills in marginal-marine coals of central Utah: U.S. Geological Survey Bulletin. (COAL, DIKES, DOLOMITE, MARINE, SILICICLASTIC, SILLS, TECTONICS, UTAH)
1424. Hardie, J.K., and Arndt, H.H., 1987, Distribution, thickness, overburden, and structure contour maps of potentially recoverable lignite beds in the eastern part of the Fort Peck Indian Reservation, Montana: U.S. Geological Survey Open-File Report 87-674; 21 sheets. (COAL, COAL RESOURCES, CONTOUR-MAPS, FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, INDIAN, INDIAN RESERVATION, LIGNITE, MAP, MONTANA, OPEN-FILE, OVERBURDEN, RESERVATION, TERTIARY)
1421. Hardie, J.K., and Arndt, H.H., 1988, Geology, structure, and coal beds of the Fort Union Formation in the eastern part of the Fort Peck Indian Reservation, Daniels, Roosevelt, and Sheridan Counties, Montana: U.S. Geological Survey Coal Investigations Map C-122-A; scale 1:100,000. (COAL, DANIELS COUNTY, FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, GEOLOGY, INDIAN, INDIAN RESERVATION, MAP, MONTANA, PALEOCENE,

- RESERVATION, ROOSEVELT COUNTY, SHERIDAN COUNTY, STRUCTURE, TERTIARY)
1422. Hardie, J.K., and Arndt, H.H., 1989, Stratigraphy of the Fort Union Formation in the eastern part of the Fort Peck Indian Reservation, Daniels, Roosevelt, and Sheridan Counties, Montana: U.S. Geological Survey Coal Investigations Map C-122-B; 3 sheets, scale 1:100,000. (COAL, DANIELS COUNTY, FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, INDIAN, INDIAN RESERVATION, MAP, MONTANA, PALEOCENE, RESERVATION, ROOSEVELT COUNTY, SHERIDAN COUNTY, STRATIGRAPHY, TERTIARY)
1423. Hardie, J.K., and Arndt, H.H., 1990, Stratigraphic framework of the Fort Peck Indian Reservation, Daniels, Roosevelt, and Sheridan Counties, Montana: U.S. Geological Survey Coal Investigations Map C-122-C, 3 sheets, scale 1:100,000. (COAL, DANIELS COUNTY, FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, INDIAN, MAP, MONTANA, PALEOCENE, RESERVATION, ROOSEVELT COUNTY, SHERIDAN COUNTY, STRATIGRAPHY, TERTIARY)
675. Hardie, J.K., and Arndt, H.H., 1992, Stratigraphic framework of the Paleocene Fort Union Formation coal beds in the eastern part of the Fort Peck Indian Reservation, Montana: Montana Bureau of Mines and Geology Special Publication, p. 137-144. (COAL, FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, INDIAN, MONTANA, PALEOCENE, RESERVATION, STRATIGRAPHY, TERTIARY)
2280. Hardie, J.K., and Bostick, N.H., 1993, Siliciclastic dikes in and near the Cameo coal mine of western Colorado and dolomite dikes in the Trail Mountain mine of central Utah: Tenth Annual Pittsburgh Coal Conference Proceedings, p. 1068-1073. (ABSTRACT, CAMEO COAL MINE, COAL, COLORADO, DIKES, DOLOMITE, SILICICLASTIC, TRAIL MOUNTAIN MINE, UTAH)
1433. Hardie, J.K., and Fleck, K.S., 1991, Clastic dikes and sills in Campanian coals, Wasatch Plateau coal field, Utah: Geological Society of America Abstracts with Programs, v. 23, p. 30. (ABSTRACT, CAMPANIAN, COAL, CRETACEOUS, DIKES, SILLS, UTAH, VOLCANIC ROCKS, WASATCH PLATEAU COAL FIELD)
1426. Hardie, J.K., and Seeland, D., 1988, Persistent coal-forming swamp adjacent to a tectonically active basin margin, southwest Powder River Basin, Wyoming: Geological Society of America Abstracts with Programs, v. 20, p. 168. (ABSTRACT, COAL, DEPOSITIONAL ENVIRONMENT, FORT UNION FORMATION, PALEOENVIRONMENT, POWDER RIVER BASIN, SWAMPS, TECTONICS, WYOMING)
1429. Hardie, J.K., and Seeland, D., 1988, Persistent coal-forming swamp adjacent to a tectonically active basin margin, southwest Powder River Basin, Wyoming: U.S. Geological Survey Open-File Report 88-643, p. 23. (ABSTRACT, COAL, DEPOSITIONAL ENVIRONMENT, FORT UNION FORMATION, OPEN-FILE, PALEOENVIRONMENT, POWDER RIVER BASIN, SWAMPS, TECTONICS, WYOMING)
1416. Hardie, J.K., and Van Gosen, B.S., 1986, Diagram showing stratigraphic framework of coal beds underlying the northeast part of the Fort Peck Indian Reservation, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-1775, 1 sheet, scale 1:125,000. (COAL, CORRELATION,

FORT PECK INDIAN RESERVATION, FORT UNION FORMATION, INDIAN, MAP,
MONTANA, RESERVATION, STRATIGRAPHY)

1417. Hardie, J.K., and Van Gosen, B.S., 1986, Fence diagram showing coal bed correlations within the Sussex coal zone of the upper Fort Union Formation in and adjacent to the eastern part of the Kaycee 30' x 60' Quadrangle, Johnson and Campbell Counties, Wyoming: U.S. Geological Survey Coal Investigations Map C-107, scale 1:100,000. (CAMPBELL COUNTY, COAL, CORRELATION, FORT UNION FORMATION, JOHNSON COUNTY, KAYCEE QUADRANGLE, MAP, PALEOCENE, POWDER RIVER BASIN, SUSSEX COAL ZONE, TERTIARY, WYOMING)
467. Hasiotis, S.T., Flores, R.M., and Keighin, C.W., 1994, Integrated fluvial ichnology, paleopedology, and sedimentology of the Fort Union Formation, Wind River Basin, Wyoming: American Association of Petroleum Geologists Abstracts with Programs. (ABSTRACT, FORT UNION FORMATION, PALEOCENE, SEDIMENTOLOGY, TERTIARY, WIND RIVER BASIN, WYOMING)
1486. Hatch, J.R., 1987, Element Geochemistry, Chapter G, in Geological Investigations of the Vermillion Creek Coal Bed in the Eocene Niland Tongue of the Wasatch Formation, Sweetwater County, Wyoming: U.S. Geological Survey Professional Paper 1314-G, p. 121-132. (COAL, EOCENE, GEOCHEMISTRY, NILAND TONGUE, SWEETWATER COUNTY, TERTIARY, VERMILLIAN CREEK COAL BED, WASATCH-FORMATION, WYOMING)
1492. Hatch, J.R., 1990, Review of the geology of the Sioux Uplift and Iowa Shelf provinces as a basis for estimates of undiscovered hydrocarbon resources: U.S. Geological Survey Open-File Report 88-450, 19 p. (GEOLOGY, HYDROCARBONS, IOWA, OPEN-FILE, SIOUX UPLIFT)
1535. Hatch, J.R., 1992, Hydrocarbon source-rock evaluation of Desmoinesian, Middle Pennsylvanian, coals from southeastern Iowa, Missouri, southeastern Kansas, and northeastern Oklahoma, in U.S. Geological Survey Research on Energy Resources, 8th V.E. McKelvey Forum on Energy and Mineral Resources: U.S. Geological Survey Circular 1074, p. 33. (ABSTRACT, COAL, ENERGY RESOURCES, HYDROCARBONS, IOWA, KANSAS, MISSOURI-RIVER, OKLAHOMA, PENNSYLVANIAN)
1538. Hatch, J.R., 1992, Hydrocarbon source-rock evaluation of Desmoinesian, Middle Pennsylvanian, coals from the part of the Western Region of the Interior Coal Province, U.S.A: American Association of Petroleum Geologists Bulletin, v. 76, p. 53. (COAL, GEOCHEMISTRY, HYDROCARBONS, IOWA, KANSAS, MISSOURI-RIVER, OKLAHOMA, PENNSYLVANIAN)
1516. Hatch, J.R., Heyl, A.V., and King, J.D., 1985, Organic geochemistry of wall-rock alteration, Thompson-Temperly Mine, Southwest Wisconsin, in V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 949, p. 20-21. (ABSTRACT, ALTERATION, GEOCHEMISTRY, MINING, THOMPSON-TEMPERLY MINE, WISCONSIN)
1483. Hatch, J.R., Heyl, A.V., and King, J.D., 1986, Organic Geochemistry of hydrothermal alteration, basal shale and limestone beds, Middle Ordovician Quimbys Mill Member, Platteville Formation, Thompson-Temperly zinc-lead mine, Lafayette County, Wisconsin: Denver Regional Exploration

Geologists Society Symposium on Organic Matter and Ore Deposits, ed., p. 93-104.
(GEOCHEMISTRY, LAFAYETTE COUNTY, LEAD, LIMESTONE, ORDOVICIAN,
PLATTEVILLE FORMATION, SHALE, WISCONSIN, ZINC)

1524. Hatch, J.R., and Jacobson, S.R., 1987, Organic geochemistry and organic petrography of Middle Ordovician rocks north-central and midcontinent regions, U.S.A: Geological Society of America Abstracts with Programs, North-Central Section, v. 19, p. 202. (ABSTRACT, GEOCHEMISTRY, ORDOVICIAN, PETROGRAPHY)
1517. Hatch, J.R., Jacobson, S.R., Witzke, B.J., Anders, D.E., Watney, W.L., and Newell, K.D., 1985, Carbon isotope variation in Forest City Basin, Keota Dome Field and Michigan Basin "Ordovician Type" Oils, Relationship to a major Middle Ordovician carbon isotope shift: American Association of Petroleum Geologists Bulletin, v. 69, p. 851. (CARBON, FOREST CITY BASIN, ISOTOPE, KEOTA DOME FIELD, MICHIGAN BASIN, OIL AND GAS, ORDOVICIAN)
1487. Hatch, J.R., Jacobson, S.R., Witzke, B.J., Risatti, J.B., Anders, D.E., Watney, W.L., Newell, K.D., and Vuletich, A.K., 1987, Possible late Middle Ordovician organic carbon isotope excursion, Evidence from Ordovician oils and hydrocarbon source rocks, mid-continent and east-central United States: American Association of Petroleum Geologists Bulletin, North-Central Section, v. 71, p. 1342-1354. (ABSTRACT, CARBON, GEOCHEMISTRY, HYDROCARBONS, OIL, ORDOVICIAN, PETROGRAPHY)
1491. Hatch, J.R., King, J.D., and Daws, T.A., 1989, Geochemistry of Cherokee Group oils of southeastern Kansas and northeastern Oklahoma: Kansas Geological Survey Subsurface Geology Series, 11, 20 p. (CHEROKEE GROUP, GEOCHEMISTRY, KANSAS, OIL, OIL AND GAS, OKLAHOMA)
1518. Hatch, J.R., and Leventhal, J.S., 1985, Organic and trace-element geochemical evidence of depositional and post depositional processes for midcontinent Middle and Upper Pennsylvanian organic-matter-rich rocks, in Watney, W.L., Kaesler, R.L., and Newell, K.D., eds., Recent interpretations of Late Paleozoic Cyclothems: Proceedings of Midcontinent Section SEPM Third Annual Meeting and Field Conference, p. 267-268. (ABSTRACT, CYCLOTHEMS, DEPOSITIONAL ENVIRONMENT, FACIES, GEOCHEMISTRY, HAPS, ORGANIC MATTER, PALEOZOIC, PENNSYLVANIAN, TRACE ELEMENTS)
1498. Hatch, J.R., and Leventhal, J.S., 1992, Relationship between inferred redox potential of the depositional environment and geochemistry of the Missourian Stark Shale Member of the Dennis Limestone, Wabaunsee County, Kansas, in Meyer, P.A., Pratt, L.M., and Nagy B., eds., Metalliferous Black Shales: Chemical Geology, v. 99, p. 65-82. (BLACK SHALE, CHEMISTRY, DENNIS LIMESTONE, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, KANSAS, PENNSYLVANIAN, REDOX, SHALE, STARK SHALE MEMBER)
3802. Hatch, J.R., and Leventhal, J.S., 1993, Metal contents and ratios and degree of pyritization (DOP): Keys to understanding the chemistry of the depositional environment of the Missourian Stark Shale Member: Geological Society of America Abstracts with Programs, v. 25, p. A-240. (ABSTRACT, CHEMISTRY, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, METAL ORES, PYRITE, PYRITIZATION, STARK SHALE MEMBER)

3803. Hatch, J.R., Leventhal, J.S., and Buruss, R.C., 1993, Relationship of organic and inorganic geochemistry to depositional environment for the Upper Pennsylvanian (Missourian) Stark Shale Member of the Dennis Limestone, Midcontinent and Eastern Interior regions, United States: Canadian Society of Petroleum Geologists Program and Abstracts, p. 134. (ABSTRACT, DENNIS LIMESTONE, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, INORGANIC, ORGANIC, PENNSYLVANIAN, STARK SHALE MEMBER)
1530. Hatch, J.R., Leventhal, J.S., and Desborough, G.A., 1990, Early diagenetic, aerobic degradation of organic matter and sulfides in some Middle and Upper Pennsylvanian marine shales, Midcontinent region, U.S.A: American Association of Petroleum Geologists Bulletin, v. 74, p. 671-672. (MARINE, ORGANIC, ORGANIC MATTER, PENNSYLVANIAN, SHALE, SULFIDES)
1531. Hatch, J.R., Leventhal, J.S., and Desborough, G.A., 1990, Geochemical and mineralogical clues to depositional environments for Pennsylvanian, metal-rich, black shales, Midcontinent region, USA: Geological Society of America Abstracts with Programs, v. 22, p. A11. (ABSTRACT, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, METAL ORES, MINERALOGY, PALEOENVIRONMENT, PENNSYLVANIAN, SHALE)
1482. Hatch, J.R., and Morey, G.B., 1985, Hydrocarbon Source Rock Evaluation of Middle Proterozoic, Solor Church Formation, North American Mid-Continent Rift System, Rice County, Minnesota: American Association of Petroleum Geologists Bulletin, v. 69, p. 1208-1216. (HYDROCARBONS, MID-CONTINENTAL RIFT, MINNESOTA, PROTEROZOIC, RICE COUNTY, SOLOR CHURCH FORMATION)
1520. Hatch, J.R., Rice, D.D., Burruss, R.C., Schmoker, J.W., and Clayton, J.L., 1986, Thermal maturity, source rocks, oils and natural gases of the Anadarko Basin: ; U.S. Geological Survey Circular 974, Second V. E. McKelvey Forum on Energy and Mineral Resources, p. 21-23. (ABSTRACT, ANADARKO BASIN, OIL, OIL AND GAS, THERMAL, THERMAL MATURITY)
682. Hatch, J.R., Risatti, J.B., and King, J.D., 1991, Geochemistry of Illinois basin oils and hydrocarbon source rocks, in Leighton, M.W., Kolata, D.R., Oltz, D.F., and Eidel, J.J., eds., Interior Cratonic Basins: American Association of Petroleum Geologists Memoir 51, p. 403-423. (GEOCHEMISTRY, HYDROCARBONS, ILLINOIS BASIN, OIL, OIL AND GAS, RESERVOIR ROCKS)
1525. Hatch, J.R., Risatti, J.B., King, J.D., and Dickerson, D.R., 1987, Organic geochemistry of oils and hydrocarbon source rocks, Illinois basin: American Association of Petroleum Geologists Bulletin, v. 71, p. 565-566. (GEOCHEMISTRY, HYDROCARBONS, ILLINOIS BASIN, ORGANIC)
686. Hatcher, P.G., 1986, A new approach to organic geochemical studies of the coalification process; chemical and physical evolution of coalfield logs as a function of rank, in Carter, L.M.H., ed., USGS research on energy resources, 1986; program and abstracts, Second V. E. McKelvey forum on mineral and energy resources, Denver, CO, Feb. 5-6, 1986: U.S. Geological Survey Circular 974, p. 23-24. (ABSTRACT, COAL, COALIFICATION, GAS CHROMATOGRAPHY, GEOCHEMISTRY, HUMIC-ACIDS, LIGNIN, LIGNITE, NMR-SPECTRA, ORGANIC, PEAT, RANK, SEDIMENTARY ROCKS, VITRINITE)
704. Hatcher, P.G., 1986, Coalification of xylem tissue as determined by solid-state (13)C NMR; a new

- approach to understanding the structure of coal: Geological Society of America Abstracts with Programs, Geological Society of America, 99th annual meeting, San Antonio, TX, Nov. 10-13, 1986, v. 18, p. 631. (ABSTRACT, COAL, COALIFICATION, LIGNIN, NUCLEAR MAGNETIC RESONANCE, ORGANIC, STABLE-ISOTOPES, XYLEM)
691. Hatcher, P.G., 1987, Second generation solid-state (13)C NMR techniques applied to the study of coalification processes: American Chemical Society, 194th National Meeting; New Orleans, LA, Aug. 30-Sept. 4, 1987. (ABSTRACT, COAL, COALIFICATION, GEOCHEMISTRY, LIGNITE, NUCLEAR MAGNETIC RESONANCE, ORGANIC, SPECTROSCOPY)
530. Hatcher, P.G., 1990, Chemical structural models for coalified wood (vitrinite) in low rank coal; in Durand, B. and Behar, F., eds., Advances in organic geochemistry, 1989; Part II, Molecular geochemistry: Organic Geochemistry, v. 16, p. 959-968; Advances in organic geochemistry, 1989; 14th international meeting on Organic geochemistry, Paris, Sept. 18-22, 1989. (COAL, COALIFICATION, GEOCHEMISTRY, GYMNOSPERM, LIGNITE, NMR-SPECTRA, ORGANIC, SEDIMENTARY ROCKS, VITRINITE, WOOD)
610. Hatcher, P.G., Bates, A.L., Spiker, E.C., and Comer, V.J., 1989, Early diagenesis of organic matter in two lake sediments; a comparison of a freshwater lake with a saline lake: American Chemical Society, Abstracts of Papers, v. 197, p. GEOC 21; 197th ACS national meeting, Dallas, TX, Apr. 9-14, 1989. (ABSTRACT, BERMUDA, DIAGENESIS, ENVIRONMENTAL GEOLOGY, FLORIDA, GEOCHEMISTRY, INTERNATIONAL, LACUSTRINE, MANGROVE, ORGANIC, SALINITY, SEDIMENTOLOGY, USA)
3098. Hatcher, P.G., Breger, I.A., Maciel, G.E., and Szeverenyi, N.M., 1985, Geochemistry of humin, in Aiken, G.R., McKnight, D.M., Wershaw, R.L., and Mearthy, P., eds., Humic substances in soil, sediment, and water; Geochemistry, isolation, and characterization: Wiley-Interscience Publication; John Wiley & Sons, New York, NY, p. 275-302. (BURIAL, COAL, COMPOSITION, GEOCHEMISTRY, HUMATES, HUMIN, LIGNIN, MARINE, NMR-SPECTRA, ORGANIC, PEAT, SEDIMENTOLOGY)
10. Hatcher, P.G., Lerch, H.E., and Bates, A.L., 1989, Organic Geochemical Studies of the Early Coalification of Xylem Tissue in Wood: Implications for the Chemical Structure of Coal: Proceeding of the 14th Meeting on Organic Geochemistry, Paris, France, Sept. 18-22, 1989; Abstract no. 162. (ABSTRACT, COAL, COALIFICATION, GEOCHEMISTRY, ORGANIC, WOOD, XYLEM)
2792. Hatcher, P.G., Lerch, H.E., Kotra, R.K., and Verheyen, T.V., 1987, Pyrolysis/gas chromatograph/mass spectrometry of a series of degraded woods and coalified logs that increase in rank from peat to subbituminous coal: Fuel, v. 67, p. 1067-1075. (COAL, OIL AND GAS, PEAT, RANK, SUBBITUMINOUS COAL, WOOD)
2793. Hatcher, P.G., Lerch, H.E., Kotra, R.K., and Verheyen, T.V., 1987, Pyrolysis/gas chromatograph/mass spectrometry of a series of buried woods and coalified logs that increase in rank from peat to subbituminous coal: American Chemical Society, Division of Fuel Chemistry, Preprints, v. 32, p. 85-93. (COAL, OIL AND GAS, PEAT, RANK, SPECTROMETRY, SUBBITUMINOUS COAL, WOOD)

591. Hatcher, P.G., and Lerch, H.E., III, 1989, Survival of lignin-derived structural units in ancient coalified wood samples: American Chemical Society, v. 198, p. FUEL 1; 198th national meeting, Miami Beach, FL, Sept. 10-15, 1989. (ABSTRACT, CARBONIFEROUS, COAL, COALIFICATION, CRETACEOUS, GEOCHEMISTRY, LIGNIN, MESOZOIC, NMR-SPECTRA, ORGANIC, PALEOZOIC, SEDIMENTARY ROCKS, USSR, WOOD)
2809. Hatcher, P.G., and Lerch, H.E., III, 1989, Survival of lignin-derived structural units in ancient coalification wood samples: American Chemical Society; meeting Sept. 10-15, Miami, FL. (ABSTRACT, COAL, COALIFICATION, LIGNITE, WOOD)
405. Hatcher, P.G., and Lerch, H.E., III, 1991, Survival of lignin-derived structural units in ancient coalified wood samples; Schobert, Harold H., Bartle, Keith D., Lynch, Leo J. Coal science; II: American Chemical Society, Symposium Series 461, 198th national meeting, Sept. 10-15, 1989, p. 9-19. (ABSTRACT, BIOMARKERS, CARBONIFEROUS, COAL, COALIFICATION, COMPOSITION, CRETACEOUS, FOSSIL-WOOD, LIGNIN, LIGNITE, MASS-SPECTROSCOPY, NMR-SPECTRA, ORGANIC, RANK, SEDIMENTARY ROCKS)
2794. Hatcher, P.G., Lerch, H.E., III, Bates, A.L., and Verheyen, T.V., 1989, Solid-state ¹³C nuclear magnetic resonance studies of coalified gymnosperm xylem tissue from Australian brown coal: Organic Geochemistry, v. 14, p. 145-155. (COAL, COALIFICATION, MAGNETIC RESONANCE, NUCLEAR, XYLUM)
2805. Hatcher, P.G., Lerch, H.E., III, and Kotra, R.K., 1987, Pyrolysis/gas chromatography/mass spectrometry of a series of buried woods and coalified logs that increase in rank from peat to subbituminous coal: American Chemical Society, Fuel Chemistry Division Abstract. (ABSTRACT, COAL, PEAT, RANK, SUBBITUMINOUS COAL, WOOD)
2795. Hatcher, P.G., Lerch, H.E., III, and Verheyen, T.V., 1989, Organic geochemistry studies of the transformation of gymnospermous xylem during peatification and coalification to subbituminous coal, In Lyons, P.C. and B. Alpern, eds., Coal- Classification, Coalification, Mineralogy, Trace-element Chemistry, and Oil and Gas Potential: International Journal of Coal Geology, v. 13, p. 65-97. (COAL, COALIFICATION, GEOCHEMISTRY, GYMNOSPERM, HAPS, PEATIFICATION, SUBBITUMINOUS COAL, TRACE ELEMENTS, XYLEM)
650. Hatcher, P.G., Lerch, H.E., III, Verheyen, T.V., and Wilson, M.A., 1988, Organic geochemical studies of the early coalification of peat and associated xylem tissue; in Carter, L.M., ed., USGS research on energy resources, 1988; program and abstracts: U.S. Geological Survey Circular 1025, p. 18-19; Fourth annual V. E. McKelvey forum on Mineral and energy resources, Denver, CO, Feb. 29-Mar. 2, 1988. (ABSTRACT, COAL, COALIFICATION, GAS CHROMATOGRAPHY, GEOCHEMISTRY, LIGNIN, NMR-SPECTRA, ORGANIC, PEAT, XYLEM)
242. Hatcher, P.G., Lerch, H.E., III, and Verheyen, T., V, 1989, Organic geochemical studies of the transformation of gymnospermous xylem during peatification and coalification to subbituminous coal: International Geological Congress, Abstracts with Programs, 28, v. 2, p. 236-237; 28th international geological congress, Washington, DC, July 9-19, 1989. (ABSTRACT, BIOCHEMISTRY, BITUMINOUS-COAL, CARBON, COAL, COALIFICATION, GAS CHROMATOGRAPHY, GEOCHEMISTRY, GYMNOSPERM, LIGNIN, MASS-SPECTROSCOPY, NMR-SPECTRA, ORGANIC)

566. Hatcher, P.G., Lerch, H.E., III, and Verheyen, T., V, 1990, Organic geochemical studies of the transformation of gymnospermous xylem during peatification and coalification to subbituminous coal; in Lyons, P.C., Callcott, T.G., and Alpern, Boris, eds., Peat and coal; origin, facies, and coalification: International Journal of Coal Geology, v. 16, p. 193-196; 28th international congress symposium on Peat and coal; origin, facies and coalification, Washington, DC, July 11-13, 1989. (BIOCHEMISTRY, COAL, COALIFICATION, GEOCHEMICAL-CONTROLS, GEOCHEMISTRY, GYMNOSPERM, ORGANIC, PEAT, WOOD)
295. Hatcher, P.G., and Li, R., 1990, Evolution of lignin structures as models for the structure of vitrinite in low-rank coal: American Chemical Society; 200th ACS national meeting, Washington, DC, Aug. 26-31, 1990. (ABSTRACT, COAL, COALIFICATION, LIGNIN, NMR-SPECTRA, ORGANIC, PEAT, RANK, SEDIMENTARY ROCKS, VITRINITE, WOOD)
3102. Hatcher, P.G., and Orem, W.H., 1986, Structural interrelationships among humic substances in marine and estuarine sediments as delineated by cross-polarization/magic angle spinning (13)C NMR, in Sohn, M.L., ed., Organic marine geochemistry, Florida Institute of Technology, Department of Chemistry, Melbourne, Florida: American Chemical Society, Symposium Series, v. 305, p. 142-157. (ANALYSES, BERMUDA, ESTUARINE, GEOCHEMISTRY, HUMIC-ACIDS, INTERNATIONAL, MARINE, MARYLAND, NAMIBIA, NEW-YORK, NMR-SPECTRA, ORGANIC, SEDIMENTOLOGY, SOUTHERN-AFRICA, USA)
6. Hatcher, P.G., and Romankiw, L.P., 1985, Nuclear magnetic resonance studies of organic-matter-rich sedimentary rocks of some early Mesozoic basins of the Eastern United States, in Robinson, G.R., Jr., and Froelich, A.J., eds., Proceedings of the Second U. S. Geological Survey workshop on the early Mesozoic basins of the Eastern United States: U.S. Geological Survey Circular 949, p. 65-70. (GEOCHEMISTRY, LACUSTRINE, MATURATION, MESOZOIC, NEWARK-GROUP, NMR-SPECTRA, NUCLEAR, ORGANIC, SEDIMENTARY ROCKS, SEDIMENTARY-BASINS)
646. Hatcher, P.G., Schnitzer, M., Vassallo, A.M., and Wilson, M.A., 1989, The chemical structure of highly aromatic humic acids in three volcanic soils as determined by dipolar dephasing NMR studies: Geochimica et Cosmochimica Acta, v. 53, p. 125-130. (COMPOSITION, GEOCHEMISTRY, HUMIC-ACIDS, NMR-DATA, ORGANIC, PALEOSOLS, SOILS)
2898. Hatcher, P.G., and Spiker, E.C., 1985, Diagenesis of fossil fuel precursors: Coal Quality Symposium, U. S. Geological Survey, Reston, VA, April, 1985. (ABSTRACT, COAL, COAL-QUALITY, DIAGENESIS, ENERGY FUELS, ENERGY RESOURCES, OIL AND GAS)
2859. Hatcher, P.G., and Spiker, E.C., 1988, Selective preservation of plant biomolecules, in Frimmel, F.H., and Christman, R.F., eds., Humic Substances and Their Role in the Environment: Wiley and Sons, p. 59-74. (ENVIRONMENTAL STUDY, GEOCHEMISTRY, HUMIC-ACIDS, ORGANIC, ORGANIC GEOCHEMISTRY, PLANTS)
2848. Hatcher, P.G., Spiker, E.C., and Orem, W.H., 1985, Oxidative origin of sedimentary humic acids, important carriers of metals: Proceedings of the Denver Regional Exploration Geologists Society Conference, Denver, April 1985, p. 12. (ABSTRACT, ACID, HUMIC-ACIDS, METALS, ORES, OXIDATION, SEDIMENTARY ROCKS)

347. Hatcher, P.G., Spiker, E.C., and Orem, W.H., 1986, Oxidative origin of humic acids, important carriers of metals: Denver Regional Exploration Geologists Society Symposium on Organic Matter and Ore Deposits, Denver, CO, April 25-26, 1985, p. 57-68. (BIOCHEMISTRY, CARBON, ECONOMIC GEOLOGY, GEOCHEMICAL-CONTROLS, GEOCHEMISTRY, GOLD, HAPS, HUMIC-ACIDS, METAL ORES, MINERAL DEPOSITS, NEVADA, NEW MEXICO, ORGANIC, TRACE ELEMENTS, URANIUM)
2855. Hatcher, P.G., Spiker, E.G., Orem, W.H., Romankiw, L.A., Szeverenyi, N.M., and Maciel, G.E., 1986, Organic geochemical studies of uranium associated organic matter from the San Juan Basin, A new approach using solid-state ¹³C nuclear magnetic resonance, In A Basin Analysis Case Study, New Mexico: American Association of Petroleum Geologists, Studies in Geology, p. 171-184. (GEOCHEMISTRY, NEW MEXICO, NUCLEAR, ORGANIC, SAN JUAN BASIN, URANIUM)
556. Hatcher, P.G., and Wilson, M.A., 1991, The effect of sample hydration on (¹³C) CPMAS NMR spectra of fulvic acids: Organic Geochemistry, v. 17, p. 293-299. (COAL, GEOCHEMISTRY, HYDRATION, NMR-SPECTRA, NUCLEAR MAGNETIC RESONANCE, ORGANIC, SPECTROSCOPY)
611. Hatcher, P.G., Wilson, M.A., Vassallo, A.M., and Lerch, H.E., III, 1989, Studies of angiospermous wood in Australian brown coal by nuclear magnetic resonance and analytical pyrolysis; new insights into the early coalification process; in Lyons, P.C., and Alpern, Boris, eds., Coal; classification, coalification, mineralogy, trace-element chemistry, and oil and gas potential: International Journal of Coal Geology, v. 13, p. 99-126. (ANGIOSPERMS, AUSTRALIA, BIOCHEMISTRY, COAL, COALIFICATION, ECONOMIC GEOLOGY, GEOCHEMISTRY, HAPS, LIGNITE, NMR-SPECTRA, NUCLEAR, ORGANIC, PEATIFICATION, RANK, SEDIMENTARY ROCKS, TRACE ELEMENTS, WOOD)
2808. Hatcher, P.G., Wilson, M.A., Vassallo, A.M., and Lerch III, H.E., 1989, Studies of angiospermous woods in Australian brown coal by nuclear magnetic resonance and analytical pyrolysis: new insights into early coalification: 28th International Geological Congress (Washington, D.C., July 9-19, 1989), Abstracts, v. 2, p. 37. (ABSTRACT, COAL, COALIFICATION, NUCLEAR)
565. Hatcher, P.G., Wilson, M.A., Vassallo, M., and Lerch, H.E., III, 1990, Studies of angiospermous woods in Australian brown coal by nuclear magnetic resonance and analytical pyrolysis; new insight into early coalification; in Lyons, P.C., Callcott, T.G., and Alpern, Boris. Peat and coal; origin, facies, and coalification: International Journal of Coal Geology, v. 16, p. 205-207; 28th international congress symposium on Peat and coal; origin, facies and coalification, Washington, DC, July 11-13, 1989. (ANGIOSPERMS, AUSTRALIA, BIOCHEMISTRY, COAL, COALIFICATION, ECONOMIC GEOLOGY, GEOCHEMISTRY, LIGNITE, NMR-SPECTRA, NUCLEAR, ORGANIC, PEAT, TERTIARY, WOOD)
690. Hatcher, P.G., 1985, Origin of sedimentary humic acids, potential carriers of ore-forming elements, in Krafft, Kathleen, U.S. Geological Survey Research on Mineral Resources, 1985, Program and Abstracts, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 949, p. 21-22. (ABSTRACT, ACID, GEOCHEMICAL-CONTROLS, HUMIC-ACIDS, MINERAL DEPOSITS, NMR-SPECTRA, ORE FORMING FLUIDS, ORES, ORGANIC,

SEDIMENTARY ROCKS, SEDIMENTOLOGY)

676. Hatcher, P.G., and Spiker, E.C., 1986, Diagenesis of fossil-fuel precursors, in Garbini, Susan, and Schweinfurth, S.P., eds., Symposium proceedings: A National Agenda for Coal-quality Research: U.S. Geological Survey Circular 979, p. 235. (ABSTRACT, COAL, COALIFICATION, DIAGENESIS, LIGNIN, LIPIDS, NMR-SPECTRA, ORGANIC, RESINS, VITRINITE)
2851. Hatcher, P.G., Spiker, E.C., and Orem, W.H., 1987, Organic geochemical studies of the humification process in lowmoor peat, in "The Relationship of Water with Peat and its Constituents", Fuchsman, C.H., ed., Elsevier Applied Science Publishers, p. 195-214. (COAL, GEOCHEMISTRY, PEAT)
608. Hatcher, P.G., and Wilson, M.A., 1989, The effect of hydration on solid-state (13)C NMR spectra of fulvic acids: 197th American Chemical Society National Meeting, Abstracts with papers, 7. p. (ABSTRACT, GEOCHEMISTRY, HYDRATION, NUCLEAR MAGNETIC RESONANCE, ORGANIC, SPECTROSCOPY)
1272. Haymes, S.R., and Flores, R.M., 1988, Mixed regressive-transgressive coastal deposits in an Upper Cretaceous prograding sequence, southwest Raton Basin, New Mexico: American Association of Petroleum Geologists Bulletin, v. 72, p. 872. (ABSTRACT, CRETACEOUS, NEW MEXICO)
3805. Heckle, P.H., and Hatch, J.R., 1992, Comment on "Contrasting depositional models for Pennsylvanian black shale discerned from molybdenum abundances": Geology, v. 20, p. 88-89. (BOOK REVIEW, DEPOSITIONAL ENVIRONMENT, DEPOSITIONAL SYSTEMS, MOLYBDENUM, PENNSYLVANIAN, SHALE)
3096. Hedges, J.I., Cowie, G.L., Ertel, J.R., Barbour, R.J., and Hatcher, P.G., 1985, Degradation of carbohydrates and lignins in buried woods: Geochimica et Cosmochimica Acta, v. 49, p. 701-711. (CARBOHYDRATES, COAL, DEGRADATION, GEOCHEMISTRY, LIGNIN, NMR-SPECTRA, ORGANIC, SEM-DATA, WOOD)
406. Hedges, J.I., Hatcher, P.G., Ertel, J.R., and Meyers, S.K.J., 1992, A comparison of dissolved humic substances from seawater with Amazon River counterparts by (13)C-NMR spectrometry: Geochimica et Cosmochimica Acta, v. 56, p. 1753-1757. (BRAZIL, COAL, GEOCHEMISTRY, HUMIC-ACIDS, NMR-SPECTRA, ORGANIC, PACIFIC-OCEAN, RIO-NEGRO, SOUTH-AMERICA)
2274. Heffern, E.L., Coates, D.A., Whiteman, J., and Ellis, M.S., 1993, Geologic map showing distribution of clinker in the Tertiary Fort Union and Wasatch Formations, northern Powder River basin, Montana: U.S. Geological Survey Coal Investigations Map C-142, scale 1:250,000. (CLINKER, COAL, CORRELATION, FORT UNION FORMATION, MAP, MONTANA, POWDER RIVER BASIN, STRATIGRAPHY, TERTIARY, WASATCH-FORMATION)
728. Henderson, J.A., Jr., Wilkes, G.P., Bragg, L.J., and Oman, C.L., 1985, Analyses of coal samples collected in Virginia 1978-1980: Virginia Division of Mineral Resources Publication, 63, 56 p. (COAL, COAL ANALYSES, COAL SAMPLES, COAL-QUALITY, DATA, USCHEM, VIRGINIA)

3059. Henry, T.W., Gordon, M., Jr., Schweinfurth, S.P., and Gillespie, W.H., 1985, Significance of the goniatite *Bilinguites eliasi* and associated biotas, Parkwood Formation and Bangor Limestone, northwestern Alabama: *Journal of Paleontology*, v. 59, p. 1138-1145. (ALABAMA, BANGOR LIMESTONE, FOSSIL, PALEONTOLOGY, PARKWOOD FORMATION)
1928. Herring, J.R., Roberts, S.B., and Hobbs, R.G., 1986, Techniques for characterization of extent of mining, mine fire and subsidence, A case study at Marshall, Colorado, in *Proceedings of 1985 Conference on Coal Mine Subsidence in the Rocky Mountain Region: Colorado Geological Survey, Special Publication 31*, 46 p. (COAL, COLORADO, FIRE, MINING, ROCKY MOUNTAIN REGION, SUBSIDENCE)
3911. Hettinger, R.D., 1993, Sedimentological descriptions and geophysical logs of two 300-m cores collected from the Straight Cliffs Formation of the Kaiparowits Plateau, Kane County, Utah: U.S. Geological Survey Open-File Report 93-270, 42 p. (COAL, DRILL CORE, FACIES, GEOPHYSICAL LOGS, KAIPAROWITS-PLATEAU, KANE COUNTY, LITHOLOGIC LOGS, SEDIMENTOLOGY, STRAIGHT CLIFFS FORMATION, UTAH)
3909. Hettinger, R.D., 1994, Distribution of coals in Upper Cretaceous highstand deposits of the Kaiparowits Plateau, Utah, in *Analogs for the World: American Association of Petroleum Geologists Abstracts with Programs*, v. 3, p. 171. (ABSTRACT, COAL, CRETACEOUS, ENVIRONMENTAL GEOLOGY, FACIES, GLOBAL, INTERNATIONAL, KAIPAROWITS-PLATEAU, PALEOENVIRONMENT, SEDIMENTOLOGY, UTAH, WORLD)
3912. Hettinger, R.D., in press, Sedimentological descriptions and depositional interpretations, in sequence stratigraphic context, of two 300-m cores from the Upper Cretaceous Straight Cliffs Formation, Kaiparowits Plateau, Kane County, Utah: U.S. Geological Survey Bulletin, chapter, 39 manuscript pages. (CRETACEOUS, DEPOSITIONAL ENVIRONMENT, DRILL CORE, FACIES, KAIPAROWITS-PLATEAU, LITHOLOGIC LOGS, SEDIMENTOLOGY, STRAIGHT CLIFFS FORMATION, STRATIGRAPHY, UTAH)
3457. Hettinger, R.D., Bankey, V., and Causey, J.D., 1987, Mineral resources of the Burnt Lodge Wilderness Study Area, Phillips and Valley Counties, Montana: U.S. Geological Survey Bulletin 1722-A, p. A1-A16. (COAL, COAL RESOURCES, GEOLOGY, MINERAL-RESOURCES, MINERALS, MONTANA, RESOURCES, WILDERNESS AREAS)
3456. Hettinger, R.D., Bankey, V., and Miller, M.S., 1988, Mineral resources of the Seven Blackfoot Wilderness Area, Garfield County, Montana: U.S. Geological Survey Bulletin 1722-D, p. D1-D22. (COAL, COAL RESOURCES, GARFIELD COUNTY, GEOLOGY, INDIAN, MAP, MINERALS, MONTANA, RESOURCES, SEVEN BLACKFOOT WILDERNESS AREA, WILDERNESS AREAS)
721. Hettinger, R.D., Honey, J.G., and Nichols, D.J., 1991, Cross section showing correlations of Upper Cretaceous Fox Hills Sandstone and Lance Formation, and lower Tertiary Fort Union, Wasatch, and Green River Formations, east flank of the Washakie basin to the southeast part of the Great Divide basin, Wyoming: U.S. Geological Survey Miscellaneous Investigations Series Map I-2151. (COAL, CRETACEOUS, GREEN RIVER BASIN, TERTIARY, WYOMING)
722. Hettinger, R.D., and Kirschbaum, M.A., 1991, Chart showing correlations of some Upper

- Cretaceous and lower Tertiary rocks from the east flank of the Washakie basin to the east flank of the Rock Springs uplift, Wyoming: U.S. Geological Survey, Miscellaneous Investigations Map I-2152. (CORRELATION, CRETACEOUS, GREEN RIVER BASIN, MAP, ROCK SPRINGS UPLIFT, TERTIARY, WASHAKIE BASIN, WYOMING)
3453. Hettinger, R.D., and McCabe, P.J., 1990, Architecture of clastic facies and location of coals associated with a major marine transgression, the Mid-Cretaceous of the Kaiparowits Plateau, Utah, in Carter, L.M.H., ed., USGS Research on Energy Resources, 1990: U.S. Geological Survey Circular 1060, p. 36; V.E. McKelvey Forum on Mineral and Energy Resources, abstracts and program. (ABSTRACT, CLASTIC ROCKS, COAL, COAL RESOURCES, CRETACEOUS, FACIES, KAIPAROWITS-PLATEAU, MARINE, SEDIMENTOLOGY, TRANSGRESSION, UTAH)
3480. Hettinger, R.D., and McCabe, P.J., 1990, Systems tract development associated with a major marine transgression- the mid-Cretaceous of the Kaiparowits Plateau: American Association of Petroleum Geologists Abstracts with Programs, Society of Economic Geologists and Mineralogists Research Conference on Cretaceous Resources, Events and Rhythms. (COAL, CRETACEOUS, KAIPAROWITS-PLATEAU, MARINE, SEDIMENTOLOGY, TRANSGRESSION, UTAH)
693. Hettinger, R.D., and McCabe, P.J., 1991, Testing new coal models, The 1991 Kaiparowits Plateau Drilling Project, in Carter, L.M.H., ed., Eighth Annual V.E. McKelvey Forum on Energy and Mineral Resources - 1992: U.S. Geological Survey Circular 1074. (ABSTRACT, COAL, DRILLING, KAIPAROWITS-PLATEAU)
694. Hettinger, R.D., and McCabe, P.J., 1992, Depositional setting of coal in a Cretaceous highstand deposit, Facies analyses of core from the Kaiparowits Plateau, Utah: SEPM 1992 Theme Meeting, Mesozoic of the Western Interior, p. 31-32. (COAL, CRETACEOUS)
3452. Hettinger, R.D., McCabe, P.J., and Shanley, K.W., 1990, Clastic facies architecture associated with a major marine transgression, the Mid-Cretaceous of the Kaiparowits Plateau, Utah: American Association of Petroleum Geologists Bulletin, v. 74, p. 1327; Rocky Mountain Section Meeting, Denver, Colorado, September 16-19, 1990. (CLASTIC ROCKS, COAL, CRETACEOUS, FACIES, KAIPAROWITS-PLATEAU, MARINE, SEDIMENTOLOGY, TRANSGRESSION, UTAH)
3913. Hettinger, R.D., McCabe, P.J., and Shanley, K.W., 1994, Detailed facies anatomy of transgressive and highstand systems tracts from the Upper Cretaceous of southern Utah, in Weimer, P., and Posamentier, H.W., eds., Siliciclastic sequence stratigraphy: Recent developments and applications: American Association of Petroleum Geologists Memoir 58, Chapter 9, p. 235-257. (CRETACEOUS, DEPOSITIONAL ENVIRONMENT, FACIES, KAIPAROWITS-PLATEAU, MARINE, PALEOENVIRONMENT, PALEO GEOGRAPHY, STRAIGHT CLIFFS FORMATION, STRATIGRAPHY, TRANSGRESSION, UTAH)
779. Hildebrand, R.T., and Affolter, R.H., 1986, Influences of volcanism on coal quality--examples from the western United States, in Garbini, S., and Schweinfurth, S., eds., Symposium Proceedings: A National Agenda for Coal quality Research: U.S. Geological Survey Circular 979, p. 237. (ABSTRACT, COAL, COAL RANK, COAL-QUALITY, TECTONICS, VULCANISM)

1051. Hobbs, R.G., Cathcart, J.D., Roberts, S.B., and Babcock, R.N., 1986, A detailed stratigraphic and quality analysis of the Anderson coal deposit, Johnson County, Wyoming: U.S. Geological Survey Open-File Report 86-436, 39 p. (ANDERSON COAL BED, COAL, COAL-QUALITY, JOHNSON COUNTY, OPEN-FILE, STRATIGRAPHY, WYOMING)
1040. Holmes, C.H., and Brownfield, M.E., 1992, Constraints on the distribution of carbon and sulfur isotopes in the Upper Cretaceous coals of N. W. Colorado, in McCabe, P.J. and Parrish, J.T., eds., Controls on the distribution and quality of Cretaceous coals: Geological Society of America Special Paper 267, p. 57-67. (CARBON, COAL, COLORADO, CRETACEOUS, GEOCHEMISTRY, SULFUR)
1973. Holmes, C.W., 1985, Seasonal trace element behavior in sedimentary environments: American Chemical Society Annual Meeting, Florida. (ABSTRACT, CYCLIC PROCESSES, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, HAPS, SEDIMENTARY ENVIRONMENTS, SEDIMENTOLOGY, TRACE ELEMENTS)
4007. Holmes, C.W., 1985, Accretion on the South Florida Platform, Late Quaternary development: American Association of Petroleum Geologists Bulletin, v. 69, p. 149-160. (ACCRETION, CONTINENTAL-MARGIN, FLORIDA, QUATERNARY, SEDIMENTATION, SOUTH FLORIDA PLATFORM)
1592. Holmes, C.W., 1986, Diagenesis of pelitic sediments caused by salt intrusions: U.S. Geological Survey Bulletin 1578, p. 347-362. (DIAGENESIS, INTRUSIONS, PELITIC, SALT)
1597. Holmes, C.W., 1986, Carbonate to siliciclastic periplatform sediments, Southwest Florida, in Roberts, H. H., and Doyle, L. J., eds., Carbonate Clastic Transitions: Developments in Sedimentology, Elsevier, p. 271-287. (CARBONATES, FLORIDA, SEDIMENTS, SILICICLASTIC)
1974. Holmes, C.W., 1986, Trace metal seasonal variation in Texas marine sediments: Marine Chemistry, v. 20, p. 13-27. (CYCLIC PROCESSES, GEOCHEMISTRY, MARINE, SEASONAL VARIATION, SEDIMENTS, TEXAS, TRACE-METALS)
1612. Holmes, C.W., 1988, Carbon isotopes in the Tertiary coals of the eastern Powder River and Williston Basins: A regional perspective, in Flores, R.W., Moore, T., and Warwick, P. eds., An integrated View of Depositional Systems of the Early Tertiary Coal Measures, Powder River Basin, Montana and Wyoming: Geological Society of America Field Trip Guidebook, 1988, Professional Contributions, Colorado School of Mines, p. 211-216. (CARBON, CARBON ISOTOPE, COAL, GUIDEBOOK, MONTANA, POWDER RIVER BASIN, TERTIARY, WILLISTON-BASIN, WYOMING)
1614. Holmes, C.W., 1989, Carbon isotopes in the Tertiary coals of the eastern Powder River Basin and western Williston Basin: A regional view, in Flores, R.M., Warwick, P.D., and Moore, T.A., eds., Tertiary and Cretaceous coals in the Rocky Mountain Region: 28th International Geological Congress Field Trip Guidebook, p. 34-39. (CARBON, CARBON ISOTOPE, COAL, CRETACEOUS, MONTANA, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, TERTIARY, WILLISTON-BASIN, WYOMING)

1616. Holmes, C.W., 1990, Carbon isotopic trends in peats and coals: Clues to carbon history and the environment of coal-forming mires, 1990 McKelvey Forum: U.S. Geological Survey Circular 1045, p. 36-37. (ABSTRACT, CARBON, CARBON ISOTOPE, COAL, MIRE, PEAT, SWAMPS)
698. Holmes, C.W., 1991, Summary of geochemical research in the coastal zone of the southeastern United States: U.S. Geological Survey Open-File Report 91-958, 60 p. (COASTLINE, GEOCHEMISTRY, MARINE, OPEN-FILE)
700. Holmes, C.W., 1991, $\delta^{13}\text{C}$ of Phanerozoic coals: American Geophysical Union, Chapman Conference of Continental Isotopic Indicators of Climate, p. 19; Jackson Hole, WY. (CARBON, CLIMATE, COAL, PALEOCLIMATE, PHANEROZOIC)
3616. Holmes, C.W., and Bohor, B.F., 1994, Stable isotope distributions in coals spanning the Cretaceous/Tertiary boundary in the Raton Basin, Colorado and New Mexico, in Lanphere, M.A., Dalrymple, G.B., and Turrin, B.D., eds., Abstracts of the 8th Annual International Conference on Geochronology, Cosmochronology, and Isotope Geochemistry: U.S. Geological Survey Circular 1107, p. 141. (ABSTRACT, COAL, COLORADO, CRETACEOUS, GEOCHEMISTRY, GEOCHRONOLOGY, ISOTOPE, NEW MEXICO, RATON BASIN, TERTIARY)
1607. Holmes, C.W., and Brooks, G.R., 1985, Basement control of carbonate sedimentation in the southern Florida Straits: Society of Economic Paleontologists and Mineralogists Midyear Meeting Abstracts Volume. (ABSTRACT, CARBONATES, FLORIDA, SEDIMENTATION, SEDIMENTOLOGY)
1618. Holmes, C.W., and Brooks, G.R., 1990, Two orders of cyclic sedimentation on the southwest Florida slope: Geological Society of America Abstracts with Programs, p. 229. (ABSTRACT, CONTINENTAL-SLOPE, CYCLIC PROCESSES, FLORIDA, SEDIMENTATION)
1613. Holmes, C.W., and Brownfield, M.E., 1988, Controls on carbon and sulfur isotopes in the Upper Cretaceous coal deposits, northwestern Colorado, Geological Society of America Coal Symposium 1988: Geological Society of America Abstracts with Programs, p. 28. (ABSTRACT, CARBON, CARBON ISOTOPE, COAL, COLORADO, CRETACEOUS, GEOCHEMISTRY, SULFUR, SULFUR ISOTOPES)
696. Holmes, C.W., and Brownfield, M.E., 1992, Distribution of carbon and sulfur isotopes in Upper Cretaceous coals of northwestern Colorado, in McCabe, P.J. and Parrish, J. eds., Controls on the Distribution and Quality of Cretaceous Coals: Geological Society of America Special Publication, p. 57-67. (CARBON, COAL, COLORADO, CRETACEOUS, GEOCHEMISTRY, SULFUR)
3314. Holmes, C.W., Esterle, J.S., and Moore, T.A., 1989, $\Delta^{13}\text{C}$ trends in coal and peat from Borneo; clue to coal forming environments: Geological Society of America Abstracts with Programs, 1989 annual meeting, St. Louis, MO, Nov. 6-9, 1989, v. 21, p. A50. (ABSTRACT, BORNEO, COAL, DELTAIC, INTERNATIONAL, MIRE, PALEOENVIRONMENT, PEAT, SWAMPS)
1262. Holmes, C.W., Flores, R.M., and Pocknall, D.T., 1987, Carbon isotopes in Powder River Basin Tertiary coals: A measure of the evolution of peat swamps: Geological Society of America Abstracts with Programs, v. 18, p. 7906. (ABSTRACT, CARBON, CARBON ISOTOPE, COAL,

PEAT, POWDER RIVER BASIN, SWAMPS, TERTIARY)

1278. Holmes, C.W., Flores, R.M., and Pocknall, D.T., 1991, Carbon isotope distribution in Tertiary coals of the Powder River Basin: A measure of swamp evolution: *Journal of Coal Quality*, v. 10, p. 49-52. (CARBON, CARBON ISOTOPE, COAL, MONTANA, POWDER RIVER BASIN, SWAMPS, TERTIARY, WYOMING)
4104. Holmes, C.W., Holmes, M.E., and M'Gonigle, J.W., in press, Differences in marine and terrestrial delta ¹³C during the Upper Cretaceous: implications for the pCO₂ history of the atmosphere: *Journal of the SEPM*. (ATMOSPHERE, CONTINENTAL, CRETACEOUS, GEOCHEMISTRY, MARINE)
1604. Holmes, C.W., and Kindinger, J.L., 1985, Late Pleistocene-Holocene geology of the central Virgin Islands Platform: *Marine Geology*, v. 64, p. 41-64. (GEOLOGY, HOLOCENE, INTERNATIONAL, ISLAND, MARINE, PLEISTOCENE, VIRGIN ISLANDS)
701. Holmes, C.W., M'Gonigle, J.W., and Dalrymple, B.G., 1992, d13C of terrestrial and organic material in Cretaceous rocks of the Western Interior Seaway, 1992 McKelvey Forum: U.S. Geological Survey Circular 1074, p. 36. (ABSTRACT, CRETACEOUS, ORGANIC MATTER, WESTERN INTERIOR SEAWAY)
702. Holmes, C.W., M'Gonigle, J.W., and Dalrymple, B.G., 1992, d13C of terrestrial and marine organic matter in Cretaceous rocks of the western interior seaway: SEPM Theme Meeting-Mesozoic of the Western Interior, p. 33; AAPG Meeting, Ft. Collins, Colorado, August 17-19, 1992. (ABSTRACT, COAL, CRETACEOUS, INTERIOR SEAWAY, MARINE, ORGANIC MATTER)
3454. Honey, J.G., and Hettinger, R.D., 1989, Cross section showing correlations of Upper Cretaceous Fox Hills Sandstone and Lance Formation, and Lower Tertiary Fort Union and Wasatch Formations, southeastern Washakie Basin, Wyoming and eastern Sand Wash Basin, Colorado: U.S. Geological Survey, Miscellaneous Geological Investigations I-1964. (COAL, COAL CORRELATIONS, COLORADO, CORRELATION, CRETACEOUS, CROSS SECTIONS, FORT UNION FORMATION, FOX HILLS SANDSTONE, GEOLOGY, GREEN RIVER BASIN, LANCE FORMATION, MAP, SAND WASH BASIN, STRATIGRAPHY, TERTIARY, WASATCH-FORMATION, WASHAKIE BASIN, WYOMING)
3455. Honey, J.G., and Hettinger, R.D., 1989, Stratigraphic sections showing coal correlations within the lower coal zone of the Paleocene Fort Union Formation, Fillmore Ranch and Seaverson Reservoir quadrangles, Carbon County, Wyoming: U.S. Geological Survey Coal Investigations Map C-127. (CARBON, CARBON COUNTY, COAL, COAL CORRELATIONS, CORRELATION, FORT UNION FORMATION, GEOLOGY, GREATER GREEN RIVER BASIN, MAP, PALEOCENE, STRATIGRAPHY, TERTIARY, WYOMING)
1911. Honey, J.G., and Roberts, L.N.R., 1989, Stratigraphic sections showing coal correlations within the lower part of the Fort Union Formation in the Baggs area, Carbon County, Wyoming: U.S. Geological Survey Coal Investigations Map C-135, p. 13 p.; 2 plates. (CARBON, COAL, FORT UNION FORMATION, PALEOCENE, STRATIGRAPHY, TERTIARY)
3978. Honey, J.G., and Roberts, R.B., 1994, Sedimentologic Framework of the lower Fort Union

- Formation (Paleocene), Eastern Great Divide Basin, Wyoming, and implications for tectonic influence on coal-forming environments: American Association of Petroleum Geologists Abstracts with Programs, v. 3, p. 173. (ABSTRACT, COAL, ENVIRONMENTAL GEOLOGY, FACIES, FORT UNION FORMATION, PALEOCENE, PALEOENVIRONMENT, SEDIMENTOLOGY, TERTIARY, WYOMING)
3807. Honey, J.G., and Roberts, S.B., 1994, Sedimentologic framework of the lower Fort Union Formation (Paleocene), eastern Great Divide Basin, Wyoming, and implications for tectonic influence on coal-forming environments: American Association of Petroleum Geologists Abstracts with Programs, Annual Convention, Denver, Colorado. (ABSTRACT, COAL, DEPOSITIONAL ENVIRONMENT, FORT UNION FORMATION, GREAT DIVIDE BASIN, GREEN RIVER BASIN, PALEOCENE, TECTONICS, TERTIARY)
1904. Honey, J.G., and Robinson, L.N., 1985, New locality of Paleocene mammals in south-central Montana: American Association of Petroleum Geologists Abstracts with Programs, v. 2, p. 42; 1985 Annual Midyear Meeting Abstracts, Society of Economic Paleontologists and Mineralogists. (ABSTRACT, PALEOCENE, TERTIARY)
276. Hosterman, J.W., and Dulong, F.T., 1989, A computer program for semiquantitative mineral analysis by X-ray powder diffraction: Clay Minerals Society Workshop Lectures, Quantitative Mineral Analysis of Clays, D.R. Pevear and F.A. Mumpton, eds., The Clay Mineral Society, Evergreen, Colorado, v. 1, p. 38-51. (CLAY, X-RAY DIFFRACTION)
2573. Hosterman, J.W., Meyer, R.F., Palmer, C.A., Doughten, M.W., Anders, D.E., and Schenk, C.J., 1990, Chemistry and mineralogy of selected heavy oils, natural bitumens, and their reservoir rocks: U.S. Geological Survey Circular 1047, p. 19 p. (COAL, GEOCHEMISTRY)
2601. Hosterman, J.W., Meyers, R.S., Palmer, C.A., Doughten, M.W., and Anders, D.E., 1990, Chemistry and Mineralogy of Heavy Oils, Natural Bitumens, and Their Reservoir Rocks: Abstracts of the 5th International Conference on Heavy Crude and Tar Sands, Caracas, Venezuela (June, 1990). (ABSTRACT, BITUMENS, GEOCHEMISTRY, MINERALOGY, OIL AND GAS, RESERVOIR ROCKS)
450. Hurley, J.P., Jones, M.L., Miller, B.G., Finkelman, R.B., and Yeakel, J.D., 1985, Correlation of coal characteristics and fouling tendencies of various coals from the Gascoyne Mine: Thirteenth Biennial Lignite Symposium on Technology and Use of Low-Rank coals, M.L. Jones, Ed., University of North Dakota, DOE/METC-86/6036 (vol. 1), p. 76-85. (COAL, CORRELATION, GASCOYNE MINE, LIGNITE, NORTH DAKOTA)
1751. Ito, E., Brown, J.L., and Giletti, B.J., 1986, Sequential hydrothermal episodes recorded by oxygen isotopes in the Cuillin Gabbro, Isle of Skye, Scotland: American Geophysical Union Transactions, v. 67, no. 16, p. 399. (EUROPE, GEOCHEMISTRY, GREAT-BRITAIN, HYDROTHERMAL, IGNEOUS-ROCKS, INTRUSIONS, MINERAL-COMPOSITION, OXYGEN, SCOTLAND, UNITED-KINGDOM, WATER, WESTERN-EUROPE)
883. Izett, G.A., and Bohor, B.F., 1986, Microstratigraphy of continental sedimentary rocks in the Cretaceous-Tertiary boundary interval in the Western Interior of North America: Geological Society of America Abstracts with Programs, v. 199, p. 644. (ABSTRACT, CRETACEOUS,

DISTAL EJECTA, K/T, MICROSTRATIGRAPHY, SEDIMENTARY ROCKS, TERTIARY, WESTERN INTERIOR)

886. Izett, G.A., and Bohor, B.F., 1987, Comment on "Dynamic deformation of volcanic ejecta from the Toba caldera: Possible relevance to Cretaceous/Tertiary boundary phenomena": *Geology*, v. 15, p. 90-92. (CRETACEOUS, INTERNATIONAL, K/T, TERTIARY, TOBA CALDERA, VOLCANIC-ASH)
1019. Izett, G.A., Honey, J.G., and Brownfield, M.E., 1985, Geologic map of the Citadel Plateau quadrangle, Moffat county, Colorado: U.S. Geological Survey, Miscellaneous Investigations Series Map I-1532, scale 1:48,000. (COLORADO, GEOLOGIC MAP, MAP, MOFFAT COUNTY)
2473. Jackson, M.L.W., Tewalt, S.J., and Kaiser, W.R., 1991, Comparison of computer and manual estimates of lignite resources in the Paleocene-Eocene Wilcox Group, east Texas: *Journal of Coal Quality*, v. 10, p. 109-116. (COAL RESOURCES, COMPUTER APPLICATIONS, EOCENE, PALEOCENE, TERTIARY, TEXAS)
1526. Jacobson, S.R., Hatch, J.R., and Reed, J.D., 1987, Petroleum source rocks of the Middle Ordovician and their oils: Application of Geochemistry to Petroleum Exploration for the Handbook of the AAPG Treatise of Petroleum Geology, Conference Program and abstract, p. 16. (ABSTRACT, OIL, ORDOVICIAN, PETROLEUM)
1521. Jacobson, S.R., Hatch, J.R., and Teerman, S.C., 1986, Microscopical and Geochemical Observations of Gloeocapsamorpha Spp from the St. Peter Sandstone to the Guttenburg Limestone Member of the Decorah Formation, Middle Ordovician, of the midcontinent, U.S.A: American Association of Stratigraphic Palynologists Program and Abstracts, Nineteenth Annual Meeting, p. 19. (ABSTRACT, DECORAH FORMATION, GEOCHEMISTRY, GUTTENBURG LIMESTONE MEMBER, ORDOVICIAN, ST. PETER SANDSTONE, STRATIGRAPHY)
1489. Jacobson, S.R., Hatch, J.R., Teerman, S.C., and Askin, R.A., 1988, Middle Ordovician organic matter assemblages and their effect on Ordovician-derived oils: *American Association of Petroleum Geologists Bulletin*, v. 72, p. 1090-1100. (OIL, OIL AND GAS, ORDOVICIAN, ORGANIC)
1017. Johnson, E.A., and Brownfield, M.E., 1985, Geologic map index of the Craig 1° X 1/2° quadrangle, Moffat and Routt Counties, Colorado: U.S. Geological Survey Open-File Report 85-525; scale 1:100,000. (COLORADO, MAP, MAP INDEX, MOFFAT COUNTY, ROUTT COUNTY)
1023. Johnson, E.A., and Brownfield, M.E., 1986, A regionally extensive altered air-fall ash for use in correlation of lithofacies in the Upper Cretaceous Williams Fork Formation, northeast Piceance Creek and southern Sand Wash basins, Colorado: *American Association of Petroleum Geologists Bulletin*, v. 70, no. 11, p. 1763. (ASH, COLORADO, CRETACEOUS)
1037. Johnson, E.A., and Brownfield, M.E., 1988, Selected references on the geology of the Yampa coal field, Southern Green River Coal Region, Moffat, Routt, and Rio Blanco Counties, Colorado, in Selected references on the geology and coal resources of central and western Colorado coal fields and regions: *Colorado Geological Survey Information Series 25*, p. 27-66. (COAL, COLORADO)
3891. Johnson, E.A., and Brownfield, M.E., 1988, Regional correlations of the middle coal group of the

- Upper Cretaceous Mesaverde Group, Yampa coal field, Moffat and Routt Counties, Colorado: U.S. Geological Survey Coal Investigations Map C-123. (COAL, COLORADO, CORRELATION, CRETACEOUS, MAP, MESAVERDE FORMATION, MESAVERDE GROUP, MOFFAT COUNTY, ROUTT COUNTY, STRATIGRAPHY, YAMPA COAL FIELD)
894. Johnson, E.A., Pierce, F.W., and Sigleo, W.R., 1990, Stratigraphic cross section showing upper Paleocene coal-bearing rocks of the Tongue River Member of the Fort Union Formation in the Piney Canyon SE Quadrangle, Weston County, southeastern Powder River basin, Wyoming: U.S. Geological Survey Miscellaneous Investigations Series Map I-1959-B. (COAL, ECONOMIC GEOLOGY, FORT UNION FORMATION, MAP, NORTHEASTERN-WYOMING, ORGANIC, PALEOCENE, SEDIMENTARY ROCKS, STRATIGRAPHY, TERTIARY, TONGUE RIVER MEMBER, USA, WYOMING)
3833. Johnson, E.A., Warwick, P.D., Khan, I.H., and Kazim, M.A., in press, Reference section for part of the Eocene Ghazij Formation, Moghal mine area, Mach coal field, Balochistan, Pakistan: U.S. Geological Survey Miscellaneous Field Studies Map. (BALOCHISTAN, EOCENE, GHAZIJ FORMATION, INTERNATIONAL, MACH COAL FIELD, MOGHAL MINE, PAKISTAN, REFERENCES, TERTIARY)
3834. Johnson, E.A., Warwick, P.D., Khan, I.H., Rana, A.N., and Kazim, M.A., in press, Reference section for part of the Eocene Ghazij Formation, Sarawan River area, Johan coal field, Balochistan, Pakistan: U.S. Geological Survey Miscellaneous Field Studies Map. (BALOCHISTAN, EOCENE, GHAZIJ FORMATION, INTERNATIONAL, JOHAN COAL FIELD, PAKISTAN, REFERENCES, SARAWAN RIVER AREA, TERTIARY)
2727. Johnson, E.A., Warwick, P.D., Roberts, S.B., and Khan, I.H., 1993, Limestone-pebble conglomerate facies of the Eocene Ghazij Formation, evidence for collision-related tectonism on the northwestern margin of the Indian Plate, Balochistan, Pakistan: American Association of Petroleum Geologists, p. 124-125; Annual Convention Program. (ABSTRACT, EOCENE, FACIES, GHAZIJ FORMATION, INDIAN, INTERNATIONAL, LIMESTONE, PAKISTAN, TERTIARY)
2729. Johnson, R., Philpotts, J., Kane, J., Brown, Z.A., Kirschenbaum, H., Palmer, C.A., Mee, J., Rait, N., and Crandell, W., 1987, Comparison of Seven Analytical Techniques for the Characterization of Sulfide Standards: American Chemical Society, Abstracts with Programs, p. 110; Geochemical Division, Denver, CO, April 1987. (ABSTRACT, METHODS)
471. Johnson, R.C., and Flores, R.M., 1993, Coalbed methane potential of the Upper Cretaceous Lance and Paleocene Fort Union Formations, Wind River Reservation, Wyoming: Wyoming Geological Association, 50th Anniversary Field Conference Program, p. 15. (ABSTRACT, COAL, CRETACEOUS, ENERGY-SOURCES, FORT UNION FORMATION, GAS, LANCE FORMATION, METHANE, PALEOCENE, TERTIARY, WIND RIVER BASIN, WIND RIVER RESERVATION)
634. Johnson, R.C., and Flores, R.M., 1993, Coal-bed methane potential of the Upper Cretaceous Lance and Paleocene Fort Union Formations, Wind River Reservation, Wyoming in Keefer, W.R., and Metzger, W., eds., Special Guidebook to Oil and Gas and Other Resources of the Wind River Basin: Wyoming Geological Association, p. 281-294. (COAL, CRETACEOUS, ENERGY-

SOURCES, FORT UNION FORMATION, GAS, LANCE FORMATION, METHANE, PALEOCENE, TERTIARY, WIND RIVER BASIN, WIND RIVER RESERVATION, WYOMING)

425. Johnson, R.C., Flores, R.M., and Nichols, D.J., 1994, Relationship between fluvial facies and paleoclimate of Paleocene-Lower Eocene rocks and the timing of Laramide uplifts in the southern Piceance Basin, western Colorado: American Association of Petroleum Geologists Abstracts with Programs, v. 3, p. 181. (ABSTRACT, CLIMATE, COLORADO, EOCENE, FACIES, LARAMIDE-OROGENY, PALEOCENE, PALEOCLIMATE, PALEOENVIRONMENT, PALEOGEOGRAPHY, PICEANCE BASIN, PICEANCE CREEK BASIN, TERTIARY)
3951. Johnson, R.C., Flores, R.M., Szmajter, R., and Finn, T.M., 1994, A preliminary study of coal-forming environments during deposition of the Paleocene Fort Union Formation, Wind River Basin, Wyoming: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 48. (ABSTRACT, BASINS, COAL, FORT UNION FORMATION, PALEOCENE, PALEOENVIRONMENT, TECTONICS, TERTIARY, WIND RIVER BASIN, WYOMING)
3967. Johnson, R.C., Flores, R.M., Szmajter, R., and Finn, T.M., 1994, A preliminary study of coal-forming environments during deposition of the Paleocene Fort Union Formation, Wind River Basin, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 69-82. (COAL, FIELD GUIDE, FORT UNION FORMATION, GEOLOGY, PALEOCENE, PALEOENVIRONMENT, ROCKY MOUNTAIN REGION, TERTIARY, WIND RIVER BASIN)
2567. Johnson, R.G., Palmer, C.A., Dennen, K.O., and Hearn, P.P., Jr., 1986, Energy Dispersive X-ray fluorescence analysis of trace elements in carbonate rocks: Applied Spectroscopy, v. 40, p. 76-79. (GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2468. Kaiser, W.R., Ambrose, M.L., Ayers, W.B., Jr., Blanchard, P.E., Collins, G.F., Fogg, G.E., Gower, D.L., Ho, C.L., Holland, C.S., Mahan, C.A., Mullin, A.H., Prouty, D.A., Tewalt, S.J., and Tweedy, S.W., 1986, Geology and ground-water hydrology of deep-basin lignite in the Wilcox Group of East Texas: The University of Texas at Austin, Bureau of Economic Geology Special Publication, 182 p. (COAL, GEOLOGY, GROUND-WATER, HYDROLOGY, LIGNITE, TEXAS, WILCOX GROUP)
3122. Kane, J.S., and Neuzil, S.G., 1993, Geochemical and analytical implications of extensive sulfur retention in ash from Indonesian peat, in Cobb, J.C., and Cecil, C.B., eds., Modern and Ancient Coal-Forming Environments: Geological Society of America Special Paper, 286, p. 97-106. (ASH, COAL, GEOCHEMISTRY, INDONESIA, MODEL, PEAT, SULFUR)
2599. Kane, J.S., and Palmer, C.A., 1989, The characterization of U.S.G.S. coal standard CLB-1: A preliminary report: Journal of Coal Quality, v. 8, p. 120. (COAL)
3571. Kane, W.F., Milici, R.C., and Gathright, T.M., II, 1993, Geologic factors affecting coal mine roof stability in the eastern United States: Association of Engineering Geologists Bulletin . (COAL, COAL MINES, GEOLOGY, ROOF FALLS, SAFETY)

3720. Kasig, W., 1992, Portrait of Marlies and Rolf Teichmuller, translated by Nora Tamberg, with introduction and editing by Paul C. Lyons: *International Journal of Coal Geology*, v. 21, p. 99-112. (COAL, GEOLOGY)
3899. Keefer, W.R., Johnson, R.C., Flores, R.M., Keighin, C.W., and Nichols, D.J., 1993, Road log for Wind River Basin Fieldtrip 1: Wyoming Geological Association, Shoshone and Arapaho Tribal Wind River Council, 24 p. (FIELD TRIP, GUIDEBOOK, INDIAN, ROAD LOG, WIND RIVER BASIN, WIND RIVER RESERVATION, WYOMING)
1252. Keighin, C.W., and Flores, R.M., 1987, Basin lithofacies of siliciclastics of the Springer-Morrow Formations, Mississippian-Pennsylvanian, Anadarko Basin, Oklahoma: *American Association of Petroleum Geologists Bulletin*, v. 71, p. 575. (ABSTRACT, ANADARKO BASIN, FACIES, MISSISSIPPIAN, MORROW FORMATION, OKLAHOMA, PENNSYLVANIAN, SPRINGER FORMATION)
1269. Keighin, C.W., and Flores, R.M., 1987, Lithofacies of siliciclastics of the Carboniferous Springer and Morrow Formations: Oklahoma Geological Survey, Oklahoma Geology Notes, p. 20. (ABSTRACT, FACIES, LITHOLOGY, MORROW FORMATION, OKLAHOMA, SEDIMENTOLOGY, SILICICLASTIC, SPRINGER FORMATION)
1286. Keighin, C.W., and Flores, R.M., 1988, Clay minerals in Cretaceous and Paleocene shales, Powder River Basin, Wyoming: *Geological Society of America Abstracts with Programs*, p. 120. (ABSTRACT, CRETACEOUS, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYOMING)
1279. Keighin, C.W., and Flores, R.M., 1989, Depositional facies, petrofacies, and diagenesis of siliciclastics of Morrow and Springer rocks, Anadarko Basin, Oklahoma: *Proceedings of Anadarko Basin Workshop*, Oklahoma Geological Survey Circular 90, p. 147-161. (ABSTRACT, ANADARKO BASIN, DEPOSITIONAL ENVIRONMENT, DIAGENESIS, FACIES, MORROW FORMATION, OKLAHOMA, SPRINGER FORMATION)
1283. Keighin, C.W., and Flores, R.M., 1989, Analysis of sedimentary facies and petrofacies of lower Morrowan-Upper Chesterian sandstones, Anadarko Basin, Oklahoma, in Johnson, K.S., ed., *Proceedings of Anadarko Basin Workshop*: Oklahoma Geological Survey Circular 90, p. 236-238. (ABSTRACT, ANADARKO BASIN, FACIES, MORROW FORMATION, OKLAHOMA, SEDIMENTOLOGY)
1314. Keighin, C.W., and Flores, R.M., 1990, Heterogeneity of sandstone reservoirs in the Fort Union Formation, Fuller reservoir field, Wind River Basin, Wyoming: *American Association of Petroleum Geologists Bulletin*, v. 74, p. 1331. (ABSTRACT, FORT UNION FORMATION, PALEOCENE, TERTIARY)
619. Keighin, C.W., and Flores, R.M., 1991, Characterization of reservoir heterogeneity, Fuller Reservoir and Haybarn fields, Paleocene Fort Union Formation, Fremont County, Wyoming: *Third International Reservoir characterization Technical Conference DOECONF-911125, NIPER-558/2, Poster Presentations, Preprints*, v. 2, 3RC-45, 5 p. (FORT UNION FORMATION, FREMONT COUNTY, FULLER RESERVOIR, PALEOCENE, RESERVOIR ROCKS, RESERVOIRS, TERTIARY, WYOMING)

643. Keighin, C.W., and Flores, R.M., 1991, Petrology and sedimentology of Morrow/Springer rocks and effects on reservoir quality, Anadarko Basin, Oklahoma, Petroleum-Reservoir Geology in the Southern Midcontinent, Workshop: Oklahoma Geological Survey and the U.S. Department of Energy, p. 3. (ABSTRACT, ANADARKO BASIN, MORROW FORMATION, OIL AND GAS, OKLAHOMA, PETROLOGY, RESERVOIR ROCKS, SEDIMENTOLOGY, SPRINGER FORMATION)
663. Keighin, C.W., and Flores, R.M., 1993, Petrographic heterogeneity, pore throats, and quality of Tertiary reservoir sandstones, Wind River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, p. 127. (ABSTRACT, OIL AND GAS, TERTIARY, WIND RIVER BASIN, WYOMING)
329. Keighin, C.W., and Flores, R.M., 1994, Late Cretaceous to Paleocene clastic reservoir rocks, Wind River Basin, Wyoming: Geological Society of America, Rocky Mountain Section Meeting. (ABSTRACT, CLASTIC ROCKS, CRETACEOUS, PALEOCENE, SEDIMENTOLOGY, TERTIARY, WIND RIVER BASIN, WYOMING)
3969. Keighin, C.W., and Flores, R.M., 1994, Characteristics of oil-saturated fluvial channel sandstone reservoirs, Paleocene upper Fort Union Formation, south-central Wind River Basin, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 99-108. (FIELD GUIDE, FLUVIAL, FORT UNION FORMATION, OIL AND GAS, PALEOCENE, PALEOENVIRONMENT, ROCKY MOUNTAIN REGION, TERTIARY, WIND RIVER BASIN, WYOMING)
654. Keighin, C.W., Flores, R.M., and Nichols, D.J., 1992, Comparison of Fort Union Formation reservoir types in outcrop and in nearby abandoned oil fields, southern Wind River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, v. 76, p. 1261. (ABSTRACT, FORT UNION FORMATION, PALEOCENE, TERTIARY)
1344. Keighin, C.W., Flores, R.M., and Perry, W., Jr., 1991, Provenance tectonism and petrofacies of Paleocene rocks, northern Rocky Mountains: Geological Society of America Abstracts with Programs, p. A68. (ABSTRACT, PALEOCENE, TERTIARY)
3952. Keighin, C.W., Flores, R.M., and Rowland, T., 1994, Paragenic perplexity: Causes and cures for a carbonate concretion zone, Beulah-Zap Coal, Williston Basin, North Dakota: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 51. (ABSTRACT, BEULAH-ZAP COAL, CARBONATES, COAL, CONCRETIONS, NORTH DAKOTA, PALEOCENE, TERTIARY, WILLISTON-BASIN)
1841. Kent, B.H., Pierce, F.W., Molnia, C.L., and Johnson, E.A., 1986, Allocyclic controls on thick coal deposition in sedimentary basins, Some Powder River Basin examples, in Carter, L.M.H., ed., USGS research on energy resources, 1986, Program and Abstracts: U.S. Geological Survey Circular 974, p. 31. (ABSTRACT, BASINS, COAL, DEPOSITIONAL ENVIRONMENT, POWDER RIVER BASIN)
2240. Kent, B.H., Weaver, J.N., Roberts, S.B., Tian Ming, L.S., and Mao, B., 1988, Geology and resource

- appraisal of the Felix coal deposit, Powder River Basin, Wyoming: a research project with the People's Republic of China: U.S. Geological Survey Bulletin, 1818, 32 p. (COAL, COAL RESOURCES, FELIX COAL DEPOSIT, GEOLOGY, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYOMING)
2773. Kent, B.H., 1986, Evolution of thick coal deposits in the Powder River basin, northeastern Wyoming; Lyons, Paul C., Rice, Charles L. Paleoenvironmental and tectonic controls in coal-forming basins of the United States: Geological Society of America Special Paper 210, p. 105-122. (COAL, GREAT-PLAINS, NORTH-AMERICA, NORTHEASTERN-WYOMING, ORGANIC, POWDER RIVER BASIN, SEDIMENTARY ROCKS, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TECTONICS, USA, WYODAK COAL, WYOMING)
2630. Khan, S.A., Chandio, A.H., and SanFilipo, J.R., 1992, Coal resources in the area of Jherruck, northern Sonda coal field, Sindh Province, Pakistan: First South Asian Geological Congress, 1992 Proceedings, p. 58. (ABSTRACT, COAL, COAL RESOURCES, INTERNATIONAL, JHERRUCK, JHERRUCK COAL AREA, PAKISTAN, SIND PROVINCE, SINDH PROVINCE, SONDA COAL FIELD)
2741. Kirschbaum, M.A., 1985, Stratigraphic cross-section showing depositional environments of Paleocene and Upper Cretaceous coal-bearing rocks in the Kappes Canyon Quadrangle, Sweetwater County, Wyoming: U.S. Geological Survey Miscellaneous Field Studies Map MF-1769. (COAL, CRETACEOUS, PALEOCENE, STRATIGRAPHY, TERTIARY, WYOMING)
2743. Kirschbaum, M.A., 1986, Depositional environments of the Rock Springs Formation, southwest flank of the Rock Springs Uplift, Wyoming: The Mountain Geologist, v. 23, p. 63-75. (DEPOSITIONAL ENVIRONMENT, ROCK SPRINGS FORMATION, ROCK SPRINGS UPLIFT, WYOMING)
2745. Kirschbaum, M.A., 1986, Geologic map of the Kappes Canyon Quadrangle, Sweetwater County, Wyoming: U.S. Geological Survey, Geologic Quadrangle Map GQ-1607, scale 1:24,000. (GEOLOGIC MAP, MAP, QUADRANGLE, SWEETWATER COUNTY, WYOMING)
2746. Kirschbaum, M.A., 1987, Stratigraphic and sedimentologic framework of Paleocene rocks, southwest flank of the Rock Springs uplift, Sweetwater County, Wyoming: U.S. Geological Survey Miscellaneous Field Studies Map MF-1973. (PALEOCENE, ROCK SPRINGS UPLIFT, STRATIGRAPHY, TERTIARY, WYOMING)
2748. Kirschbaum, M.A., 1989, Lagoonal deposits of the Rock Springs Formation (Mesaverde Group), southwest Wyoming, in Ward, L.G. and Ashley, G.M. eds., Physical Processes and Sedimentology of Siliclastic-dominated Lagoonal Systems: Marine Geology, v. 88, p. 349-364. (PALEOENVIRONMENT, WYOMING)
2756. Kirschbaum, M.A., Andersen, D.W., Baldwin, R.J., and Helm, R.L., 1987, Paleocene drainage systems, Rock Springs uplift, Wyoming: Geological Society of America Abstracts with Programs, Rocky Mountain Section, v. 20, p. 424; reprinted in U.S. Geological Survey Open-file Report 88-643. (ABSTRACT, PALEOCENE, ROCK SPRINGS UPLIFT, TERTIARY, WYOMING)
2752. Kirschbaum, M.A., Andersen, D.W., Helm, R.J., and Baldwin, R.J., 1994, Paleocene drainage

- systems, Rock Springs uplift, Wyoming: *The Mountain Geologist*, v. 31, p. 1-28. (DRAINAGE-PATTERNS, FLUVIAL, PALEOCENE, PALEOENVIRONMENT, PALEOGEOGRAPHY, ROCK SPRINGS UPLIFT, TERTIARY, WYOMING)
2754. Kirschbaum, M.A., and Carey, M.A., 1986, An Interdeltaic Back-barrier Bay in the Rock Springs Formation, Southwest Wyoming: *American Association of Petroleum Geologists, Society of Economic Paleontologists and Mineralogists*, p. 61. (ABSTRACT, DEPOSITIONAL ENVIRONMENT, MARINE, PALEOENVIRONMENT, ROCK SPRINGS FORMATION, WYOMING)
3229. Kirschbaum, M.A., and Carey, M.A., 1986, An interdeltaic back-barrier bay in the Rock Springs Formation, Southwest Wyoming: *SEPM Abstracts with Programs*, v. 3, p. 61-62. (ABSTRACT, DELTAIC, ROCK SPRINGS FORMATION, WYOMING)
2757. Kirschbaum, M.A., and Gustason, E.R., 1989, Coal accumulation and alluvial architecture of the Dakota Formation, southwestern Utah: *Geological Society of America*, v. 21, p. 51. (ABSTRACT, COAL, DAKOTA FORMATION, UTAH)
3910. Kirschbaum, M.A., Hettinger, R.D., and McCabe, P.J., 1994, Late Campanian coal-bearing and tidally influenced strata of the Neslen Formation, Book Cliffs, Utah and Colorado, in *Analogs for the World: American Association of Petroleum Geologists Abstracts with Programs*, v. 3, p. 188. (ABSTRACT, BOOK CLIFFS, CAMPANIAN, COAL, COLORADO, ENVIRONMENTAL GEOLOGY, FACIES, GLOBAL, INTERNATIONAL, NESLEN FORMATION, PALEOENVIRONMENT, SEDIMENTOLOGY, TIDAL, UTAH, WORLD)
2758. Kirschbaum, M.A., and McCabe, P.J., 1990, Alluvial sandstone geometries and their relationship to coal deposits in a transgressive system tract, Dakota Formation, Utah, in Carter, L.M.H, ed., *U.S. Geological Survey Research on Energy Resources- 1990, Sixth V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1060*, p. 42. (ABSTRACT, COAL, DAKOTA FORMATION, UTAH)
2760. Kirschbaum, M.A., and McCabe, P.J., 1990, Variations in alluvial architecture in a transgressive systems tract, Dakota Formation, Utah: *American Association of Petroleum Geologists Abstracts with Programs, SEPM Research Conference on Cretaceous Resources, Events and Rhythms*. (ABSTRACT, DAKOTA FORMATION, TRANSGRESSION, UTAH)
2751. Kirschbaum, M.A., and McCabe, P.J., 1992, Controls on the accumulation of coal and on the development of anastomosed fluvial systems in the Cretaceous Dakota Formation of southern Utah: *Sedimentology*, v. 39, p. 581-599. (COAL, CRETACEOUS, DAKOTA FORMATION, DEPOSITIONAL ENVIRONMENT, FLUVIAL, PALEOENVIRONMENT, UTAH)
2765. Kirschbaum, M.A., McCabe, P.J., and Schenk, C.J., 1992, Base level changes within the Dakota Formation, Utah: *American Association of Petroleum Geologists, Society of Economic Paleontologists and Mineralogists*, p. 37-38. (ABSTRACT, DAKOTA FORMATION, UTAH)
2747. Kirschbaum, M.A., and Nelson, S.N., 1988, Geologic history and palynologic dating of Paleocene deposits, western Rock Springs uplift, Sweetwater County, Wyoming: *Contributions to Geology*, v. 26, p. 21-28. (GEOLOGY, PALEOCENE, PALYNOLOGY, ROCK SPRINGS UPLIFT,

SWEETWATER COUNTY, TERTIARY, WYOMING)

2761. Kirschbaum, M.A., Roberts, L.N.R., and McCabe, P.J., 1991, Controls on coal accumulation during the Cretaceous in North America: Geological Society of America, v. 23, p. A144. (ABSTRACT, COAL, CRETACEOUS)
2763. Kirschbaum, M.A., Roberts, L.N.R., and McCabe, P.J., 1992, Major controls on accumulation of Upper Cretaceous coal in North America, in Carter, L.M.R., USGS Research on Energy Resources, 1992 - Program and Abstracts: U.S. Geological Survey Circular 1074, p. 43-44. (ABSTRACT, COAL, CRETACEOUS, PALEOENVIRONMENT)
613. Koegel, K.I., and Hatcher, P.G., 1989, Characterization of alkyl carbon in forest soils by CPMAS (13)C NMR spectroscopy and dipolar dephasing; in Saiz-Jimenez, C., Rosell, R.A., and Albaiges, J., Advances in humic substances research: International Journal of Coal Geology, v. 13, p. 1-4; International Humic Substances Society, Fourth international meeting, Huelva, Spain, Oct. 3-7, 1988. (ANALYSES, CARBON, GEOCHEMISTRY, NUCLEAR MAGNETIC RESONANCE, ORGANIC, SAMPLE-PREPARATION, SOILS, SPECTROSCOPY)
595. Koegel, K.I., Hatcher, P.G., and de Leeuw, J.W., 1989, Aliphatic components of forest soil organic matter as determined by solid-state (13)C NMR and analytical pyrolysis: American Chemical Society, v. 198, p. GEOC 52; Abstracts of Papers, 198th national meeting, Miami Beach, FL, Sept. 10-15, 1989. (ABSTRACT, COMPOSITION, GEOCHEMISTRY, HUMIFICATION, HUMUS, HYDROCARBONS, NMR-SPECTRA, ORGANIC, SOILS, WOOD)
560. Koegel, K.I., Hatcher, P.G., and Zech, W., 1991, Chemical structural studies of forest soil humic acids; aromatic carbon fraction: Soil Science of America Journal, v. 55, p. 241-247. (CARBON, EUROPE, GEOCHEMISTRY, GERMANY, HUMIC-ACIDS, HYDROCARBONS, ORGANIC, SOILS)
622. Koegel, K.I., Zech, W., and Hatcher, P.G., 1988, Chemical composition of the organic matter in forest soils; the humus layer: Zeitschrift fuer Pflanzenernaehrung und Bodenkunde, v. 151, p. 331-340. (GEOCHEMISTRY, HUMIC-ACIDS, NMR-SPECTRA, ORGANIC, SOILS)
3752. Koklu, U., Suleyman, A., and Ruppert, L.F., in press, Determination of major, minor, and trace elements in coal and coal ashes, in Kural, O., ed: Coal, p. 1-18. (COAL, COAL-ASHES, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2901. Kotra, R.K., Gottfried, R.M., Spiker, E.C., and Hatcher, P.G., 1986, Organic geochemistry of the early Mesozoic Hartford Basin: American Chemical Society. (ABSTRACT, GEOCHEMISTRY, HARTFORD BASIN, MESOZOIC)
2899. Kotra, R.K., Gottfried, R.M., Spiker, E.C., Hatcher, P.G., and Froelich, A.J., 1986, Thermal evolution of kerogen and phytoclasts in the Eastern U.S. Early Mesozoic basins as a guide to maturation, in McKelvey Forum on Energy Resources: U.S. Geological Survey Circular 974, p. 33-34. (ABSTRACT, BASINS, GEOCHEMISTRY, KEROGEN, MESOZOIC, ORGANIC, PHYTOCLASTS, THERMAL, THERMAL MATURITY, THERMAL-ALTERATION)
2858. Kotra, R.K., Gottfried, R.M., Spiker, E.C., Romankiw, L.A., and Hatcher, P.G., 1988, Chemical

- composition and thermal maturity of kerogen and phytoclasts of the Newark Supergroup in the Hartford Basin, in Froelich, A.J., and Robinson, G.R., Jr., eds., Studies of the Early Mesozoic Basins of the Eastern United States: U.S. Geological Survey Bulletin 1776, p. 68-74. (BASINS, GEOCHEMISTRY, HARTFORD BASIN, KEROGEN, MESOZOIC, NEWARK SUPERGROUP, PHYTOCLASTS, THERMAL MATURITY)
638. Kotra, R.K., and Hatcher, P.G., 1988, Pyrolysis-gas chromatographic studies of the origins of the insoluble aliphatic component of peat: *Naturwissenschaften*, v. 75, p. 196-198. (ECONOMIC GEOLOGY, GAS CHROMATOGRAPHY, GEOCHEMISTRY, HYDROCARBONS, ORGANIC, PEAT, SEDIMENTOLOGY)
3099. Kotra, R.K., Hatcher, P.G., Spiker, E.C., Romankiw, L.A., Gottfried, R.M., Pratt, L.M., and Vuletich, A.K., 1985, Organic geochemical investigations of Eastern U.S. early Mesozoic basins: *American Association of Petroleum Geologists Bulletin*, AAPG Eastern Section Meeting, Williamsburg, VA, Nov. 10-12, 1985, v. 69, p. 1439. (ABSTRACT, CLASTIC ROCKS, ECONOMIC GEOLOGY, FUEL RESOURCES, GEOCHEMISTRY, MESOZOIC, NEWARK-GROUP, ORGANIC, SEDIMENTARY ROCKS, TOWACO-FORMATION, USA)
657. Kotra, R.K., and Hatcher, P.G., 1986, Laser microprobe analysis and pyrolysis of geopolymers; in Garbini, Susan, and Schweinfurth, S.P., eds., *Symposium proceedings; A national agenda for coal-quality research*: U.S. Geological Survey Circular 979, p. 238. (ANALYSES, COAL, GEOCHEMISTRY, LASER MICROPROBE TECHNIQUES, LASER-METHODS, MASS-SPECTROSCOPY, ORGANIC, SPECTROSCOPY)
2979. Krasnow, M.R., 1987, A modification in the determination of reducible sulfur by the tin (II)-strong phosphoric acid method using the Lecotm SC-132 Sulfur Analyzer: U.S. Geological Survey Open-File Report 87-6, p. 1-24. (GEOCHEMISTRY, SULFUR)
2984. Krasnow, M.R., and Finkleman, R.B., 1990, Rehydration of Desiccated Argonne Premium Coal Samples: U.S. Geological Survey Open-File Report 90-482, p. 1-6. (COAL, GEOCHEMISTRY, HYDRATION, OPEN-FILE)
2987. Krasnow, M.R., and Finkleman, R.B., 1991, Rehydration of desiccated argonne premium coal samples, in the chemical analysis of argonne premium coal samples by the U.S. Geological Survey: U.S. Geological Survey Open-File Report 91-638, p. 7-12. (COAL, HYDRATION, OPEN-FILE)
577. Krogh, T.E., Kamo, S.L., and Bohor, B.F., 1992, U-Pb isotopic results for single shocked and polycrystalline zircons record 550-65.5 Ma ages for a K-T target site and 2700-1850 Ma ages for the Sudbury impact event, in *International Conference on Large Meteorite Impacts and Planetary Evolution*, Sudbury Canada: Lunar and Planetary Institute, Houston, Texas, contribution no. 7990, p. 44-45. (ABSTRACT, AGE DATING, CRETACEOUS, IMPACT, INTERNATIONAL, SHOCKED ZIRCON, SUDBURY, TERTIARY)
1850. Krohn, K.K., Miller, W.G., and Molnia, C.L., 1989, A digital geologic data system; The National Coal Resources Data System (NCRDS) of the U.S. Geological Survey: *International Geological Congress, Abstracts with Programs*. (ABSTRACT, COAL, COAL RESOURCES, COMPUTER, COMPUTER APPLICATIONS, DATABASES, NCRDS)

716. Krohn, K.K., Molnia, C.L., Tewalt, S.J., and Miller, W.G., 1992, GIS visualization of coal stratigraphic and geochemical information, in Carter, L.M.H., ed., U.S. Geological Survey Research on Energy Resources, 1992, Program and Abstracts, Eighth V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1074, p. 44-45. (ABSTRACT, COAL, COMPUTER, COMPUTER APPLICATIONS, GEOCHEMISTRY, GIS, STRATIGRAPHY)
3. Krohn, K.K., Tewalt, S.J., Biewick, L.R.H., Sanchez, J.D., Molnia, C.L., and Levine, M., 1993, The National Coal Resources Data System (NCRDS): An integrated scientific database and graphic analysis system, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Tenth Annual International Pittsburgh Coal Conference Proceedings, p. 1080-1082. (ABSTRACT, COAL, COMPUTER, COMPUTER APPLICATIONS, DATABASES, NCRDS, RESOURCES)
3893. Krough, T.E., Kamo, S.L., and Bohor, B.F., 1993, Fingerprinting the K/T impact site and determining the time of impact by U-Pb dating of single shocked zircons from distal ejecta: Earth and Planetary Science Letters, v. 119, p. 425-429. (AGE DATING, CRETACEOUS, IMPACT, SHOCKED ZIRCON, TERTIARY, U-PB DATING, ZIRCON)
2852. Kuntz, M.A., Champion, D.E., Spiker, E.C., and Lefebvre, R.H., 1986, Contrasting magma types and steady-state, volume-predictable, basaltic volcanism along the Great Rift, Idaho: Geological Society of America Bulletin, v. 97, p. 579-594. (BASALT, GREAT RIFT, IDAHO, TECTONICS, VOLCANIC ROCKS, VOLCANISM)
2850. Kuntz, M.A., Spiker, E.C., Rubin, M., and Champion, D.E., 1986, Radiocarbon studies of latest Pleistocene-Holocene lava flows of the Snake River Plain, Idaho: Data, lessons, interpretation: Quaternary Research, v. 25, p. 163-176. (AGE DATING, HOLOCENE, LAVA FIELD, PLEISTOCENE, QUATERNARY, RADIOCARBON, SNAKE RIVER PLAIN, VOLCANIC ROCKS)
567. Kyte, F.T., Zhou, L., and Bohor, B.F., 1991, Magnesiowüstite - A new high-temperature mineral in K/T boundary sediments: Meteoritics, v. 26, p. 361. (ABSTRACT, CRETACEOUS, K/T, SPINEL, TERTIARY)
4024. LaBerge, G.L., Robbins, E.I., and Han, T.M., 1987, A model for the biological precipitation of Precambrian iron formation: Part A. Geological evidence, in Appel, P.W.U., and LaBerge, G.L., eds., Precambrian Iron Formations, Athens, Greece: Theophrastus Press, p. 69-96. (BIOLOGICAL PRECIPITATION, INTERNATIONAL, IRON, PRECAMBRIAN)
1745. Landis, E.R., 1986, Coal exploration techniques, in Coal development potential in Pakistan: Proceedings of the first Pakistan National Coal Conference, Feb. 22-26, 1986, Karachi, p. 117-123. (COAL, COAL RESOURCES, ENERGY RESOURCES, EXPLORATION, INTERNATIONAL, PAKISTAN)
1742. Landis, E.R., 1987, Coal resource assessment in Central America, in Development of Mineral, Energy, and Water Resources and Mitigation of Geologic Hazards in Central America: U.S. Geological Survey Circular 1006, p. 98-99. (CENTRAL AMERICA, COAL, COAL RESOURCES, ENERGY RESOURCES, GEOLOGIC HAZARDS, INTERNATIONAL, MINERALS, WATER)

1758. Landis, E.R., 1989, Coal in the Caribbean Region: Proceedings of the 12th Caribbean Geological Conference, St. Croix, Virgin Islands, August 7-11, 1989, p. 98. (ABSTRACT, CARIBBEAN, CENTRAL AMERICA, COAL, INTERNATIONAL)
101. Landis, E.R., Carter, M.D., and Medlin, J.H., 1985, The Philippine coal resource, Volume I in Introducing coal-water-mix fuels to the Philippines--Assessment of project feasibility: U.S. Geological Survey Open-File Report 85-473, 205 p. (COAL, COAL RESOURCES, ENERGY-SOURCES, FUEL RESOURCES, INTERNATIONAL, OPEN-FILE, PHILIPPINES)
1762. Landis, E.R., and Islam, M.N., 1989, Coals of Bangladesh, in Barker, C.E., and Coury, A.B., compilers, Abstracts of the U.S. Geological Survey Central Region, 1989, Poster Review: U.S. Geological Survey Open-File Report 86-644, p. 21. (ABSTRACT, BANGLADESH, COAL, INTERNATIONAL, OPEN-FILE)
1763. Landis, E.R., Islam, M.N., and Gluskoter, H.J., 1990, Quality of Permian Gondwana coal Khalaspir, Bangladesh, in Carter, L.M.H. ed., USGS Research on Energy Resources - 1990; Sixth V. E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1060, p. 47-49. (ABSTRACT, BANGLADESH, COAL, GONDWANA, INTERNATIONAL, KHALASPIR COAL AREA, PERMIAN)
1770. Landis, E.R., Islam, M.N., and Gluskoter, H.J., 1992, Chemical and physical characterization of Permian, Gondwana coal of the Khalaspir coal field, Bangladesh: Proceedings of the First South Asia Geological Congress; Feb. 23-27, 1992, Islamabad, Pakistan. (ABSTRACT, BANGLADESH, COAL, GEOCHEMISTRY, GONDWANA, INTERNATIONAL, KHALASPIR COAL AREA, PERMIAN)
1761. Landis, E.R., and Islam, M.N., 1989, Coal in Bangladesh: Geological Society of America Abstracts with Programs, Annual Meeting, St. Louis, Missouri, November, 1989. (ABSTRACT, BANGLADESH, COAL, COAL RESOURCES, INTERNATIONAL)
1764. Landis, E.R., Khan, R.A., Warwick, P.D., Oman, C.L., Khan, S.A., and Bragg, L.J., 1990, Quality of coal from the Paleocene Bara Formation, South Sind, Pakistan: Fifth Circum-Pacific Energy and Mineral Resources Conference, p. 53. (ABSTRACT, BARA FORMATION, COAL, COAL-QUALITY, ENERGY RESOURCES, GEOCHEMISTRY, INTERNATIONAL, MINERAL-RESOURCES, PAKISTAN, PALEOCENE, SINDH PROVINCE, TERTIARY)
1765. Landis, E.R., Khan, R.A., Warwick, P.D., Oman, C.L., Khan, S.A., and Bragg, L.J., 1990, Quality of coal from the Paleocene Bara Formation, South Sind, Pakistan, in Barker, C.E. and Coury, A.B., compilers, Abstracts of the U.S. Geological Survey, Central Region, 1990 Poster Review: U.S. Geological Survey Open-File Report 90-656, p. 3. (ABSTRACT, BARA FORMATION, COAL, COAL-QUALITY, INTERNATIONAL, OPEN-FILE, PAKISTAN, PALEOCENE, SINDH PROVINCE, TERTIARY)
2434. Landis, E.R., Khan, R.A., Warwick, P.D., Oman, C.L., Khan, S.A., and Bragg, L.J., 1990, Quality of Coal from the Paleocene Bara Formation, South Sind, Pakistan: American Association of Petroleum Geologists Bulletin, v. 74, p. 985. (ABSTRACT, BARA FORMATION, COAL, GEOCHEMISTRY, INTERNATIONAL, PAKISTAN, PALEOCENE, SINDH PROVINCE, TERTIARY)

1735. Landis, E.R., McLellan, M.W., McKay, E.J., Carter, M.D., and Medlin, A.L., 1985, Geologic map of the Fence Lake SW quadrangle, Cibola and Catron Counties, New Mexico: U.S. Geological Survey, Miscellaneous Field Studies Map MF-1750. (CATRON COUNTY, CIBOLA COUNTY, FENCE LAKE, GEOLOGIC MAP, GEOLOGY, MAP, NEW MEXICO)
984. Landis, E.R., Thomas, R.E., Outerbridge, W.F., Wnuk, C., Durrani, N.A., Khan, R.A., and Shah, A.A., 1988, Report on coal resource exploration assessment program drilling and related activities, September 1987 to February 1988, conducted in the Indus East coal area, southern Sind Province, Pakistan: U.S. Geological Survey Open-File Report 88-543A-C. (ASIA, COAL, COAL-FIELDS, DRILLING, ECONOMIC GEOLOGY, INDIAN-PENINSULA, INTERNATIONAL, OPEN-FILE, ORGANIC, PAKISTAN, RESOURCES, SIND PROVINCE, WELL-LOGGING)
1750. Landis, E.R., and Weaver, J.N., 1987, Coal resources of Central America: U.S. Geological Survey Open-File Report 87-365, 5 p. (CENTRAL AMERICA, COAL, COAL RESOURCES, INTERNATIONAL, OPEN-FILE)
2252. Landis, E.R., and Weaver, J.N., 1989, Coals in the Caribbean Region: Proceedings from the Twelfth Caribbean Geologic Conference, St. Croix, U.S. Virgin Islands, p. 98. (ABSTRACT, CARIBBEAN, COAL, COAL RESOURCES, INTERNATIONAL)
2254. Landis, E.R., and Weaver, J.N., 1989, Coal exploration in Costa Rica: A project assessment: U.S. Geological Survey Open-File Report 89-426, 63 p. (COAL, COAL RESOURCES, COSTA RICA, EXPLORATION, INTERNATIONAL, OPEN-FILE)
727. Landis, E.R., and Weaver, J.N., 1991, Global Coal Resources: 10th Anniversary Meeting of the Coalbed Methane Forum, May 9, 1991, "Global Perspectives on Coalbed Methane". (ABSTRACT, COAL, COAL RESOURCES, ENERGY-SOURCES, GAS, GLOBAL, INTERNATIONAL, METHANE, WORLD)
730. Landis, E.R., and Weaver, J.N., 1992, Coal in the western Pacific basin, an overview, in Program for Symposium on tectonic framework and energy resources of the western margin of the Pacific basin: Circum-Pacific Council and Geological Society of Malaysia; Nov. 29-Dec. 2, 1992, Kuala Lumpur. (ABSTRACT, COAL, INTERNATIONAL, MALAY, MALAYSIA, PACIFIC BASIN, TECTONICS)
3611. Landis, E.R., and Weaver, J.N., 1993, Chapter 1, Global coal occurrence, in Rice, D.D., and Law, B.E., eds., Hydrocarbons from coal: American Association of Petroleum Geologists Studies in Geology, v. 38, p. 1-12. (COAL, COAL RESOURCES, ENERGY RESOURCES, GLOBAL, HYDROCARBONS, INTERNATIONAL, RESOURCES, WORLD)
726. Landis, E.R., Weaver, J.N., Carter, M.D., and Wood, G.H., 1990, Coal in the Central American-Caribbean region: Transactions of the Circum-Pacific Conference, San Jose, Costa Rica, March, 1989, 15 p. (CARIBBEAN, CENTRAL AMERICA, COAL, COAL RESOURCES, INTERNATIONAL, SOUTH-AMERICA)
1398. La Pointe, P.R., and Ganow, H.C., 1986, The Influence of Cleats and Joints on Production Blast Fragment Size in Wyodak Coal, Campbell County, Wyoming in: Rock Mechanics, Key to Energy

Production: Proceedings of the 27th U.S. Rock Mechanics Symposium, University of Alabama, June 23-25. (COAL, ACMPBELL COUNTY, CLEATS, WYODAK COAL, WYOMING)

2041. Law, B.E., Nuccio, V.F., and Stanton, R.W., 1989, An evaluation of the source-rock characteristics and thermal maturation history of the Cameo coal zone, Deep Seam well, Piceance Basin, Colorado: Coalbed Methane Symposium, p. 341-353; University of Alabama, Tuscaloosa, Al., April 17-20, 1989. (CAMEO COAL ZONE, COAL, COLORADO, THERMAL MATURITY, METHANE, PICEANCE BASIN)
615. Law, B.E., Rice, D.D., and Flores, R.M., 1991, Coal-bed gas accumulations in the Paleocene Fort Union Formation, Powder River Basin, Wyoming in Schwochow, S.D., Murray, D.K., and Fahy, M.F., eds., Coalbed Methane of Western North America: Rocky Mountain Association of Geologists, p. 179-190. (COAL, ENERGY-SOURCES, FORT UNION FORMATION, GAS, METHANE, PALEOCENE, TERTIARY)
2816. Lerch, H.E., Orem, W.H., and Moore, T.A., 1992, Alteration of lignin during biodegradation in peats and the early stages of coalification, in Carter, L.M.H., ed., U.S. Geological Survey Research, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1074. (ABSTRACT, BIODEGRADATION, COAL, COALIFICATION, LIGNIN, PEAT)
455. Leventhal, J.S., and Finkelman, R.B., 1986, Uranium in the Vermillion Creek core samples, in Roehler, H.W., ed., Geological investigations of the Vermillion Creek coal bed in the Eocene Niland tongue of the Wasatch Formation, Sweetwater County, Wyoming: U.S. Geological Survey Professional Paper 1314-J, p. 171-178. (COAL, DRILL CORE, EOCENE, NILAND TONGUE, TERTIARY, URANIUM, VERMILLIAN CREEK COAL BED, WASATCH-FORMATION, WYOMING)
3982. Levine, J.R., and Eggleston, J.R., 1992, The anthracite basins of eastern Pennsylvania, U.S.: U.S. Geological Survey Open-File Report 92-568, 72 p. (ANTHRACITE, BASINS, COAL, OPEN-FILE, PENNSYLVANIA)
272. Li, R., and Hatcher, P.G., 1990, Evidence for cleavage of aryl ether linkages in lignin from coalified wood; a first step in the coalification of lignin structures: American Chemical Society, Abstracts of Papers; 200th ACS national meeting, Washington, DC, Aug. 26-31, 1990. (ABSTRACT, COAL, COALIFICATION, LIGNIN, LIGNITE, NMR-SPECTRA, ORGANIC, WOOD)
3767. Li, X.Y., Robbins, E.I., Pavey, R.R., McCormac, J.S., Klarer, D.M., Lesney, L.L., Owen, D.E., and Philip, R.P., in preparation, Geochemistry, palynology, and paleoecology of a present-day inland wetland complex: Springdale Marsh, Seneca County, Ohio, U.S.A.; 43 p. (FEN, GEOCHEMISTRY, OHIO, PALEOECOLOGY, PALYNOLOGY, PEAT, SWAMPS, WETLANDS)
454. Lindahl, P.C., and Finkelman, R.B., 1986, Factors influencing major, minor, and trace element variations in U.S. coals, in Mineral Matter and Ash in Coal, K.S. Vorres, ed: American Chemical Society Symposium Series, 301, ACS, Washington, D.C., p. 61-69. (ASH, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
1460. Litchford, R.G., and Bergenback, R.E., 1990, Lower Pennsylvanian sedimentational responses to

- foreland basin subsidence along the eastern margin of the Cumberland Plateau, southeastern Tennessee: *Journal of the Tennessee Academy of Science*, v. 65, no. 2, p. 43, Ninety-ninth annual meeting of the Tennessee Academy of Science, Nashville, TN, Nov. 17-18, 1989. (ABSTRACT, PENNSYLVANIAN, RACCOON MOUNTAIN FORMATION, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, TENNESSEE, USA, WARREN POINT SANDSTONE)
2056. Luppens, J.A., Wilson, S.J., and Stanton, R.W., 1992, Manual for the drilling, sampling, and analysis of coal core: ASTM Manual 11, American Society for Testing and Materials, Philadelphia, Pa., 72 p. (COAL, COAL QUALITY)
2450. Lyons, P.C., 1991, Bacteria-like bodies in coalified Carboniferous xylem--enigmatic microspheroids or possible evidence of microbial saprophytes in a vitrinite precursor?: *International Journal of Coal Geology*, v. 18, p. 293-303. (COAL, COAL ANALYSIS, VITRINITE)
3727. Lyons, P.C., 1993, Stratigraphy, sedimentology, and paleodepositional environments of the Norfolk and Narragansett basins: Geological Society of America, Coal Geology Division, Geological Society of America Fieldtrip Guidebook, p. 72-80. (COAL, DEPOSITIONAL ENVIRONMENT, GUIDEBOOK, NARRAGANSETT BASIN, NORFOLK BASIN, PALEOENVIRONMENT, SEDIMENTOLOGY, STRATIGRAPHY)
3728. Lyons, P.C., 1993, Pennsylvanian paleobotany: Geological Society of America, Coal Geology Division, Geological Society of America Fieldtrip Guidebook, p. 81-87. (FOSSIL, GUIDEBOOK, PALEOBOTANY, PALEOENVIRONMENT, PENNSYLVANIAN)
3746. Lyons, P.C., 1993, Coal metamorphism and the origin of low sulfur coal: *Geological Society of America Abstracts with Programs*, v. 25, p. A31. (ABSTRACT, COAL, COALIFICATION, GEOCHEMISTRY, METAMORPHISM, SULFUR)
3730. Lyons, P.C., in press, Introduction of Marlies Teichmuller: Geological Society of America: *GSA Today*. (GEOLOGY, HISTORY)
3735. Lyons, P.C., in press, Citation--Gordon H. Wood, Jr., Memorial Award to Aureal T. Cross: *Northeastern Geology*. (HISTORY, MEMORIAL)
3736. Lyons, P.C., Congdon, R.D., Outerbridge, W.F., Dulong, F.T., and Haley, B., in press, A possible volcanic connection between the Appalachian and mid-continent regions: Magmatic and plate tectonic implications: . (APPALACHIAN REGION, MID-CONTINENT REGION, PLATE TECTONICS, TECTONICS, VULCANISM)
3740. Lyons, P.C., Congdon, R.D., and Webster, J.D., 1993, Mid-continent correlation of the Fire Clay tonstein using C1 and Y/Th data: *Geological Society of America Abstracts with Programs*, v. 25, p. A76. (ABSTRACT, COAL, CORRELATION, TONSTEIN)
3742. Lyons, P.C., Cross, A.T., Gao, Z., Gillis, K., Calder, J.H., Zodrow, E.L., and Congdon, R.D., in press, Discovery of in-situ carbonate petrifactions (coal balls) in the Foord Seam (Westphalian C, Uppert Carboniferous), Stellarton, Nova Scotia, Canada: Implications for origin of sulfur in the Foord Seam: *American Association of Petroleum Geologists Abstracts with Programs*, p. 33-34. (ABSTRACT, CANADA, CARBONATES, COAL, COAL-BALLS, GEOCHEMISTRY, NOVA-

SCOTIA, PETRIFACTION, SULFUR)

2455. Lyons, P.C., and Darrah, W.C., 1989, Earliest conifers of North America: Upland and/or paleoclimatic indicators?: The Society of Economic Paleontologists and Mineralogists Research Letters, p. 480. (CONIFERS, FOSSILS, PALEOCLIMATE)
2685. Lyons, P.C., Evans, H.T., and Capiro, M., 1991, Volcanic source and plate tectonic setting of Carboniferous coal-tonsteins, Appalachian basin: 12th International Congress on Carboniferous and Permian Geology and Stratigraphy Abstracts, Buenos Aires, September, 1991, p. 58. (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, COAL, PLATE TECTONICS, TONSTEIN, VOLCANISM)
2683. Lyons, P.C., Hacquebard, P.A., and Outerbridge, W.F., 1991, Evidence of Carboniferous Volcanic ash in Pictou Group (Westphalian D), Sydney coal field, Nova Scotia, Canada: American Association of Petroleum Geologists Bulletin, v. 75, p. 1387. (ABSTRACT, ASH, CANADA, CARBONIFEROUS, COAL, INTERNATIONAL, NOVA-SCOTIA, PICTOU GROUP, SYDNEY COAL FIELD, TONSTEIN, VOLCANIC-ASH, WESTPHALIAN)
3743. Lyons, P.C., Haley, B., Congdon, R.D., Outerbridge, W.F., Evans, H.T., Jr., and Dulong, F.T., in press, A volcanic connection between the Pennsylvanian of the Mid-continent and Appalachian regions: Geological Society of America Abstracts with Programs, South-central Section Meeting, Fort Worth, TX, March, 1993, v. 25, p. 37. (ABSTRACT, APPALACHIAN REGION, MID-CONTINENT REGION, PENNSYLVANIAN, TECTONICS)
3104. Lyons, P.C., Hatcher, P.G., and Brown, F.W., 1986, Secretinite; a proposed new maceral of the inertinite maceral group: Fuel, Guildford, v. 65, p. 1094-1098. (COAL, INERTINITE, MACERALS, ORGANIC, SECRETINITE, SEDIMENTARY ROCKS)
2977. Lyons, P.C., Hatcher, P.G., Brown, F.W., Krasnow, M.R., Larson, R.R., and Millay, M.A., 1985, Role of static load (overburden) pressure in coalification of bituminous and anthracitic coal: International Conference on Coal Science Proceedings, N.S.W. p. 320-324. (BITUMINOUS-COAL, COAL, COALIFICATION)
2453. Lyons, P.C., Hercules, D.M., Morelli, J.J., Sellers, G.A., Mattern, D., Thompson-Rizer, C.L., Brown, F.W., and Millay, M.A., 1987, Application of laser microprobe (LAMMA 1000) to "fingerprinting" of coal constituents in bituminous coal: International Journal of Coal Geology, v. 7, p. 185-194. (BITUMINOUS-COAL, COAL)
2682. Lyons, P.C., Hess, J.C., Outerbridge, W.F., Evans, H.T., Capiro, M., and Triplehorn, D.M., 1991, Mineralogical Signature, $^{40}\text{Ar}/^{39}\text{Ar}$, Sanidine age, and possible Yucatan block origin of the Carboniferous Fire Clay volcanic ash deposit (Tonstein), central Appalachian basin: Geological Society of America, Joint Northeastern and Southeastern Sections Meeting, Baltimore, Maryland. (ABSTRACT, AGE DATING, APPALACHIAN BASIN, ARGON, ASH, CARBONIFEROUS, CLAY, FIRE CLAY COAL BED, MINERALOGY, SANIDINE, TONSTEIN, VOLCANIC-ASH, YUCATAN)
278. Lyons, P.C., Morelli, J.J., Hercules, D.M., Lineman, D., Thompson-Rizer, C.L., and Dulong, F.T., 1990, The laser microprobe mass analyzer for determining partitioning of minor and trace elements

- among intimately associated macerals: An example from the Swallow Wood coal bed, Yorkshire, U.K: Fuel, v. 69, p. 771-775. (COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2584. Lyons, P.C., Morelli, J.J., Hercules, D.M., Palmer, C.A., Brown, F.W., Fletcher, J.D., and Krasnow, M.R., 1986, Laser microprobe "Fingerprinting" and origin of elements in vitrinite bands from selected coal beds of eastern United States, in Carter, L.M.H., ed., U.S.G.S. Research on Energy Resources 1986: Program and abstracts, V. E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 974, p. 36-37; also printed in American Chemical Society, Abstracts with Programs, Geochemical Division Denver, April 1987, p. 108. (ABSTRACT, COAL, VITRINITE)
3721. Lyons, P.C., and Morey, E.D., in press, Portrait of David White (1862-1935) in Lyons, P.C., Morey, E.D., and Wagner, R.H., eds., A Historical Perspective of Early 20th Century Carboniferous Paleobotany in North America, William Culp Darrah Memorial Volume: Geological Society of America Memoir, 27 manuscript pages. (CARBONIFEROUS, DAVID WHITE, FOSSIL, HISTORY, PALEOBOTANY)
3733. Lyons, P.C., Morey, E.D., and Wagner, R.H., 1993, Foreword, in Lyons, P.C., Morey, E.D., and Wagner, R.H., eds., A Historical Perspective of Early 20th Century Carboniferous Paleobotany in North America, William Culp Darrah Memorial Volume: Geological Society of America Memoir. (COAL, GEOLOGY, HISTORY)
102. Lyons, P.C., Outerbridge, W.F., and Carter, M.D., 1985, Correlations of coal beds near Allegheny-Conemaugh contact in tri-state area of Ohio, Kentucky, and West Virginia: American Association of Petroleum Geologists Bulletin, v. 69, p. 1440; Eastern Section Meeting, Nov. 10-12, 1985, Williamsburg, Virginia. (ABSTRACT, ALLEGHANY, COAL, COAL BED, CORRELATION, KENTUCKY, OHIO, WEST VIRGINIA)
189. Lyons, P.C., Outerbridge, W.F., Congdon, R.C., Triplehorn, D.M., Evans, H.T., Jr., and Capiro, M., 1992, Volcanic source and plate tectonic setting of Carboniferous coal-tonsteins Appalachian basin: Compte Rendu 28 p.; abstract from 12th International Congress on Carboniferous and Permian Geology and Stratigraphy (Buenos Aires, September 1991). (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, COAL, PLATE TECTONICS, TONSTEIN, VOLCANIC ROCKS)
198. Lyons, P.C., Outerbridge, W.F., Congdon, R.D., Evans, H.T., Jr., and Slucher, E.R., 1992, "Fingerprinting" of kaolinized volcanic ash beds (tonsteins) as a tool in the correlation of coal beds in the Appalachian basin: Geological Society of America Abstracts with Programs, v. 24, p. 60. (ABSTRACT, APPALACHIAN BASIN, ASH, COAL, CORRELATION, TONSTEIN, VOLCANIC-ASH)
199. Lyons, P.C., Outerbridge, W.F., Congdon, R.D., and Slucher, E.R., 1992, Stratigraphic implications of Carboniferous coal-tonstein research in the Appalachian basin: Geological Society of America Abstracts with Programs, v. 24, p. 60. (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, COAL, STRATIGRAPHY, TONSTEIN)
3722. Lyons, P.C., Outerbridge, W.F., Congdon, R.D., Triplehorn, D.M., Evans, H.T., Jr., and Capiro, M., in press, Volcanic source and plate tectonic setting of some Carboniferous tonsteins, Appalachian Basin: Compte Rendu, 12th International Congress on Carboniferous and Permian Geology and

- Stratigraphy, Buenos Aires, Sept., 1991, 28 manuscript pages. (APPALACHIAN BASIN, CARBONIFEROUS, TECTONICS, TONSTEIN, VOLCANIC-ASH)
2692. Lyons, P.C., Outerbridge, W.F., Evans, H.T., and Capiro, M., 1991, Volcanic source and plate tectonic setting of Carboniferous coal-tonsteins, Appalachian basin: 12th International Congress on Carboniferous and Permian Geology and Stratigraphy Abstracts, Buenos Aires, September, 1991, p. 58. (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, COAL, PLATE TECTONICS, TONSTEIN, VOLCANIC, VOLCANIC ROCKS, VOLCANIC-ASH)
2696. Lyons, P.C., Outerbridge, W.F., Triplehorn, D.M., Evans, H.T., Congdon, R.D., Capiro, M., Hess, J.C., and Nash, W.P., 1993, Mineralogy, chemistry, age, and origin of a kaolinized Carboniferous air-fall volcanic ash deposit (tonstein), Appalachian basin: Geological Society of America Bulletin, v. 104. (AGE DATING, ASH, CARBONIFEROUS, CLAY, KAOLINITE, MINERALOGY, TONSTEIN, VOLCANIC-ASH)
188. Lyons, P.C., Outerbridge, W.F., Triplehorn, D.M., Evans, H.T., Jr., Congdon, R.D., Capiro, M., Hess, J.C., and Nash, W.P., 1992, An Appalachian isochron: A kaolinized Carboniferous air-fall volcanic ash deposit (tonstein), Appalachian basin: Geological Society of America Bulletin, v. 104, p. 1515-1527. (AGE DATING, APPALACHIAN BASIN, ASH, CARBON, ISOCHRON, KAOLINITE, TONSTEIN, VOLCANIC-ASH)
2592. Lyons, P.C., and Palmer, C.A., 1988, Implications of trace element concentrations in modern tree fern tissues for the origin of elements in vitrinites of the Pittsburgh coal bed in Carter LMA ed USGS research on energy resources - 1988. Program and abstracts: U.S. Geological Survey Circular 1025, p. 29-30. (ABSTRACT, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, VITRINITE)
271. Lyons, P.C., Palmer, C.A., Bostick, N.H., Fletcher, J.D., Dulong, F.T., Brown, F.W., Brown, Z.A., Krasnow, M.R., and Romankiw, L.A., 1989, Chemistry and origin of minor and trace elements in vitrinite concentrates from a rank series from the eastern United States, England and Australia: International Journal of Coal Geology, v. 13, p. 481-527. (AUSTRALIA, ENGLAND, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, VITRINITE)
979. Lyons, P.C., Palmer, C.A., Bostick, N.H., and others, 1990, Chemistry and origin of minor and trace elements in vitrinite concentrates from a rank series from the eastern United States, England and Australia: International Journal of Coal Geology, v. 13, p. 481-527. (AUSTRALIA, COAL, ENGLAND, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, VITRINITE)
2588. Lyons, P.C., Palmer, C.A., and Millay, M.A., 1986, Implications for maceral chemistry of the Pittsburgh coal bed as indicated histological fractionation of elements in the New Zealand tree fern *Alsophila tricolor*: Geological Society of America Abstracts with Programs, v. 18, p. 677. (ABSTRACT, COAL, FOSSIL, GEOCHEMISTRY, MACERALS, PENNSYLVANIA, PITTSBURGH-COAL)
2600. Lyons, P.C., Palmer, C.A., Morelli, J.J., Hercules, D.M., and Lineman, D., 1989, A semiquantitative approach for determining trace-element concentrations in macerals using laser micro mass spectrometry: Book of Abstracts: International Chemical Congress of Pacific Basin Societies Abstracts of Papers, p. 5-255; American Chemical Society, Washington. (ABSTRACT,

GEOCHEMISTRY, HAPS, TRACE ELEMENTS)

3729. Lyons, P.C., Robertson, E.C., and Milton, L., 1993, C. Wroe Wolf's Geology Course on Radio station WGBH (Boston) in 1954: *Journal of Geological Education*, v. 41, p. 170-171. (EDUCATION, GEOLOGY, HISTORY)
3741. Lyons, P.C., Spears, D.A., Outerbridge, W.F., and Congdon, R.D., 1992, Euramerican tonsteins: Occurrence and depositional aspects: Geological Association of Canada, Mineralogical Association of Canada, Joint Annual Meeting, Halifax, Nova Scotia, Abstracts Volume, v. 17, p. A70. (ABSTRACT, DEPOSITION, DEPOSITIONAL ENVIRONMENT, EUROPE, NORTH-AMERICA, TONSTEIN)
2697. Lyons, P.C., Spears, D.A., Outerbridge, W.F., Congdon, R.D., and Evans, H.T., Jr., in press, Euramerican Tonsteins: Overview, magmatic origin, and depositional-tectonic implications: *Paleo*, v. 3. (ASH, DEPOSITIONAL ENVIRONMENT, EUROPEAN, INTERNATIONAL, NORTH-AMERICA, TECTONISM, TONSTEIN, VULCANISM)
3723. Lyons, P.C., Spears, D.A., Outerbridge, W.F., Congdon, R.D., and Evans, H.T., Jr., in press, Some widespread Euroamerican tonsteins: Occurrence and depositional implications: *Palaeogeography, Palaeoclimatology, Palaeoecology*, Special volume, Euroamerican Coal Conference, v. 106, p. 113-139. (AGE DATING, DEPOSITION, EUROPE, NORTH-AMERICA, TONSTEIN, VOLCANIC-ASH)
3724. Lyons, P.C., and Teichmuller, M., in press, Portrait of Reinhardt Thiessen (1867-1938): Pioneering coal petrologist and stratigraphic palynologist, with personal recollections of Reinhardt Thiessen by Marlies Teichmuller, in Lyons, P.C., Morey, E.D., and Wagner, R.H., eds., *A Historical Perspective of Early 20th Century Carboniferous Paleobotany in North America*, William Culp Darrah Memorial Volume: Geological Society of America Memoir; 57 manuscript pages. (COAL, HISTORY, PALYNOLOGY, PETROLOGY, REINHARDT THIESSEN, STRATIGRAPHY)
269. Lyons, P.C., Whelan, J.E., and Dulong, F.T., 1989, Marine origin of pyritic sulfur in the Lower Bakerstown coal bed, Castleman coal field, Maryland: *International Journal of Coal Geology*, v. 12, p. 329-348. (COAL, GEOCHEMISTRY, SULFUR)
3731. Lyons, P.C., and Zodrow, E.L., 1993, Early to Mid 20th Century floral zonation schemes of the Pennsylvanian (Upper Carboniferous) of North America and correlations with the Upper Carboniferous of Europe, in Lyons, P.C., Morey, E.D., and Wagner, R.H., eds., *A Historical Perspective of Early 20th Century Carboniferous Paleobotany in North America*, William Culp Darrah Memorial Volume: Geological Society of America Memoir. (CARBONIFEROUS, FLORA, FOSSIL, HISTORY, NORTH-AMERICA, PALEOBOTANY, PENNSYLVANIAN, PLANTS, STRATIGRAPHY)
3737. Lyons, P.C., Zodrow, E.L., and Orem, W.H., 1992, Coalification of cuticle and compresses leaf tissue of the Carboniferous seed fern *Macroneuropteris* (*Neuropteris scheuchzeri*)--Implications for coalification to the bituminous coal stage: Geological Society of America Abstracts with Programs, Annual Meeting, Cincinnati, OH, Oct. 1992, p. A163. (ABSTRACT, BITUMINOUS-COAL, CARBONIFEROUS, COAL, COALIFICATION, FLORA, FOSSIL, PLANTS, SEED FERN)

2326. MacKenzie, B., and Watson, W.D., 1986, Economic aspects of resource assessments, in Prospects for mineral resource assessment on public lands, proceedings of the Leesburg workshop: U.S. Geological Survey Circular 980. (ECONOMICS, FEDERAL LANDS, MINERALS, MINERAL RESOURCES)
525. Macko, S.A., Engel, M.H., Hartley, G., Hatcher, P., Helleur, R., Jackman, P., and Silfer, J.A., 1991, Isotopic compositions of individual carbohydrates as indicators of early diagenesis of organic matter in peat; in Curiale, J.A., Alexander, R., and Brooks, P.W., eds., Organic geochemistry of hydrocarbon basins. Unocal Sci. & Technol. Div., Brea, CA: Chemical Geology, v. 93, p. 147-161; 1989 international chemical congress of Pacific Basin societies symposium on Organic geochemistry of hydrocarbon basins, Honolulu, HI, Dec. 17-22, 1989. (CARBON, COAL, DIAGENESIS, GEOCHEMICAL-INDICATORS, GEOCHEMISTRY, NITROGEN, NMR-SPECTRA, ORGANIC, PEAT, STABLE-ISOTOPES)
1320. Maldonado, F., Sable, E.G., and Anderson, J.J., 1990, Shallow detachment of mid-Tertiary rocks, Red Hills (Basin and Range), with implications for a regional detachment zone in the adjacent Markagunt Plateau (Colorado Plateau), Southwest Utah, in Zoback, Mary Lou, and Rowland, S.M., eds., Geological Society of America Abstracts with Programs, v. 22, no. 3, p. 63, Cordilleran Section, 86th annual meeting. (ABSTRACT, BASIN RANGE STRUCTURE, CLARON-FORMATION, COLORADO, FAULTS, NORTH-AMERICA, RED-HILLS, STRUCTURAL-GEOLOGY, TECTONICS, TERTIARY, USA, UTAH, VOLCANIC ROCKS)
1853. Martin, J.W., and Cavaroc, V.V., 1991, Lithotype control of trace element concentrations in some southeastern West Virginia coals, in Peters, D.C., ed., Geology in coal resource utilization: United States, Tech Books, p. 427-450. (BITUMINOUS-COAL, COAL, CONCENTRATION, GEOCHEMISTRY, HAPS, ORGANIC, SEDIMENTARY ROCKS, SEDIMENTARY-PETROLOGY, TRACE ELEMENTS, USA, WEST VIRGINIA)
881. Marvin, R.F., Bohor, B.F., and Mehnert, H.H., 1986, Tonsteins: Touchstones for dating coalbeds: Isochron/West, p. 17-18. (AGE DATING, COAL, TONSTEIN)
1031. McCabe, P.J., Brownfield, M.E., Hansen, D.E., Hettinger, R.D., Kirschbaum, M.A., and Sanchez, J.D., 1988, Effects of climate, tectonism, and variations in sea level on the formation of the Cretaceous coals of North America, in Carter, L.M.H., ed., USGS Research on Energy Resources, 1988 Program and Abstracts: U.S. Geological Survey Circular 1025, p. 33-34. (ABSTRACT, CLIMATE, COAL, CRETACEOUS, EUSTACY, PALEOCLIMATE, PALEOGEOGRAPHY, TECTONISM)
3791. McCabe, P.J., Brownfield, M.E., Hansen, D.E., Hettinger, R.D., Kirschbaum, M.A., and Sanchez, J.D., 1988, Effects of climate, tectonism, and variations in sea level on formation of Cretaceous coals of North America: American Association of Petroleum Geologists Bulletin, v. 72, p. 877. (ABSTRACT, CLIMATE, COAL, CRETACEOUS, EUSTACY, PALEOCLIMATE, TECTONISM)
3937. McCabe, P.J., Gautier, D.L., Lewan, M.D., and Turner, C., 1994, The future of energy gases, in Carter, L.M.H., ed., Public Issues in Earth Science: U.S. Geological Survey Circular 1115, 58 p. (COAL, ECONOMICS, ENERGY FUELS, ENERGY MINERALS, ENERGY RESOURCES, ENERGY-SOURCES, FUEL RESOURCES, FUELS, OIL AND GAS)

3790. McCabe, P.J., Hettinger, R.D., Kirschbaum, M.A., Sanchez, J.D., and Shanley, K.W., 1990, Subsidence, eustacy, and climate-controls on coal and clastic facies architecture, Cretaceous of western United States, in U.S. Geological Survey Research on Energy Resources- 1990, V.E. McKelvey Forum on Energy and Mineral Resources: U.S. Geological Survey Circular 1060, p. 51. (ABSTRACT, CLIMATE, COAL, CRETACEOUS, EUSTACY, FACIES, PALEOCLIMATE, SUBSIDENCE)
118. McCammon, R.B., Menzie, W.D., III, Mast, R.F., and Carter, M.D., 1991, Quantitative assessments of the energy and mineral resources within eighteen wilderness study areas in the States of Colorado, Nevada, Oregon, and Utah: U.S. Geological Survey Open-File Report 91-384, 47 p. (COLORADO, ENERGY RESOURCES, NEVADA, OPEN-FILE, OREGON, UTAH, WILDERNESS AREAS)
3637. McConnell, B., Harms, T., and Filipek, L.H., 1985, Problems associated with analyses of plant samples in the Tar Creek study: U.S. Geological Survey Toxic Waste Meeting, Hyannis, Massachusetts. (ABSTRACT, ANALYSES, PLANT ANALYSES, TAR CREEK STUDY, TOXIC WASTE)
96. McDougall, J.W., 1986, Neotectonics and molasse deposition near the Indus River, Pakistan: Proceedings of the International Symposium on Neotectonics in South Asia, p. 179-180; Poster session, Dehra Dun, Feb. 18-21, 1986. (ABSTRACT, ASIA, CLASTIC ROCKS, INDIAN-PENINSULA, INTERNATIONAL, NEOGENE, NEOTECTONICS, PAKISTAN, SALT-RANGE, SEDIMENTARY ROCKS, SEDIMENTOLOGY, STRUCTURAL-GEOLOGY, TERTIARY)
104. McDougall, J.W., 1987, Tectonic map and interpretation of the Kalabagh tear fault, Himalayan foreland fold-thrust belt, western Salt Range area, Pakistan: Geological Society of America Abstracts with Programs, v. 19, p. 765; 1987 annual meeting and exposition, Phoenix, AZ, Oct. 26-29, 1987. (ABSTRACT, ASIA, FAULTS, HIMALAYAS, INDIAN-PENINSULA, INTERNATIONAL, MAP, NEOTECTONICS, PAKISTAN, SALT-RANGE, STRUCTURAL-GEOLOGY, SURGHAR-RANGE, TECTONIC-MAPS, TECTONICS, THRUST-FAULTS)
105. McDougall, J.W., 1988, Geology and geophysics of the foreland fold-thrust belt of northwestern Pakistan: University Microfilms, Ann Arbor, MI, United States, 178 p. (ASIA, CLASTIC ROCKS, FAULTS, FORELAND-BASINS, GEOLOGY, GRAVITY-ANOMALIES, HIMALAYAS, INTERNATIONAL, PAKISTAN, STRUCTURE, TECTONICS)
106. McDougall, J.W., 1989, Tectonically-induced diversion of the Indus River west of the Salt Range, Pakistan: Palaeogeography, Palaeoclimatology, Palaeoecology, v. 71, p. 301-307. (ASIA, CENOZOIC, CLASTIC ROCKS, GRAVEL, INDIAN-PENINSULA, INTERNATIONAL, NEOTECTONICS, PAKISTAN, PALEOGEOGRAPHY, SALT-RANGE, STRATIGRAPHY, STRUCTURAL-GEOLOGY, TECTONICS, TERRACES, UPLIFTS)
115. McDougall, J.W., and Hussain, A., 1991, Fold and thrust propagation in the western Himalaya based on a balanced cross section of the Surghar Range and Kohat Plateau, Pakistan: American Association of Petroleum Geologists Bulletin, v. 75, p. 463-478. (ASIA, EOCENE, FAULTS, HIMALAYAS, INDIAN-PENINSULA, INTERNATIONAL, PAKISTAN, PALEOGENE, STRUCTURAL-GEOLOGY, SURGHAR-RANGE, TECTONICS, TERTIARY, THRUST-

FAULTS)

2497. McGovern, P.E., Harbottle, G., and Wnuk, C., 1987, Ware characterization: petrography, chemical sourcing, and firing, in P.E. McGovern, ed., *The Late Bronze and Early Iron Ages of central trans-Jordan: The Baq'ah Valley Project, 1977-1981: University Museum Monograph 65*, Philadelphia, University Museum, p. 178-193. (INTERNATIONAL)
2498. McGovern, P.E., and Wnuk, C., 1987, Ceramic Technology I: Petrography, firing, and surface decoration, in W.D. Glanzman and A.O. Ghaleb, eds., *The Wadi-al-Jubah Archaeological Project, Volume 3, Site Reconnaissance in the Yemen Arab Republic, 1984, The Stratigraphic Probe at Hajar Ar-Rayhani*, Pennsauken: Quadra Graphics, p. 181-190. (ARAB REPUBLIC, CERAMIC, HAJAR AR-RAYHANI, INTERNATIONAL, PENNSAUKEN, PETROGRAPHY, YEMEN)
217. McLellan, M.W., and Biewick, L.H., 1987, Geologic map of the Bradshaw Creek 7.5' quadrangle, Powder River County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-1962, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, POWDER RIVER BASIN, POWDER RIVER COUNTY, QUADRANGLE)
1843. McLellan, M.W., Biewick, L.H., Molnia, C.L., and Pierce, F.W., 1986, Coal stratigraphy of the northern and central Powder River Basin, Montana and Wyoming: *American Association of Petroleum Geologists Bulletin*, v. 70, p. 1048. (ABSTRACT, COAL, MONTANA, POWDER RIVER BASIN, STRATIGRAPHY, TERTIARY, WYOMING)
213. McLellan, M.W., and Biewick, L.R.H., 1987, Geologic map of the Sayle 7.5' quadrangle, Powder River County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-1961, scale 1:24,000. (GEOLOGIC MAP, MAP, MONTANA, POWDER RIVER BASIN, POWDER RIVER COUNTY, QUADRANGLE)
12. McLellan, M.W., and Biewick, L.R.H., 1988, Stratigraphic framework of Paleocene coal beds in the Broadus 30' X 60' quadrangle, Powder River Basin, Montana-Wyoming: U.S. Geological Survey Coal Investigations Map C-119-A, scale 1:100,000. (BROADUS, COAL, COAL CORRELATIONS, CORRELATION, CROSS SECTIONS, MAP, MONTANA, PALEOCENE, POWDER RIVER BASIN, QUADRANGLE, STRATIGRAPHY, TERTIARY, WYOMING)
38. McLellan, M.W., and Biewick, L.R.H., 1988, Paleocene deposition in the Powder River Basin: *Geological Society of America Abstracts with Programs*, v. 20, p. 75. (ABSTRACT, DETRITAL-SEDIMENTATION, MONTANA, PALEOCENE, POWDER RIVER BASIN, SEDIMENTARY-BASINS, SEDIMENTOLOGY, TERTIARY, WYOMING)
53. McLellan, M.W., and Biewick, L.R.H., 1989, Geologic map of the Moorehead 7.5' quadrangle, Powder River County, Montana: U.S. Geological Survey Miscellaneous Investigations Series Map I-1969, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, MOOREHEAD, POWDER RIVER BASIN, POWDER RIVER COUNTY, QUADRANGLE)
82. McLellan, M.W., and Biewick, L.R.H., 1989, Geologic map of the Bloom Creek 7.5' quadrangle, Powder River County, Montana: U.S. Geological Survey Coal Investigations Map C-1968, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, POWDER RIVER BASIN, POWDER RIVER COUNTY, QUADRANGLE)

156. McLellan, M.W., and Biewick, L.R.H., 1990, Geologic map of the Three Bar Ranch quadrangle, Montana and Wyoming: U.S. Geological Survey Miscellaneous Investigations Series Map I-2016, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, QUADRANGLE, WYOMING)
152. McLellan, M.W., Biewick, L.R.H., Molnia, C.L., and Pierce, F.W., 1990, Interpretation of Paleocene deposition and coal stratigraphy of the northern and central Powder River Basin, Montana and Wyoming, including cross sections showing the reconstructed stratigraphic framework: U.S. Geological Survey Miscellaneous Investigations Series Map, I-1959-A; scale 1:500,000. (COAL, CORRELATION, CROSS SECTIONS, MAP, MONTANA, PALEOCENE, POWDER RIVER BASIN, STRATIGRAPHY, TERTIARY, WYOMING)
572. McWilliams, M.O., Baksi, A.K., Bohor, B.F., Izett, G.A., and Murali, A.V., 1992, High-precision relative ages of K/T boundary events in North America and Deccan Trap volcanism in India: EOS, Transactions of the American Geophysical Union, v. 73, p. 363. (AGE DATING, CRETACEOUS, DECCAN TRAP VOLCANISM, INDIA, INTERNATIONAL, TERTIARY)
1116. Mears, B., Jr., Agard, S.S., Sutherland, W.M., and Coates, D.A., 1991, Powder River Basin, in Morrison, R.B., ed., Quaternary nonglacial geology, conterminus U.S.: Geological Society of America, The Geology of North America, v. K-2, p. 446-448. (GEOLOGY, POWDER RIVER BASIN, QUATERNARY, SEDIMENTS, UNITED STATES)
2038. Medlin, A.L., Krohn, K.K., and Kerr, P.T., 1986, Coal-quality analysis utilizing the National Coal Resources Data System (NCRDS); Garbini, Susan, Schweinfurth, Stanley P. Symposium proceedings; A national agenda for coal-quality research: U.S. Geological Survey Circular 979, p. 240. (ABSTRACT, COAL, COMPUTER, COMPUTER APPLICATIONS, DATA PROCESSING, DATABASES, ECONOMIC GEOLOGY, NCRDS, ORGANIC, PROPERTIES, QUALITY, RESOURCES, USCHEM)
2029. Medlin, A.L., Huber, D.F., Schruben, P.G., Mason, G.T., and Stoltz, M.L., 1987, Mineral Resources Data System; new techniques and applications for mineral-resources research; Sachs, Janet Somerville, ed., USGS research on mineral resources, V.E. McKelvey Forum on mineral and energy resources: U.S. Geological Survey Circular 995, p. 44. (ABSTRACT, DATA PROCESSING, ECONOMIC GEOLOGY, MINERAL RESOURCES DATA SYSTEM, MINERAL-EXPLORATION, MINERAL-RESOURCES, RESOURCES)
3734. Medlin, J.H., Reinemund, J.A., and Lyons, P.C., 1993, Memorial to Ralph LeRoy Miller: Geological Society of America Memorial Series for 1993, p. 29-31. (GEOLOGY, HISTORY, MEMORIAL, RALPH LEROY MILLER)
1926. Medlin, J.H., and Simon, F.O., 1990, The role of coal characterization in the control of acid precipitation, in Doe, B.R., ed., Proceedings of a U.S. Geological Survey workshop on Environmental geochemistry: U.S. Geological Survey Circular, p. 105-118. (COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, HYDROLOGY, METAL ORES, ORGANIC, POLLUTION, PROPERTIES, SEDIMENTARY ROCKS, SULFUR, TRACE ELEMENTS, TRACE-METALS)

2594. Mee, J.S., Palmer, C.A., and Oman, C.L., 1988, The distribution of rare earth elements in the Pittsburgh coal, in Carter, L.M.H., ed., USGS research on energy resources -1988. Program and abstracts: U.S. Geological Survey Circular 1025, p. 35-36. (ABSTRACT, COAL, ELEMENTS, PITTSBURGH-COAL, RARE EARTHS, TRACE ELEMENTS)
2665. Meissner, C.R., Jr., Mytton, J.W., and Outerbridge, W.F., 1985, A sample of coalified wood from the Arabian peninsula and its implication for finding coal: U.S. Geological Survey Open-File Report 85-22, 6 p. (ARABIAN-PENINSULA, COAL, EXPLORATION, INTERNATIONAL, OPEN-FILE, WOOD)
158. Merewether, E.A., Dolson, J.C., Hansen, W.B., Keefer, W.R., Law, B.E., Mueller, R.E., Ryer, T.A., Smith, A.C., Stilwell, D.P., Wheeler, D.M., and Ethridge, F.G., 1991, The Cretaceous record in a northeast-trending transect (B-B'), northern Utah to east-central Wyoming, in Coury, A.B. and Dyman, T.S., eds., Abstracts of the U.S. Geological Survey, central region; 1991 poster review: U.S. Geological Survey Open-File Report 91-582, p. 34. (ABSTRACT, CRETACEOUS, LITHOSTRATIGRAPHY, MEASURED SECTIONS, NORTH-AMERICA, NORTHERN-UTAH, OPEN-FILE, ROCKY-MOUNTAINS, SEDIMENTARY ROCKS, STRATIGRAPHY, USA, UTAH, WYOMING)
1823. M'Gonigle, J.W., 1992, Geologic map showing exposed coal beds of the Elkol quadrangle, southwestern Wyoming: U.S. Geological Survey Coal Investigations Map C-141. (COAL, GEOLOGIC MAP, MAP, WYOMING)
708. M'Gonigle, J.W., 1993, Geologic map of the Medicine Lodge Peak quadrangle, Beaverhead County, southwest Montana: U.S. Geological Survey Geologic Quadrangle Map GQ-1724. (BEAVERHEAD COUNTY, MAP, MONTANA)
709. M'Gonigle, J.W., 1994, Geologic map of the Deadman Pass quadrangle, Idaho, Beaverhead County, Montana and Lemhi County: U.S. Geological Survey Geologic Quadrangle Map GQ-1753. (BEAVERHEAD COUNTY, IDAHO, LEMHI COUNTY, MAP, MONTANA)
733. M'Gonigle, J.W., and Dalrymple, G.B., 1993, $^{40}\text{Ar}/^{39}\text{Ar}$ ages of Challis volcanic rocks and the initiation of Tertiary sedimentary basins in southwestern Montana: *The Mountain Geologist*, v. 30-, p. 112-118. (BASINS, GEOCHEMISTRY, MONTANA, TERTIARY, VOLCANIC ROCKS)
4105. M'Gonigle, J.W., and Dalrymple, G.B., in press, $^{40}\text{Ar}/^{39}\text{Ar}$ ages of Challis volcanic rocks and the initiation of Tertiary sedimentary basins in southwestern Montana: U.S. Geological Survey Bulletin. (BASINS, GEOCHEMISTRY, MONTANA, SEDIMENTARY-BASINS, TERTIARY)
4006. M'Gonigle, J.W., Dalrymple, G.B., and Holmes, C.W., in press, Single-crystal $^{40}\text{Ar}/^{39}\text{Ar}$ ages for rocks in the lower part of the Frontier Formation (Upper Cretaceous), southwest Wyoming: *The Mountain Geologist*. (AGE DATING, ARGON, FRONTIER FORMATION, UPPER CRETACEOUS, WYOMING)
1820. M'Gonigle, J.W., and Dover, J.H., 1992, Geologic map of the Kemmerer 30 x 60' quadrangle, southwestern Wyoming: U.S. Geological Survey Miscellaneous Investigations Series Map I-2079, scale 1:100,000. (GEOLOGIC MAP, GEOLOGY, KEMMERER, MAP, WYOMING)

1821. M'Gonigle, J.W., Hait, M.H., and Perry, W.J., Jr., 1990, Characteristics of coal-bearing strata in Tertiary basins, based on integrated sedimentary and structural field studies, southwestern Montana, in Carter, L.M.H., ed., U. S. Geological Survey Research on Energy Resources - 1990, Program and Abstracts, V.E. McKelvey Forum: U.S. Geological Survey Circular 1060, p. 52. (ABSTRACT, BASINS, COAL, MONTANA, STRUCTURE, TERTIARY)
4106. M'Gonigle, J.W., and Hait, M.H., Jr., in press, Geologic map of the Jeff Davis Peak and eastern third of the Everson Creek quadrangles, southwestern Montana: U.S. Geological Survey Miscellaneous Investigations Series Map, I-. (EVERSON CREEK QUADRANGLE, GEOLOGIC MAP, GEOLOGY, JEFF DAVIS PEAK QUADRANGLE, MAP, MONTANA)
703. M'Gonigle, J.W., Holmes, C.W., and Dalrymple, B.G., 1992, $^{40}\text{Ar}/^{39}\text{Ar}$ dates for the lower part of the Frontier Formation, southwest Wyoming: SEPM Theme Meeting - Mesozoic of the Western Interior, Ft. Collins, Colorado, p. 48. (ABSTRACT, AGE DATING, ARGON, CRETACEOUS, FRONTIER FORMATION, MESOZOIC, WESTERN INTERIOR, WYOMING)
2231. M'Gonigle, J.W., Kirschbaum, M.A., and Weaver, J.N., 1986, Sedimentologic and tectonic setting of intermontane Tertiary coal-bearing rocks, southwestern Montana, in Carter, L.M.H., ed., U.S. Geological Survey research on energy resources, 1986, Program and Abstracts, V.E. McKelvey Forum: U.S. Geological Survey Circular 974, p. 40. (ABSTRACT, COAL, MONTANA, SEDIMENTOLOGY, TECTONICS, TERTIARY)
2750. M'Gonigle, J.W., Kirschbaum, M.A., and Weaver, J.N., 1991, Geologic map of the Hansen Ranch quadrangle, Beaverhead County, southwest Montana: U.S. Geological Survey Geologic Quadrangle Map GQ-1704, scale 1:24,000. (BEAVERHEAD COUNTY, GEOLOGIC MAP, MAP, MONTANA, QUADRANGLE)
3818. M'Gonigle, J.W., and Roberts, L.N.R., in press, Coal geology and resources, in Van Loenen, R.E., and Gibbons, A.B., eds., Mineral Resource Potential and Geology of the San Juan National Forest, Colorado: U.S. Geological Survey Bulletin, p. 138-157. (COAL, COAL RESOURCES, COLORADO, MINERALS, SAN JUAN NATIONAL FOREST)
3550. Milici, R.C., 1986, West-to-east (break back) imbrication of the Alleghenian allochthon in the southern Appalachian Plateau and Valley and Ridge: Tennessee Division of Geology Information Circular 19, 13 p. (ALLEGHANY, APPALACHIAN PLATEAU, STRUCTURAL-ANALYSIS, STRUCTURAL-GEOLOGY, STRUCTURE, TENNESSEE)
3551. Milici, R.C., 1986, Chestnut Ridge fenster; Illustration of a thin-skinned deformation of the Pine Mountain block, Lee County, Virginia: Geological Society of America Centennial Field Guide - Southeastern Section, p. 123-125. (LEE COUNTY, PINE MOUNTAIN BLOCK, STRUCTURAL-ANALYSIS, STRUCTURAL-GEOLOGY, STRUCTURE, TECTONICS, VIRGINIA)
3595. Milici, R.C., 1986, Deep Structure of the Atlantic Continental Margin, Long Island Platform to Blake Plateau, USA: Geological Society of America Abstracts with Programs, p. 695. (ABSTRACT, ATLANTIC COASTAL PLAIN, CONTINENTAL-MARGIN, DEEP STRUCTURE, MARINE, STRUCTURAL-GEOLOGY, STRUCTURE, USA)

3599. Milici, R.C., 1987, The geology of coal mine roof falls in southeastern Virginia: Virginia Journal of Science, v. 38, p. 129. (GEOLOGY, HAZARDS, MINING, ROFF FALLS, UNDERGROUND MINING, VIRGINIA)
3602. Milici, R.C., 1988, Progressive deformation in southern Appalachian thrust sheets: Geological Society of America Abstracts with Programs, p. A125. (ABSTRACT, APPALACHIANS, FAULTS, STRUCTURE, TECTONICS)
3564. Milici, R.C., 1990, Oil and gas exploration and development in Virginia, 1979-1988: Virginia Division of Mineral Resources, Virginia Minerals, v. 36, p. 1-6. (ENERGY-SOURCES, OIL AND GAS, PETROLEUM, VIRGINIA)
3565. Milici, R.C., 1990, The geology of Natural Tunnel State Park: Virginia Division of Mineral Resources, Virginia Minerals, v. 36, p. 17-27. (MINERALS, NATURAL TUNNEL STATE PARK, STATE PARK, VIRGINIA)
3604. Milici, R.C., 1990, Energy and mineral resource issues, an overview: Geological Society of America Abstracts with Programs, Southeastern Section, p. 26. (ABSTRACT, ENERGY RESOURCES, ENERGY-SOURCES, MINERAL-RESOURCES, MINERALS)
3605. Milici, R.C., 1992, An overview of sub-Devonian plays in the Appalachian and Black Warrior basins: American Association of Petroleum Geologists, Official Program for the 1992 Annual Convention, Calgary, Canada, p. 89. (ABSTRACT, APPALACHIAN BASIN, BLACK WARRIOR BASIN, DEVONIAN, ENERGY-SOURCES, GEOLOGY, OIL AND GAS)
3572. Milici, R.C., 1993, Autogenic (self-sourced) gas from shales, an example from the Appalachian basin: U.S. Geological Survey Professional Paper 1570, p. 253-278. (APPALACHIAN BASIN, AUTOGENIC, ENERGY-SOURCES, GAS, OIL AND GAS, SHALE)
3934. Milici, R.C., 1994, The Lower Mississippian Fort Payne Carbonate Mound Play: Appalachian Oil and Gas Symposium Proceedings, Morgantown, West Virginia, March 21-24, 1994. (ABSTRACT, FORT PAYNE CARBONATE MOUND PLAY, MISSISSIPPIAN, OIL AND GAS)
3554. Milici, R.C., and Bayer, K.C., 1987, Interpretative geologic contour maps of offshore Virginia: Virginia Division of Mineral Resources Publication, 73, Part B, scale 1:500,000, 11 p. (CONTOUR-MAPS, GEOLOGY, MAP, MARINE, VIRGINIA)
3598. Milici, R.C., and Bayer, K.C., 1987, The geologic framework of the continental shelf and slope adjacent to Virginia with emphasis on petroleum geology, in Hunt, M.C., Ratcliff, D.C., Boenges, Susan, and Condon, Carolyn, eds., First Symposium on studies related to continental margins - a summary of year-one and year-two activities: Program and Abstracts, Texas Bureau of Economic Geology, p. 28. (ABSTRACT, GEOLOGY, STRATIGRAPHY, VIRGINIA)
3568. Milici, R.C., Bayer, K.C., Pappano, P.A., Costain, J.K., Coruh, C., and Nolde, J.E., 1991, Preliminary geologic section across the buried part of the Taylorsville basin, Essex and Caroline Counties, Virginia: Virginia Division of Mineral Resources Open-File Report 91-1, 31 p. (CAROLINE COUNTY, CROSS SECTIONS, ESSEX COUNTY, OPEN-FILE, STRUCTURE, TAYLORSVILLE BASIN, VIRGINIA)

3569. Milici, R.C., and Campbell, E.V.M., 1992, The long term outlook for coal production in Virginia: Virginia Mining Journal, v. 4, p. 17-21. (COAL, COAL RESOURCES, ENERGY RESOURCES, FUTURE PROJECTION, VIRGINIA)
3567. Milici, R.C., and Campbell, V.M., 1991, Virginia's coal resources--a long term view: Virginia Center for Coal and Energy Research, Virginia Coal and Energy Journal, p. 1-22. (COAL, COAL RESOURCES, ENERGY RESOURCES, VIRGINIA)
3593. Milici, R.C., and Conley, J.F., 1985, The Candler Formation, a basinal unit between the Early Paleozoic Shelf and Volcanic Arc in Central Virginia, as illustrated by the U.S. Geological Survey I-64 Seismic Line: Geological Society of America Abstracts with Programs, 1985 Southeastern Section Meeting in Knoxville, TN, v. 17, no. 2, p. 125. (ABSTRACT, CANDLER FORMATION, PALEOZOIC, TECTONICS, VIRGINIA, VULCANISM)
3597. Milici, R.C., and deWitt, W., Jr., 1986, Evolution of the Appalachian basin, in Seventeenth Annual Appalachian Petroleum Geology Symposium, Appalachian Basin Architecture: West Virginia Geological and Economic Survey Circular C-38, p. 42-43. (APPALACHIAN BASIN, OIL AND GAS, PETROLEUM, STRUCTURAL-ANALYSIS, STRUCTURAL-GEOLOGY, STRUCTURE, TECTONICS)
3558. Milici, R.C., and deWitt, W., Jr., 1988, The Appalachian Basin, in Sloss, ed., Sedimentary Cover-North American Craton, U.S: Geological Society of America, Decade of North American Geology (DNAG) volume, v. D-2, p. 427-469. (APPALACHIAN BASIN, NORTH-AMERICA, STRUCTURE)
3561. Milici, R.C., and deWitt, W., Jr., 1989, Geology and hydrocarbon potential of the eastern overthrust: American Geophysical Union, Field Trip Guidebook T368 for the 28th International Geological Congress, 40 p. (EASTERN OVERTHRUST, FIELD GUIDE, FIELD TRIP, GEOLOGY, HYDROCARBONS, TECTONICS)
3553. Milici, R.C., Finlayson, C.P., Barnes, R.H., and Colvin, J.M., 1986, Geologic map and mineral resources summary of the Sequatchie quadrangle, Tennessee: Tennessee Division of Geology, Geologic Map GM 100-SE, scale 1:24,000. (GEOLOGIC MAP, MAP, MINERAL-RESOURCES, MINERALS, QUADRANGLE, TENNESSEE)
3549. Milici, R.C., and Gathright, T.M., II, 1985, Geologic features related to coal mine roof falls--A Guide for Miner Training: Virginia Division of Mineral Resources Publication, 55, 13 p. (COAL, FAULTS, GEOLOGY, HAZARDS, MINING, ROOF FALLS)
3552. Milici, R.C., Gathright, T.M., II, Miller, B.W., Gwin, M.R., and Stanley, C.B., 1986, Subtle bedding plane faults - a major factor contributing to coal mine roof falls in southwestern Virginia: Virginia Tech. Department of Geological Sciences Memoir 3, p. 83-95. (BEDDING PLANE FAULTS, FAULTS, HAZARDS, MINING, ROOF FALLS, VIRGINIA)
3596. Milici, R.C., and Hobbs, C.R.B., 1986, The Geological Survey of Virginia - a contemporary partner: Geological Society of America Abstracts with Programs, Northeastern Section, p. 23. (ABSTRACT, GEOLOGICAL SURVEY OF VIRGINIA, STATE SURVEY, VIRGINIA)

3555. Milici, R.C., and Hobbs, C.R.B., Jr., 1987, William Barton Rogers and the first geological survey of Virginia 1835-1841: *Earth Sciences History*, v. 6, p. 3-13. (GEOLOGY, HISTORY, STATE SURVEY, VIRGINIA, WILLIAM BARTON ROGERS)
3570. Milici, R.C., and Moore, J.L., 1993, Geologic map and mineral resources summary of the Jamestown quadrangle, Tennessee: Tennessee Division of Geology, Geologic Map GM-115-NW, scale 1:24,000. (GEOLOGIC MAP, GEOLOGY, MAP, MINERAL-RESOURCES, MINERALS, QUADRANGLE, RESOURCES, TENNESSEE)
3603. Milici, R.C., and Sweet, P.C., 1990, Industrial rocks and minerals in Virginia, an overview: *Geological Society of America Abstracts with Programs, Southeastern Section*, p. 6. (ABSTRACT, INDUSTRIAL ROCKS, MINERAL DEPOSITS, MINERAL-RESOURCES, MINERALS, VIRGINIA)
111. Miller, R.B., Johnson, S.Y., and McDougall, J.W., 1990, Discordant paleomagnetic poles from the Canadian Coast Plutonic Complex; regional tilt rather than large displacement? discussion: *Geology*, v. 18, p. 1164-1165. (CANADA, CRETACEOUS, INTRUSIONS, MAGNETISM, PALEOMAGNETISM, PETROLOGY, PLATE TECTONICS, STRUCTURAL-GEOLOGY, SWAUK-FORMATION, TECTONICS, WASHINGTON)
2791. Miller, R.E., and Minerals Management Service Geochemistry Group, 1985, Petroleum geochemistry of possible source rocks in the Lower Cretaceous-Upper to Middle Jurassic (15,000-23,260 ft) Mobil Block 973-1 Penacola Area, MAFLA Region: MMS Atlantic Region OCS Resource Evaluation Unit 2, well report prepared for Gulf of Mexico Region, 98 p. (CRETACEOUS, FLORIDA, GEOCHEMISTRY, GULF OF MEXICO, JURASSIC, OIL AND GAS)
2802. Miller, R.E., Schultz, D.M., Lerch, H.E., Ligon, D., and Bowker, P., 1985, Thermal maturation and burial history processes in Lower Mesozoic sediments of North Atlantic Georges Bank Basin: *American Association of Petroleum Geologists Bulletin*, v. 69, p. 1443. (ABSTRACT, MESOZOIC, NORTH ATLANTIC GEORGES BANK BASIN, SEDIMENTS, THERMAL MATURITY)
2803. Miller, R.E., Schultz, D.M., Lerch, H.E., Ligon, D., and Bowker, P., 1985, Petroleum geochemistry of Atlantic Margin source rocks: First Atlantic OCS Region Information Transfer Meeting; Sept. 1985, Arlington, VA. (ABSTRACT, ATLANTIC MARGIN, GEOCHEMISTRY, OIL AND GAS, PETROLEUM)
1851. Miller, W.G., Krohn, K.K., Molnia, C.L., and Tewalt, S.J., 1990, Data analysis and display techniques of the National Coal Resources Data System (NCRDS), a geologic data system, in Carter, L.M.H., ed., *USGS research on energy resources, 1990, Program and Abstracts: U.S. Geological Survey Circular 1060*, p. 55. (ABSTRACT, COAL, COMPUTER, COMPUTER APPLICATIONS, DATABASES, GEOCHEMISTRY, NCRDS)
265. Minkin, J.A., Chao, E.C.T., Blank, H., and Dulong, F.T., 1987, Proton microprobe analysis of trace-element variations in vitrinites in the same and different coal beds: *Scanning Microscopy*, v. 1, p. 503-513. (COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, VITRINITE)

1847. Molnia, C.L., 1988, Map showing principal coal beds of the Clearmont quadrangle, Sheridan County, Powder River basin, Wyoming: U.S. Geological Survey Miscellaneous Field Studies Map MF-1991, scale 1:24,000. (CLEARMONT QUADRANGLE, COAL, GEOLOGIC MAP, GEOLOGY, MAP, POWDER RIVER BASIN, SHERIDAN COUNTY, TERTIARY, WYOMING)
4111. Molnia, C.L., Biewick, L.R.H., Blake, D., Carter, M.D., and Gaskill, C., in press, Issues and techniques in the first western coal availability study--Hilighat quadrangle, Powder River Basin, Wyoming: Society for Mining, Metallurgy, and Exploration; Meeting March, 1995. (ABSTRACT, COAL, COAL AVAILABILITY, COMPUTER APPLICATIONS, HILIGHT QUADRANGLE, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYOMING)
710. Molnia, C.L., Kottowski, F.E., Jobin, D.A., and O'Connor, J.T., 1991, Coalfields of New Mexico: Geology and resources: U.S. Geological Survey Bulletin 1972, 77 p. (COAL, COAL RESOURCES, COAL-FIELDS, GEOLOGY, NEW MEXICO)
1840. Molnia, C.L., Medlin, A.L., Krohn, K.K., O'Connor, J.T., Biewick, L.H., Gardner, N.K., and Boger, L.W., 1986, Computerized assessment of the coal resources and geology of the San Juan Basin, New Mexico, in Carter, L.M.H., ed., USGS Research on Energy Resources, 1986, Program and Abstracts: U.S. Geological Survey Circular 974, p. 43. (ABSTRACT, COAL, COAL RESOURCES, COMPUTER, COMPUTER APPLICATIONS, ENERGY RESOURCES, GEOLOGY, NEW MEXICO, SAN JUAN BASIN)
1837. Molnia, C.L., and Orrell, S.A., 1988, Map showing principal coal beds and bedrock geology of the Buffalo Creek-Clear Creek area, central Powder River Basin, Wyoming and Montana: U.S. Geological Survey Coal Investigations Map C-114, scale 1:50,000. (COAL, GEOLOGIC MAP, MAP, MONTANA, POWDER RIVER BASIN, WYOMING)
711. Molnia, C.L., and Pierce, F.W., 1992, Cross sections showing coal stratigraphy of the central Powder River basin, Wyoming and Montana: U.S. Geological Survey Miscellaneous Investigations Series Map I-1959-D. (COAL, CORRELATION, CROSS SECTIONS, MAP, MONTANA, POWDER RIVER BASIN, STRATIGRAPHY, WYOMING)
1848. Molnia, C.L., Roberts, L.N.R., and Boger, L.W., Jr., 1988, Additional geologic applications of the computerized Stratigraphic Analysis Techniques System, STRATS: U.S. Geological Survey Open-File Report 88-58, 20 p.; 12 figs. (COMPUTER, COMPUTER APPLICATIONS, GEOLOGY, NCRDS, OPEN-FILE, STRATIGRAPHY)
3187. Moore, D.W., and Sable, E.G., 1992, Preliminary report and map of the geology of Smithsonian Butte Quadrangle, Washington County, Utah: U.S. Geological Survey Open-File Report. (GEOLOGIC MAP, MAP, QUADRANGLE, UTAH, WASHINGTON COUNTY)
3563. Moore, J.L., and Milici, R.C., 1989, Geologic map of the Vandever quadrangle, Tennessee: Tennessee Division of Geology Geologic Map GM 115-NW. (GEOLOGIC MAP, GEOLOGY, MAP, QUADRANGLE, TENNESSEE, VANDEVER QUADRANGLE)
66. Moore, T.A., Flores, R.M., Pochnall, D., Stanton, R.W., and Warwick, P.D., 1990, Deciphering raised and low-lying peat deposits in Tertiary coal-bearing rocks of the Powder River Basin:

- Geological Society of America Abstracts with Programs, Annual Meeting, p. 190. (ABSTRACT, COAL, DEPOSITIONAL ENVIRONMENT, LOW-LYING MIRES, PALEOCENE, PALEOENVIRONMENT, PEAT, POWDER RIVER BASIN, RAISED BOG, TERTIARY)
2112. Moore, T.A., Flores, R.M., Pocknall, D., Stanton, R.W., and Warwick, P.D., 1989, Tertiary raised and low-lying peat accumulation in the Powder River basin: Geological Society of America Abstracts with Programs, v. 21, p. 51. (ABSTRACT, COAL, MONTANA, PALEOENVIRONMENT, PEAT, POWDER RIVER BASIN, TERTIARY, WYOMING)
2025. Moore, T.A., and Stanton, R.W., 1985, Coal Petrographic Lab and Safety Manual: U.S. Geological Survey Open-File Report 85-20, 67 p. (COAL, COAL PETROGRAPHY, LAB MANUAL, LAB SAFETY, OPEN-FILE, PETROGRAPHY, SAFETY)
2092. Moore, T.A., Stanton, R.W., and Flores, R.M., 1986, Nature of petrographic variation in some Tertiary coal beds, Powder River Basin, Montana and Wyoming: American Association of Petroleum Geologists Bulletin, v. 70, p. 1049. (COAL, COAL BED, MONTANA, PETROGRAPHY, POWDER RIVER BASIN, TERTIARY, WYOMING)
1264. Moore, T.A., Stanton, R.W., Flores, R.M., and Pocknall, D.T., 1987, Organic petrography, palynology, and sedimentology of the Smith and Anderson coal beds, Paleocene, Powder River Basin, Wyoming and Montana: Society for Organic Petrology Abstracts and Programs, 4th Annual Meeting, p. 3-5. (ABSTRACT, ANDERSON COAL BED, COAL, MONTANA, PALEOCENE, PALYNOLOGY, PETROLOGY, POWDER RIVER BASIN, SEDIMENTOLOGY, SEDIMENTS, SMITH COAL BED, TERTIARY, WYOMING)
605. Moore, T.A., Stanton, R.W., Pocknall, D.T., and Flores, R.M., 1990, Maceral and palynomorph facies from two Tertiary peat-forming environments in the Powder River Basin, U.S.A: International Journal of Coal Geology, v. 15, p. 293-316. (COAL, PALEOENVIRONMENT, PEAT, POWDER RIVER BASIN, TERTIARY)
2569. Morelli, J.J., Hercules, D.M., Lyons, P.C., Palmer, C.A., and Fletcher, J.D., 1988, Using laser micro-mass spectrometry with the LAMMA-1000 instrument for monitoring relative element concentrations in vitrinite: Mikrochimica Acta, 1988 III, p. 105-118. (VITRINITE)
2913. Morelli, J.J., Wilk, Z.A., Hercules, D.M., Lyons, P.C., Palmer, C.A., and Fletcher, J.D., 1987, Direct analyses of coal macerals using laser micro mass spectrometry: Proceedings of the Fourth Annual International Pittsburgh Coal Conference, p. 166-177; Sept. 28- Oct. 2, 1987. (COAL, GEOCHEMISTRY)
3725. Morey, E.D., and Lyons, P.C., 1993, William Culp Darrah (1909-1989): A Portrait, in Lyons, P.C., Morey, E.D., and Wagner, R.H., eds., A Historical Perspective of Early 20th Century Carboniferous Paleobotany in North America, William Culp Darrah Memorial Volume: Geological Society of America Memoir. (CARBONIFEROUS, HISTORY, PALEOBOTANY, WILLIAM CULP DARRAH)
3732. Morey, E.D., and Lyons, P.C., 1993, Adolf Carl Noe (1873-1939): Pioneer in North American coal-ball studies, in Lyons, P.C., Morey, E.D., and Wagner, R.H., eds., A Historical Perspective of Early 20th Century Carboniferous Paleobotany in North America, William Culp Darrah Memorial

Volume: Geological Society of America Memoir. (COAL, COAL-BALLS, GEOLOGY, HISTORY)

3881. Mukhopadhyay, P.K., Gillis, K.S., MacNeil, L.J., Smith, W.D., Finkelman, R.B., and Labonte, M., 1993, Comparison of elemental geochemistry and coal facies of major coal seams from the Sydney, Pictou, and St. Rose coal fields, Nova Scotia: Geological Association of Canada Annual Meeting, p. 74. (ABSTRACT, COAL, ELEMENTS, FACIES, GEOCHEMISTRY, NOVA-SCOTIA, PICTOU COAL FIELD, ST. ROSE COAL FIELD, SYDNEY COAL FIELD)
538. Mukhopadhyay, P.K., Hatcher, P.G., and Calder, J.H., 1991, Hydrocarbon generation from deltaic and intermontane fluviodeltaic coal and coaly shale from the Tertiary of Texas and Carboniferous of Nova Scotia; in Mukhopadhyay, P. K., Fowler, Martin G., and Dow, W.G., eds., Selected papers from the symposium on Coal and terrestrial organic matter as a source rock for petroleum: Organic Geochemistry, 199th American Chemical Society national meeting, Boston, MA, April 23-24, 1990. (CANADA, CLASTIC ROCKS, COAL, DELTAIC, ECONOMIC GEOLOGY, ENVIRONMENTAL GEOLOGY, FLUVIAL, NOVA-SCOTIA, ORGANIC, PETROLEUM, TERTIARY, TEXAS, USA)
261. Mukhopadhyay, P.K., Hatcher, P.G., and Calder, J.H., 1992, Petroleum generation and primary migration in coal related to coal composition; evidence from petrography and pyrolysis; Eynon, George, ed: American Association of Petroleum Geologists Bulletin, 1992 annual convention, Calgary, Alberta, June 22-24, 1992, p. 93. (ABSTRACT, COAL, COMPOSITION, FLUORESCENCE, HYDROGEN, NMR-SPECTRA, ORGANIC, PETROGRAPHY, PETROLEUM, PH, ROCK-EVAL)
571. Mukhopadhyay, P.K., MacDonald, D.J., Naylor, R.D., Smith, W.D., Calder, J.H., Fowler, M.G., and Hatcher, P.G., 1990, Hydrocarbon generation and migration of oil shale, coal, and sandstone sequence from the Westphalian B-D (Carboniferous) sediments of Stellarton Basin, Nova Scotia: Atlantic Geology, Atlantic Geoscience Society, 1990 symposium, New age determinations in the Atlantic provinces, Current research in the Atlantic provinces, Wolfville, NS, Feb. 9-10, 1990, v. 26, p. 182. (ABSTRACT, CANADA, CARBONIFEROUS, CLASTIC ROCKS, COAL, ECONOMIC GEOLOGY, GEOCHEMISTRY, NOVA-SCOTIA, OIL-SHALE, ORGANIC, PETROLEUM, SANDSTONE, STELLARTON-BASIN, THERMAL, WESTPHALIAN)
1813. Mytton, J.W., Brankey, V., Kleinkopf, M.D., M'Gonigle, J.W., McGregor, E.E., Miller, M.S., and Causey, J.D., 1988, Mineral Resources of the Cow Creek and Antelope Creek Wilderness study areas, Blaine and Phillips Counties, Montana: U.S. Geological Survey Bulletin 1722-C. (ANTELOPE CREEK WILDERNESS AREA, BLAINE COUNTY, MINERAL-RESOURCES, MINERALS, MONTANA, PHILLIPS COUNTY)
798. Mytton, J.W., and Schneider, G.B., 1987, Interpretive geology of the Chaco area, northwestern New Mexico: U.S. Geological Survey, Miscellaneous Investigations Series, I-1777, scale 1:24,000. (CRETACEOUS, GEOLOGIC MAP, LEWIS-SHALE, MAP, NEW MEXICO, PALEOGEOGRAPHY, STRATIGRAPHY)
3329. Mytton, J.W., Williams, P.L., and Morgan, W.A., 1990, Geologic map of the Stricker 4 Quadrangle, Cassia County, Idaho: U.S. Geological Survey Miscellaneous Investigations Series Map I-2052, scale 1:48,000. (CASSIA COUNTY, GEOLOGIC MAP, GEOLOGY, IDAHO, MAP)

193. Nash, W.P., and Congdon, R.D., 1987, Accessory minerals in high fluorine rhyolite - composition and partition coefficients: EOS, Transactions of the American Geophysical Union, v. 68, p. 347-348. (ABSTRACT, FLOURINE, GEOCHEMISTRY, MINERALS, RHYOLITE)
190. Nash, W.P., Petersen, E.U., and Congdon, R.D., 1985, Fluorsiderophyllite in rhyolite - Avoidance of the "Fe-F Avoidance Rule": EOS, Transactions of the American Geophysical Union, v. 66, p. 1112. (ABSTRACT, GEOCHEMISTRY, IRON-ORES, RHYOLITE)
3137. Neuzil, S.G., 1990, Domed rainfall-dominated peat in Indonesia as a model for low-sulfur coal, in Carter, L.M.H. ed., U.S. Geological Survey Research on Energy Resources-1990, V.E. McKelvey Forum: U.S. Geological Survey Circular 1060, p. 57-59. (COAL, DOMED MIRE, GEOCHEMISTRY, INDONESIA, INTERNATIONAL, PEAT, SULFUR)
3719. Neuzil, S.G., 1993, Temporal change in apparent influx of inorganic constituents to domed peat, Indonesia: Peat stage of coalification: Geological Society of America Abstracts with Programs, Annual Meeting, Boston, MA, v. 25, p. A140. (ABSTRACT, COAL, COALIFICATION, DOMED PEAT, INDONESIA, MINERAL MATTER, PEAT)
3128. Neuzil, S.G., and Cecil, C.B., 1985, Classification of peat as a basis for modeling coal quality: Geological Society of America, 98th Annual Meeting, Orlando, Florida, Abstracts with Programs 1985, v. 17, p. 676. (COAL, COAL-QUALITY, PEAT)
3129. Neuzil, S.G., and Cecil, C.B., 1986, Modern analogs illustrating controls on coal quality, in Garbini, Susan and Schweinfurth Stanley P., eds., A National Agenda for Coal-Quality Research: U.S. Geological Survey Circular 979, p. 243. (COAL, COAL-QUALITY, GEOCHEMISTRY, RANK)
3130. Neuzil, S.G., and Cecil, C.B., 1986, Hydrology of a peat deposit: Implications for mechanisms of formation and chemical composition of coal precursors: Geological Society of America, 99th Annual Meeting, San Antonio, Texas, Abstracts with Programs, v. 18, no. 6, p. 705. (ABSTRACT, COAL, GEOCHEMISTRY, HYDROLOGY, PEAT)
3141. Neuzil, S.G., Cecil, C.B., and Supardi, 1991, Elemental composition of Holocene tropical domed peat, Indonesia: Society for Organic Petrology Abstracts and Programs; Proceedings of the Eighth Annual Meeting, Sept. 30-Oct. 1, 1991, Lexington, KY. (ABSTRACT, COAL, DOMED MIRE, HOLOCENE, INDONESIA, PEAT)
3132. Neuzil, S.G., Cecil, C.B., Supardi, Soebakty, A.D., Eble, C.F., Wnuk, C., and Lim Meng Sze Wu, 1988, Peat deposits on coastal Sumatra: a modern analog of coal formation, in Carter, L.M.H. ed., USGS Research on Energy Resources: U.S. Geological Survey Circular 1025, p. 37-38. (ABSTRACT, COAL, INDONESIA, INTERNATIONAL, PEAT, SUMATRA)
3136. Neuzil, S.G., Supardi, Kane, J.S., and Cecil, C.B., 1989, Geochemistry of domed peat deposits in Indonesia: a model for low-ash, low-sulfur coal: Geological Society of America Abstracts with Programs, v. 21, p. A25; 1989 Annual Meeting, St. Louis, Missouri. (ABSTRACT, ASH, COAL, GEOCHEMISTRY, PEAT, SULFUR)
3716. Neuzil, S.G., Suparti, Cecil, C.B., Kane, J.S., and Soedjono, K., 1993, Inorganic geochemistry of

- domed peat in Indonesia and its implication for the origin of mineral matter in coal, in Cobb, J.C., and Cecil, C.B., eds., *Modern and Ancient Coal-Forming Environments: Geological Society of America Special Paper 286*, p. 23-44. (COAL, DOMED PEAT, GEOCHEMISTRY, INDONESIA, MINERAL MATTER, PEAT)
3143. Neuzil, S.G., and Cecil, C.B., 1992, Climatic, eustatic, and tectonic factors as they relate to Holocene ombrogenous peat accumulation in the Indo/Malay region: Geological Association of Canada, Mineralogical Association of Canada, 1992 Joint Annual Meeting, Wolfville, Nova Scotia, Abstracts Volume, v. 17, p. A83. (ABSTRACT, CLIMATE, COAL, EUSTATIC, HOLOCENE, INDONESIA, MALAY, PALEOCLIMATE, PALEOENVIRONMENT, PEAT, TECTONICS)
3144. Neuzil, S.G., and Cecil, C.B., 1992, Evidence in peat of late Quaternary climate and sea level change, western Indonesia: Geological Society of America Abstracts with Programs, 1992 Annual Meeting, Cincinnati, Ohio, v. 24, p. A50. (ABSTRACT, CLIMATE, COAL, EUSTACY, INDONESIA, PALEOCLIMATE, PALEOENVIRONMENT, PEAT, QUATERNARY)
1519. Newell, K.D., Watney, W.L., and Hatch, J.R., 1985, Time-temperature estimates of thermal maturation in North-central and northeast Kansas: Geological Society of America Abstracts with Programs, South-Central Section, v. 17, p. 185-186. (ABSTRACT, COAL, COALIFICATION, KANSAS, MATURATION, THERMAL)
1522. Newell, K.D., Watney, W.L., Hatch, J.R., and Gu Xiaozhong, 1986, Thermal Maturation and Petroleum source-rocks in the Forest and Salina Basins, Mid-Continent U.S.A: American Association of Petroleum Geologists Bulletin, p. 625. (FOREST BASIN, PETROLEUM, SALINA BASIN, THERMAL, THERMAL MATURITY)
1488. Newell, K.D., Watney, W.L., Stephens, B.P., and Hatch, J.R., 1987, Hydrocarbon potential in the Forest City Basin: Oil and Gas Journal, v. 85, p. 58-62. (FOREST CITY BASIN, HYDROCARBONS)
633. Nichols, D.J., and Flores, R.M., 1993, Palynostratigraphic correlation of the Fort Union Formation Paleocene in the Wind River Reservation, Wind River Basin, Wyoming, in Keefer, W.R., and Metzger, W., eds., *Special Guidebook to Oil and Gas and Other Resources of the Wind River Basin: Wyoming Geological Association*, 36 p. (FORT UNION FORMATION, PALEOCENE, PALYNOLOGY, STRATIGRAPHY, TERTIARY, WIND RIVER BASIN, WYOMING)
670. Nichols, D.J., Flores, R.M., and Keighin, C.W., 1993, New and revised palynostratigraphic correlations of the Fort Union Formation in the Wind River Basin, Wyoming: Wyoming Geological Association, p. 39. (ABSTRACT, CORRELATION, FORT UNION FORMATION, PALEOCENE, PALYNOLOGY, STRATIGRAPHY, TERTIARY, WIND RIVER BASIN, WYOMING)
648. Nichols, D.J., Perry, W.J., Jr., Flores, R.M., and Roberts, S.B., 1991, Palynostratigraphic evidence on the evolution of the Rocky Mountain Front: American Association of Stratigraphic Palynologists, 24th Annual Meeting, Program and Abstracts. (ABSTRACT, PALEOCENE, PALYNOLOGY, ROCKY MOUNTAIN REGION, TECTONICS, TERTIARY, TIMING, UPLIFTS)

3896. Nichols, D.N., and Flores, R.M., 1993, Palynostratigraphic correlation of the Fort Union Formation (Paleocene) in the Wind River Reservation, Wind River Basin, Wyoming, in Keefer, W.R., Metzger, W., and Godwin, L.H., eds., Special Symposium on Oil and Gas and Other Resources of the Wind River Basin: Wyoming Geological Association, p. 281-294. (CORRELATION, FORT UNION FORMATION, OIL AND GAS, PALEOCENE, PALYNOLOGY, PALYNOSTRATIGRAPHY, RESOURCES, TERTIARY, WIND RIVER BASIN, WIND RIVER RESERVATION, WYOMING)
1494. Nichols, D.J., and Brown, J.L., 1990, The Cretaceous-Tertiary boundary in the Powder River basin, Montana and Wyoming, and its application to basin analysis: Geological Society of America Abstracts with Programs, v. 22, no. 7, p. 364. 1, 1990. (ABSTRACT, BOUNDARY, CRETACEOUS, IRIDIUM, MONTANA, NORTHEASTERN-WYOMING, PALEOCENE, PALEOGENE, PLATINUM, POWDER RIVER BASIN, STRATIGRAPHY, TERTIARY, USA, WESTERN-U.S, WYOMING)
3606. Nolde, J.E., and Milici, R.C., 1993, Stratigraphic and structural controls of natural gas production from the Berea Sandstone (Mississippian), southwestern Virginia: American Association of Petroleum Geologists Bulletin, v. 77, p. 1471-1472. (ABSTRACT, BEREASANDSTONE, GAS, MISSISSIPPIAN, OIL AND GAS, RESERVOIR ROCKS, STRATIGRAPHY, STRUCTURE, VIRGINIA)
3811. Norman, K.A., and Coates, D.A., in press, Third world women and the environment: A paradigm in transition: United States Agency for International Development, Working Paper 73 p. (ENVIRONMENTAL GEOLOGY, GLOBAL, INTERNATIONAL, WOMEN, WORLD)
3979. Nuccio, V.F., and Hatch, J.R., 1994, Potential problems using vitrinite reflectance to calibrate thermal history models in the Illinois Basin: American Association of Petroleum Geologists Abstracts with Programs, v. 3, p. 226. (ABSTRACT, COAL, ILLINOIS BASIN, THERMAL, THERMAL HISTORY, VITRINITE REFLECTANCE)
3942. O'Connor, J.T., Bragg, L., and Finkelman, R.B., 1994, Chemical principal components as predictors of coal quality in Appalachian Basin and Texas coal beds, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1093-1095. (ABSTRACT, APPALACHIAN BASIN, COAL, COAL-QUALITY, GEOCHEMISTRY, TEXAS)
4082. O'Connor, J.V., and Robbins, E.I., 1993, Testing the role of cement and abrasion on sedimentary rocks, in Stover, S.G., and MacDonald, R.H., eds., On The Rocks: Earth Science Activities for Grades 1-8: Society of Economic Paleontologists and Mineralogists, p. 22-25. (ABRASION, CEMENT, OUTREACH, SEDIMENTARY ROCKS, TEACHING, WEATHERING)
3063. Offield, T.W., Garbini, S., and Schweinfurth, S.P., 1986, U.S. Geological Survey coal-quality research, in Garbini, Susan and Schweinfurth, S.P., eds., 1986, Symposium proceedings: a national agenda for coal-quality research: U.S. Geological Survey Circular 979, p. 165-184. (COAL, COAL-QUALITY)
3066. Offield, T.W., Garbini, S., and Schweinfurth, S.P., 1988, Coal resources, in U.S. Geological Survey, National energy resource issues: Geologic perspective and the role of geologic information:

- U.S. Geological Survey Bulletin 1850, p. 29-35. (COAL)
2860. Okita, P.M., Maynard, J.B., Spiker, E.C., and Force, E.R., 1988, Isotopic evidence for organic matter oxidation by manganese reduction in the formation of stratiform manganese carbonate ore: *Geochimica et Cosmochimica Acta*, v. 52, p. 2679-2685. (MANGANESE, ORGANIC GEOCHEMISTRY, ORGANIC MATTER, OXIDATION, REDUCTION)
517. Oman, C., Finkelman, R.B., and Talley, R.T., 1992, Analysis of ten coal samples from the Michigan Basin: U.S. Geological Survey Open-File Report 92-180, 14 p. (ANALYSES, COAL, MICHIGAN BASIN, OPEN-FILE)
3884. Oman, C.L., and Finkelman, R.B., 1994, Low levels of hazardous air pollutants in coal from the Pocahontas coal field, Virginia and West Virginia: *Geological Society of America Abstracts with Programs, Southeast Section Meeting*, v. 26, p. 57-58. (ABSTRACT, AIR TOXICS, COAL, ENVIRONMENTAL GEOLOGY, POCAHONTAS COAL FIELD, VIRGINIA, WEST VIRGINIA)
3943. Oman, C.L., and Finkelman, R.B., 1994, Hazardous air pollutants in major U.S. coal-producing areas, in Chiang, Shiao-Hung, ed., *Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings*, v. 2, p. 1096-1099. (ABSTRACT, AIR POLLUTANTS, COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, HAZARDOUS AIR POLLUTANTS, TRACE ELEMENTS)
2832. Oman, C.L., Finkelman, R.B., Coleman, S.L., and Bragg, L.J., 1988, Selenium in coal from the Powder River Basin, Wyoming and Montana, in Carter, L.M.H., ed., *USGS Research on Energy Resources - 1988 Program and Abstracts, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1025*, p. 39-40. (ABSTRACT, COAL, GEOCHEMISTRY, MONTANA, POWDER RIVER BASIN, SELENIUM, WYOMING)
2438. Oman, C.L., Hassenmuller, W.A., and Bragg, L.J., 1992, Indiana coal and Associated Rock Samples Collected from 1975 to 1977: U.S. Geological Survey Open-File Report 92-682, 133 p. (ANALYSES, COAL, INDIANA, OPEN-FILE)
2428. Oman, C.L., and Meissner, C.R., Jr., 1985, Comparisons of the chemical characteristics of Gulf Coast Lignite Samples: *USGS Coal-Quality symposium*. (COAL, COAL RESOURCES, COAL-QUALITY, GEOCHEMISTRY, GULF COAST, GULF OF MEXICO, LIGNITE)
780. Oman, C.L., and Meissner, R.C., Jr., 1987, Chemical analysis of Gulf Coast Lignite samples with significant comparisons and interpretations of results, in Finkelman, R.B., Casagrande, D.J., and Benson, S.A., eds: *Gulf Coast Lignite Geology*, p. 211-223. (COAL, COAL-QUALITY, GEOCHEMISTRY, GULF COAST, LIGNITE)
2456. Oman, C.L., Simon, F.O., and Bragg, L.J., 1985, Geochemical trends in US lignites: *American Institute of Chemical Engineers Abstracts with Programs, 1985 Spring National Meeting and Petro Expo, Houston*. (ABSTRACT, COAL, GEOCHEMISTRY, LIGNITE)
4009. Oman, C.L., Tewalt, S.J., and Bragg, L.J., 1994, Data from Illinois Basin samples contained in the U.S. Geological Survey's new coal quality CD-ROM: . (COAL-QUALITY, COMPUTER,

COMPUTER APPLICATIONS, DATABASES, ILLINOIS BASIN)

2777. Oman, J.K., 1986, Stratigraphic Framework and Correlation of the Tertiary Lignite-Bearing Formations from Southeast Missouri to the Fort Pillow Test Well of West Tennessee: U.S. Geological Survey Bulletin 1644, 7 p. (COAL, LIGNITE, STRATIGRAPHY, TENNESSEE, TERTIARY)
3916. Orem, W.H., 1993, Peat and the importance of peat in the carbon cycle, in Owen, D.E., ed., Wetlands: Processes, Functions, and Dynamics: U.S. Geological Survey Circular. (CARBON, PEAT, SWAMPS, WETLANDS)
3882. Orem, W.H., Finkelman, R.B., and Feder, G.L., 1993, A possible link between Balkan Endemic Nephropathy and leaching of Pliocene lignites by groundwater: Geological Society of America Abstracts with Programs, v. 25, p. 350. (ABSTRACT, BALKAN, COAL, GROUND-WATER, INTERNATIONAL, LEACHING, LIGNITE, PLIOCENE, TERTIARY)
3105. Orem, W.H., and Hatcher, P.G., 1987, Early diagenesis of organic matter in a Sawgrass Peat from the Everglades, Florida: International Journal of Coal Geology, v. 8, p. 33-54. (COAL, DIAGENESIS, ENVIRONMENTAL GEOLOGY, EVERGLADES, FLORIDA, ORGANIC, PALUDAL-ENVIRONMENT, PEAT, SAWGRASS-PEAT, SEDIMENTARY ROCKS, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, SWAMPS, USA)
3101. Orem, W.H., Hatcher, P.G., Spiker, E.C., Szeverenyi, N.M., and Maciel, G.E., 1986, Dissolved organic matter in anoxic pore waters from Mangrove Lake, Bermuda: Geochimica et Cosmochimica Acta, v. 50, p. 609-618. (BERMUDA, COMPOSITION, GEOCHEMISTRY, INFRARED-SPECTRA, INTERNATIONAL, LACUSTRINE, NMR-SPECTRA, ORGANIC, ORGANIC GEOCHEMISTRY, SEDIMENTOLOGY)
2815. Orem, W.H., Lerch, H.E., and Kotra, R.K., 1992, Lignin oxidation products in sediments of Lake Bialhal, USSR, Indicators of climate history of northeast Asia: American Chemical Society, National Meeting, San Francisco, California, April, 1992. (ABSTRACT, ASIA, CLIMATE, INTERNATIONAL, LAKE BAIKAL, LIGNIN, OXIDATION, PALEOCLIMATE, SEDIMENTOLOGY, SIBERIA, USSR)
2818. Orem, W.H., Lerch, H.E., and Kotra, R.K., 1992, Lake Baikal, Siberia, the use of sedimentary lignin phenols in the reconstruction of the paleovegetation and paleoclimate of the late Cenozoic: American Geophysical Union, National Meeting, San Francisco, California, December, 1990. (ABSTRACT, CENOZOIC, CLIMATE, INTERNATIONAL, LAKE BAIKAL, LIGNIN, PALEOBOTANY, PALEOCLIMATE, PHENOLS, SIBERIA, USSR)
3142. Orem, W.H., Lerch, H.E., and Neuzil, S.G., 1992, Chemical structural studies of dissolved organic matter from Indonesian peat swamps: V.M. Goldschmidt Conference Program and Abstracts, p. A80; May 8-10, 1992, Reston, VA. (ABSTRACT, COAL, GEOCHEMISTRY, INDONESIA, ORGANIC, ORGANIC MATTER, PEAT, SWAMPS)
2811. Orem, W.H., and Lerch, H.E., III, 1990, Early stage of diagenesis of plant biomolecules in peats, in Carter, L.M.H., ed., USGS Research on Energy Resources-1990, V.E. McKelvey Forum on Energy and Mineral Resources: U.S. Geological Survey Circular 1060. (ABSTRACT, COAL,

COALIFICATION, DIAGENESIS, PEAT, PEATIFICATION, PLANT ANALYSES)

2813. Orem, W.H., and Lerch, H.E., III, 1991, Lignin oxidation products in sediments of Lake Baikal, Indicators of climate-induced changes in allochthonous organic matter: American Geophysical Union, meeting, Baltimore, MD, May 1991. (ABSTRACT, CLIMATE, COAL, LAKE BAIKAL, LIGNIN, SEDIMENTS, SIBERIA)
2810. Orem, W.H., Lerch, H.E., III, Burnett, W.C., and Lyons, W.B., 1990, Early diagenesis of organic matter in sediments of a meromictic marine lake on a tropical pacific carbonate island: American Chemical Society. (ABSTRACT, DIAGENESIS, MARINE, SEDIMENTS)
2904. Orem, W.H., Spiker, E.C., and Kotra, R.K., 1988, Organic matter associated with metal sulfides of hydrothermal vent origin: Chemical Congress of North America, Abstracts of Papers. (ABSTRACT, GEOCHEMISTRY, HYDROTHERMAL, METAL SULFIDES, ORGANIC GEOCHEMISTRY, ORGANIC MATTER)
2814. Orem, W.H., Zielinski, R., Otton, J., and Lerch, H.E., 1992, The association of uranium with organic matter in peat and peat water in a wetland from the Carson Range, NV: American Chemical Society, National Meeting, San Francisco, California, April, 1992. (ABSTRACT, NEVADA, ORGANIC MATTER, PEAT, SWAMPS, URANIUM, WETLANDS)
2798. Orem, W.H., Zielinski, R.A., Otton, J.K., and Lerch, H.E., 1993, Biogeochemical process affecting the uranium-organic matter association in peat from wetland in the Carson Range near Lake Tahoe, Nevada, U.S.A: Biogeochemistry. (BIOLOGY, CARSON RANGE, COAL, GEOCHEMISTRY, LAKE TAHOE, NEVADA, PALEOCENE, PEAT, TERTIARY, URANIUM)
689. Orem, W.H., Hatcher, P.G., and Spiker, E.C., 1985, Organic matter associated with metal ores of hydrothermal vent origin, in Krafft, Kathleen, ed., USGS research on mineral resources, 1985, program and abstracts, First V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 949, p. 39. (ABSTRACT, GEOCHEMICAL-CONTROLS, GEOCHEMISTRY, HYDROTHERMAL, METAL ORES, MINERAL DEPOSITS, ORGANIC)
2812. Orem, W.H., and Lerch, H.E., III, 1990, Preservation of organic matter in wetland peats, Modern analogues of ancient coal-forming environments: Eleventh Biennial Conference on Chemical Education, Atlanta, GA, August 1990. (ABSTRACT, COAL, ORGANIC MATTER, PALEOENVIRONMENT, PEAT)
2667. Outerbridge, W.F., 1987, The Logan Plateau, a young physiographic region of the Appalachian Plateaus: U.S. Geological Survey Bulletin 1620, 19 p. (APPALACHIAN PLATEAU, LOGAN PLATEAU)
2668. Outerbridge, W.F., 1987, Regional significance of the flint clay zone in the upper part of the Middle Pennsylvanian series of the central Appalachian basin: Geological Society of America Abstracts with Programs, v. 19. (ABSTRACT, APPALACHIAN BASIN, CLAY, FLINT CLAY, PENNSYLVANIAN)
2669. Outerbridge, W.F., 1987, Relation between landslide type and bedrock - observations in the central Appalachian plateaus: Geological Society of America Abstracts with Programs, v. 191.

(ABSTRACT, APPALACHIAN PLATEAU, LANDSLIDES)

2670. Outerbridge, W.F., 1987, Relation between landslides and bedrock in the central Appalachian Plateaus; in Schultz, Arthur P. and Southworth, C. Scott, eds., 1987, Landslides of Eastern North America: U.S. Geological Survey Circular 1008, p. 36-38. (APPALACHIAN PLATEAU, LANDSLIDES)
2678. Outerbridge, W.F., 1989, Correlation of the Charleston Sandstone of the proposed Pennsylvanian stratotype with strata in eastern Kentucky, western West Virginia, and southern Ohio: U.S. Geological Survey Miscellaneous Field Studies Map MF-2110. (CHARLESTON SANDSTONE, CORRELATION, KENTUCKY, MAP, OHIO, PENNSYLVANIAN, STRATIGRAPHY, WEST VIRGINIA)
2680. Outerbridge, W.F., Frederiksen, N.O., Khan, M.R., Khan, R.A., Qureshi, M.J., Khan, M.Z., Niamatullah, and Khan, S.A., 1990, The Sohna Formation in southern Pakistan: U.S. Geological Survey Bulletin 1935, 15 p., Chapter 3. (INTERNATIONAL, PAKISTAN, SOHNARI FORMATION)
2672. Outerbridge, W.F., and Khan, R.A., 1988, The Lakhra anticline of southern Pakistan is active: Geological Society of America Abstracts with Programs, v. 20. (ABSTRACT, INTERNATIONAL, LAKHRA ANTICLINE, PAKISTAN)
200. Outerbridge, W.F., Lyons, P.C., Congdon, R.D., Evans, H.T., and Slucher, E.R., 1992, Coal tonsteins in stratigraphic analysis in the Middle Pennsylvanian of the central Appalachian basin: Geological Society of America Abstracts with Programs, v. 24, p. 67. (ABSTRACT, APPALACHIAN BASIN, COAL, PENNSYLVANIAN, STRATIGRAPHY, TONSTEIN, VOLCANIC-ASH)
2684. Outerbridge, W.F., Lyons, P.C., and Keiser, A.F., 1991, The ash-full Pattern of the Fire Clay tonstein, central Appalachian basin, paleogeographic and plate tectonic implications: American Association of Petroleum Geologists Bulletin v. 75, p. 1389. (ABSTRACT, APPALACHIAN BASIN, ASH, FIRE CLAY COAL BED, PALEOGEOGRAPHY, PLATE TECTONICS, TONSTEIN, VOLCANIC-ASH)
2671. Outerbridge, W.F., Lyons, P.C., Merrill, G.K., and Kosanke, R.M., 1988, Correlation of Pennsylvanian strata in the tri-state area of Ohio, Kentucky, and West Virginia: Geological Society of America Abstracts with Programs, v. 29. (ABSTRACT, CORRELATION, KENTUCKY, OHIO, PENNSYLVANIAN, STRATIGRAPHY, WEST VIRGINIA)
2679. Outerbridge, W.F., Lyons, P.C., and Triplehorn, D.M., 1990, Newly found tonstein horizons in the Middle Pennsylvanian of the central Appalachian basin--time lines for basin analysis: U.S. Geological Survey Circular 1060, p. 61. (ABSTRACT, AGE DATING, APPALACHIAN BASIN, BASINS, PENNSYLVANIAN, TONSTEIN)
2666. Outerbridge, W.F., and Meissner, C.R., Jr., 1985, Opal claystone associated with phosphate rock in northern Saudi Arabia: U.S. Geological Survey Open-File Report 85-20, 16 p. (CLAYSTONE, INTERNATIONAL, OPAL, OPEN-FILE, PHOSPHATE ROCK, SAUDI ARABIA)

2673. Outerbridge, W.F., and Rafiq Ahmed Khan, 1989, Inferred Tertiary to recent geologic history of Lakhra: International Geologic Congress, Washington, D.C., July 1989, Abstracts, v. 2, p. 559. (ABSTRACT, GEOLOGY, INTERNATIONAL, LAKHRA COAL FIELD, TERTIARY)
2681. Outerbridge, W.F., Triplehorn, D.M., and Lyons, P.C., 1990, The Princess No. 6 (Middle Pennsylvanian) ash fall (tonstein), Kentucky and West Virginia, central Appalachian basin: Southeastern Geology, v. 31, p. 63-79. (APPALACHIAN BASIN, ASH, KENTUCKY, PENNSYLVANIAN, TONSTEIN, VOLCANIC-ASH, WEST VIRGINIA)
2677. Outerbridge, W.F., Triplehorn, D.M., Lyons, P.C., and Connor, C.W., 1989, Altered volcanic ash below the Princess No. 6 coal bed (Middle Pennsylvanian), WV and KY, Central Appalachian Basin: Geological Society of America Abstracts with Programs, v. 21, p. A134. (ABSTRACT, ASH, COAL, KENTUCKY, PENNSYLVANIAN, VOLCANIC-ASH, WEST VIRGINIA)
464. Owen, D.E., Otton, J.K., Schumann, R.R., Zielinski, R.A., McKee, J.P., Robbins, E.I., and Hills, F.A., 1990, The Boston Peak fen: A multidisciplinary case study of a uraniferous mountain wetland: American Association of Petroleum Geologists Bulletin, v. 74, p. 1340-1341. (ABSTRACT, BOSTON PEAK FEN, FEN, SWAMPS, URANIUM, WETLANDS)
498. Palacas, J.G., Anders, D.E., Flores, R.M., and Keighin, C.W., 1993, Classification of oils, Wind River Basin, Wyoming- useful tool for oil exploration: Wyoming Geological Association, 50th Anniversary Field Conference Program, p. 2. (ABSTRACT, EXPLORATION, OIL AND GAS, WIND RIVER BASIN, WYOMING)
658. Palacas, J.G., Flores, R.M., Keighin, C.W., and Anders, D.E., 1992, Characterization and source of oil impregnating a sandstone in the Fort Union Formation, Castle Garden area, Wind River basin, Wyoming: American Association of Petroleum Geologists Bulletin, v. 76, p. 1258. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
664. Palacas, J.G., Flores, R.M., Keighin, C.W., and Anders, D.E., 1993, Organic geochemical typing of oils in the Wind River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, p. 162. (ABSTRACT, GEOCHEMISTRY, OIL AND GAS, WIND RIVER BASIN, WYOMING)
3968. Palacas, J.G., Flores, R.M., Keighin, C.W., and Anders, D.E., 1994, Origin of oil in oil-saturated sandstones in the upper part of the Fort Union Formation (Paleocene), Castle Gardens and Signor Ridge areas, Wind River Basin, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 83-98. (CASTLE GARDENS, FIELD GUIDE, FORT UNION FORMATION, OIL AND GAS, PALEOCENE, PALEOENVIRONMENT, ROCKY MOUNTAIN REGION, SIGNOR RIDGE, TERTIARY, WIND RIVER BASIN, WYOMING)
2582. Palmer, C.A., 1985, Trace elements in coal, Modes of occurrence determined by INAA: American Nuclear Society, v. 49, p. 170-173; Transactions. (COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2586. Palmer, C.A., 1986, The assessment of modes of occurrence of trace elements in coal using size and density separation procedures, in Garbini, S., and Schweinfurth, S., eds., Symposium Proceedings,

- A National Agenda for Coal Quality Research: U.S. Geological Survey Circular 979, p. 247. (COAL, COAL-QUALITY, DENSITY, ELEMENTS, GEOCHEMISTRY, HAPS, SIZE, TRACE ELEMENTS)
2574. Palmer, C.A., 1990, Determination of Twenty-nine Elements in Eight Argonne Premium Coal Samples by instrumental neutron activation analysis: *Energy and Fuels*, v. 4, p. 436-439. (COAL, COAL ANALYSES, ELEMENTS, GEOCHEMISTRY, TRACE ELEMENTS)
2578. Palmer, C.A., 1991, An Introduction to the chemical analysis of Argonne Premium Coal samples, in Palmer, C.A., and Wathall, C.A., eds., *The chemical analysis of Argonne Premium Coal samples*: U.S. Geological Survey Open-File Report 91-631, p. 1-6; Chapter A. (COAL, COAL ANALYSES, GEOCHEMISTRY, OPEN-FILE)
2579. Palmer, C.A., 1991, The determination of 29 elements in eight Argonne Premium Coal samples by instrumental neutron activation analysis, in Palmer, C.A., and Wathall, F.G., eds., *The chemical analysis of Argonne Premium Coal samples*: U.S. Geological Survey Open-File Report 91-631, p. 50-63; Chapter F. (COAL, COAL ANALYSES, ELEMENTS, GEOCHEMISTRY, NEUTRON ACTIVATION ANALYSIS, OPEN-FILE, TRACE ELEMENTS)
2580. Palmer, C.A., 1991, Compilation of multi-element analysis of eight Argonne Premium Coal samples for 33 elements, in *The chemical analysis of Argonne Premium Coal samples* (Palmer, C.A., Wathall, F.G., eds.): U.S. Geological Survey Open-File Report 91-631, p. 84-112; Chapter I. (ANALYSES, COAL, GEOCHEMISTRY, OPEN-FILE)
2570. Palmer, C.A., and Baedecker, P.A., 1989, The determination of 41 elements in whole coal by instrumental neutron activation analysis, in Golightly, D.W., and Simon, F.O., eds., *Methods for sampling and inorganic analysis of coals*: U.S. Geological Survey Bulletin, 1823, p. 27-34. (COAL, COAL ANALYSES, ELEMENTS, GEOCHEMISTRY, NEUTRON ACTIVATION ANALYSIS, TRACE ELEMENTS, WHOLE COAL)
2568. Palmer, C.A., and Cameron, C.C., 1988, Preliminary report of the trace element geochemistry of an Indonesian peat deposit: U.S. Geological Survey Open-File Report 88-39, 22 p. (COAL, GEOCHEMISTRY, HAPS, INDONESIA, OPEN-FILE, PEAT, TRACE ELEMENTS)
2598. Palmer, C.A., and Cameron, C.C., 1989, The occurrence of gold and arsenic in a Sumatra, Indonesia peat deposit: *Journal of Coal Quality*, v. 8, p. 122. (ARSENIC, GOLD, INDONESIA, INTERNATIONAL, PEAT)
2595. Palmer, C.A., Crandell, W.B., Doughten, M.W., Evans, J.R., Johnson, R.B., Libby, B.J., Fletcher, J.D., Gillison, J.R., Moore, R., Sellers, G.A., and Skeen, C.J., 1989, Trace element analysis of premium coals: A comparison of techniques: *Book of Abstracts: International Chemical Congress of Pacific Basin Societies Abstracts of Papers*, p. 5-695; American Chemical Society, Washington. (ABSTRACT, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
486. Palmer, C.A., Finkelman, R.B., Krasnow, M.R., Sellers, G.A., and Aruscavage, P.J., 1990, Behavior of selected elements during sequential leaching of 10 lignite and bituminous coals: *International Journal of Coal Quality*, v. 8, p. 122-123. (BITUMINOUS-COAL, COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, LEACHING, LIGNITE, TRACE ELEMENTS)

3989. Palmer, C.A., Finkelman, R.B., Krasnow, M.R., Sellers, G.A., and Aruscavage, P.J., 1990, Behavior of selected elements during sequential leaching of 10 lignite and bituminous coals: International Conference on Trace Elements in Coal, Western Kentucky University, 21 p. (ABSTRACT, BITUMINOUS-COAL, COAL, GEOCHEMISTRY, HAPS, LEACHING, LIGNITE, TRACE ELEMENTS)
2447. Palmer, C.A., Krasnow, M.R., and Finkelman, R.B., 1993, An evaluation of leaching to determine modes of occurrence of trace elements in coal, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1062-1067. (ABSTRACT, COAL, ELEMENTS, GEOCHEMISTRY, HAPS, LEACHING, MODES OF OCCURRENCE, TRACE ELEMENTS)
3871. Palmer, C.A., Krasnow, M.R., Finkelman, R.B., and d'Angelo, W.M., 1994, Reliability and reproducibility of leaching procedures to eliminate the mode of occurrence of trace elements in coal: American Chemical Society, Division of Fuel Chemistry Preprints, v. 39, p. 514-518; also in Proceedings, part 1, abstract no. 107. (ABSTRACT, COAL, GEOCHEMISTRY, HAPS, LEACHING, MODES, MODES OF OCCURRENCE, TRACE ELEMENTS)
3867. Palmer, C.A., Krasnow, M.R., Finkelman, R.B., and d'Angelo, W.M., in press, An evaluation of leaching to determine modes of occurrence of selected toxic elements in coal: Journal of Coal Quality, 6 p. (AIR TOXICS, COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, LEACHING, MODES, MODES OF OCCURRENCE, TRACE ELEMENTS)
2596. Palmer, C.A., and Lyons, P.C., 1989, Chemistry and origins of minor and trace elements in vitrinite concentrates: International Chemical Congress of Pacific Basin Societies Abstracts of Papers, v. 2, p. 565-566. (ABSTRACT, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2731. Palmer, C.A., and Lyons, P.C., 1989, A new approach to determining organic and inorganic affinities of minor and trace elements in bituminous and anthracitic coals: American Chemical Society, p. 5-378; Book of Abstracts, The Basin Societies, Washington. (ABSTRACT, BITUMINOUS-COAL, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2575. Palmer, C.A., and Lyons, P.C., 1990, Discussion of Chemistry and Origins of minor and trace elements in vitrinite concentrates, in Lyons, P.C., Callcott, T.G., and Alpern, B., eds., Peat and Coal: Origin facies and Coalification: International Journal of Coal Geology, v. 16, p. 189-196. (COAL, COALIFICATION, GEOCHEMISTRY, HAPS, PEAT, TRACE ELEMENTS, VITRINITE)
2583. Palmer, C.A., Lyons, P.C., and Brown, Z.A., 1986, Trace-element associations in coals of the eastern United States, in Carter, L.M.H., ed., U.S.G.S. Research on Energy Resources 1986, Program and abstracts, V. E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 974, p. 53-54. (ABSTRACT, COAL, COAL-QUALITY, ELEMENTS, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2590. Palmer, C.A., Lyons, P.C., and Brown, Z.A., 1987, Association of bromine with vitrains from coal beds of eastern United States and England: Geological Society of America, Abstract with Programs, v. 19; January 1987. (ABSTRACT, COAL, GEOCHEMISTRY)

2572. Palmer, C.A., Lyons, P.C., Brown, Z.A., and Mee, J.S., 1990, The use of rare earth and other trace element concentrations in vitrinite concentrates and companion whole coals (hvA bituminous) to determine maceral and mineral associations, in Chyi, L.L. and Chou, C.L., eds., Recent Advances in coal geochemistry: Geological Society of America Special Publication, 248, p. 55-62. (BITUMINOUS-COAL, COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, MACERALS, RARE EARTH DEPOSITS, TRACE ELEMENTS, VITRINITE, WHOLE COAL)
2585. Palmer, C.A., Lyons, P.C., Brown, Z.A., and Mee, J.S., 1986, Trace element distribution in vitrinite concentrates and whole coals as related to organic and inorganic associations in selected hvA bituminous coals: Geological Society of America Abstracts with Programs, v. 18, p. 318. (ABSTRACT, BITUMINOUS-COAL, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, VITRINITE)
2593. Palmer, C.A., Lyons, P.C., and Fletcher, J.D., 1988, Trace element analysis of vitrinite concentrates a new approach for delivering organic and inorganic affinity, in Carter, L.M. ed USGS research on energy resources - 1988. Program and abstracts: U.S. Geological Survey Circular 1025, p. 44-45. (ABSTRACT, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, VITRINITE)
2602. Palmer, C.A., Lyons, P.C., and Skeen, C.J., 1991, Chemohistology of a modern tree fern: Implications for minor and trace elements in the Pittsburg coal: American Chemical Society, p. 86, ACS Meeting, Division of Geochemistry. (ABSTRACT, COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
3738. Palmer, C.A., Lyons, P.C., and Skeen, C.J., 1992, Chemohistology of a modern tree fern: Implications for minor and trace elements in coal: American Chemical Society, Annual Meeting, Division of Geochemistry, p. 86. (ABSTRACT, COAL, FOSSIL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS, TREE FERN)
2914. Palmer, C.A., Randell, W.B., Evans, J.R., Gillson, J.R., Moore, R., Sellers, G.A., Skeen, C.J., and Winters, L.J., 1986, Analyses of elements in the new U.S. Geological Survey standard coal (CLB-1) and selected premium coal reference materials: American Chemical Society, Abstract with Programs, p. 108. (ABSTRACT, COAL, GEOCHEMISTRY)
2566. Palmer, C.A., and Wandless, M.-V., 1985, Distribution of trace elements in coal minerals of selected eastern United States coals: Proceedings of the 1985 International Conference on Coal Science, Pergamon Press (New York), p. 792-795. (COAL, GEOCHEMISTRY, HAPS, TRACE ELEMENTS)
2577. Palmer, C.A., and Wathall, F.G., 1991, The chemical analysis of Argonne Premium Coal samples: U.S. Geological Survey Open-File Report 91-631, 112 p. (ANALYSES, COAL, GEOCHEMISTRY, OPEN-FILE)
3674. Papp, C.S.E., Filipek, L.H., and Smith, K.S., 1991, Relative specificity and effectiveness of extractants used to release metals associated with organic matter: Applied Geochemistry, v. 6, p. 349-353. (EXTRACTANTS, GEOCHEMISTRY, LEACHING, METALS, MINING, ORGANIC MATTER)

3953. Peng, S., and Flores, R.M., 1994, Modern Pearl River Delta and Permian Huainan coal field, China: A comparative study: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 77-79. (ABSTRACT, CHINA, COAL, HUAINAN COAL FIELD, PEARL RIVER DELTA, PERMIAN)
3901. Perry, W.J., Jr., and Flores, R.M., 1994, Sequential Laramide deformation and deep gas-prone basins of the Rocky Mountain region, in Dyman, T.S., Rice, D.D., and Westcott, W.A., eds., Geologic Controls of Deep Natural Gas Resources in the U.S: U.S. Geological Survey Bulletin, Chapter H, 19 p. (BASINS, ENERGY RESOURCES, GAS, LARAMIDE-OROGENY, MONTANA, OIL AND GAS, RESOURCES, ROCKY MOUNTAIN REGION, TECTONICS, WYOMING)
403. Perry, W.J., Jr., Flores, R.M., and Nichols, D.J., 1994, Transpressional gas-prone Paleogene basins of the northern Rocky Mountain region, a model for international exploration: American Association of Petroleum Geologists Abstracts with Programs. (ABSTRACT, BASINS, OIL AND GAS, PALEOCENE, PALEOENVIRONMENT, PALEOGENE, ROCKY MOUNTAIN REGION, TECTONICS, TERTIARY)
640. Perry, W.J., Jr., Weaver, J.N., Flores, R.M., Roberts, S.B., and Nichols, D.J., 1991, Sequential Laramide deformation in Montana and Wyoming: Geological Society of America Abstracts with Programs, v. 23, p. 56. (ABSTRACT, LARAMIDE-OROGENY, MONTANA, TECTONICS, WYOMING)
2526. Pfefferkorn, H.W., and Wnuk, C., 1992, Community dynamics in a Middle Pennsylvanian pteridosperm-lycopod clastic swamp forest: International Geological Congress, Abstracts with Programs, v. 2, p. 363; 29th International Geological Congress. (ABSTRACT, PALEOECOLOGY, PALEOENVIRONMENT, PENNSYLVANIAN)
2589. Philpotts, J.A., Kane, J.S., Johnson, R.G., Dorrzapf, A.F., Jr., Brown, Z.A., Mee, J.S., Kirschenbaum, H., Rait, N., Skeen, C., Crandell, W., Palmer, C.A., Marinenko, J., and Brown, F., 1986, Comparison of some multielement analytical techniques to massive sulfides from the Juan de Fuca Ridge and to sulfide standards: GEOEXPO/86, Association of Exploration Geochemists, p. 70-71; May 12-14, 1986, Vancouver, Canada. (GEOCHEMISTRY)
1855. Piazzola, J., and Cavaroc, V.V., 1991, Comparison of grain-size-distribution statistics determined by sieving and by thin-section analyses: Journal of Geological Education, v. 399, p. 364-367. (METHODS, SEDIMENTARY ROCKS, SEDIMENTARY-PETROLOGY, STATISTICS, TEXTURES, THIN-SECTIONS)
3828. Pierce, B.P., Warwick, P.D., and Landis, E.R., 1994, Assessment of the solid fuel resource potential of Armenia: U.S. Geological Survey Open-File Report 94-149, 86 p. (ARMENIA, COAL, FUEL RESOURCES, INTERNATIONAL, OPEN-FILE, RESOURCES)
1861. Pierce, B.S., 1988, The depositional environment of the Lower Freeport coal bed and its relationship to coal quality: George Washington University, MS Thesis, 82 p. (COAL, COAL-QUALITY, DEPOSITIONAL ENVIRONMENT, FREEPORT COAL BED, PALEOENVIRONMENT, PENNSYLVANIA, SEDIMENTARY ENVIRONMENTS, THESIS)

3954. Pierce, B.S., 1994, Quality and petrographic characteristics of Paleocene coals from the Hanna Basin, Wyoming: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 80-81. (ABSTRACT, COAL, COAL-QUALITY, HANNA BASIN, PALEOCENE, PETROGRAPHY, WYOMING)
3714. Pierce, B.S., Eble, C.F., and Stanton, R.W., 1993, Comparison of the petrography, palynology, and paleobotany of the Little Fire Creek coal bed, southwest Virginia: Society for Organic Petrology Proceedings Volume, 10th Annual Meeting, p. 28-30. (ABSTRACT, COAL, LITTLE FIRE CREEK COAL BED, PALEOBOTANY, PALYNOLOGY, PETROGRAPHY, VIRGINIA)
3713. Pierce, B.S., Eble, C.F., and Stanton, R.W., 1994, Comparison of the petrography, palynology, and paleobotany of the Little Fire Creek coal bed, southwestern Virginia: Organic Geochemistry. (ABSTRACT, COAL, GEOCHEMISTRY, LITTLE FIRE CREEK COAL BED, PALEOBOTANY, PALYNOLOGY, PETROGRAPHY, VIRGINIA)
3715. Pierce, B.S., and Fleming, R.F., 1993, Petrographic and palynological characteristics across the Cretaceous-Tertiary boundary in the Sugarite coal bed, Raton Basin, New Mexico: Society for Organic Petrology Proceedings Volume, 10th Annual Meeting, p. 100-101. (ABSTRACT, CRETACEOUS, NEW MEXICO, PALYNOLOGY, PETROGRAPHY, RATON BASIN, SUGARITE COAL BED, TERTIARY)
1858. Pierce, B.S., Schachte, B.R., and Johnson, M.F., 1987, A stratigraphic coding system for data entry into the National Coal Resources Data System: U.S. Geological Survey Open File Report 87-448, 11 p. (COAL, STRATIGRAPHY)
2267. Pierce, B.S., Spiker, E.C., Stanton, R.W., and Bates, A.L., 1991, Isotopic and petrographic evidence for the origin of pyrite in the Upper Freeport coal bed: Geological Society of America Abstracts with Programs, v. 23, p. 143. (ABSTRACT, COAL, FREEPORT COAL BED, GEOCHEMISTRY, ISOTOPE, PENNSYLVANIA, PETROGRAPHY, PYRITE)
2098. Pierce, B.S., and Stanton, R.W., 1987, Compositional variation of the Lower Freeport coal bed, Allegheny Formation, west-central Pennsylvania: Geological Society of America Book of Abstracts, Northeastern Section Meeting, v. 19, no. 1, p. 52. (COAL)
2106. Pierce, B.S., and Stanton, R.W., 1988, Comparative quality in the Upper and Lower Freeport coal beds in the Appalachian basin, in Carter, L.M.H., 1988, ed., McKelvey Forum, U.S. Geological Survey Research on Energy Resources 1988: U. S. Geological Survey Circular 1025. p. 45-47. (COAL)
1876. Pierce, B.S., and Stanton, R.W., 1989, Pyritic sulfur and trace element affinities in facies of the Upper Freeport coal bed, Allegheny Formation, west-central Pennsylvania: in Carter, L.M.H., ed., 6th V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1060, p. 64-66. (COAL, GEOCHEMISTRY, HAPS, SULFUR, TRACE ELEMENTS)
2109. Pierce, B.S., and Stanton, R.W., 1989, Peat development of the Lower Freeport coal bed, Allegheny Formation, U.S.A: International Geological Congress, Abstracts with Programs, v. 2, p. 608-609. (ABSTRACT, COAL, PEAT)

1863. Pierce, B.S., and Stanton, R.W., 1990, Coal quality and compositional characteristics of the Upper Freeport coal bed, source of the Argonne #1 Premium Sample: U.S. Geological Survey Open-File Report 90-697, 28 p. (COAL, COAL-QUALITY, OPEN-FILE, PENNSYLVANIA, UPPER FREEPORT COAL BED)
2117. Pierce, B.S., and Stanton, R.W., 1990, Sulfur forms and trace element affinities in the Upper Freeport coal bed, Allegheny Formation, west-central Pennsylvania, in Carter, L.M.H., ed., USGS Research on Energy Resources-1990, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1060, p. 64-65. (COAL, GEOCHEMISTRY, HAPS, SULFUR, TRACE ELEMENTS)
3442. Pierce, B.S., and Stanton, R.W., 1993, Coalbed subunits (facies) and their effects on whole bed washability: Coal Prep Proceedings Volume, Lexington, KY, p. 101-112. (COAL, COAL PREPARATION, COAL-QUALITY, FACIES, WASHABILITY, WHOLE COAL)
3443. Pierce, B.S., and Stanton, R.W., 1993, Influence of coal bed facies development on the washability of the Freeport coal bed, Pennsylvania: Journal of Coal Quality, v. 12, p. 18-23. (COAL, FACIES, PENNSYLVANIA, UPPER FREEPORT COAL BED, WASHABILITY)
3940. Pierce, B.S., and Stanton, R.W., 1994, Geological control on coal washability, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 1, p. 27-32. (ABSTRACT, COAL, COAL-QUALITY, FACIES, GEOCHEMISTRY, GEOLOGY, LOWER FREEPORT COAL BED, PALEOENVIRONMENT, PENNSYLVANIA, PETROGRAPHY, RESOURCES, UPPER FREEPORT COAL BED, WASHABILITY)
2043. Pierce, B.S., Stanton, R.W., and Cecil, C.B., 1989, Coal quality characteristics of the Blind Canyon coal bed, Utah, Source of the Argonne #6 Premium Sample: U.S. Geological Survey Open-File Report 89-634, 28 p. (BLIND CANYON COAL BED, COAL, COAL-QUALITY, OPEN-FILE, UTAH)
2049. Pierce, B.S., Stanton, R.W., and Eble, C., 1991, Facies development in the Lower Freeport coal bed, west-central Pennsylvania, U.S.A: International Journal of Coal Geology, v. 18, p. 17-43. (COAL)
2123. Pierce, B.S., Stanton, R.W., and Eble, C.F., 1991, Comparison of the petrography, palynology, and paleobotany of the Stockton bed, West Virginia: Proceedings of the Eighth Annual Meeting of the Society for Organic Petrology, September 40-October 1, 1991, Lexington, Ky, p. 13-15. (PALEOBOTANY, PALYNOLOGY, PETROGRAPHY, STOCKTON BED, WEST VIRGINIA)
3441. Pierce, B.S., Stanton, R.W., and Eble, C.F., 1993, Comparison of the petrography, palynology, and paleobotany of the Stockton coal bed and implications for paleoenvironmental interpretations: Organic Geochemistry, v. 20, p. 149-166. (COAL, GEOCHEMISTRY, PALEOBOTANY, PALEOENVIRONMENT, PALYNOLOGY, PETROGRAPHY, STOCKTON COAL BED)
695. Pierce, B.S., Stanton, R.W., and Hettinger, R.D., 1992, Sampling and characteristics of Cretaceous coals from the Kaiparowits Plateau, southern Utah: Proceedings, The Society for Organic Petrology, 9th annual meeting, Abstracts and Programs, p. 49-50. (ABSTRACT, COAL, CRETACEOUS)

3712. Pierce, B.S., Tewalt, S.J., and Stanton, R.W., 1993, Coal quality distributions within the Upper Freeport coal bed, west-central Pennsylvania, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1030-1036. (ABSTRACT, COAL, COAL-QUALITY, GEOCHEMISTRY, PENNSYLVANIA, UPPER FREEPORT COAL BED)
1846. Pierce, F.W., Johnson, E.A., Molnia, C.L., and Sigleo, W.R., 1990, Coal stratigraphy of the southeastern Powder River Basin, Wyoming: U.S. Geological Survey Miscellaneous Investigations Series Map I-1959B. (COAL, CORRELATION, CROSS SECTIONS, MAP, POWDER RIVER BASIN, STRATIGRAPHY, WYOMING)
1842. Pierce, F.W., Johnson, E.A., Sigleo, W.R., and Molnia, C.L., 1986, Stratigraphic distribution of coal beds in the upper part of the Paleocene Fort Union Formation, southern Powder River Basin, Wyoming: Geological Society of America Abstracts with Programs, v. 18, p. 402-403. (ABSTRACT, COAL, FORT UNION FORMATION, PALEOCENE, POWDER RIVER BASIN, STRATIGRAPHY, TERTIARY, WYOMING)
1838. Pierce, F.W., and Molnia, C.L., 1985, Computer-assisted reconstruction of the stratigraphic framework of an Anderson coal deposit, Powder River Basin, Wyoming: American Association of Petroleum Geologists Bulletin, v. 69, p. 859-860. (ABSTRACT, ANDERSON COAL BED, COAL, COMPUTER, COMPUTER APPLICATIONS, POWDER RIVER BASIN, STRATIGRAPHY, WYOMING)
1258. Pillmore, C.L., and Flores, R.M., 1987, Field guide to the Cretaceous-Tertiary boundary of the Raton Basin, Colorado and New Mexico: Geological Society of America, Rocky Mountain Section Fieldbook, p. 1-43. (COLORADO, CRETACEOUS, NEW MEXICO, TERTIARY)
1284. Pillmore, C.L., and Flores, R.M., 1988, Field guide to the Continental Cretaceous-Tertiary boundary in the Raton Basin, Colorado and New Mexico: Geological Society of America Field Trip Guidebook, Colorado School of Mines, no. 12, p. 227-258. (COLORADO, CRETACEOUS, NEW MEXICO, TERTIARY)
614. Pillmore, C.L., and Flores, R.M., 1990, Cretaceous and Paleocene rocks of the Raton Basin, New Mexico and Colorado--stratigraphic-environmental framework: New Mexico Geological Society Guidebook, 41st Field Conference, p. 333-336. (COLORADO, CRETACEOUS, NEW MEXICO, PALEOCENE, STRATIGRAPHY, TERTIARY)
1319. Pitman, J.K., Burruss, R.C., Dyman, T.S., Flores, R.M., Hatch, J.R., Henry, M., Keighin, C.W., Perry, W.C., Jr., Pollastro, R.M., Repetski, J.E., Reynolds, R.L., Rice, D.D., Robbins, R.L., and Schmoker, J.W., 1990, Geologic history of the Anadarko Basin, western Oklahoma, North Texas Panhandle, and southwestern Kansas: Oklahoma Geological Notes, v. 59, p. 186-187. (ANADARKO BASIN, GEOLOGY, KANSAS, OKLAHOMA, TEXAS)
1307. Pitman, J.K., Burruss, R.C., Dyman, T.S., Flores, R.M., Hatch, J.R., Henry, M., Keighin, W.C., Perry, W.J., Pollastro, R.M., Repetski, J.E., Reynolds, R.L., Rice, D.D., Robbins, R.L., and Schmoker, J.W., 1990, Geologic history of the Anadarko Basin, western Oklahoma, north Texas Panhandle and southwestern Kansas: American Association of Petroleum Geologists Bulletin, v.

- 74, p. 741. (ABSTRACT, ANADARKO BASIN, GEOLOGY, KANSAS, OKLAHOMA, TEXAS)
1328. Pocknall, D., Flores, R.M., and Sykes, R., 1990, Coal measure sedimentology and paleoenvironments: Buller coalfield workshop: Geological Society of New Zealand Newsletter, no. 88, p. 73-74. (COAL)
1249. Pocknall, D.T., and Flores, R.M., 1987, Coal palynology and sedimentology in the Tongue River Member, Fort Union Formation, Powder River Basin, Wyoming: Palaios Special Issue, v. 2, p. 133-145. (COAL, FORT UNION FORMATION, PALEOCENE, TERTIARY)
568. Pollastro, R.M., and Bohor, B.F., 1991, Origin and genesis of clay minerals at the Cretaceous/Tertiary boundary interval, U.S. Western Interior, in Abstracts, 28th Annual Meeting: Clay Mineral Society, Houston, Texas, p. 129. (ABSTRACT, CLAY, CRETACEOUS, MINERALS, TERTIARY, WESTERN INTERIOR)
573. Pollastro, R.M., and Bohor, B.F., 1992, The Cretaceous/Tertiary boundary claystone in the Western Interior--Origin and paragenesis: American Association of Petroleum Geologists Abstracts with Programs, Society for Economic Petrologists and Mineralogists Theme Meeting, Ft. Collins, CO, Aug. 17-19, 1992, Society of Sedimentary Geology, Tulsa, OK, p. 54. (ABSTRACT, AGE DATING, CLAYSTONE, CRETACEOUS, PARAGENESIS, TERTIARY, WESTERN INTERIOR SEAWAY)
563. Pollastro, R.M., and Bohor, B.F., 1993, Origin and genesis of the Cretaceous/Tertiary boundary claystone, Western Interior of North America: Clays and Clay Minerals, v. 41, p. 7-25. (CLAY, CRETACEOUS, TERTIARY)
578. Pollastro, R.M., and Bohor, B.F., 1993, Clay mineralogy origin, and diagenesis of the Cretaceous/Tertiary boundary unit, Western Interior of North America: 10th International Clay Conference Abstracts with Programs, CSIRO, Glen Austin, Southern Australia, v. 5064, p. 46. (ABSTRACT, CLAY, CRETACEOUS, DIAGENESIS, MINERALOGY, TERTIARY)
4108. Pollastro, R.M., and Bohor, B.F., 94, The Cretaceous/Tertiary boundary unit, Western Interior of North America- A record of large meteorite impact and regional diagenesis, in Caputo, M.V., Peterson, J.A., and Franczyk, K.J., eds., Mesozoic systems of the Rocky Mountain region, U.S.A: American Association of Petroleum Geologists, RMS/SEPM, Denver, Colorado, p. 523-536. (CRETACEOUS, DIAGENESIS, IMPACT, K/T, MESOZOIC, METEORITE, ROCKY MOUNTAIN REGION, TERTIARY, WESTERN INTERIOR)
1042. Pomeroy, J.S., and Thomas, R.E., 1985, Geologic relationships of slope movement in northern Alabama: U.S. Geological Survey Bulletin 1649, 13 p. (ALABAMA, GEOMORPHOLOGY, SLOPES, TUSCALOOSA-FORMATION, WEATHERING)
3955. Pontolillo, J., and Stanton, R.W., 1994, Vitrinite reflectance variations in Paleocene and Eocene coals of the Powder River, Williston, Hanna, Bighorn, and Bull Mountain Basins, U.S.A: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 82-84. (ABSTRACT, COAL, EOCENE, HANNA BASIN, PALEOCENE, TERTIARY, VITRINITE, VITRINITE REFLECTANCE, WYOMING)

4005. Pontolillo, J., ed., 1994, Eleventh Annual Meeting of the Society for Organic Petrology, Abstracts and Program, Jackson, Wyoming, September 25-30, 1994, v. 2, 122 p. (EDITOR, GEOCHEMISTRY, PETROLOGY, TSOP)
2096. Poppe, L.J., Hall, R.E., Cousimer, H.L., and Stanton, R.W., 1987, Lithology and biostratigraphy of the Gulf 718-1 well, U. S. Mid-Atlantic Outer Continental Shelf: Geological Society of America Book of Abstracts, Southeastern Section Meeting, v. 1, p. 124. (ABSTRACT, BIOSTRATIGRAPHY, CONTINENTAL-SHELF, DRILL HOLES, LITHOLOGY, MARINE)
2044. Poppe, L.J., Hall, R.E., Cousimer, H.L., Stanton, R.W., and Steinkraus, W.E., 1990, Biostratigraphy, lithofacies, and paleoenvironment of the Gulf 718-1 well, U. S. Mid-Atlantic Continental Shelf: Marine Geology, v. 92, p. 27-50.
2125. Poppe, L.J., Poag, C.W., Manheim, F.T., and Stanton, R.W., 1990, Lithology, stratigraphy, and paleoenvironments of the 312-1, Georges Bank Basin, U.S. North Atlantic Outer Continental Shelf: Geological Society of America, Northeastern Section Meeting. (LITHOLOGY, PALEOENVIRONMENT, STRATIGRAPHY)
2120. Poppe, L.J., Poag, C.W., and Stanton, R.W., 1990, Stratigraphy, lithology, and paleoenvironments of the Conoco 145-1 well, Georges Bank Basin, U.S. North Atlantic Outer Continental Shelf: Geological Society of America, Northeastern Section Meeting. (LITHOLOGY, PALEOENVIRONMENT, STRATIGRAPHY)
2052. Poppe, L.J., Poag, C.W., and Stanton, R.W., 1991, Stratigraphy, lithology, and paleoenvironments of the Conoco 145-1 well, Georges Bank Basin, U.S. North Atlantic Outer Continental Shelf: Marine Geology. (CONTINENTAL-SHELF, DRILL HOLES, GEORGES BANK BASIN, LITHOLOGY, PALEOENVIRONMENT, STRATIGRAPHY)
4125. Punongbayan, R., Cole, J.C., Braddock, W.C., and Colton, R.B., 1989, Geologic map of the Pinewood Lake quadrangle, Boulder and Larimer Counties, Colorado: U.S. Geological Survey Geologic Quadrangle Map GQ-1627. (BOULDER COUNTY, COLORADO, GEOLOGIC MAP, LARIMER COUNTY, MAP, PINEWOOD LAKE)
2527. Rabold, J.M., Pfefferkorn, H.W., and Wnuk, C., 1992, Sub-fossil standing forest in an exhumed flood plain of the Orinoco River: 29th International Geological Congress Abstracts, v. 2, p. 356. (DEPOSITIONAL ENVIRONMENT, ORINOCO RIVER)
1099. Reheis, M.C., and Coates, D.A., 1987, Surficial geologic map of the Reno Junction 30' x 60' quadrangle, Campbell and Weston Counties, Wyoming: U.S. Geological Survey, Coal Investigations Map C-106, scale 1:100,000. (CAMPBELL COUNTY, COAL, GEOLOGIC MAP, MAP, QUATERNARY, RENO JUNCTION, SURFICIAL DEPOSITS, WESTON COUNTY, WYOMING)
2024. Reinemund, J.A., Hart, P.J., and Medlin, J.H., 1989, International geology: Geotimes, v. 34, no 2, p. 70-71. (GEOLOGY, INTERNATIONAL)
847. Reinhardt, J., and Sigleo, W.R., 1986, Tectonics, eustacy and weathering along the southeastern

- part of the North American Craton during the Late Cretaceous: 12th International Sedimentological Congress, Canberra, Australia, Bureau of Mines and Resources, Sediments Down-under, p. 256-257. (ABSTRACT, CRETACEOUS, EUSTATIC, GULF COAST, NORTH AMERICAN CRATON, NORTH-AMERICA, PALEOSOLS, SEDIMENTOLOGY, SOILS, STRATIGRAPHY, TECTONICS, TRANSGRESSION, USA, WEATHERING)
905. Reinhardt, J., and Sigleo, W.R., 1988, Paleosols and weathering through geologic time; principles and applications: Geological Society of America Special Paper, v. 216, p. 181. (ABSTRACT, PALEOSOLS, SOILS, STRATIGRAPHY, WEATHERING)
3230. Reynolds, R., and Cavaroc, V., 1986, Passive shelf sedimentation patterns of a back-arc basin setting: Society of Economic Petrologists and Mineralogists, Annual Meeting, v. 3, p. 94-95. (ABSTRACT, SEDIMENTATION)
652. Rice, D.D., Clayton, J.L., Flores, R.M., Law, B.E., and Stanton, R.W., 1992, Some geologic controls of coalbed gas generation, accumulation, and production, western United States, in Carter, L.M.H., ed., USGS Research on Energy Resources, 1992, McKelvey Forum: U.S. Geological Survey Circular 1074, p. 64.
659. Rice, D.D., Clayton, J.L., Flores, R.M., and Stanton, R.W., 1992, Coalbed heterogeneity, western United States: Methane Forum, p. 1. (COAL, WESTERN-U.S)
1303. Rice, D.D., and Flores, R.M., 1989, Nature of natural gas in anomalously thick coal beds, Powder River basin, Wyoming: American Association of Petroleum Geologists Bulletin, p. 1172. (ABSTRACT, COAL, POWDER RIVER BASIN, TERTIARY, WYOMING)
1316. Rice, D.D., and Flores, R.M., 1990, Coal-bed methane potential of Tertiary coal beds and adjacent sandstone deposits, Powder River Basin, Wyoming and Montana: American Association of Petroleum Geologists Bulletin, v. 74, p. 1343. (ABSTRACT, COAL, ENERGY-SOURCES, GAS, METHANE, TERTIARY)
637. Rice, D.D., and Flores, R.M., 1991, Controls on bacterial gas accumulations in thick Tertiary coal beds and adjacent channel sandstones, Powder River Basin, Wyoming and Montana: American Association of Petroleum Geologists Bulletin, v. 75, p. 661. (ABSTRACT, COAL, TERTIARY, POWDER RIVER BASIN, WYOMING)
1299. Rice, D.D., Flores, R.M., and Law, B.E., 1989, Nature and origin of Lower Tertiary coalbed gases, Powder River Basin, Wyoming: Coalbed Methane Symposium, p. 1-2. (POWDER RIVER BASIN, TERTIARY, WYOMING)
1527. Rice, D.D., Hatch, J.R., and Krystinik, K.B., 1987, Composition, origin, and source of natural gases in the Anadarko Basin, Kansas, Oklahoma, and Texas: Geological Society of America Abstracts with Programs, v. 18, p. 818. (ABSTRACT, ANADARKO BASIN, GAS, KANSAS, OIL AND GAS, OKLAHOMA, PETROLEUM, TEXAS)
1329. Rice, D.D., and Flores, R.M., 1991, Controls on bacterial gas accumulations in thick Tertiary coal beds and adjacent channel sandstones, Powder River Basin, Wyoming and Montana: American Association of Petroleum Geologists Bulletin, v. 75, p. 661. (ABSTRACT, COAL, POWDER

RIVER BASIN, TERTIARY, MONTANA, WYOMING)

9. Robbins, E.I., 1985, Processes that affect sediments of modern tectonic lakes: Geological Society of America Abstracts with Programs, v. 17, p. 61. (ABSTRACT, LACUSTRINE, SEDIMENTS, TECTONICS)
98. Robbins, E.I., 1985, Modern continental rifts: Characteristics and applications to recognition of ancient rifts: American Association of Petroleum Geologists Bulletin, v. 69, p. 1446. (ABSTRACT, CONTINENTAL, RIFTS, TECTONICS)
99. Robbins, E.I., 1985, Petroleum as an ore-bearing fluid: A hypothesis: American Association of Petroleum Geologists Bulletin, v. 69, p. 1446. (ABSTRACT, ORES, PETROLEUM)
4020. Robbins, E.I., 1985, Palynostratigraphy of coal-bearing sequences in Early Mesozoic basins of the Eastern United States, in Robinson, G.R., Jr., and Froelich, A.J., eds., Proceedings of the Second U.S. Geological Survey Workshop on the Early Mesozoic basins of the Eastern United States: U.S. Geological Survey Circular 946, p. 27-29. (BASINS, COAL, MESOZOIC, PALYNOSTRATIGRAPHY, STRATIGRAPHY)
4021. Robbins, E.I., 1985, Review of ancient sedimentary environments of the habitats of living organisms, introduction to paleoecology by J.C. Gall (Springer-Verlag, 219 p., 1983): Palaeogeography, Palaeoclimatology, Palaeoecology, v. 52, p. 180-181. (BOOK REVIEW, PALEOECOLOGY, PALEOENVIRONMENT)
4023. Robbins, E.I., 1987, Paleoecology of the Niland Tongue, Chapter E, in Roehler, H.W., ed., Geological investigations of the Vermillion Creek coal bed in the Eocene Niland Tongue of the Wasatch Formation, Sweetwater County, Wyoming: U.S. Geological Survey Professional Paper 1314, p. 74-103. (EOCENE, GEOLOGY, NILAND TONGUE, PALEOECOLOGY, SWEETWATER COUNTY, TERTIARY, VERMILLIAN CREEK COAL BED, WASATCH-FORMATION, WYOMING)
4026. Robbins, E.I., 1987, *Appellella ferrifera*, a possible new iron-coated microfossil in the Isua Iron Formation, southwest Greenland, in Appel, P.W.U., and LaBerge, G.L., eds., Precambrian Iron Formations, Athens, Greece: Theophrastus Press, p. 141-154. (GREENLAND, INTERNATIONAL, IRON, ISUA IRON FORMATION, MICROFOSSILS)
4027. Robbins, E.I., 1987, Review of Ore Fields and Continental weathering, by J.C. Samama, Van Nostrand Reinhold, 326 p., 1986: American Association of Stratigraphic Palynologists Newsletter, v. 20, p. 10-11. (BOOK REVIEW, ORES, WEATHERING)
4028. Robbins, E.I., 1987, Review of Mineral Exploration, Biological Systems, and Organic Matter, by Donald Carlisle, Wade Berry, Issac Kaplan, and John Watterson, eds. (Prentice-Hall, 465 p., 1986): American Association of Stratigraphic Palynologists Newsletter, v. 20, p. 11-12. (BOOK REVIEW, MINERAL-EXPLORATION, ORGANIC MATTER)
4035. Robbins, E.I., 1988, Review of Archaeobacteria '85 by Kandler, Otto, and Zillig, Wolfam, eds. Gustav Fisher Verlag, 434 p., 1986: American Association of Stratigraphic Palynologists Newsletter, v. 21, p. 21-22. (BOOK REVIEW)

4033. Robbins, E.I., 1989, Review of Triassic-Jurassic Rift Basin Sedimentology, by J.D. Lorenz (Van Nostrand Reinhold, 315 p., 1988): American Association of Stratigraphic Palynologists Newsletter, v. 22, p. 19-22. (BOOK REVIEW, JURASSIC, RIFT BASIN, SEDIMENTOLOGY, TECTONICS, TRIASSIC)
4034. Robbins, E.I., 1989, Review of Lacustrine Petroleum Source Rocks by A.J. Fleet, K. Kelts, and M.R. Talbot, eds. (Blackwell Scientific Publications, Oxford, 391 p., for the Geological Society, 1988): Geochimica et Cosmochimica Acta, v. 53, p. 1711. (BOOK REVIEW, ENERGY FUELS, LACUSTRINE, PETROLEUM)
4044. Robbins, E.I., 1990, Review of Bryozoan Evolution by F.K. McKinney and J.B.C. Jackson, Unwin Hyman, v. 2, 238 p., Boston, 1989: American Association of Stratigraphic Palynologists Newsletter, v. 23, p. 11. (BOOK REVIEW, BRYOZOAN, EVOLUTION, FOSSIL, STRATIGRAPHY)
4046. Robbins, E.I., 1990, Review of Nonmetalliferous Stratabound Ore Fields by M.K. deBrotkorb ed., Van Nostrand Reinhold (332 p., New York, 1989): American Association of Stratigraphic Palynologists Newsletter, v. 23, p. 6-7. (BOOK REVIEW, ORES)
597. Robbins, E.I., 1991, Red flocs, "oil" films, and black coats: Evidence for iron bacteria in wetlands: Society of Wetland Scientists, 12th Annual Meeting, Ann Arbor, Michigan, p. 46. (ABSTRACT, BACTERIA, IRON, OIL, SWAMPS, WETLANDS)
598. Robbins, E.I., 1991, Revegetation of deglaciated slopes and changes in microflora in the uranium-precipitating Boston Peak peatland, Colorado: American Association of Stratigraphic Palynologists Abstracts with Program, 24th Annual Meeting, San Diego, California, p. 43; reprinted in Palynology, v. 16, p. 229. (ABSTRACT, BOSTON PEAK WETLAND, COLORADO, GLACIATION, MICROFLORA, PLANTS, STRATIGRAPHY, URANIUM, VEGETATION)
4055. Robbins, E.I., 1991, Age of Early Cretaceous palynomorphs in the Muirkirk clay pit fossil locality (Prince Georges County, MD): U.S. Geological Survey Open-File Report 91-613, 5 p. (CRETACEOUS, FOSSIL, MARYLAND, MUIRKIRK CLAY PIT FOSSIL LOCALITY, OPEN-FILE, PALYNOMORPHS, PRINCE GEORGES COUNTY)
4056. Robbins, E.I., 1991, Review of Atlas of Opaque and Ore Minerals in their Associations by R.A. Ixer, Van Nostrand Reinhold (208 p., New York, 1990): American Association of Stratigraphic Palynologists Newsletter, v. 24, p. 8. (BOOK REVIEW, MINERAL ASSOCIATIONS, MINERALS)
4057. Robbins, E.I., 1991, Text to accompany slides/photographs of Lower Cretaceous pollen and spores in sediments from the Muirkirk clay pit (Prince Georges County, Maryland): U.S. Geological Survey Open-File Report 91-642, 1 p. (CRETACEOUS, MUIRKIRK CLAY PIT FOSSIL LOCALITY, OPEN-FILE, POLLEN, PRESENTATION, SPORES)
4058. Robbins, E.I., 1991, Review of the Extractive Mineralogy of Gold by J.C. Yannopoulos, Van Nostrand Reinhold (281 p., New York, 1991): American Association of Stratigraphic Palynologists Newsletter, v. 24. (BOOK REVIEW, GOLD, MINERALOGY)

4061. Robbins, E.I., 1992, Review of A.Y. Huc, ed., Deposition of Organic Facies (American Association of Petroleum Geologists Studies in Geology, no. 30, 234 p., 1992): *Geochimica et Cosmochimica Acta*, v. 56, p. 2963-2964. (BOOK REVIEW, FACIES, ORGANIC)
4063. Robbins, E.I., 1993, Memorial to Anna-Stina Magnusson Edhorn: *Journal of Paleontology*, v. 64, p. 163. (MEMORIAL, PALEONTOLOGY)
3769. Robbins, E.I., 1994, Discovering geoscientists to be: Winds of Change: American Indian Scientific and Engineering Society, p. 41. (GEOLOGISTS, GEOSCIENCE, INDIAN, OUTREACH)
3780. Robbins, E.I., 1994, Review of J. McManus and R.W. Duck, 1993, *Geomorphology and Sedimentology of Lakes and Reservoirs*: Wiley, : *Geochimica et Cosmochimica Acta*, May 1994, 1 p. (BOOK REVIEW, GEOMORPHOLOGY, LAKES, RESERVOIRS, SEDIMENTOLOGY)
3781. Robbins, E.I., 1994, Potential for wetland expansion in the Lake Erie basin following lacustrine regressions: U.S. Geological Survey Open-File Report 94-200, p. 38-41. (GREAT LAKES, LACUSTRINE, LAKE ERIE, REGRESSION, WETLANDS)
3785. Robbins, E.I., 1994, Review of E.G. Nisbet, *Living Earth, A short history of life and its home*: *Journal of Geological Education*, v. 42, p. 78-79. (BOOK REVIEW, EARTH, EARTH HISTORY, GEOLOGY, HISTORY, PRECAMBRIAN)
3768. Robbins, E.I., in press, Utilization of sedimentological, geochemical, and palynological information to determine paleofunctions of ancient coal-forming wetlands, in Mead, J. and Steadman, D.I., eds., *Late Quaternary Environments and Deep History: A tribute to Paul Martin*: Mammoth Hot Springs Press, 43 p. (COAL, GEOCHEMISTRY, PALEOECOLOGY, PALUDAL-ENVIRONMENT, PALYNOLOGY, SEDIMENTOLOGY, SEDIMENTS, SWAMPS, WETLAND FUNCTION, WETLANDS)
3782. Robbins, E.I., in press, Palynomorphs in ores and oils, Introduction to Chapter 28, in Jansonius, J., and McGregor, C.D., eds., *Palynology: Principals and Applications*: American Association of Stratigraphic Palynologists Special Volume, Allen Press, 2 p. (ABSTRACT, OIL AND GAS, ORES, PALYNOMORPHS, STRATIGRAPHY)
4083. Robbins, E.I., in press, Utilization of sedimentological, geochemical, and palynological information to determine paleofunctions of ancient coal-forming wetlands, in Steadman, David and Mead, James I., eds., *Late Quaternary Environments and Deep History: A Tribute to Paul S. Martin*: Hot Springs Mammoth Site, Hot Springs, South Dakota:, 44 p. (COAL, GEOCHEMISTRY, PALEOENVIRONMENT, PALYNOLOGY, SEDIMENTOLOGY, WETLANDS)
4084. Robbins, E.I., in press, Field geology/ field culture day on Bad River Reservation: American Indian Scientific and Engineering Society, 1 p. (BAD RIVER RESERVATION, GEOLOGY, INDIAN RESERVATION)
3771. Robbins, E.I., and Burden, E.T., in press, Mineral exploration and ore exploitation, Chapter 28, in Jandonius, J., and McGregor, C.D., eds., *Palynology, Principals and Applications*: American Association of Stratigraphic Palynologists Special Volume, Allen Press, 18 p. (DEVELOPMENT,

EXPLORATION, MINERALS, MINING, ORES, PALYNOLOGY)

4081. Robbins, E.I., and Burden, E.T., in press, Palynology in mineral exploration and ore deposit exploration, in Jansonius, J., and McGregor, D.C., eds., Palynology: Principals and Applications: American Association of Stratigraphic Palynologists Special Volume, Allen Press, Lawrence Kansas, 44 p. (EXPLORATION, MINERALS, ORES, PALYNOLOGY)
3770. Robbins, E.I., and Bush, A., 1993, Wetlands of modern and ancestral Great Lakes: Great Lakes Wetlands, v. 4, p. 1, 8 and 9. (GIS, GLACIAL GEOLOGY, GREAT LAKES, PALUDAL-ENVIRONMENT, PEAT, SWAMPS, WETLANDS)
4085. Robbins, E.I., and Bush, A., 1993, Black Swamp of Ohio, Indiana, and Michigan: Great Lakes Wetlands, v. 4, p. 1,8,9. (INDIANA, MICHIGAN, OHIO, WETLANDS)
3786. Robbins, E.I., Bush, A.D., Harris, H.J., Hanson, P., Keough, J., Shideler, G.L., Taylor, C., and Thompson, T.A., in press, Wetlands of modern and ancestral Lake Michigan, Michigan, Indiana, Illinois, and Wisconsin: U.S. Geological Survey Miscellaneous Investigations Series Map I- , 38 p. (GREAT LAKES, ILLINOIS, INDIANA, LACUSTRINE, LAKE MICHIGAN, MAP, MICHIGAN, PALEOGEOGRAPHY, PALUDAL-ENVIRONMENT, SWAMPS, WETLANDS, WISCONSIN)
182. Robbins, E.I., Cornet, B., and Traverse, A., 1987, Biostratigraphic control points and age of the Early Mesozoic strata in the Eastern United States, in Geology of the Early Mesozoic Basins of Eastern North America: U.S. Geological Survey Workshop, May 11-14, 1987, Program and Abstracts, p. 31. (ABSTRACT, BIOSTRATIGRAPHY, MESOZOIC)
590. Robbins, E.I., and Cuomo, M.C., 1990, Criteria for recognition of fecal pellets in palynological preparations: American Association of Stratigraphic Palynologists Abstracts with Program, Annual Meeting, Bampf, Alberta, p. 28; reprinted in Palynology, v. 15, p. 251 (1991). (ABSTRACT, FECAL PELLETS, PALYNOLOGY, STRATIGRAPHY)
4062. Robbins, E.I., Cuomo, M.C., Haberyan, K.A., Mudie, P.J., Head, E., and Chen, Y.Y., in press, Fecal pellets, Chapter 19b, in Jansonius, J., and McGregor, D.C., eds., Palynology: Principals and Applications: Lawrence, Kansas, 38 p., American Association of Stratigraphic Palynologists Special Publication, Allen Press. (FECAL PELLETS, PALYNOLOGY, STRATIGRAPHY)
4045. Robbins, E.I., and D'Agostino, J.P., 1990, Panning for gold and magnetite, in Miller, M.F., McDonald, R.H., Oakland, E., Roof, S.R., and Savoy, L.E., eds., A Sedimentary Geologist's Guide to Helping K-12 Earth Science Teachers: Hints, Ideas, Activities, and Resources: Society of Economic Paleontologists and Mineralogists, Tulsa, Oklahoma, p. 56-57. (GOLD, GOLD PANNING, MAGNETITE, OUTREACH, PANNING, TEACHING)
293. Robbins, E.I., D'Agostino, J.P., Carter, V., Fanning, D.S., Gamble, C.J., Ostwald, J., Van Hoven, R.L., and Young, G.K., 1990, Manganese nodules and microbial fixation of oxidized manganese in the Hunley Meadows wetland, Fairfax County, Virginia, in Carter, L.M.H., ed., U.S. Geological Survey Research on Energy Resources-1990, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1060, p. 69-70. (ABSTRACT, FAIRFAX COUNTY, HUNLEY MEADOWS WETLAND, MANGANESE, MICROBIAL FIXATION, VIRGINIA)

163. Robbins, E.I., D'Agostino, J.P., and Haas, J.L., Jr., 1986, Palynological assessment of gold-bearing carbonaceous limestones of the Hanson Creek Formation (Ordovician-Silurian) in the Jerritt Canyon mining district, Elko County, Nevada: American Association of Stratigraphic Palynologists Abstracts with Program, 19th Annual Meeting, p. 33; reprinted in *Palynology*, vol. 11, p. 250-251, 1987. (ABSTRACT, GOLD, HANSON CREEK FORMATION, LIMESTONE, ORDOVICIAN, PALYNOLOGY, SILURIAN)
277. Robbins, E.I., D'Agostino, J.P., Hass, J.P., Jr., Larson, R.R., and Dulong, F.T., 1990, Palynological assessment of organic tissues and metallic minerals in the Jerritt Canyon gold deposit, Nevada (USA): *Ore Geology Reviews*, v. 5, p. 399-422. (GOLD, JERRITT CANYON, MINERALS, NEVADA, ORES, ORGANIC, PALYNOLOGY, PROTOGRAPHITE)
4054. Robbins, E.I., D'Agostino, J.P., Ostwald, J., Fanning, D.S., Carter, V., and Van Hoven, R., 1992, Manganese nodules and microbial oxidation of manganese in the Huntley Meadows wetland, Virginia, USA: *Carena Supplement*, (Dutch Soils Journal), v. 21, p. 1-23. (HUNTLEY MEADOWS WETLAND, MANGANESE, MICROBIAL, ORGANIC, OXIDATION, VIRGINIA, WETLANDS)
238. Robbins, E.I., de Vrind, E.W., de Vrind, H., and Ghiorse, W.C., 1988, Manganese-binding by iron bacteria in wetlands- A potential analogy for manganese-rich coal, in Carter, L.H.M., ed., U.S. Geological Survey Research on Energy Resources, 1988, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1025, p. 53. (ABSTRACT, BACTERIA, COAL, IRON, MANGANESE, WETLANDS)
240. Robbins, E.I., de Vrind, E.W., de Vrind, H., Holt, J.G., Knabel, S., LaBerge, G.L., Ostwald, J., and Schmidt, R.G., 1989, Microbial minerals of iron and manganese oxides in modern and ancient ecosystems: 28th International Geological Congress Abstracts, Washington, D.C., v. 2, p. 705-706. (ABSTRACT, ECOSYSTEMS, IRON, MANGANESE, MICROBIAL, MINERALS, OXIDATION, OXIDES)
3772. Robbins, E.I., and Forsyth, J., 1993, Black Swamp of Ohio, Indiana, and Michigan: *Great Lakes Wetlands*, v. 4, p. 3-4 and 9. (BLACK SWAMP, INDIANA, MICHIGAN, OHIO, PALUDAL-ENVIRONMENT, PEAT, SWAMPS, WAR OF 1812, WETLANDS)
4064. Robbins, E.I., and Forsyth, J.L., in press, The Black Swamp of Ohio-A wetland that lurks on the plains, in Owens, D.D., ed., *Wetlands: Processes, Functions, and Dynamics*: U.S. Geological Survey Circular, 6 p. (BLACK SWAMP, OHIO, WETLANDS)
3773. Robbins, E.I., and Herdendorf, C.E., submitted, Iron threads among the gold: *Smithsonian Magazine*. (BACTERIA, CENTRAL AMERICA, GOLD, IRON, MARINE, SANDSTONE, SHIPWRECK, TITANIC)
4066. Robbins, E.I., and Herdendorf, C.E., in press, "Stalactites" of the sea: *Smithsonian Magazine*, 10 p.
4052. Robbins, E.I., and Iberall, A.S., 1992, Mineral remains of early life on earth? on Mars?: *Geomicrobiology*, v. 9, p. 51-66. (EARTH, MARS, MINERALS)

167. Robbins, E.I., LaBerge, G.L., and Schmidt, R.G., 1987, Evidence for iron-stripping and silica-stripping microorganisms in Precambrian granular and banded iron formations, in Carter, L.M.H., U.S. Geological Survey Research on Mineral Resources, 1987, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 995, p. 58-59. (ABSTRACT, IRON, MICROORGANISMS, PRECAMBRIAN, SILICATES)
4025. Robbins, E.I., LaBerge, G.L., and Schmidt, R.G., 1987, A model for the biological precipitation of Precambrian iron formation: B) Morphological evidence and modern analogs, in Appel, P.W.U., and LaBerge, G.L., eds., Precambrian Iron Formations, Athens, Greece: Theophrastus Press, p. 97-139. (BIOLOGICAL PRECIPITATION, INTERNATIONAL, IRON, PRECAMBRIAN)
604. Robbins, E.I., Li, X., Pavey, R.R., Owen, D.E., and McCormac, J.S., 1992, Springville Marsh, Seneca County, Ohio- An unusual wetland complex with an unusual geological history: Society of Wetland Scientists, New Orleans, Louisiana, May-June, 1992, Programs with Abstracts, p. 55-56; reprinted in Landin, M.C., editor, 1993, Wetlands: Proceedings of the 13th Annual Conference of Wetland Scientists, South Central Chapter, Utica, MS, p. 106. (ABSTRACT, GEOLOGY, OHIO, SENECA COUNTY, SPRINGVILLE MARSH, SWAMPS, WETLANDS)
612. Robbins, E.I., Li, X., Pavey, R.R., Owen, D.E., McCormac, J.S., Klaser, D.M., Lesney, L.L., and Rybicki, R.A., 1992, Paleocology of a present-day inland wetland: Springville Marsh, Seneca County, Ohio: Intecol's 4th International Wetlands Conference, Columbus, Ohio, September, 1992, Programs with Abstracts, p. 65. (ABSTRACT, OHIO, PALEOECOLOGY, SENECA COUNTY, SPRINGVILLE MARSH, WETLANDS)
7. Robbins, E.I., and Meyer, R.E., 1985, Rift processes that link the economic deposits of tectonic lacustrine sequences: International Geological Correlation Programme, Project 219: Lacustrine Petroleum Source Rocks Meeting, London, England, Programme and Abstracts, p. 7-8. (ABSTRACT, LACUSTRINE, RIFTS, TECTONICS)
3784. Robbins, E.I., and Norden, A.W., 1994, Microbial oxidation of iron and manganese in wetlands and creeks of Maryland, Virginia, Delaware, and Washington, D.C., in Chiang, Shaio-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1154-1159. (ABSTRACT, CREEKS, DELAWARE, IRON, MANGANESE, MARYLAND, MICROBIAL, OXIDATION, VIRGINIA, WASHINGTON,DC, WETLANDS)
3774. Robbins, E.I., and O'Connor, J.V., 1993, How to make sedimentary rocks, heat, pressure, cement, and time, in Stover, S.G., and MacDonald, R.H., eds., On The Rocks, Earth Science Activities For Grades 1-8: Society of Economic Petrologists and Mineralogists, p. 20-21. (EDUCATION, OUTREACH, ROCKS, SEDIMENTARY ROCKS)
601. Robbins, E.I., and Owen, D.E., 1992, Utilization of palynological and sedimentological information to determine ancient wetland functions: 8th International Palynological Congress, Aix-en-Provence, France, September 1992, Program and Abstracts, p. 124. (ABSTRACT, PALYNOLOGY, SEDIMENTOLOGY, SWAMPS, WETLANDS)
3779. Robbins, E.I., Owen, D.E., Meeker, J.E., Larsen, C.E., Krasnow, M.R., Leoso, R.F., Weimer, L.M., and Winsky, P.A., 1994, The geologic history of wild rice in the Kagagon/Bad River wetland complex of Lake Superior (Ashland County, Wisconsin): Society of Wetland Scientists, Annual

- Meeting, Portland, Oregon, Program with Abstracts, p. 108-109. (ABSTRACT, BAD RIVER, BOTANY, KAKAGON RIVER, LAKE SUPERIOR, PALEOBOTANY, PEAT, WETLANDS, WILD RICE, WISCONSIN)
3775. Robbins, E.I., Owen, D.E., Otton, J.K., and Brownfield, I.K., in press, Geochemical cycling of elements through microorganisms in the Boston Peak Wetland, Larimer County, Colorado: U.S. Geological Survey Bulletin, 34 p. (BOSTON PEAK WETLAND, CALCIUM, COLORADO, ELEMENTS, GEOCHEMICAL-CYCLE, GEOCHEMISTRY, IRON MANGANESE, LARIMER COUNTY, MICROORGANISMS, PEAT, SILICATES, SULFUR, WETLANDS)
221. Robbins, E.I., Porter, K.G., and Edhorn, A.S., 1988, Morphological evidence in Early Proterozoic rocks for eukaryotic life: American Association of Stratigraphic Palynologists Abstracts with Program, p. 30; reprinted in Palynology, vol. 13, p. 286, 1989. (ABSTRACT, EUKARYOTES, MORPHOLOGY, PROTEROZOIC)
4019. Robbins, E.I., Porter, K.G., and Haberyan, K.A., 1985, Pellet microfossils: Possible evidence for planktonic metazoan life in Early Proterozoic time: Proceedings of the National Academy of Sciences, v. 89, p. 5809-5813. (EARLY PROTEROZOIC, FOSSIL, METAZOAN, MICROFOSSILS, PLANKTONIC, PROTEROZOIC)
4065. Robbins, E.I., Priestley, N.J., Pfeiffer, S.W., and Anderson, E.V., in press, A Federal, university, junior high school, and industry partnership: A field project at Lowes Island wetland, Virginia: GSA Today, 6 p. (LOWES ISLAND WETLAND, OUTREACH, TEACHING, VIRGINIA, WETLANDS)
3783. Robbins, E.I., Priestly, N.J., Pfeiffer, S.W., and Anderson, E.V., 1994, A federal, university, junior high school, and industry partnership: A field project at Lowes Island wetland, Virginia: GSA Today, v. 4, p. 32-33. (ACADEMIA, FEDERAL GOVERNMENT, INDUSTRY, LOWES ISLAND, OUTREACH, SCHOOL, UNIVERSITY, VIRGINIA, WETLANDS)
3776. Robbins, E.I., Rybicki, R.A., Hockey, D., Fuller, J.A., and Indrick, S.S., in press, The wetlands of ancestral and modern Lakes Erie and St. Clair: U.S. Geological Survey Miscellaneous Investigations Series Map, 33 p. (LACUSTRINE, LAKE ERIE, LAKE ST. CLAIR, MAP, PALUDAL-ENVIRONMENT, SWAMPS, WETLANDS)
635. Robbins, E.I., Stanton, M.R., Tilk, J.E., Congdon, R.S., Evans, H.T., Jr., Gullett, C.D., Sanders, M.B., Sato, M., Schaef, H.T., and Seal, R.R., II, 1994, Association of microbes with authogenic copper-chloride mineral films (atacamite and paratacamite) and petroleum residue at depth in the White Pine copper mine, Michigan: Geological Association of Canada and Mineralogical Association of Canada Joint Annual Meeting, University of Waterloo, Canada, May 1994. (ABSTRACT, ATACAMITE, COPPER, COPPER CHLORIDE, MICHIGAN, MICROBIAL, PARATACAMITE, PETROLEUM, WHITE PINE COPPER MINE)
4022. Robbins, E.I., and Textoris, D.A., 1986, Fossil fuel potential of the Deep River basin, North Carolina, in Textoris, D.A., ed., SEPM Field Guidebook: American Association of Petroleum Geologists, Southeastern Section, Third Annual Mid-year Meeting, p. 75-79. (DEEP RIVER BASIN, ENERGY FUELS, FIELD GUIDE, FOSSIL FUELS, GUIDEBOOK, NORTH-CAROLINA)

183. Robbins, E.I., and Textoris, D.A., 1988, Origin of Late Triassic coal in the Deep River basin of North Carolina (USA): International Association of Sedimentologists International Symposium on Sedimentology Related to Mineral Deposits, Abstracts Volume, Beijing, China, p. 219-220. (ABSTRACT, COAL, DEEP RIVER BASIN, NORTH-CAROLINA, TRIASSIC)
4031. Robbins, E.I., and Textoris, D.A., 1988, Analysis of kerogen and biostratigraphy of core from the Dummit-Palmer No. 1 well, Deep River basin, North Carolina: U.S. Geological Survey Open-File Report 88-670, 15 p. (BIOSTRATIGRAPHY, DEEP RIVER BASIN, DRILL CORE, KEROGEN, NORTH-CAROLINA, OPEN-FILE)
171. Robbins, E.I., and Weems, R.E., 1987, Preliminary analysis of unusual palynomorphs from the Deep Run and Taylorsville basins in the eastern Piedmont of Virginia, in *Geology of the Mesozoic Basins of Eastern North America*: U.S. Geological Survey Workshop, May 11-14, 1987, Program and Abstracts, p. 9. (ABSTRACT, DEEP RUN BASIN, GEOLOGY, MESOZOIC, PALYNOMORPHS, PIEDMONT, TAYLORSVILLE BASIN, VIRGINIA)
4029. Robbins, E.I., and Weems, R.E., 1988, Preliminary analysis of unusual palynomorphs from the Taylorsville and Deep Run basins in the eastern Piedmont of Virginia, in Froelich, A.J., and Robinson, G.R., Jr., eds., *Studies of the Early Mesozoic Basins of the United States*: U.S. Geological Survey Bulletin 1776, 16 p. (DEEP RUN BASIN, MESOZOIC, PALYNOMORPHS, PIEDMONT, TAYLORSVILLE BASIN, VIRGINIA)
2988. Robbins, E.I., Wilhelm, G.S., Owen, D.E., Krasnow, M.R., Rybicki, R.A., and Wetstein, L.A., 1993, Carbon cycling in two wet prairie communities of the Lake Calumet region, Illinois: Society of Wetland Scientists, Fourteenth Annual Meeting, May 30-June 3, 1993, University of Edmonton, Canada, Program with Abstracts, p. 185. (ABSTRACT, CARBON, GEOCHEMISTRY, ILLINOIS, LAKE CALUMET REGION, PEAT, PRAIRIE DOG CREEK, WETLANDS)
4032. Robbins, E.I., Wilkes, G.P., and Textoris, D.A., 1988, Coal deposits of the Newark rift system, in Manspeizer, W., ed., *Triassic-Jurassic Rifting, Continental Breakup and the Origin of the Atlantic Ocean and Passive Margins*: New York, Elsevier, p. 649-682. (COAL, JURASSIC, NEWARK RIFT, TRIASSIC)
4051. Robbins, E.I., Zhou Zili, and Zhou Zhicheng, 1991, Organic tissues in Tertiary lacustrine and palustrine rocks from the Jiyang and Pingyi rift depressions, Shandong Province, eastern China: International Association of Sedimentologists Special Publication, v. 13, p. 291-311. (CHINA, INTERNATIONAL, JIYANG, LACUSTRINE, ORGANIC, PALEOENVIRONMENT, PALUDAL-ENVIRONMENT, PINGYI, SHANDONG PROVINCE, TERTIARY)
325. Robbins, E.I., Zielinski, R.A., Otton, J.K., Owen, D.E., Schumann, R.R., and McKee, J.P., 1990, Microbially mediated fixation of uranium, sulfur, and iron in a peat-forming montane wetland, Larimer County, Colorado, in Carter, L.M.H., ed., *U.S. Geological Survey Research on Energy Resources- 1990*, V.E. McKelvey Forum in Mineral and Energy Resources: U.S. Geological Survey Circular 1060, p. 70-71. (ABSTRACT, COAL, COLORADO, GEOCHEMISTRY, IRON, LARIMER COUNTY, MIRE, PEAT, SULFUR, SWAMPS, URANIUM, WETLANDS)
3778. Robbins, E.I., Zielinski, R.A., and Owen, D.E., in press, Enumeration and morphology of

- planktonic and attached bacteria in the anoxic U- and S-bearing ground water of the Boston Peak wetland, Colorado: U.S. Geological Survey Bulletin, 7 p. (ABSTRACT, ANOXIC, BACTERIA, BOSTON PEAK WETLAND, COLORADO, GEOCHEMISTRY, PALUDAL-ENVIRONMENT, PEAT, SULFUR, SWAMPS, URANIUM)
1914. Roberts, L.N.R., 1989, Results of 1988 coal exploratory drilling in the Fruitland Formation, western part of the Southern Ute Indian Reservation, La Plata County, Colorado: U.S. Geological Survey Open-File Report 89-487, 221 p.; lithologic descriptions, preliminary correlations, and proximate analyses of coal samples. (COAL, COLORADO, DRILLING, FRUITLAND FORMATION, INDIAN, LA PLATA COUNTY, OPEN-FILE, SOUTHERN UTE INDIAN RESERVATION)
1916. Roberts, L.N.R., 1991, Coal resources of the Fruitland Formation, Ute Mountain Ute Indian Reservation, San Juan County, New Mexico: U.S. Geological Survey Bulletin, 1938, 15 p. (COAL, COAL RESOURCES, FRUITLAND FORMATION, INDIAN, NEW MEXICO, SAN JUAN COUNTY, UTE MOUNTAIN INDIAN RESERVATION)
1917. Roberts, L.N.R., 1991, A depositional setting for coals in the lower part of the Fruitland Formation, northwestern San Juan Basin, Colorado - Where's the beach?: Geological Society of America Abstracts with Programs, v. 23, p. 87; regional meeting. (ABSTRACT, BEACHES, COAL, COLORADO, FACIES, FRUITLAND FORMATION, MARINE, PALEOENVIRONMENT, SAN JUAN BASIN)
1908. Roberts, L.N.R., and Clark, V.L., 1987, Accessing the Interactive Surface Modeling program from a personal computer through TGRAF-07, Problems and solutions involving the graphic editor, in Dynamic Graphics, Inc. Technical Papers: First International Dynamic Graphics Users Meeting, p. 3.1-3.3. (COMPUTER, COMPUTER APPLICATIONS, COMPUTER MODELING, ISM, MODELING)
2764. Roberts, L.N.R., and Kirschbaum, M.A., 1992, Effects of subsidence rates on Cretaceous coal accumulation, Western Interior, U.S.: American Association of Petroleum Geologists, Society of Economic Paleontologists and Mineralogists, p. 37-38; Theme Meeting Mesozoic of the Western Interior, abstract. (COAL, CRETACEOUS, EUSTATIC)
3816. Roberts, L.N.R., and Kirschbaum, M.A., 1992, Effects of subsidence rates on Cretaceous coal accumulation, Western Interior, U.S. in Abstracts of the U.S. Geological Survey, Central Region, 1992: U.S. Geological Survey Open-File Report 92-391, p. 12; also published in 1993 AAPG Abstracts with Programs, Mesozoic of the Western Interior. (ABSTRACT, COAL, CRETACEOUS, DEPOSITIONAL ENVIRONMENT, EUSTACY, OPEN-FILE, PALEOENVIRONMENT, PALUDAL-ENVIRONMENT, SUBSIDENCE, SWAMPS)
3621. Roberts, L.N.R., and Kirschbaum, M.A., 1994, Late Cretaceous paleogeography, sediment accumulation, and coal distribution in the Western Interior of Middle North America: American Association of Petroleum Geologists Abstracts with Programs, v. 3, p. 244. (ABSTRACT, COAL, CRETACEOUS, PALEOGEOGRAPHY, SEDIMENTATION, SEDIMENTATION-RATES, WESTERN INTERIOR SEAWAY)
3817. Roberts, L.N.R., and Kirschbaum, M.A., in press, Paleogeography of the Upper Cretaceous of the Western Interior of middle North America: U.S. Geological Survey Professional Paper 1561, 249 p.

(CRETACEOUS, PALEOGEOGRAPHY, WESTERN INTERIOR SEAWAY)

3819. Roberts, L.N.R., and McCabe, P.J., 1992, Peat accumulation in coastal-plain mires: A model for coals of the Fruitland Formation (Upper Cretaceous) of Southern Colorado, U.S.A: *International Journal of Coal Geology*, v. 21, p. 115-139. (COAL, COLORADO, CRETACEOUS, DEPOSITIONAL ENVIRONMENT, FRUITLAND FORMATION, MIRE, PALUDAL-ENVIRONMENT, PEAT, SWAMPS)
1915. Roberts, L.N.R., and Uptegrove, J., 1991, Coal geology and coal zone correlations in the Fruitland Formation, western part of the Southern Ute Indian Reservation, La Plata County, Colorado: U.S. Geological Survey Coal Investigations Map C-138; scale 1:24,000. (COAL, COLORADO, CORRELATION, FRUITLAND FORMATION, GEOLOGIC MAP, GEOLOGY, INDIAN, LA PLATA COUNTY, MAP, SOUTHERN UTE INDIAN RESERVATION)
1929. Roberts, S.B., 1986, Results from 1983 drilling and core analyses of the Anderson coal deposit: U.S. Geological Survey Open-File Report 86-198, 16 p. (ANDERSON COAL BED, COAL, DRILL CORE, DRILLING, MONTANA, OPEN-FILE, POWDER RIVER BASIN, WYOMING)
1932. Roberts, S.B., 1988, Coal quality and distribution in Upper Cretaceous and Tertiary rocks, east-central North Slope, Alaska, in U.S. Geological Survey Research on Energy Resources, 1988 Program with Abstracts, Carter, L. M. H., ed: U.S. Geological Survey Circular 1025. (ABSTRACT, ALASKA, COAL, COAL-QUALITY, CRETACEOUS, NORTH-SLOPE, TERTIARY)
1936. Roberts, S.B., 1991, Cross-section showing subsurface coal beds in the Sagavanirktok formation, vicinity of Prudhoe Bay, North Slope, Alaska: U.S. Geological Survey Coal Investigations Map, C-139-A. (ALASKA, COAL, COAL BED, CORRELATION, CROSS SECTIONS, MAP, NORTH-SLOPE, PRUDHOE BAY, SAGAVANIRKTOK-FORMATION)
3808. Roberts, S.B., 1992, Depositional setting of Paleocene coals and conglomerates in the southwestern Bighorn Basin, Wyoming, and implications for timing of Washakie Range uplift: *American Association of Petroleum Geologists Abstracts with Programs, Rocky Mountain Section Meeting*, p. 53. (ABSTRACT, BIGHORN BASIN, COAL, CONGLOMERATE, PALEOCENE, TECTONICS, TERTIARY, TIMING, WASHAKIE RANGE, WASHAKIE UPLIFT, WYOMING)
3810. Roberts, S.B., and Bossiroy, D., in press, Stratigraphy and coal geology of the lower part of the Fort Union Formation in the Grass Creek coal mine area, southwestern Bighorn Basin, Wyoming: U.S. Geological Survey Coal Investigations Map. (BIGHORN BASIN, COAL, CROSS SECTIONS, FORT UNION FORMATION, GEOLOGY, GRASS CREEK, GRASS CREEK COAL MINE, MAP, PALEOCENE, STRATIGRAPHY, TERTIARY, WYOMING)
1931. Roberts, S.B., Clark, A.C., and Carey, M.A., 1988, Analyses of seven core samples from two Tertiary coal beds in the Sagwon Member of the Sagavanirktok Formation, North Slope, Alaska: U.S. Geological Survey Open-File Report 88-21, 6 p. (ALASKA, COAL, DRILL CORE, DRILLING, NORTH-SLOPE, OPEN-FILE, SAGAVANIRKTOK-FORMATION, SAGWON MEMBER, TERTIARY)
651. Roberts, S.B., Ellis, M.S., Flores, R.M., Nichols, D.J., Perry, W.B., Jr., and Stricker, G.D., 1992,

- Paleocene paleogeography, tectonics, and coal distribution in the Rocky Mountain region, An Overview, in Carter, L.M.H., ed., U.S. Geological Survey Research on Energy Resources, V.E. McKelvey Forum: U.S. Geological Survey Circular 1074, p. 66-67. (ABSTRACT, COAL, PALEOCENE, PALEOGEOGRAPHY, ROCKY MOUNTAIN REGION, TECTONICS, TERTIARY)
1933. Roberts, S.B., and Flores, R.M., 1988, Fluvial pattern influenced by underlying coal-bed morphology, Coalmont Formation, North Park Basin, Colorado: SEPM Annual Midyear Meeting, Abstracts with Programs, v. 5, p. 46. (ABSTRACT, COAL, COALMONT FORMATION, COLORADO, FLUVIAL, NORTH PARK BASIN)
1976. Roberts, S.B., and Flores, R.M., 1988, Shifting coal depocenters in the Tertiary Coalmont Formation, North Park Basin, Colorado: Geological Society of America Abstracts with Programs, Annual Meeting, v. 20, p. 169. (ABSTRACT, BASINS, COAL, COALMONT FORMATION, COLORADO, NORTH PARK BASIN, TERTIARY)
639. Roberts, S.B., Flores, R.M., Perry, W.J., Jr., and Nichols, D.J., 1991, Preliminary paleogeographic interpretations of Paleocene coal basins, Rocky Mountain region: Geological Society of America Abstracts with Programs, v. 23, p. 87. (ABSTRACT, BASINS, COAL, PALEOCENE, PALEOGEOGRAPHY, ROCKY MOUNTAIN REGION, TERTIARY)
3971. Roberts, S.B., and Stanton, R.W., 1994, Stratigraphy and depositional setting of thick coal beds in the Grass Creek coal mine, southwest Bighorn Basin, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 125-138. (BIGHORN BASIN, DEPOSITIONAL SYSTEMS, FIELD GUIDE, GRASS CREEK COAL MINE, PALEOCENE, PALEOENVIRONMENT, ROCKY MOUNTAIN REGION, STRATIGRAPHY, WYOMING)
3809. Roberts, S.B., Stanton, R.W., and Flores, R.M., 1994, A debris flow deposit in alluvial coal-bearing facies, Bighorn Basin, Wyoming, U.S.A: Evidence for catastrophic termination of a mire: International Journal of Coal Geology, v. 25. (ALLUVIUM, BIGHORN BASIN, COAL, DEBRIS FLOW, MIRE, SEDIMENTOLOGY, SWAMPS, WYOMING)
791. Roberts, S.B., Stricker, G.D., and Affolter, R.H., 1990, 200+ billion tons of low sulfur coal in the Sagavanirktok Formation, North Slope, Alaska: American Association of Petroleum Geologists Bulletin, v. 74, p. 1343. (ABSTRACT, ALASKA, COAL, COAL RESOURCES, GEOCHEMISTRY, NORTH-SLOPE, SAGAVANIRKTOK-FORMATION, SULFUR)
792. Roberts, S.B., Stricker, G.D., and Affolter, R.H., 1990, 200+ billion tons of low sulfur coal in the Sagavanirktok Formation, North Slope, Alaska, in Abstracts of the U.S. Geological Survey, central region, 1990 poster review, collected abstracts of selected poster papers presented at scientific meetings; compiled by C.E. Barker and A.B. Coury: U.S. Geological Survey Open-File Report 90-656, p. 31. (ABSTRACT, ALASKA, COAL, COAL RESOURCES, GEOCHEMISTRY, NORTH-SLOPE, SAGAVANIRKTOK-FORMATION, SULFUR, TERTIARY)
2349. Roberts, S.B., Stricker, G.D., and Affolter, R.H., 1991, Stratigraphic and chemical analyses of Late Cretaceous-Tertiary coals in the Sagavanirktok Formation, east-central North Slope, Alaska: U.S.

- Geological Survey Coal Investigations Map C-139-B; 1 Sheet. (ALASKA, COAL, CRETACEOUS, GEOCHEMISTRY, MAP, NORTH-SLOPE, SAGAVANIRKTOK-FORMATION, STRATIGRAPHY, TERTIARY)
557. Roberts, S.B., Stricker, G.D., and Affolter, R.H., 1992, Reevaluation of coal resources in the Late Cretaceous-Tertiary Sagavanirktok Formation, North Slope, Alaska, in *Geologic studies in Alaska by the U.S. Geological Survey, 1990: U.S. Geological Survey Bulletin, 1999*, p. 196-203. (ALASKA, COAL, COAL RESOURCES, CRETACEOUS, NORTH-SLOPE, SAGAVANIRKTOK-FORMATION, TERTIARY)
2232. Roberts, S.B., and Weaver, J.N., 1986, Coal exploration in coastal environments: Two case studies from Costa Rica: 11th Caribbean Geological Conference, Barbados, W.I., Abstract published in *proceedings*, 123 p. (ABSTRACT, CARIBBEAN, COAL, COSTA RICA, DEPOSITIONAL ENVIRONMENT, EXPLORATION, INTERNATIONAL)
1900. Robinson, L.N., 1985, Results of drilling for coal in 1981, including coal bed correlations, northeastern part of the Crow Indian Reservation, Big Horn County, Montana: U.S. Geological Survey Open-File Report 85-45, 53 p. (BIGHORN COUNTY, COAL, COAL CORRELATIONS, CROW INDIAN RESERVATION, DRILLING, INDIAN, MONTANA, OPEN-FILE)
1903. Robinson, L.N., and Barnum, B.E., 1985, Evidence for the extension of the Lake Basin fault zone from coal bed correlations in south-central Montana, Implications for hydrocarbon exploration: *American Association of Petroleum Geologists Bulletin*, v. 69, p. 863. (ABSTRACT, COAL, CORRELATION, HYDROCARBONS, LAKE BASIN FAULT ZONE, MONTANA, TECTONICS)
1906. Robinson, L.N., and Barnum, B.E., 1986, Southeastern extension of the Lake Basin fault zone in south-central Montana, Implications for coal and hydrocarbon exploration: *The Mountain Geologist*, v. 23, p. 37-44. (COAL, HYDROCARBONS, LAKE BASIN FAULT ZONE, MONTANA, TECTONICS)
1907. Robinson, L.N., and Honey, J.G., 1987, Geologic setting of a new locality of Paleocene mammals in the northern Powder River basin, Montana: *Palaio* Special Issue, v. 2, p. 87-90. (FOSSIL, GEOLOGY, MAMMALS, MONTANA, PALEOCENE, POWDER RIVER BASIN, TERTIARY)
1902. Robinson, L.N., and Van Gosen, B.S., 1985, Maps and sections showing geology and coal resources of the northeastern part of the Crow Indian Reservation, Big Horn County, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-1796; scale 1:24,000. (BIGHORN COUNTY, COAL, COAL RESOURCES, CROW INDIAN RESERVATION, GEOLOGIC MAP, INDIAN, INDIAN RESERVATION, MAP, MEASURED SECTIONS, MONTANA)
1905. Robinson, L.N., and Van Gosen, B.S., 1986, Maps showing coal geology of the Sarpy Creek area, Big Horn and Treasure Counties, Montana: U.S. Geological Survey Miscellaneous Field Studies Map MF-1859; scale 1:24,000. (BIGHORN COUNTY, COAL, GEOLOGIC MAP, MAP, MONTANA, SCARPY CREEK, TREASURE-COUNTY)
3390. Roehler, H.W., 1985, Geologic map of the Kinney Rim 30 by 60-minute Quadrangle, Wyoming and Colorado: U.S. Geological Survey Miscellaneous Investigations Series Map I-1615, scale

1:100,000. (COLORADO, GEOLOGIC MAP, MAP, WYOMING)

3391. Roehler, H.W., 1985, Electric-log correlations of the Upper Cretaceous Rock Springs and Blair formations on the east and west flanks of the Rock Springs Uplift, Wyoming: U.S. Geological Survey Miscellaneous Field Studies Map MF-1785. (BLAIR FORMATION, CORRELATION, CRETACEOUS, ELECTRIC LOGS, MAP, ROCK SPRINGS FORMATION, ROCK SPRINGS UPLIFT, WYOMING)
796. Roehler, H.W., Chisholm, W.A., and Schneider, G.B., 1990, Composite measured section showing nonopaque heavy minerals in sedimentary rocks of middle Proterozoic to late Tertiary age in the central Rocky Mountains, Southwest Wyoming and Northwest Colorado: U.S. Geological Survey Miscellaneous Investigations Series Map I-2145. (COLORADO, COMPOSITION, HEAVY-MINERALS, MAP, MEASURED SECTIONS, MINERAL-COMPOSITION, NORTH-AMERICA, PROTEROZOIC, ROCKY-MOUNTAINS, SEDIMENTARY ROCKS, SEDIMENTARY-PETROLOGY, TERTIARY, USA, WYOMING)
212. Roehler, H.W., and Hansen, D.E., 1989, Surface and subsurface correlations showing depositional environments of the Upper Cretaceous Mesaverde Group and associated formations, Cow Creek in Southwest Wyoming to Mount Harris in Northwest Colorado: U.S. Geological Survey Miscellaneous Field Studies Map MF-2077. (COLORADO, CORRELATION, CRETACEOUS, DEPOSITIONAL ENVIRONMENT, FACIES, LITHOFACIES, LITHOSTRATIGRAPHY, MAP, NORTHWESTERN-COLORADO, SEDIMENTARY ROCKS, STRATIGRAPHY, USA, WYOMING)
4205. Roehler, H.W., and Hansen, D.E., 1989, Surface and subsurface correlations showing depositional environments of the Upper Cretaceous Mesaverde Group and associated formations, Lost Soldier Field to Cow Creek, Southwest Wyoming: U.S. Geological Survey Miscellaneous Field Studies Map 2076. (CORRELATION, CRETACEOUS, DEPOSITIONAL ENVIRONMENT, FACIES, LOST SOLDIER FIELD, MAP, MESAVERDE FORMATION, MESAVERDE GROUP, STRATIGRAPHY, WYOMING, JCOW CREEK)
3356. Roehler, H.W., and Stanton, R.W., 1992, Geological investigations of the Wamsutter Rim cannelloid coal bed in the Eocene Niland Tongue of the Wasatch Formation, northern Washakie Basin, Southwest Wyoming: U.S. Geological Survey Bulletin 2018, 16 p. (COAL, EOCENE, TERTIARY)
11. Romankiw, L.A., Hatcher, P.G., and Roen, J.B., 1988, Evidence of land plant affinity for the Devonian fossil Protosalvinia (Foerstia): Lethaia, v. 21, p. 417-423. (BIOSTRATIGRAPHY, BRAZIL, DEVONIAN, FOSSIL, GEOCHEMISTRY, MICROFOSSILS, NORTH-AMERICA, PALEOECOLOGY, SOUTH-AMERICA, SPECTROSCOPY, STRATIGRAPHY, THALLOPHYTES)
3138. Romanowicz, E.A., McNamara, J.P., Siegel, D.I., Glaser, P.H., Nelson, D., Neuzil, S.G., Fredrick, B.C., and Struck, C.N., 1990, Ground-water discharge beneath raised bogs, Lake Agassiz Peatlands, Minnesota: Part I: Hydraulic Evidence: EOS, Transactions of the American Geophysical Union, v. 71, no. 43, p. 1299.
3140. Romanowicz, E.A., Neuzil, S.G., and Siegel, D.I., 1991, Hydrogeology and geochemistry of a

- modern coal swamp, Bengkalis Island, Sumatra: Twelfth Annual Meeting of the Society of Wetland Scientists, p. 47. (ABSTRACT, BENGKALIS ISLAND, COAL, GEOCHEMISTRY, INDONESIA, INTERNATIONAL, SUMATRA)
2471. Rountree, R., Chovanec, W., Powell, P., and Tewalt, S.J., 1987, Evaluation-Conquista Mill Tailings Pond Groundwater Monitoring System: Railroad Commission of Texas, Surface Mining and Reclamation Division Open-File Report. (GROUND-WATER, MINING, OPEN-FILE, TAILINGS, TEXAS)
987. Rowan, L.C., Salisbury, J.W., Kingston, M.J., Vergo, N., and Bostick, N.H., 1991, Evaluation of visible and near-infrared and thermal-infrared reflectance spectra for studying thermal alteration of Pierre Shale, Wolcott, Colorado: Journal of Geophysical Research, v. 96, no. B11, p. 18, 047-18, 057. (COLORADO)
4059. Rubin, P.I., and Robbins, E.I., 1992, What's Under Your Feet?: U.S. Geological Survey, 44 p. (GEOLOGY, OUTREACH, TEACHING)
514. Ruppert, L., Finkelman, R.B., Boti, E., Milosavljevic, M., Kaluderovic, M., and Kolinovic, R., 1991, Significance of Ni- and Cr-rich minerals in the Kosovo lignite, Yugoslavia: Geological Society of America Abstracts with Programs, v. 23, p. A144. (ABSTRACT, CHROMIUM, COAL, INTERNATIONAL, KOSOVO LIGNITE, LIGNITE, MINERALS, NICKEL, YUGOSLAVIA)
3868. Ruppert, L., Finkelman, R.B., Boti, E., Milosavljevic, M., Tewalt, S.J., Simon, N., and Dulong, F., in press, Origin and significance of high nickel and chromium concentrations in Pliocene lignite of the Kosovo Basin Lignite: International Journal of Coal Geology, 41 manuscript pages. (CHROMIUM, COAL, GEOCHEMISTRY, INTERNATIONAL, KOSOVO BASIN, LIGNITE, NICKEL, PLIOCENE, TERTIARY, YUGOSLAVIA)
3879. Ruppert, L., Finkelman, R.B., Tewalt, S.J., Simon, N., Dulong, F., Boti, E., and Milosavljevic, M., 1992, Combustion of Ni- and Cr-rich lignites, Kosovo Basin, Yugoslavia: Potential environmental impact, in Coal, Energy, and Environment: Abstracts of the meeting held in Ostrava, Malenovice, Czechoslovakia, p. 6-7. (ABSTRACT, CHROMIUM, COAL, COMBUSTION, ENVIRONMENTAL GEOLOGY, INTERNATIONAL, KOSOVO BASIN, LIGNITE, NICKEL, YUGOSLAVIA)
4189. Ruppert, L.F., 1987, A review: Applications of cathodoluminescence of quartz and feldspar to sedimentary systems: Scanning Electron Microscopy, 1987: I, p. 63-72. (FELDSPAR, METHODS, QUARTZ, REVIEW, SEDIMENTARY ENVIRONMENTS)
2087. Ruppert, L.F., Cecil, C.B., and Stanton, R.W., 1986, Cathodoluminescent properties of quartz in coal, a method for determining variation in coal quality, in Garbini, S., and Schweinfurth, S. A., eds., Symposium Proceedings, A National Agenda for Coal Quality Research, April 9-11, 1985: U.S. Geological Survey Circular 979, p. 249. (CATHODOLUMINESCENCE, COAL, COAL-QUALITY, QUARTZ)
2102. Ruppert, L.F., Cecil, C.B., and Stanton, R.W., 1987, Sources of quartz in Upper Freeport coal: Geological Society of America Abstracts with Programs, v. 19, no. 7, p. 827. (COAL)

2026. Ruppert, L.F., Cecil, C.B., Stanton, R.W., and Christian, R.P., 1985, Authigenic Quartz in the Upper Freeport coal bed, west-central Pennsylvania: *Journal of Sedimentary Petrology*, v. 55, p. 334-339. (AUTHIGENIC, COAL, FREEPORT COAL BED, PENNSYLVANIA, PETROLOGY, QUARTZ)
4008. Ruppert, L.F., Hower, J.C., and Eble, C.F., 1994, Arsenic-bearing pyrite and marcasite in the Fire Clay coal bed, middle Pennsylvanian Breathitt Formation, eastern Kentucky: *Geological Society of America Abstracts with Programs*. (ARSENIC, BREATHITT FORMATION, COAL, FIRE CLAY COAL BED, GEOCHEMISTRY, KENTUCKY, MARCASITE, PENNSYLVANIAN, PYRITE)
4190. Ruppert, L.F., Minkin, J.A., McGee, J.J., and Cecil, C.B., 1989, Arsenic-bearing cell wall replacement of pyrite in the Upper Freeport coal bed, west-central Pennsylvania: *American Association of Petroleum Geologists Abstracts with Programs*, v. 73, p. 1038. (ABSTRACT, ARSENIC, COAL, PENNSYLVANIA, PYRITE, UPPER FREEPORT COAL BED)
3748. Ruppert, L.F., Minkin, J.A., McGee, J.J., and Cecil, C.B., 1992, An unusual occurrence of arsenic-bearing pyrite in the Upper Freeport coal bed, west-central Pennsylvania: *Energy and Fuels*, v. 6, p. 120-125. (ARSENIC, COAL, FREEPORT COAL BED, PENNSYLVANIA, PYRITE)
3755. Ruppert, L.F., and Moore, T.A., 1991, Preserved tonsteins in the Eocene Senakin coal bed, Tanjung Formation, Indonesia: *Proceedings, Eighth Annual Meeting of the Society for Organic Petrology Annual Meeting*, v. 7. (EOCENE, EOCENE SENAKIN COAL BED, INDONESIA, TANJUNG FORMATION, TERTIARY, TONSTEIN)
3750. Ruppert, L.F., and Moore, T.A., 1993, Differentiation of volcanic ash-fall and water-borne detrital layers in the Eocene Senakin coal bed, Tanjung Formation, Indonesia: *Organic Geochemistry*, v. 20, p. 233-247. (ASH, EOCENE, INDONESIA, TANJUNG FORMATION, TERTIARY, VOLCANIC-ASH)
3717. Ruppert, L.F., Neuzil, S.G., Cecil, C.B., and Kane, J.S., 1993, Inorganic constituents from samples of a domed and lacustrine peat, Sumatra, Indonesia, in Cobb, J.C., and Cecil, C.B., eds., *Modern and Ancient Coal-Forming Environments: Geological Society of America Special Paper 286*, p. 83-96. (COAL, DOMED PEAT, GEOCHEMISTRY, INDONESIA, INTERNATIONAL, LACUSTRINE, MINERAL MATTER, MODEL, PEAT, SUMATRA)
2111. Ruppert, L.F., and Stanton, R.W., 1989, Quartz concentrates from low temperature ash of coal: *American Association of Petroleum Geologists Bulletin*, v. 73, no. 8, p. 1033-1039. (ASH, COAL)
285. Ruppert, L.F., Stanton, R.W., Cecil, C.B., Eble, C.F., and Dulong, F.T., 1991, Effects of detrital influx in Pennsylvanian Upper Freeport peat swamp: *International Journal of Coal Geology*, v. 17, p. 95-116. (PALEOENVIRONMENT, PEAT, PENNSYLVANIAN, SEDIMENTATION, SWAMPS, UPPER FREEPORT COAL BED)
3760. Ruppert, L.F., and Warwick, P.D., 1994, Tonsteins and clay-rich layers in coal-bearing intervals of the Eocene Gibbons Creek Member, Manning Formation, east-central Texas: *Gulf Coast Association of Geological Societies and the Gulf Coast Section of the Society for Sedimentary*

- Geology, p. 1. (CLAY-RICH LAYERS, COAL-BEARING INTERVAL, EOCENE, MANNING FORMATION, TERTIARY, TEXAS, TONSTEIN)
3956. Ruppert, L.F., and Warwick, P.D., 1994, Volcanic ashfall material in the Chemard Lake Lignite, Naborton Formation, Desoto and Red River Parishes, Louisiana: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 90. (ABSTRACT, CHEMARD LAKE LIGNITE, COAL, DESOTO PARISH, LIGNITE, LOUISIANA, NABORTON FORMATION, RED RIVER PARISH, VOLCANIC-ASH)
3830. Ruppert, L.F., Warwick, P.D., Crowley, S.S., and Pontilillo, J., 1994, Tonsteins and clay-rich layers in coal-bearing intervals of the Eocene Manning Formation, east-central Texas: 1994 Annual Meeting of the Gulf Coast Association of Geological Societies and the Gulf Coast Section of the Society for Sedimentary Geology, (SEPM), p. 649-656. (CLAY, COAL, EOCENE, GULF COAST, MANNING FORMATION, SEDIMENTOLOGY, TERTIARY, TEXAS, TONSTEIN)
3135. Ruppert, L.F., Neuzil, S.G., Cecil, C.B., and Kane, J.S., 1989, Inorganic constituents in a low-ash domed Sumatra peat: Geological Society of America, 1989 Annual Meeting, St. Louis, Missouri; Abstracts with Program, v. 21, no. 6, p. A51. (ASH, INDONESIA, INTERNATIONAL, PEAT)
1495. Ryder, R.T., Burruss, R.C., and Hatch, J.R., 1991, Geochemistry of selected oil and source rock samples from Cambrian and Ordovician strata, Ohio-West Virginia-Tennessee part of the Appalachian basin: U.S. Geological Survey Open-File Report 91-434, 71 p. (APPALACHIAN BASIN, CAMBRIAN, GEOCHEMISTRY, OHIO, OIL AND GAS, OPEN-FILE, ORDOVICIAN, TENNESSEE, WEST VIRGINIA)
1534. Ryder, R.T., Burruss, R.C., and Hatch, J.R., 1991, Geochemistry and origin of oil from Cambrian and Ordovician reservoirs in eastern and central Ohio: American Association of Petroleum Geologists Bulletin, v. 75, p. 1390. (CAMBRIAN, GAS, GEOCHEMISTRY, OHIO, OIL, OIL AND GAS, ORDOVICIAN, PETROLEUM, RESERVOIR ROCKS)
1536. Ryder, R.T., Burruss, R.C., and Hatch, J.R., 1992, Geochemistry and origin of oil from Cambrian and Ordovician reservoirs, Ohio: U.S. Geological Survey Circular 1074, p. 68-69; Eighth V.E. McKelvey Forum on Energy and Mineral Resources. (ABSTRACT, CAMBRIAN, GEOCHEMISTRY, OHIO, OIL AND GAS, ORDOVICIAN)
3209. Sable, E.G., and Dever, G.R., Jr., 1990, Mississippian rocks in Kentucky: U.S. Geological Survey Professional Paper 1503, Prepared in cooperation with the Kentucky Geological Survey, 125 p. (KENTUCKY, MISSISSIPPIAN)
1327. Sable, E.G., and Doelling, H.H., 1990, Geologic map of the Elephant Butte Quadrangle, Kane County, Utah and Mohave County, Arizona: Utah Geological and Mineralogical Survey Map, 10 p. (ARIZONA, GEOLOGIC MAP, MAP, NORTHERN-ARIZONA, USA, UTAH)
1318. Sable, E.G., and Hereford, R., 1990, Preliminary geologic map of the Kanab 30- by 60-minute Quadrangle, Utah-Arizona: U.S. Geological Survey Open-File Report 90-542. (ARIZONA, GEOLOGIC MAP, INDEX-MAPS, MAP, NORTHWESTERN-ARIZONA, OPEN-FILE, USA, UTAH)

2167. Sable, E.G., and Stricker, G.D., 1987, Coal in the National Petroleum Reserve in Alaska NPRA: Framework geology and resources, in Tailleur, I.L. and Weimer, Paul., eds., Alaskan North Slope Geology, Volumes I and II: Society of Economic Paleontologists and Mineralogists Pacific Section, and the Alaskan Geological Society, v. 50, p. 195-216. (ALASKA, COAL, ENERGY RESOURCES, ENVIRONMENTAL GEOLOGY, GEOLOGY, NANUSHUK-GROUP, NORTH-SLOPE, OIL AND GAS, SAGAVANIRKTOK-FORMATION, SEDIMENTOLOGY, TOROK-FORMATION)
2327. Sable, E.G., Stricker, G.D., and Affolter, R.H., 1986, Nanushuk Group coal investigations - North Slope of Alaska, in Carter, L.M.H., ed., USGS research on energy resources--1986 Program and Abstracts: U.S. Geological Survey Circular 974, p. 59-60. (ABSTRACT, ALASKA, COAL, COAL RESOURCES, ENERGY RESOURCES, NANUSHUK-GROUP, NORTH-SLOPE)
3804. Salmon, G.L., Risatti, J.B., and Hatch, J.R., 1992, Geochemistry of oils and source rocks from the Ordovician (Champlainian) Galena Group (Trenton) in Illinois: American Association of Petroleum Geologists Bulletin, v. 76, p. 1284. (ABSTRACT, GALENA GROUP, GEOCHEMISTRY, ILLINOIS, OIL-SHALE, ORDOVICIAN, SOURCE ROCKS)
4107. Sanchez, J.D., Bartsch-Winkler, S., Tidball, R.R., and Clark, V.L., 1994, Bureau of Land Management Resource Study Areas, New Mexico: U.S. Geological Survey Open-File Report 94-269; VHS video, 8 minutes. (MINERAL-RESOURCES, MINERALS, NEW MEXICO, OPEN-FILE, VIDEO)
237. Sanchez, J.D., Bradbury, J.P., Bohor, B.F., and Coates, D.A., 1987, Diatoms and tonsteins as paleoenvironmental and paleodepositional indicators in a Miocene coal bed, Costa Rica: Palaios Special Issue, v. 2, p. 158-164. (COSTA RICA, DEPOSITIONAL ENVIRONMENT, DIATOMS, INTERNATIONAL, MIOCENE, PALEOENVIRONMENT, PALEOGEOGRAPHY, TERTIARY, TONSTEIN)
1980. Sanchez, J.D., and Brown, T.L., 1986, Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Trail Mountain and East Mountain areas, of the Wasatch Plateau coal field, Manti 30' x 60' quadrangle, Sanpete and Emery Counties, Utah: U.S. Geological Survey Coal Investigations Map C-94-C, 2 pl. (COAL, CRETACEOUS, STRATIGRAPHY)
1095. Sanchez, J.D., Coates, D.A., Bradbury, J.P., and Bohor, B.F., 1985, Diatoms in coal: Miocene Venado Formation, Limon Basin, Costa Rica: Geological Society of America Abstracts with Programs, v. 17, p. 706. (ABSTRACT, COAL, COSTA RICA, DIATOMS, INTERNATIONAL, LIMON BASIN, MIOCENE, TERTIARY, TONSTEIN, VENADO FORMATION)
1996. Sanchez, J.D., and Ellis, E.G., 1990, Stratigraphic framework, coal zone correlations, and depositional environment of the Upper Cretaceous Blackhawk Formation and Star Point Sandstone in the Candland Mountain and Wattis areas, Nephi 30' x 60' quadrangle, Wasatch Plateau Coal Field, Carbon County, Utah: U.S. Geological Survey Coal Investigations Map C-128-A, scale 1:100,000. (BLACKHAWK FORMATION, CARBON, CARBON COUNTY, COAL, COAL CORRELATIONS, COAL ZONES, CORRELATION, CRETACEOUS, DEPOSITIONAL ENVIRONMENT, MAP, PALEOENVIRONMENT, STAR POINT SANDSTONE, STRATIGRAPHY, UTAH, WASATCH PLATEAU COAL FIELD)

1994. Sanchez, J.D., 1990, Graphics processing, video digitizing and presentation of geologic information: *Geobyte*, February 1990, p. 64-73.
1997. Sanchez, J.D., 1990, Stratigraphic framework, coal zone correlations and depositional environments of the Upper Cretaceous Blackhawk Formation and Star Point Sandstone, Scofield and Beaver Creek areas, Wasatch Plateau, Utah: U.S. Geological Survey Coal Investigation Map C-128-B, 2 pl. (COAL, CRETACEOUS, STRATIGRAPHY)
2263. Sanchez, J.D., and Brown, T.L., 1987, Stratigraphic framework and coal resources of the Upper Cretaceous Blackhawk Formation in the Ferron canyon and The Cap areas of the Wasatch Plateau coal field, Manti 30' x 60' quadrangle, Emery County, Utah: U.S. Geological Survey Coal Investigation Map C-94-B, 2 pl. (COAL, CRETACEOUS, STRATIGRAPHY)
1990. Sanchez, J.D., and McCabe, P.J., 1988, Tidal channel deposits in the Upper Cretaceous of the Northern Kaiparowits Plateau, Utah: *American Association of Petroleum Geologists Bulletin*, v. 72, p. 243. (CRETACEOUS)
3437. Sandberg, D.T., 1986, Correlation of coal beds in the Fruitland Formation as interpreted from geophysical logs, east-central San Juan County, New Mexico: U.S. Geological Survey Miscellaneous Field Studies Map MF-1848. (COAL, CORRELATION, FRUITLAND FORMATION, MAP, NEW MEXICO, SAN JUAN COUNTY)
3438. Sandberg, D.T., 1986, Isopach map of interval between top of the Pictured Cliffs Sandstone and the Huerfano Bentonite Bed of the Lewis Shale, La Plata County, Colorado, and Rio Arriba and San Juan counties, New Mexico: U.S. Geological Survey Miscellaneous Field Studies Map MF-1831. (BENTONITE, COLORADO, CRETACEOUS, LA PLATA COUNTY, LEWIS-SHALE, MAP, NEW MEXICO, PICTURED CLIFFS SANDSTONE, RIO ARRIBA COUNTY, SAN JUAN COUNTY)
3440. Sandberg, D.T., 1988, Coal resources and coal-bed geometry, Fruitland Formation, Southern Ute Indian Reservation, Archuleta and La Plata counties, Colorado, in Fassett, J.E., ed., *Geology and coal bed methane resources of the northern San Juan Basin, Colorado and New Mexico*: Rocky Mountain Association of Geologists, p. 39-50. (ARCHULETA COUNTY, COAL, COAL RESOURCES, COLORADO, FRUITLAND FORMATION, INDIAN, LA PLATA COUNTY, NEW MEXICO, SOUTHERN UTE INDIAN RESERVATION)
3436. Sandberg, D.T., 1988, Distribution of coal beds in the Fruitland Formation, Southern Ute Indian Reservation, Archuleta and La Plata counties, southwestern Colorado: U.S. Geological Survey Open-File Report 88-230, 3 p. (ARCHULETA COUNTY, COAL, COLORADO, FRUITLAND FORMATION, INDIAN, LA PLATA COUNTY, OPEN-FILE, SOUTHERN UTE INDIAN RESERVATION)
3923. SanFilipo, J.R., Chandio, A.H., Khan, S.A., Khan, R.A., and Oman, C.L., 1993, Results of standard coal quality analysis for COALREAP drilling from January 1988 to February 1989, JK-series boreholes, Jherruck area of the Sonda coal field, Sindh Province, Pakistan: U.S. Geological Survey Open-File Report 93-589, 165 p. (ANALYSES, COAL, COAL-QUALITY, DRILLING, INTERNATIONAL, JHERRUCK, JHERRUCK COAL AREA, OPEN-FILE, PAKISTAN, SINDH)

PROVINCE, SINDH PROVINCE, SONDA COAL FIELD)

3986. SanFilipo, J.R., Chandio, A.H., Khan, S.A., Khan, R.A., and Shah, A.A., 1994, Results of coal exploratory drilling from February 1992 to July 1992, Coal resource exploration and assessment program (COALREAP), Thar Desert, Lakhra south, Indus Plain and adjacent areas: U.S. Geological Survey Open-File Report 94-595, 94-596A-C, 582 p., 52 plates. (COALREAP, DRILLING, INDUS PLAIN, INTERNATIONAL, LAKHRA COAL FIELD, OPEN-FILE, PAKISTAN, THAR DESERT)
3947. SanFilipo, J.R., and Khan, R.A., 1994, The discovery of a blind coal field in the Thar Desert of Pakistan, with the help of some unconventional techniques, in Chiang, Shaio-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1148-1153. (ABSTRACT, COAL, COAL-FIELDS, INTERNATIONAL, PAKISTAN, THAR DESERT)
3985. SanFilipo, J.R., Khan, S.A., and Chandio, A.H., 1994, Coal resource assessment of the Jherruck area, Sonda coal field, Sindh Province, Pakistan: U.S. Geological Survey Open-File Report 93-523, 151 p., 19 plates. (COAL RESOURCES, INTERNATIONAL, JHERRUCK COAL AREA, OPEN-FILE, PAKISTAN, SINDH PROVINCE, SINDH PROVINCE, SONDA COAL FIELD)
3836. SanFilipo, J.R., and Warwick, P.D., in press, International coal related activities of the U.S. Geological Survey and their environmental applications, in 1995 Program and Abstracts, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular; 2 manuscript pages. (ABSTRACT, BANGLADESH, COSTA RICA, ENERGY RESOURCES, ENVIRONMENTAL GEOLOGY, GEOLOGY, INTERNATIONAL, MINERAL-RESOURCES, PAKISTAN)
2629. SanFilipo, J.R., Wnuk, C., Fariduddin, M., Ahmid, M., Khan, S.A., Rahman, M., Chandio, A.H., and Khan, R.A., 1992, Potential for the occurrence of thick lignite deposits in the Thar Desert and adjacent lower Indus Plain, Sindh Province, Pakistan: U.S. Geological Survey Open-File Report 92-576, 135 p. (COAL, INTERNATIONAL, LIGNITE, OPEN-FILE, PAKISTAN, SINDH PROVINCE, SINDH PROVINCE, THAR DESERT)
1859. Schachte, B.R., and Pierce, B.S., 1987, A microcomputer program utilizing a stratigraphic coding system for data entry into the National Coal Resources Data System: U.S. Geological Survey Open-File Report 87-605, 8 p. (COAL, COMPUTER, COMPUTER APPLICATIONS, NCRDS, OPEN-FILE, STRATIGRAPHY)
1857. Schachte, B.R., Pierce, B.S., and Johnson, M.F., 1986, TRIANGL: A ternary diagram program on the PRIME computer, U.S. Geological Survey V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Open File Report 86-627, 16 p.
4053. Schmidt, R.G., and Robbins, E.I., 1992, New evidence of an organic contribution to manganese precipitation in iron formation and review of the Cuyuna North range, Minnesota: Carena Supplement, (Dutch Soils Journal), v. 21, p. 24-45. (CUYUNA NORTH RANGE, IRON, MANGANESE, MINNESOTA, ORGANIC)

3064. Schweinfurth, S.P., 1986, An analysis of the proceeding of the symposium workshops, in Garbini, Susan and Schweinfurth, S.P., 1986, Symposium proceedings: a national agenda for coal-quality research: U.S. Geological Survey Circular 979, p. 187-198. (COAL, COAL-QUALITY)
2721. Schweinfurth, S.P., Bergin, M.J., Frederiksen, W.O., Hildebrand, R.T., Landis, E.R., Outerbridge, W.F., SanFilipo, J.F., Simon, F.O., Warwick, P.D., and Wnuk, C., 1988, Pakistan - a coal-geologists' paradigm, in Carter, L.M.H. ed., USGS Research on Energy Resources - 1988 Program and Abstracts, V.E. Mckelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1025, p. 58. (ABSTRACT, COAL, ENERGY RESOURCES, INTERNATIONAL, PAKISTAN)
3060. Schweinfurth, S.P., and Garbini, S., 1985, Research needs for coal quality: findings of a symposium on coal quality: Proceedings of the Second Annual International Pittsburgh Coal Conference, University of Pittsburgh and Pittsburgh Energy Technology Center, U.S. Department of Energy, p. 261-272. (ABSTRACT, COAL, COAL-QUALITY)
1766. Schweinfurth, S.P., SanFilipo, J.R., Landis, E.R., Khan, R.A., and Abbas, A.S., 1990, Coal resources of the Lakhra and Sonda coal fields, Southern Sind Province, Pakistan. A progress Report - Part I - Executive Summary: U.S. Geological Survey Open-File Report 90-59, 33 p. (COAL, COAL RESOURCES, COAL-FIELDS, INTERNATIONAL, LAKHRA COAL FIELD, LAKHRA FORMATION, OPEN-FILE, PAKISTAN, SINDH PROVINCE, SONDA COAL FIELD)
1277. Seeland, D., Flores, R.M., Johnson, E.A., and Pierce, F.W., 1988, Paleocurrents of the Tongue River Member of the Fort Union Formation and some paleogeographic inferences: Geological Society of America Field Trip Guidebook, Colorado School of Mines, p. 191-194. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
3615. Seeland, D., Hardie, J.K., Gibbons, A.B., Johnson, E.A., Biewick, L.R.H., McLellan, M.W., Molnia, C.L., and Pierce, F.W., 1993, Geophysical log signatures of Lower Tertiary and Upper Cretaceous rocks in the Powder River Basin, Wyoming and Montana: U.S. Geological Survey Oil and Gas Chart OC-140. (COAL, CRETACEOUS, ELECTRIC LOGS, GEOPHYSICAL LOGS, LOGS, MONTANA, POWDER RIVER BASIN, TERTIARY, WYOMING)
1300. Seeland, D.A., Flores, R.M., Johnson, E.A., and Pierce, F.W., 1989, Paleogeographic inferences of paleocurrents of the Tongue River Member, Fort Union Formation, Powder River, Ball Mountains, and southwestern Williston Basins, Montana and Wyoming: American Geophysical Union, 28th International Geological Congress Field Trip, p. 15-18. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
893. Seitz, R., and Bohor, B.F., 1988, Shocked quartz grains at the Cretaceous-Tertiary boundary: Not volcanic or atmospherically transported: *Naturwissenschaften*, v. 75, p. 307-308. (CRETACEOUS, K/T, SHOCKED QUARTZ, TERTIARY, VOLCANIC)
491. Senftle, F.E., Thorpe, A.N., Finkelman, R.B., Talley, R.T., and Heatherington, S.E., 1990, Entrainment of magnetite during beneficiation of coal using a magnetite slurry: *Coal Preparation*, v. 8, p. 195-203; (P). (BENEFICIATION, COAL, MAGNETITE, SLURRY)
692. Shanley, K.W., McCabe, P.J., and Hettinger, R.D., 1992, Tidal influence in Cretaceous fluvial

- strata from Utah, U.S.A.: a key to sequence stratigraphic interpretations: *Sedimentology*, v. 39, p. 905-930. (CRETACEOUS, FLUVIAL, KAIPAROWITS-PLATEAU, STRAIGHT CLIFFS FORMATION, STRATIGRAPHY, TIDAL DEPOSITS)
3957. Shearer, J.C., Moore, T.A., Orem, W.H., Lerch, H.E., Neuzil, S.G., and Cecil, C.B., 1994, Experimental coalification of Indonesian peat and buried wood: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 95-100. (ABSTRACT, COAL, COALIFICATION, INDONESIA, INTERNATIONAL, PEAT, WOOD)
699. Shinn, E.A., Lidz, B.A., and Holmes, C.W., 1991, High-energy carbonate sand accumulation: The quicksands, southwest Florida Keys-Reply: *Journal of Sedimentary Petrology*, v. 61, p. 861-862. (CARBONATES, FLORIDA, KEY WEST, QUICKSANDS, SEDIMENTATION)
3139. Siegel, D.I., McNamara, J.P., Romanowicz, E.A., Glaser, P.H., Nelson, D., Neuzil, S.G., Struck, C.N., and Fredrick, B.C., 1990, Ground-water discharge beneath raised bogs, Lake Agassiz Peatlands, Minnesota: Part II: Geochemical Evidence: EOS, Transactions of the American Geophysical Union, v. 71, no. 43, p. 1299. (GEOCHEMISTRY)
902. Sigleo, W.R., and Reinhardt, J., 1988, Paleosols from some Cretaceous environments in the southeastern United States, in Reinhardt, Juergen, and Sigleo, W.R., eds., Paleosols and weathering through geologic time; principles and applications: Geological Society of America Special Paper, Geological Society of America annual meeting, Orlando, FL, Oct. 29, 1985, v. 216, p. 123-142. (ALABAMA, CLAY, CLIMATE, CRETACEOUS, GEORGIA, GULF COAST, METAMORPHIC ROCKS, MISSISSIPPI-EMBAYMENT, NORTH-AMERICA, PALEOCLIMATE, PALEOSOLS, SOILS, STRATIGRAPHY, USA, WEATHERING)
1749. Simon, F.O., Khan, R.A., Landis, E.R., and Hildebrand, R.T., 1987, Chemical and physical characterization of mine samples from Lakhra coal field, South Sind, Pakistan: U.S. Geological Survey Open-File Report 87-662. (COAL, COAL ANALYSES, GEOCHEMISTRY, INTERNATIONAL, LAKHRA COAL FIELD, OPEN-FILE, PAKISTAN, SAMPLING, SINDH PROVINCE)
3264. Simon, F.O., Khan, R.A., Landis, E.R., and Hildebrand, R.T., 1987, Chemical and physical characterization of mine samples from Lakhra coal field, South Sind, Pakistan: U.S. Geological Survey Open-File Report, 97 p. (COAL, INTERNATIONAL, LAKHRA COAL FIELD, OPEN-FILE, PAKISTAN)
3100. Simoneit, B.R.T., Grimalt, J.O., Wang, T.G., Cox, R.E., Hatcher, P.G., and Nissenbaum, A., 1986, Cyclic terpenoids of contemporary resinous plant detritus and of fossil woods, ambers and coals, in Leythaeuser, D. and Rullkoetter, Juergen, eds., Advances in organic geochemistry 1985; Part II, Molecular and general organic geochemistry: Institute of Petrology and Organic Geochemistry, Julich, Germany, Organic Geochemistry, v. 10, p. 877-889; Twelfth international meeting on organic geochemistry, Julich, Sept. 16-20, 1985. (ASIA, COAL, FOSSIL-WOOD, GEOCHEMISTRY, HYDROCARBONS, ISRAEL, MIDDLE-EAST, ORGANIC, PHILIPPINES, RESINS, TERPENOID)
3705. Sites, R.S., Campbell, E.V.M., Hostettler, K.K., Gardner, N.K., and Tewalt, S.J., 1991, Restrictions to mining: Their effect on available coal resources, in Peters, Douglas, ed., *Geology in Coal*

- Resource Utilization: American Association of Petroleum Geologists, Proceedings volume.
(COAL, COAL RESOURCES, ENERGY RESOURCES, GEOLOGY, MINING)
1818. Smedes, H., M'Gonigle, J.W., and Prostka, H.J., 1989, Geologic map of the Two Ocean Peak quadrangle, Wyoming: U.S. Geological Survey Geologic Quadrangle Map GQ-1667.
(GEOLOGIC MAP, GEOLOGY, MAP, WYOMING)
1136. Smith, C.W., Samater, R.M., Hussain, M.A., Basheer, M.A., and Trent, V.A., 1985, Preliminary report on the gold deposits of the An Najadi-Wuday region, Samirah and Uglat As Suqur quadrangles, Kingdom of Saudi Arabia: U.S. Geological Survey Open-File Report 85-129, 29 p.
(ARABIAN-PENINSULA, ASIA, ECONOMIC GEOLOGY, GEOCHEMICAL-METHODS, GEOCHEMISTRY, GOLD, HAPS, MAP, METAL ORES, MINERAL-EXPLORATION, MINES, SAUDI ARABIA, TRACE ELEMENTS)
1148. Smith, C.W., Samater, R.M., Hussain, M.A., Basheer, M.A., and Trent, V.A., 1985, Preliminary report on the gold deposits at Al Habla, Kingdom of Saudi Arabia: U.S. Geological Survey Open-File Report 85-128, 46 p. (ECONOMIC GEOLOGY, GEOCHEMICAL-METHODS, GEOCHEMISTRY, GEOLOGIC MAP, GOLD, HAPS, IGNEOUS-PROCESSES, MAP, METAL ORES, MINERAL DEPOSITS, MINERAL-EXPLORATION, SAUDI ARABIA, TRACE ELEMENTS)
3663. Smith, K.S., Filipek, L.H., Updegraff, D.M., and Papp, C.S.E., 1985, Distribution of microorganisms and selected metals in mine drainage, stream water, and sediment, in U.S. Geological Survey Program on Toxic Waste--Ground-water contamination, Proceedings of the Second Technical Meeting, Cape Cod, Massachusetts: U.S. Geological Survey Open-File Report 86-481, p. D11-D15. (ENVIRONMENTAL GEOLOGY, GROUND-WATER, LEACHING, METAL ORES, MICROORGANISMS, MINE DRAINAGE, MINING, OPEN-FILE, TOXIC WASTE)
3745. Spears, D.A., and Lyons, P.C., 1993, Tonsteins in British Coal Measures--An update: European Coal Conference '93, Leicester University, September, 1993. (ABSTRACT, COAL, EUROPE, GEOCHEMISTRY, TONSTEIN)
180. Spiker, Comer, E.C., and Hatcher, P.G., 1991, Chemical and carbon isotopic composition of refractory components in leaves, a potential major source of terrestrial organic matter: Organic Geochemistry, 20 p. (CARBON, GEOCHEMISTRY)
2847. Spiker, E.C., 1985, Stable-isotope characterization of organic matter in the early Mesozoic basins of the eastern United States, Chapter 12, in Proceedings of the Second U.S. Geological Survey Workshop on the Early Mesozoic Basins of the Eastern United States: U.S. Geological Survey Circular 946, p. 70-73. (BASINS, MESOZOIC, ORGANIC MATTER)
2865. Spiker, E.C., 1991, Material-specific considerations affecting deposition, surface resistance. Section 2.4.1 in Deposition to structures: State of Science and Technology Report 19 of the National Acid Precipitation Assessment Program, 5 p. (ACID MINE DRAINAGE, ACID RAIN, DEPOSITION, GEOCHEMISTRY, TECHNOLOGY)
2457. Spiker, E.C., and Bates, A.L., 1991, Sulfur isotope geochemistry of sediments from Lake Baikal,

- southeastern Siberia: EOS, Transactions of the American Geophysical Union, Transactions, American Geophysical Union, abstract, v. 72, p. 307. (ABSTRACT, CLIMATE, GEOCHEMISTRY, INTERNATIONAL, ISOTOPE, LAKE BAIKAL, PALEOCLIMATE, SIBERIA, SULFUR)
2458. Spiker, E.C., and Bates, A.L., 1992, Sulfur isotope geochemistry of paleoclimate change in Lake Baikal, southeastern Siberia, in Proceedings of the U.S. Geological Survey Global Change Research Forum, March 18-20, 1991, Herndon, VA: U.S. Geological Survey Circular, v. 72, p. 307. (CLIMATE, GEOCHEMISTRY, ISOTOPE, LAKE BAIKAL, PALEOCLIMATE, SIBERIA, SULFUR)
2910. Spiker, E.C., and Bates, A.L., 1992, Sulfur and carbon isotope effects of Late Quaternary climate change in lake Baikal, Siberia: EOS, Transactions of the American Geophysical Union, v. 73. (ABSTRACT, CARBON, CLIMATE, GEOCHEMISTRY, LAKE BAIKAL, PALEOCLIMATE, QUATERNARY, SIBERIA, SULFUR)
2912. Spiker, E.C., and Bates, A.L., 1993, Sulfur isotopic evidence for controls on sulfur incorporation in peat and coal: American Association of Petroleum Geologists Abstracts with Programs; Eastern Section, Williamsburg, VA, September, 1993. (ABSTRACT, COAL, GEOCHEMISTRY, PEAT, SULFUR)
3700. Spiker, E.C., and Bates, A.L., 1993, Sulfur isotope effects of Late Quaternary climate change in Lake Baikal: Geologiya Geofizika, v. 34, p. 102-107. (CLIMATE, GEOCHEMISTRY, LAKE BAIKAL, PALEOCLIMATE, QUATERNARY, SIBERIA, SULFUR)
523. Spiker, E.C., Bates, A.L., Hatcher, P.G., Comer, V.J., and Stout, S.A., 1991, Sulfur and carbon isotope geochemistry of sapropel and peat from Mud Lake, Florida; in Rimmer, S.M. and Hower, J.C., eds: Society for Economic Petrology, v. 8, p. 2; Eighth annual meeting, Lexington, KY, Sept. 30-Oct. 1, 1991. (ABSTRACT, CARBON, FLORIDA, GEOCHEMISTRY, ORGANIC, PEAT, SEDIMENTARY-PETROLOGY, SEDIMENTOLOGY, SULFUR, USA)
2911. Spiker, E.C., Bates, A.L., Weintraub, V.C., Hatcher, P.G., and Stout, S.A., 1993, Early diagenesis of sapropel and peat from Mud Lake, Florida, Carbon and sulfur isotope geochemistry: American Association of Petroleum Geologists Abstracts with Programs, Annual convention in New Orleans, April, 1993. (ABSTRACT, CARBON, COAL, DIAGENESIS, FLORIDA, GEOCHEMISTRY, MUD LAKE, PEAT, SAPROPEL, SULFUR)
2403. Spiker, E.C., Finkelman, R.B., Bates, A.L., Hatch, J.R., and Harvey, R.D., 1991, Sulfur geochemistry of a sphalerite-bearing Illinois basin coal: U.S. Geological Survey Illinois Basin Consortium Meeting, St. Louis, MO, Jan. 22-23, 1992. (COAL, GEOCHEMISTRY, PENNSYLVANIA, SULFUR)
1537. Spiker, E.C., Finkelman, R.B., Bates, A.L., Hatch, J.R., and Harvey, R.D., 1992, Sulfur geochemistry of a sphalerite-bearing Illinois basin coal, in Goldhaber, M.B., and Eidel, J.J., eds., Mineral Resources of the Illinois basin in the Context of Basin Evolution: U.S. Geological Survey Open-File Report 92-1, p. 60-61. (COAL, GEOCHEMISTRY, ILLINOIS BASIN, OPEN-FILE, SULFUR)

2909. Spiker, E.C., Finkelman, R.B., Bates, A.L., and Shaw, R.D., 1992, The occurrence and isotopic composition of pyrite in the Minto coal bed, New Brunswick, Canada: Geological Association of Canada Abstracts, Annual Meeting in Nova Scotia, Canada, May, 1992, v. 17, p. 103. (CANADA, COAL, GEOCHEMISTRY, INTERNATIONAL, ISOTOPE, MINTO COAL BED, NEW BRUNSWICK, PYRITE, SULFUR)
2903. Spiker, E.C., and Hatcher, P.C., 1987, Origin of organic matter associated with sediment hosted disseminated gold mineralization of Nevada: Society Mining Engineers of American Institute of Mining Engineers, Spring Meeting, Denver, Colorado, invited paper. (ABSTRACT, GOLD, MINERALS, MINING, NEVADA, ORGANIC MATTER, SEDIMENTS)
2905. Spiker, E.C., Hatcher, P.C., and Comer, V.J., 1988, Depletion of ^{13}C in sedimentary organic matter by selective preservation: Chemical Congress of North America, Abstracts of Papers, in Third Chemical Congress of North America, book of abstracts. (ABSTRACT, ORGANIC, ORGANIC GEOCHEMISTRY, ORGANIC MATTER)
2856. Spiker, E.C., and Hatcher, P.G., 1987, Carbon isotope fractionation and chemical composition of buried wood: *Geochimica et Cosmochimica Acta*, v. 51, p. 1385-1391. (CARBON, GEOCHEMISTRY, ISOTOPE, ORGANIC, ORGANIC GEOCHEMISTRY, WOOD)
172. Spiker, E.C., Hatcher, P.G., and Comer, V.J., 1988, Chemical and carbon isotopic changes in organic matter during early diagenesis: V.M. Goldschmidt Conference Program and Abstracts, Baltimore, May 1988. (ABSTRACT, CARBON, DIAGENESIS, GEOCHEMISTRY, ISOTOPE, ORGANIC, ORGANIC GEOCHEMISTRY, ORGANIC MATTER)
174. Spiker, E.C., Hatcher, P.G., and Comer, V.J., 1990, Selective preservation of organic matter in Salt Marsh Sediment: American Chemical Society, invited paper presented at the "Biogeochemical Processes in Estuaries" symposium, Boston. (ORGANIC GEOCHEMISTRY, ORGANIC MATTER, SALT MARSH)
181. Spiker, E.C., Hatcher, P.G., and Comer, V.J., 1991, Selective preservation of organic matter during early diagenesis: *Organic Geochemistry*, 31 p. (DIAGENESIS, GEOCHEMISTRY, ORGANIC)
175. Spiker, E.C., Hatcher, P.G., Comer, V.J., Bates, A.L., and Stout, S.A., 1990, Diagenesis of organic matter and sulfur in sapropel and peat from Mud Lake, Florida, U.S. Geological Survey Research on Energy and Resources - 1990, Sixth V.E. McKelvey forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1060, p. 77-78. (ABSTRACT, COAL, DIAGENESIS, FLORIDA, GEOCHEMISTRY, MUD LAKE, ORGANIC GEOCHEMISTRY, ORGANIC MATTER, PEAT, SAPROPEL, SULFUR)
3097. Spiker, E.C., Hatcher, P.G., and Orem, W.H., 1985, Stable isotope effects of selective preservation during early diagenesis, in Proceedings of the Eighth Biennial International Estuarine Research Conference: *Estuaries*, v. 8, p. 90A. (ABSTRACT, CARBON, DIAGENESIS, ESTUARY, FACIES, ISOTOPE, ORGANIC, STABLE-ISOTOPES)
2902. Spiker, E.C., Hatcher, P.G., and Orem, W.H., 1986, Loss of ^{13}C -enriched labile organic matter during early diagenesis: American Chemical Society. (ABSTRACT, DIAGENESIS, GEOCHEMISTRY, ORGANIC GEOCHEMISTRY, ORGANIC MATTER)

2864. Spiker, E.C., and Hosker, R.P., 1990, Dry Deposition to Marble and Limestone Surfaces, Section 3.4.4.1 in Effects of acidic deposition on materials: State of Science and Technology Report 19 of the National Acid Precipitation Assessment Program, p. 146-149. (ACID RAIN, ENVIRONMENTAL STUDY, EROSION, GEOCHEMISTRY, LIMESTONE, MARBLE)
179. Spiker, E.C., Hosker, R.P., Comer, V.J., and Sherwood, S.I., 1991, Dry deposition of SO² on limestone and marble, Role of humidity and surface moisture: 7th International Congress on Deterioration and Conservation of Stone, Lisbon, Portugal, June 1992. (ACID RAIN, DETERIORATION, EROSION, LIMESTONE, MARBLE, WEATHERING)
2869. Spiker, E.C., Hosker, R.P., Comer, V.J., and Sherwood, S.I., 1992, Dry deposition of SO₂ on limestone and marble: Role of humidity and surface moisture: Proceedings of the 7th International Congress on Deterioration and Conservation of Stone, Lisbon, Portugal, June 1992, p. 397-406. (AIR POLLUTANTS, AIR POLLUTION, BUILDING MATERIALS, DETERIORATION, EROSION, GEOCHEMISTRY, LIMESTONE, MARBLE)
176. Spiker, E.C., Hosker, R.P., Sherwood, S.I., and Comer, V.J., 1990, Chamber study of SO² deposition to stone: Proceedings of the International Conference on Acidic Deposition, Glasgow, Scotland, September 1990, p. 483. (ACID RAIN, GEOCHEMISTRY)
2861. Spiker, E.C., Hosker, R.P., Werrer, R.W., Jr., White, J.R., Harmon, F.L., and Gandy, G.D., 1989, Environmental chamber for study of the deposition flux of gaseous pollutants to material surfaces: U.S. Geological Survey Open-File Report 89-296, 13 p. (ACID ROCK DRAINAGE, AIR POLLUTANTS, AIR TOXICS, ENVIRONMENTAL GEOLOGY, GAS, GEOCHEMISTRY, HAPS, MINERALS, OPEN-FILE, POLLUTANTS)
647. Spiker, E.C., Kotra, R.K., Hatcher, P.G., Gottfried, R.M., Horan, M.F., and Olsen, P.E., 1988, Source of kerogen in black shales from the Hartford and Newark basins, Eastern United States; in Froelich, A.J., and Robinson, G.R., Jr., eds., Studies of the early Mesozoic basins of the Eastern United States: U.S. Geological Survey Bulletin 1776, p. 63-68. (CARBON, CLASTIC ROCKS, CONNECTICUT, GEOCHEMISTRY, HARTFORD BASIN, KEROGEN, MESOZOIC, NEW-ENGLAND, NEW-JERSEY, NEWARK-BASIN, ORGANIC, PENNSYLVANIA, SEDIMENTARY ROCKS, USA)
2896. Spiker, E.C., Orem, W.H., and Callender, E., 1985, The stable isotope composition of methane in surficial sediments of the Potomac River Estuary: Estuaries, v. 8, p. 103A. (ABSTRACT, ENERGY-SOURCES, ESTUARY, FACIES, GAS, GEOCHEMISTRY, METHANE, POTOMAC RIVER, SEDIMENTS)
3699. Spiker, E.C., Pierce, B.P., Bates, A.L., and Stanton, R.W., 1994, Isotopic evidence for the source of sulfur in the Upper Freeport coal bed, west-central Pennsylvania: Chemical Geology, v. 114, p. 115-130. (COAL, GEOCHEMISTRY, PENNSYLVANIA, SULFUR, UPPER FREEPORT COAL BED)
2862. Spiker, E.C., Weintraub, V.C., and Hatcher, P.G., 1993, Aliphatic biomacromolecules in soils and sediments: A potentially important sink for anthropogenic CO₂: American Geophysical Union Transactions, EOS, v. 74, p. 162. (ABSTRACT, COAL, GEOCHEMISTRY, SOILS)

2868. Spiker E.C., Hosker, R.P., Comer, V.J., Werre, R.W., White, J.R., Harmon, F.L., Gandy, G.D., and Sherwood, S.I., 1992, An environmental chamber for study of the deposition flux of gaseous pollutants to material surfaces: *Atmospheric Environment*, v. 26 A, p. 2885-2892. (AIR POLLUTANTS, DEPOSITION, ENVIRONMENTAL GEOLOGY, EROSION, GAS, GEOCHEMISTRY, POLLUTANTS)
1292. Stanley, R.G., Flores, R.M., and Wiley, T.J., 1989, Contrasting depositional styles in Tertiary fluvial deposits of the Nenana coal field, central Alaska: *American Association of Petroleum Geologists Bulletin*, p. 415. (ABSTRACT, ALASKA, COAL, TERTIARY)
617. Stanley, R.G., Flores, R.M., and Wiley, T.J., 1992, Fluvial facies architecture in the Tertiary Usibelli Group of Suntrana, central Alaska, in Bradley, D. and Ford, A., eds., *Geologic Studies in Alaska by the U.S. Geological Survey, 1990: U.S. Geological Survey Bulletin*, 1999, p. 204-211. (ALASKA, FACIES, FLUVIAL, SEDIMENTOLOGY, SUNTRANA, TERTIARY, USIBELLI GROUP)
2028. Stanton, R.W., 1986, Channel and core sampling, purposes, methods, and value, Panel Discussion on Manual Sampling: *Proceedings of the Fifth International Coal Testing Conference*, Feb. 11-13, 1986, Lexington, KY, p. 63-68. (ABSTRACT, CHANNELS, COAL ANALYSES, CORES, DRILL CORE, DRILLING, FACIES, SAMPLE-PREPARATION, SAMPLING)
2037. Stanton, R.W., 1989, Sampling of coal beds for analysis, in Golightly, D.W and Simon, F.O., ed., *Methods for Sampling and Inorganic Analysis of Coal: U.S. Geological Survey Bulletin*, 1823, p. 7-14. (COAL)
2046. Stanton, R.W., 1990, Why standards?: *Society of Organic Petrology Newsletter*, v. 7, p. 6-7; October 1990.
3962. Stanton, R.W., 1994, Preface, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., *Organics and the Rockies Field Guide: Wyoming Geological Survey Public Information Circular*, p. iii; (P). (BASINS, COAL, FIELD GUIDE, ROCKY MOUNTAIN REGION)
2085. Stanton, R.W., Cecil, C.B., Martino, F., and Kilgroe, J.D., 1986, Physical and chemical variables related to coal washability, Upper Freeport coal bed facies, in Garbini, S., and Schweinfurth, S. A., eds., *Symposium Proceedings, A National Agenda for Coal Quality Research*, April 9-11, 1985: *U.S. Geological Survey Circular* 979, p. 255. (ABSTRACT, CHEMISTRY, COAL, COAL-QUALITY, FREEPORT COAL BED, GEOCHEMISTRY, PENNSYLVANIA, WASHABILITY)
2089. Stanton, R.W., Cecil, C.B., Pierce, B.S., Ruppert, L.F., and Dulong, F.T., 1985, Geologic processes affecting the quality of the Upper Freeport coal bed, west-central Pennsylvania: *Pittsburgh Coal Conference Proceedings*, September 16-19, 1985, p. 313. (ABSTRACT, COAL, COAL-QUALITY, FREEPORT COAL BED, GEOLOGY, PENNSYLVANIA)
1856. Stanton, R.W., Cecil, C.B., Pierce, B.S., Ruppert, L.F., and Dulong, F.T., 1986, Geologic processes affecting the quality of the Upper Freeport coal bed, west-central Pennsylvania: *U.S. Geological Survey Open-File Report* 88-173, 22 p. (COAL, COAL RANK, COAL-QUALITY, COALIFICATION, FREEPORT COAL BED, OPEN-FILE, PENNSYLVANIA, UPPER

FREEPORT COAL BED)

1860. Stanton, R.W., Cecil, C.B., Warwick, P.W., and Pierce, B.S., 1988, Coal quality and the origins of coals, in National Energy Resource Issues: Geologic Perspective and the Role of Geologic Information: U.S. Geological Survey Bulletin 1850, p. 38-41. (COAL, COAL-QUALITY)
3872. Stanton, R.W., and Finkelman, R.B., in press, Coal quality: Encyclopedia of Energy Technology and the Environment, Wiley-InterScience, 31 p. (COAL, COAL ANALYSES, COAL-QUALITY, GEOCHEMISTRY)
2030. Stanton, R.W., Minkin, J.A., and Moore, T.A., 1987, Petrographic and physical properties of coal and rock samples, in Roehler, H. W., ed., Geological investigations of the Vermillion Creek coal bed in the Eocene Niland Tongue of the Wasatch Formation, Sweetwater County, Wyoming: U.S. Geological Survey Professional Paper 1314-F, p. 105-120. (COAL, EOCENE, TERTIARY)
225. Stanton, R.W., Moore, R.A., Warwick, P.D., and Crowley, S.S., 1989, Facies development in selected coal beds of the Powder River Basin, U.S.A: International Geological Congress, Abstracts with Programs, v. 3, p. 170-171; 28th International Geological Congress. (ABSTRACT, COAL, FACIES, PALEOCENE, POWDER RIVER BASIN, TERTIARY)
2055. Stanton, R.W., and Moore, T.A., 1991, Types of vitrinite macerals I, The necessity for etching: The Society of Organic Petrology Newsletter, v. 8, p. 8-11. (MACERALS, VITRINITE)
2121. Stanton, R.W., and Moore, T.A., 1991, Coal petrographic classification and the benefits of etching: Proceedings of the 8th Annual Meeting of the Society for Organic Petrology, September 40-October 1, 1991, Lex. Ky, p. 19. (CLASSIFICATION, COAL, PETROLOGY)
2035. Stanton, R.W., Moore, T.A., Warwick, P.D., Crowley, S.S., and Flores, R.M., 1988, Styles of organic facies development in selected coal beds of the Powder River Basin- a petrographic evaluation, in Holden, G.S. and Flores, R.M., eds: Geological Society of America Field Trip Guidebook, p. 195-204. (COAL, FACIES, MONTANA, ORGANIC, PETROGRAPHY, POWDER RIVER BASIN, WYOMING)
2039. Stanton, R.W., Moore, T.A., Warwick, P.D., Crowley, S.S., and Flores, R.M., 1989, Facies formation in selected coal bed of the Powder River Basin, in Flores, R.M., Warwick, P.D., and Moore, T.A., eds., Tertiary and Cretaceous Coals in the Rocky Mountains Region: 28th International Geological Congress Field Trip Guidebook, American Geophysical Union, p. 19-27. (COAL, FACIES, MONTANA, POWDER RIVER BASIN, TERTIARY, WYOMING)
1868. Stanton, R.W., and Pierce, B.S., 1991, Slide set describing aspects of the origin of coal, coal mining, and peat formation: U.S. Geological Survey Open-File Report 91-390. (COAL, OPEN-FILE, PEAT)
1869. Stanton, R.W., Pierce, B.S., Cecil, C.B., and Martino, F., 1985, Washability characteristics of facies of the Upper Freeport coal bed, Homer City, Pennsylvania area: American Association of Petroleum Geologists Bulletin, v. 69, p. 1448. (ABSTRACT, COAL, FACIES, FREEPORT COAL BED, HOMER CITY, PENNSYLVANIA, WASHABILITY)

2086. Stanton, R.W., Pierce, B.S., Cecil, C.B., and Martino, F., 1986, Quality and extent of facies within the Upper Freeport coal bed, west-central Pennsylvania, in Garbini, S., and Schweinfurth, S. A., eds., Symposium Proceedings, A National Agenda for Coal Quality Research, April 9-11, 1985: U.S. Geological Survey Circular 979, p. 256. (COAL, COAL-QUALITY, FACIES, FREEPORT COAL BED, PENNSYLVANIA)
2083. Stanton, R.W., Pierce, B.S., Moore, T.A., and Cecil, C.B., 1985, Composition and origin of facies of the Upper Freeport coal bed: Geological Society of America Abstracts with Programs, p. 746. (ABSTRACT, COAL, COAL ANALYSES, COAL-QUALITY, FACIES, FREEPORT COAL BED, PENNSYLVANIA)
2027. Stanton, R.W., Pierce, B.S., Moore, T.A., and Ruppert, L.F., 1985, Description and correlation of coal bed facies, Lower Freeport coal bed, west-central Pennsylvania: U.S. Geological Survey Open-File Report 85-393, 54 p. (COAL, COAL CORRELATIONS, CORRELATION, FACIES, FREEPORT COAL BED, LOWER FREEPORT COAL BED, OPEN-FILE, PENNSYLVANIA)
660. Stanton, R.W., Rice, D.D., Clayton, J., and Flores, R.M., 1992, Matrix-gel vitrinite types and Rock-Eval analysis of coal samples, Cretaceous age, from the San Juan and Piceance Basins, U.S.A: Society for Organic Petrology Abstracts and Programs, p. 57-58. (ABSTRACT, COAL, COLORADO, CRETACEOUS, NEW MEXICO, PICEANCE BASIN, SAN JUAN BASIN, VITRINITE)
2115. Stanton, R.W., Warwick, P.D., and Crowley, S.S., 1989, Low temperature carbonization yields of facies of the Wyodak-Anderson coal bed, Powder River Basin, Wyoming: Proceedings of the Society for Organic Petrology Annual Meeting, v. 6, p. 13-15. (CARBON, COAL, FACIES, POWDER RIVER BASIN, TERTIARY, WYODAK COAL, WYODAK-ANDERSON COAL BED, WYOMING)
2118. Stanton, R.W., Warwick, P.D., and Crowley, S.S., 1990, Liquefaction potential of facies of the Wyodak-Anderson coal bed, Powder River Basin, in Carter, L.M.H., 1990, ed., McKelvey Forum, U.S. Geological Survey Research on Energy Resources 1990: U.S. Geological Survey Circular 1060, p. 79-80. (ABSTRACT, ANDERSON COAL BED, COAL, FACIES, LIQUIFACTION, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYODAK COAL BED)
2164. Stricker, G.D., 1985, Coal and Peat, in 1985 Annual Report on Alaska's Mineral Resources: U.S. Geological Survey Circular 970, p. 21-23. (ALASKA, COAL, COALIFICATION, ENERGY RESOURCES, MINERAL-RESOURCES, PEAT)
2169. Stricker, G.D., 1987, Coal and Peat, in 1986 Annual Report on Alaska's Mineral Resources: U.S. Geological Survey Circular 983, p. 18-21. (COAL, PEAT)
2177. Stricker, G.D., 1987, Coal and peat, in 1987 Annual report on Alaska's mineral resources: U.S. Geological Survey Circular 1012, p. 24-27. (COAL, PEAT)
2179. Stricker, G.D., 1988, Coal and peat, in 1988 Annual report on Alaska's mineral resources: U.S. Geological Survey Circular 1023, p. 23-26. (COAL, PEAT)
2186. Stricker, G.D., 1990, Economic Alaskan coal deposits, in Gluskoter, H.R., Rice, D.D., and Taylor,

- R.B., eds., *Economic Geology*: Geological Society of America, *Geology of North America*, v. P-2, p. 591-602. (COAL)
2189. Stricker, G.D., 1990, Coal and peat, in 1989 Annual report on Alaska's mineral resources: U.S. Geological Survey Circular 1040, p. 30-32. (COAL, PEAT)
2346. Stricker, G.D., 1990, Is there a future for 4.0 trillion tons of low sulfur Alaskan coal?, in Carter, L.M.H., ed., *USGS Research on energy resources--1990*: U.S. Geological Survey Circular 1060, p. 79-80. (ABSTRACT, ALASKA, COAL, GEOCHEMISTRY, SULFUR)
2350. Stricker, G.D., 1990, Alaska has 4.0 trillion tons of low-sulfur coal, is there a future for this resource?: *American Association of Petroleum Geologists*, v. 74, p. 772. (ALASKA, COAL, GEOCHEMISTRY, SULFUR)
2358. Stricker, G.D., 1990, Alaska has 4.0 trillion tons of low-sulfur coal, is there a future for this resource?, in Barker, C.E., and Coury, A.B., compilers, *Abstracts of the U.S. Geological Survey, Central Region, 1990 Poster Review*: U.S. Geological Survey Open-File Report 90-656, p. 5. (ABSTRACT, ALASKA, COAL, GEOCHEMISTRY, OPEN-FILE, SULFUR)
2191. Stricker, G.D., 1991, Coal and Peat, in 1990 Annual report on Alaska's mineral resources: U.S. Geological Survey Circular 1056, p. 32-34. (COAL, PEAT)
2199. Stricker, G.D., 1992, Coal and peat, in 1991 Annual report on Alaska's mineral resources: U.S. Geological Survey Circular 1072, p. 32-34. (COAL, PEAT)
2210. Stricker, G.D., 1992, Low-rank, low-sulfur coals of Alaska: *Low Rank Coal Newsletter*, v. 2, no. 1, p. 2. (ALASKA, COAL, GEOCHEMISTRY, SULFUR)
2211. Stricker, G.D., 1992, Coal production and estimated resources, in Bartsch-Winkler, Susan, ed., *Mineral and energy resources of the BLM Roswell Resource area, east-central New Mexico*: U.S. Geological Survey Open File Report 92-0261, p. 145-146. (COAL, NEW MEXICO)
2371. Stricker, G.D., 1992, Coal and peat, in 1992 Annual report on Alaska's mineral resources: U.S. Geological Survey Circular 1091, p. 32-35. (COAL, PEAT)
2375. Stricker, G.D., 1992, Cretaceous coals in Alaska's Arctic margin, North Slope--Geology and resources, in Barker, C.E., and Coury, A.B., compilers, *Abstracts of the U.S. Geological Survey, Central Region, 1992 Poster Review*: U.S. Geological Survey Open-File Report 92-391, p. 13; *International Conference on Arctic Margins Anchorage, AK, Sept. 2-4, 1992*. (ABSTRACT, COAL, CRETACEOUS, OPEN-FILE)
787. Stricker, G.D., and Affolter, R.H., 1988, Eocene lava and epigene mineralization Alter Alaska's Thickest Known coal Deposit, in Carter, L.M.H., ed., *USGS Research on Energy Resources - 1988, Program and Abstracts*: U.S. Geological Survey Circular 1025, p. 59. (ABSTRACT, ALASKA, COAL, COAL-QUALITY, EOCENE, MINERALS, TERTIARY, VOLCANIC ROCKS, VULCANISM)
3795. Stricker, G.D., and Affolter, R.H., 1993, Chemical characterization of Alaskan coal, in Chiang,

- Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1036-1037. (ABSTRACT, ALASKA, COAL, COAL-QUALITY, ENERGY RESOURCES, GEOCHEMISTRY)
3797. Stricker, G.D., and Affolter, R.H., 1993, Chemical characterization of Alaskan coal: U.S. Geological Survey Open-File Report 93-680, p. 3. (ABSTRACT, ALASKA, COAL, COAL RESOURCES, COAL-QUALITY, GEOCHEMISTRY)
1020. Stricker, G.D., Affolter, R.H., and Brownfield, M.E., 1986, Geochemical characterization of selected coals from the Beluga Energy Resource area, south-central Alaska--Site of a proposed coal mine, in Carter, L.M.H., ed., USGS Research on energy resources--1986 program and abstracts: U.S. Geological Survey Circular 974, p. 65-66. (ABSTRACT, ALASKA, BELUGA COAL FIELD, COAL, ENERGY RESOURCES, GEOCHEMISTRY, MINING)
2159. Stricker, G.D., and Anderson, O.J., 1985, Pre-Laramide tectonics, a possible control on the locus of Turonian-Coniacian paralic coal basins, west-central New Mexico, Rocky Mountain Section of American Association of Petroleum Geologists-SEPM-EMD Meeting, June 2-5, 1985, Denver, Colorado: American Association of Petroleum Geologists Abstracts with Programs, vol. 69, no. 5, p. 868. (COAL, COLORADO, NEW MEXICO)
2178. Stricker, G.D., Brownfield, M.E., Yehle, L.A., and Wolfe, J.A., 1988, Mineralogy and stage assignment of some Tertiary coal from the Tikishla Park drill hole, Anchorage, Alaska, in Galloway, J.P., and Hamilton, T.D., eds., Geologic Studies in Alaska by the U.S. Geological Survey during 1987: U.S. Geological Survey Circular 1016, p. 121-123. (ALASKA, COAL, TERTIARY)
3939. Stricker, G.D., and Clough, J.G., 1994, Coal quality and estimated coal resources in the proposed Colville Mining District, central North Slope, Alaska, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 1, p. 17-20. (ABSTRACT, ALASKA, COAL, COAL RESOURCES, COAL-QUALITY, COLVILLE MINING DISTRICT, GEOCHEMISTRY, RESOURCES)
3958. Stricker, G.D., and Ellis, M.S., 1994, Laramide tectonism and paleogeography: Their effects on quality and hazardous air pollutant trace element trends in Rocky Mountain Province Paleocene coals: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 101-104. (ABSTRACT, BULL MOUNTAIN BASIN, COAL, COAL-QUALITY, COLORADO, GEOCHEMISTRY, HANNA BASIN, HAPS, LARAMIDE, LDF, MONTANA, NORTH DAKOTA, NORTH PARK BASIN, PALEOENVIRONMENT, POWDER RIVER BASIN, ROCKY MOUNTAIN REGION, TECTONISM, TRACE ELEMENTS, WILLISTON-BASIN, WYOMING)
558. Stricker, G.D., McHugh, J.B., Tripp, R.B., Affolter, R.H., and Cathrall, J.B., 1992, Gold in the Usibelli Group coals, Nenana coal field, Alaska, in Geologic Studies in Alaska by the USGS in 1991: U.S. Geological Survey Bulletin 2041, p. 93-97. (ALASKA, COAL, COAL-FIELDS, GOLD, NENANA COAL FIELD, USIBELLI GROUP)
673. Stricker, G.D., Tripp, R.B., McHugh, J.B., Affolter, R.H., and Flores, R.M., in review, Gold in the Usibelli Group coals, Nenana coal field, Alaska: Focus on Alaska's Coal '93 Program, School of Mineral Engineering, University of Alaska and Society of Mining Engineers, p. 6. (ALASKA,

COAL, COAL-FIELDS, GOLD, NENANA COAL FIELD, USIBELLI GROUP)

3124. Supardi, Subekty, A.D., and Neuzil, S.G., 1993, General geology and peat resources of the Siak Kanan and Bengkalis Island peat deposits, Sumatra, Indonesia: Geological Society of America Special Publication 286. (COAL, INDONESIA, INTERNATIONAL, PEAT)
3718. Suparti, Subekty, A.D., and Neuzil, S.G., 1993, General geology and peat resources of the Siak Kanan and Bengkalis Island peat deposits, Sumatra, Indonesia, in Cobb, J.C., and Cecil, C.B., eds., Modern and Ancient Coal-Forming Environments: Geological Society of America Special Paper 286, p. 45-62. (BENGKALIS ISLAND, COAL, DOMED PEAT, GEOLOGY, INDONESIA, INTERNATIONAL, PEAT, SIAK KANAN, SUMATRA)
1608. Swart, P.K., Ruiz, J., and Holmes, C.W., 1987, The use of strontium isotopes to constrain the timing and mode of dolomitization of Late Cenozoic sediments in the Bahamas: *Geology*, 15, p. 262-265. (BAHAMAS, CENOZOIC, DOLOMITIZATION, INTERNATIONAL, ISOTOPE, SEDIMENTS, STRONTIUM)
2469. Tewalt, S.J., 1986, Chemical characterization of Texas lignite: The University of Texas at Austin, Bureau of Economic Geology Geological Circular 86-1, 54 p. (COAL, GEOCHEMISTRY, LIGNITE, TEXAS)
473. Tewalt, S.J., and Finkelman, R.B., 1988, The Fort Union Lignite Consortium: An NCRDS perspective: American Association of Petroleum Geologists; SEPM-EMD Rocky Mountain Section Meeting, Bismark, ND. (COAL, COMPUTER, COMPUTER APPLICATIONS, FORT UNION FORMATION, LIGNITE, MONTANA, NCRDS, NORTH DAKOTA)
496. Tewalt, S.J., and Finkelman, R.B., 1990, Analytical data for bituminous coals and associated rocks from Arkansas, Iowa, Kansas, Missouri, Nebraska, and Oklahoma: U.S. Geological Survey Open-File Report 90-669, 50 p. (ARKANSAS, BITUMINOUS-COAL, COAL, IOWA, KANSAS, MISSOURI-RIVER, NEBRASKA, OKLAHOMA, OPEN-FILE)
492. Tewalt, S.J., Finkelman, R.B., and Barnett, R.L., 1990, Bibliography of Gulf Coast Lignite Geology: U.S. Geological Survey Open-File Report 90-549, 42 p. (BIBLIOGRAPHY, COAL, GEOLOGY, GULF COAST, LIGNITE, OPEN-FILE, REFERENCES)
3941. Tewalt, S.J., and Halili, N.E., 1994, Arsenic in the coal beds and surface waters of the Warrior Basin, Western Alabama, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1087-1092. (ABSTRACT, ALABAMA, ARSENIC, COAL, COAL-QUALITY, GEOCHEMISTRY, HAPS, WARRIOR BASIN)
480. Tewalt, S.J., Hildebrand, R.T., and Finkelman, R.B., 1989, Analyses of lignites and associated rocks from the Fort Union region, North Dakota and Montana: U.S. Geological Survey Open-File Report 89-285, 162 p. (ANALYSES, COAL, COAL-QUALITY, FORT UNION FORMATION, FORT UNION GROUP, LIGNITE, MONTANA, NORTH DAKOTA, OPEN-FILE, WILLISTON-BASIN)
2467. Tewalt, S.J., and Jones, C.M., 1986, Chemical and petrologic characteristics of deep-basin Wilcox

- lignites (Eocene) from east and east-central Texas, in Garbini S., and Schweinfurth, S., eds., Symposium Proceedings: A National Agenda for Coal Quality Research: U.S. Geological Survey Circular 979, p. 257. (ABSTRACT, COAL, EOCENE, GEOCHEMISTRY, LIGNITE, PETROLOGY, TERTIARY, TEXAS)
3762. Tewart, S.J., and Oman, C.L., 1993, Coal regions and fields of the United States in digital form: U.S. Geological Survey Open-File Report 93-396, 4 p. (COAL, COAL REGIONS, COAL-FIELDS, COMPUTER, DIGITAL, MAP, OPEN-FILE, UNITED STATES)
2448. Tewart, S.J., Oman, C.L., Bragg, L.J., and Finkelman, R.B., 1993, Distribution of mercury in Pennsylvania bituminous coal: A database perspective, in Chiang, Shiao-Hung, ed., Coal- Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1083-1087. (ABSTRACT, BITUMINOUS-COAL, COAL, COMPUTER APPLICATIONS, DATABASES, HAPS, MERCURY, PENNSYLVANIA, TRACE ELEMENTS)
3764. Tewart, S.J., Pierce, B.S., and Stanton, R.W., 1993, Coal quality relationships in the Upper Freeport coal bed, west-central Pennsylvania: GRASS GIS 8th Annual Conference, 1993, Reston, VA. (COAL, COAL-QUALITY, COMPUTER APPLICATIONS, GIS, GRASS, PENNSYLVANIA, UPPER FREEPORT COAL BED)
4030. Textoris, D.A., and Robbins, E.I., 1988, Coal resources of the Triassic Deep River basin, North Carolina: U.S. Geological Survey Open-File Report 88-682, 16 p. (COAL, COAL RESOURCES, DEEP RIVER BASIN, NORTH-CAROLINA, OPEN-FILE, TRIASSIC)
241. Textoris, D.A., Robbins, E.I., and Gore, P.W., 1989, Origin of organic-rich strata in an Upper Triassic rift basin lake, eastern USA: 28th International Geological Congress Abstracts, Washington, D.C., v. 3, p. 229-230. (ABSTRACT, LAKES, ORGANIC, RIFTS, TRIASSIC)
4060. THayer, P.A., and Robbins, E.I., 1992, Sedimentology of Triassic Dan River Group, North Carolina and Virginia, in Dennison, J.M., and Stewart, K.G., eds., Geologic Field Guides to North Carolina and Vicinity: Geological Society of America Southeastern Section Meeting, Winston-Salem, North Carolina, p. 189-200. (DAN RIVER GROUP, NORTH-CAROLINA, SEDIMENTOLOGY, TRIASSIC, VIRGINIA)
4047. Thayer, P.A., and Robbins, E.I., in press, Upper Triassic rift valley lacustrine sequence in the Dan River (North Carolina)-Danville (Virginia) basin, USA, in Kelts, K., and Kordesh, E., eds: Global Lacustrine Inventory, Cambridge University Press, 14 p. (LACUSTRINE, NORTH-CAROLINA, RIFTS, TECTONICS, TRIASSIC, VIRGINIA)
505. Thomas, R.E., and Englund, K.J., 1985, Environmental controls on accumulation of thick, low-sulfur coal (peat) in Lower Pennsylvanian Pocahontas Formation, Virginia and West Virginia: American Association of Petroleum Geologists Bulletin, v. 69, p. 1450. (ABSTRACT, COAL, GEOCHEMISTRY, PALEOENVIRONMENT, PEAT, PENNSYLVANIAN, POCAHONTAS-FORMATION, SULFUR, VIRGINIA, WEST VIRGINIA)
916. Thomas, R.E., Khan, M.R., and Khan, S.A., 1989, Lateral relationships in the Laki Formation, Ganjo Tukkar and Saidpur Outlier, Hyderabad District, Sind Province, Pakistan: U.S. Geological Survey, Miscellaneous Field Studies Map, MF-2084, Prepared in cooperation with Geological

- Survey of Pakistan. (ASIA, INDIAN-PENINSULA, INTERNATIONAL, MAP, PAKISTAN, STRATIGRAPHY)
3839. Thomas, R.E., Khan, M.R., and Khan, S.A., 1990, Drilling records and logs for the Indus East area, Coal Resource Exploration Assessment Program, March 1987 to February 1988, southern Sindh Province, Pakistan: U.S. Geological Survey Open-File Report 90-304, 85 p. (COAL, DRILL HOLES, DRILLING, INDUS EAST, INTERNATIONAL, PAKISTAN, SIND PROVINCE, SINDH PROVINCE)
3843. Thomas, R.E., Khan, M.R., and Khan, S.A., 1993, Coal resources of the Sonda coal field, Sindh Province, Pakistan: International Journal of Coal Geology, Elsevier Science Publishers, B.V. Amsterdam, v. 23, p. 159-191. (COAL, COAL RESOURCES, INTERNATIONAL, PAKISTAN, SIND PROVINCE, SINDH PROVINCE, SONDA COAL FIELD)
3848. Thomas, R.E., Khan, M.R., and Khan, S.A., 1993, Coal resources of the Sonda coal field, Sindh Province, Pakistan: SED Abstracts, Elsevier Science Publishers, BV, Amsterdam, The Netherlands, September 1993, Issue 6, p. 12. (ABSTRACT, COAL, COAL RESOURCES, INTERNATIONAL, PAKISTAN, SIND PROVINCE, SINDH PROVINCE, SONDA COAL FIELD)
3840. Thomas, R.E., and Khan, S.A., 1992, Coal resources of the Sonda East area, Sonda coal field, Sindh Province, Pakistan: U.S. Geological Survey Open-File Report 92-199. (COAL, COAL RESOURCES, COAL-FIELDS, INTERNATIONAL, PAKISTAN, SIND PROVINCE, SINDH PROVINCE, SONDA COAL FIELD)
1754. Thomas, R.E., Landis, E.R., and Khan, R.A., 1988, Report on COAL REAP drilling and related activities, April 1986 to May 1987, conducted in Southern Sind Province, Pakistan (Part I, COAL REAP drilling summary and related activities, 22 p.; Part II, Lithologic Logs; Part III, Geophysical Logs): U.S. Geological Survey Open-File Report 88-275. (COAL, COALREAP, DRILLING, EXPLORATION, INTERNATIONAL, OPEN-FILE, PAKISTAN, SINDH PROVINCE)
3788. Thomas, R.E., Mohammed, R.K., Shafique, A.K., and (GSP), 1990, Coal resources in Sindh Province, Pakistan: U.S. Geological Survey Research on Energy Resources, 1990 Program and Abstracts, Sixth V.E. McKelvey Forum on Mineral and Energy Resources, Carter, L.M.H., ed: U.S. Geological Survey Circular 1060, p. 81. (ABSTRACT, COAL, COAL RESOURCES, ENERGY RESOURCES, INTERNATIONAL, PAKISTAN, SIND PROVINCE, SINDH PROVINCE)
3846. Thomas, R.E., Wnuk, C., Landis, E.R., Outerbridge, W.F., SanFilipo, J.R., Khan, R.A., Khan, S.A., Chandio, A., and Kazmi, A.F., 1992, The coal fields of Sindh, Pakistan, 1992 Abstracts: 29th International Geological Congress, Kyoto, Japan, v. 3, p. 807. (ABSTRACT, COAL, COAL-FIELDS, INTERNATIONAL, PAKISTAN, SIND PROVINCE, SINDH PROVINCE)
983. Thomas, R.E., Khan, M.R., and Khan, S.A., 1988, Measured sections of the Laki Formation, Ganjo Takkar and Saidpur Outlier, Hyderabad District, Pakistan: U.S. Geological Survey Open-File Report 88-275-A, 69 p. (ASIA, COAL, ECONOMIC GEOLOGY, EOCENE, INDIAN-PENINSULA, INTERNATIONAL, LITHOSTRATIGRAPHY, MEASURED SECTIONS, OPEN-FILE, ORGANIC, PAKISTAN, PALEOGENE, SEDIMENTARY ROCKS, STRATIGRAPHY, TERTIARY)

914. Thomas, R.E., Khan, M.R., and Khan, S.A., 1990, Coal resources in Sind Province, Pakistan; Carter, L. M. H. USGS research on energy resources, 1990; program and abstracts, V.E. McKelvey Forum on mineral and energy resources: U.S. Geological Survey Circular 1060, p. 81-82. (ABSTRACT, ASIA, COAL, ECONOMIC GEOLOGY, INDIAN-PENINSULA, INTERNATIONAL, ORGANIC, PAKISTAN, RESOURCES)
3204. Thomas, R.E., Khan, R.A., Akhtar, S.S., Farriduddin, M., Fatmi, S.F., Idress, M., Jaffar, M., Salin, S., Jaffery, A., Khan, I.A., Khan, M.J., Khan, S.A., Khan, Z.M., and Khan, M.R., 1990, Drilling records and logs for the Indus East area, Coal Resource Exploration and Assessment Program, March 1987 to February 1988, southern Sind Province, Pakistan: U.S. Geological Survey Open-File Report 90-304, Prepared jointly by the Geological Survey of Pakistan and the U.S. Geological Survey, 82 p. (COAL, COAL RESOURCES, DRILLING, EXPLORATION, INDUS EAST AREA, INTERNATIONAL, OPEN-FILE, PAKISTAN, SIND PROVINCE)
621. Thompson, C.A., Robbins, E.I., Rybicki, R.A., and Krasnow, M.L., 1993, Sulfur cycling through ground water and bacteria in three fens in Iowa: Society of Wetland Scientists, Joint Annual Meeting with ASLO, Edmondton, Canada, Program with Abstracts, p. 204. (ABSTRACT, BACTERIA, FEN, GEOCHEMISTRY, GROUND-WATER, IOWA, SULFUR, SWAMPS, WETLANDS)
656. Thorez, J., Bossiroy, D., Flores, R.M., and Keighin, C.W., 1992, Clay paragenesis and petrology of sandstone reservoirs, Fuller reservoir field, Wind River, Wyoming: American Association of Petroleum Geologists Bulletin, v. 76, p. 1269. (ABSTRACT, CLAY, WIND RIVER BASIN, WYOMING)
1340. Thorez, J., Bossiroy, D., Flores, R.M., and Keighin, C.W., 1991, Non-facies-selective clay paragenesis of sandstone reservoirs, Fuller Reservoir Field, Wind River Basin, Wyoming: Clay Minerals Society 28th Annual Meeting, p. 149. (ABSTRACT, WIND RIVER BASIN, WYOMING)
649. Thorez, J., Bossiroy, D., Flores, R.M., and Weaver, J.N., 1991, Clay provenance, climate, and tectonic relationships as illustrated by the Early Tertiary of the Powder River Basin, Wyoming, U.S.A: Northern Paleogene and Northern Neogene Stratigraphy of Belgium, 3rd Bi-annual Committee Meeting, p. 11. (CLAY, PALEOCLIMATE, POWDER RIVER BASIN, TECTONICS, TERTIARY)
3972. Thorez, J., Flores, R.M., and Caudron, M., 1994, Clay geology, micromorphology, and geochemistry of an Eocene paleosol in the Willwood Formation, southern Bighorn Basin, Wyoming, in Flores, R.M., Mehring, K.T., Jones, R.W., and Beck, T.L., eds., Organics and the Rockies Field Guide, Society for Organic Petrology Eleventh Annual Meeting, Jackson, Wyoming: Wyoming Geological Survey Public Information Circular, p. 139-148. (BIGHORN BASIN, CLAY, EOCENE, FIELD GUIDE, GEOCHEMISTRY, MICROMORPHOLOGY, PALEOSOLS, ROCKY MOUNTAIN REGION, TERTIARY, WILLWOOD FORMATION, WYOMING)
666. Thorez, J., Flores, R.M., Keighin, C.W., and Bossiroy, D., 1993, Clay-mineral diagenesis in Paleocene source, reservoir, and seal rocks of the Wind River Basin, Wyoming: Wyoming Geological Association, 50th Anniversary Field Conference Program, p. 13. (ABSTRACT,

CLAY, DIAGENESIS, MINERALS, PALEOCENE, TERTIARY, WIND RIVER BASIN, WYOMING)

264. Thorpe, A.N., Senftle, F.E., Alexander, C.C., Dulong, F.T., LaCount, R.B., and Friedman, S., 1987, Oxidation of pyrite in anoxic atmosphere: Fuel, v. 66, p. 147-153. (PYRITE)
275. Thorpe, A.N., Senftle, F.R., Hetherington, S., and Dulong, F.T., 1990, Superparamagnetic Fe₃O₄ particles formed by oxidation of pyrite heated in an anoxic atmosphere: Fuel, v. 69, p. 28-34.
93. Tian, M., Mao, B., Liu, S., Zhang, Y., Han, C., Kent, B.H., Hobbs, R.G., Johnson, E.A., and Sigleo, W.S., 1989, Sedimentary environments and coal-forming mechanism of the Jurassic Yan'an Formation, Huangling mining area, Ordos Basin, China: U.S. Geological Survey Open-File Report 89-180, 119 p. (ASIA, CHINA, COAL, ECONOMIC GEOLOGY, JURASSIC, NORTHERN-CHINA, OPEN-FILE, ORGANIC, PALEOGEOGRAPHY, SEDIMENTARY ROCKS, SEDIMENTOLOGY, STRATIGRAPHY, TECTONICS)
2084. Tice, J.H., Latimer, S.L., Stanton, R.W., and Martino, F., 1986, Coal reserve characterization for emission control, in Garbini, S., and Schweinfurth, S. A., eds., Symposium Proceedings, A National Agenda for Coal Quality Research, April 9-11, 1985: U.S. Geological Survey Circular 979, p. 258. (ABSTRACT, COAL, COAL RESERVES, COAL-QUALITY)
1135. Trent, V.A., 1985, Summary of results of the coal resource occurrence and coal development potential mapping program in part of the Powder River basin, Montana and Wyoming: U.S. Geological Survey Open-File Report 85-621, 49 p. (BIBLIOGRAPHY, COAL, COAL RESOURCES, ECONOMIC GEOLOGY, MAP, MONTANA, OPEN-FILE, ORGANIC, POWDER RIVER BASIN, TREASURE-COUNTY, WYOMING)
1114. Trent, V.A., 1986, Estimated resources of non-leased Federal coal, Powder River basin, Montana and Wyoming: U.S. Geological Survey, Miscellaneous Field Studies Map MF-1887, 21 p. (COAL, COAL RESOURCES, ECONOMIC GEOLOGY, FEDERAL LANDS, MAP, MONTANA, ORGANIC, POWDER RIVER BASIN, WYOMING)
2427. Trent, V.A., and Oman, C.L., 1985, Sulfur in coal: USGS Coal-Quality symposium. (COAL, GEOCHEMISTRY, SULFUR)
1121. Trent, V.A., and Oman, C.L., 1986, Sulfur content of coal in the Appalachian and Illinois basins, in Garbini, Susan, and Schweinfurth, S.P., eds., Symposium proceedings; A national agenda for coal-quality research: U.S. Geological Survey Circular 979, Symposium proceedings; A national agenda for coal-quality research, Reston, VA, April 9-11, 1985, p. 2599. (ABSTRACT, ALABAMA, APPALACHIANS, COAL, ECONOMIC GEOLOGY, GEOCHEMISTRY, ILLINOIS, ILLINOIS BASIN, KENTUCKY, NORTH-AMERICA, OHIO, ORGANIC, ORGANIC-SULFUR, PYRITE, SULFIDES, SULFUR, USA)
1102. Trent, V.A., and Spencer, F.D., 1990, Geologic map of the Anawalt Quadrangle, West Virginia-Virginia: U.S. Geological Survey, Geologic Quadrangle Map GQ-1668. (GEOLOGIC MAP, MAP, USA, VIRGINIA, WEST VIRGINIA)
880. Triplehorn, D.M., and Bohor, B.F., 1986, Volcanic ash layers in coal--Origin, distribution,

- composition and significance, in Vores, K.S., ed., Mineral Matter and Ash in Coal: American Chemical Society Symposium Series, Washington DC, p. 90-98. (ASH, COAL, GEOCHEMISTRY, MINERAL MATTER, MINERALS, PALEOENVIRONMENT, VOLCANIC-ASH)
892. Triplehorn, D.M., and Bohor, B.F., 1987, Tonsteins as analogs for the K-T boundary clay: Geological Society of America Abstracts with Programs, v. 19, p. 871. (ABSTRACT, CLAY, CRETACEOUS, K/T, TERTIARY, TONSTEIN)
483. Triplehorn, D.M., and Finkelman, R.B., 1989, Replacement of glass shards by aluminum phosphates in a Middle Pennsylvanian tonstein from Eastern Kentucky: Geological Society of America Abstracts with Programs, v. 21, p. PA52. (ABSTRACT, ALUMINUM PHOSPHATES, GLASS, KENTUCKY, PENNSYLVANIAN, TONSTEIN)
2676. Triplehorn, D.M., Outerbridge, W.F., and Lyons, P.C., 1989, Six new altered volcanic ash beds (tonsteins) in the Middle Pennsylvanian of the Appalachian Basin: Geological Society of America Abstracts with Programs, v. 21, p. A134. (ABSTRACT, APPALACHIAN BASIN, ASH, PENNSYLVANIAN, TONSTEIN, VOLCANIC-ASH)
228. Triplehorn, D.M., Stanton, R.W., Ruppert, L.F., and Crowley, S.S., 1989, Volcanic ash in the Wyodak-Anderson coal bed, Powder River Basin, Wyoming: Proceedings of the Society for Organic Petrology Annual Meeting, v. 6, p. 10-12. (ABSTRACT, ASH, COAL, PETROLOGY, POWDER RIVER BASIN, VOLCANIC-ASH, WYODAK-ANDERSON COAL BED, WYOMING)
2050. Triplehorn, D.M., Stanton, R.W., Ruppert, L.F., and Crowley, S.S., 1991, Volcanic ash dispersed in the Wyodak- Anderson coal bed, Powder River Basin, Wyoming: Organic Geochemistry, v. 17, p. 567-575. (ANDERSON COAL BED, ASH, COAL, POWDER RIVER BASIN, VOLCANIC-ASH, WYODAK COAL, WYOMING)
981. Tull, J.F., Jacobson, S.R., Moore, W.B., Stanton, R.W., Harris, A.G., Repetski, J.E., and Bostick, N.H., 1989, Tectonic setting of the Erin Slate, Alabama Appalachians: Geological Society of America Abstracts with Programs, v. 21, p. 342.
2116. Tull, J.F., Jacobson, S.R., Moore, W.B., Stanton, R.W., Harris, A.G., Repetski, J.E., and Bostick, N.H., 1990, Structural and stratigraphic setting of the Erin Slate: Geological Society of America Abstracts with Programs, Southeastern Section, v. 22, no. 4, p. 66-67. (STRATIGRAPHY)
2113. Tull, J.F., Jacobson, S.R., Stanton, R.W., Harris, A.G., Repetski, J.E., and Bostick, N.H., 1989, The Erin Slate, Alabama Appalachians, is Devonian ?, not Carboniferous: 1989 Geological Society of America Annual Meeting Program with Abstracts, v. 21, no. 6, p. 342.
2870. Turner, C.E., Fishman, N.S., Hatcher, P.G., and Spiker, E.C., 1993, Nature and role of organic matter in sandstone uranium deposits, Grants Uranium region, New Mexico: 41 p. (GRANTS, NEW MEXICO, ORGANIC, ORGANIC MATTER, SEDIMENTARY ROCKS, URANIUM)
345. Turner, C.E.P., Fishman, N.S., Hatcher, P.G., and Spiker, E.C., 1986, Origin of organic matter in sandstone uranium deposits of the Morrison Formation, New Mexico; geologic and chemical

- constraints; Dean, W.E., ed., Proceedings of the Denver Region Exploration Geologists Society symposium; Organics and ore deposits: Denver Regional Exploration Geologists Society Symposium on Organic Matter and Ore Deposits, p. 185-196; Denver, CO, April 25-26, 1985. (CLASTIC ROCKS, COAL, ECONOMIC GEOLOGY, HUMIC-ACIDS, HYDROTHERMAL, JURASSIC, METAL ORES, MINERAL DEPOSITS, NEW MEXICO, NMR-SPECTRA, ORGANIC, SANDSTONE, URANIUM, USA)
2854. Turner-Peterson, C.E., Fishman, N.S., Hatcher, P.G., and Spiker, E.C., 1986, Origin of organics in sandstone uranium deposits of the Morrison Formation, New Mexico, *Geologic and Chemical Constraints: Proceedings of the Denver Exploration Geologists Society Conference*, p. 27. (ABSTRACT, GEOCHEMISTRY, GEOLOGY, MORRISON FORMATION, NEW MEXICO, ORGANIC, ORGANIC GEOCHEMISTRY, URANIUM)
1533. Tuttle, M.L., Rice, C.A., Hatch, J.R., and Harvey, R.D., 1990, Depositional and diagenetic controls on the residence and isotopic composition of sulfur in Middle Pennsylvanian coals, southeast Iowa and northwestern Illinois, in Carter, L.M.H., ed., *U.S. Geological Survey Research on Energy Resources, V.E. McKelvey Forum on Energy and Mineral Resources: U.S. Geological Survey Circular 1060*, p. 83-84. (ABSTRACT, COAL, DEPOSITIONAL ENVIRONMENT, DIAGENESIS, GEOCHEMISTRY, ILLINOIS, IOWA, PENNSYLVANIAN, SULFUR)
2391. Valette-Silver, J.N., Bates, A.L., Anderson, D., Deming, J., Desbruyeres, D., and Zoller, W., 1985, Uranium Enrichments in Smoker Material Collected from the East Pacific Rise: *EOS, Transactions of the American Geophysical Union*, v. 66, p. 917. (URANIUM)
3210. Van, L.R.E., Blank, H.R., Jr., Sable, E.G., Lee, G.K., Cook, K.L., and Zelten, J.E., 1989, Mineral resources of the Spring Creek Canyon Wilderness Study Area, Iron County, Utah: *U.S. Geological Survey Bulletin 1746-F*, p. F1-F17. (IRON COUNTY, MINERAL-RESOURCES, MINERALS, SPRING CREEK WILDERNESS STUDY AREA, UTAH)
3211. Van, L.R.E., Sable, E.G., Blank, H.R., Jr., Barton, H.N., Briggs, P.H., Zelten, J.E., and Cook, K.L., 1989, Mineral resources of eight wilderness study areas bordering Zion National Park, Washington and Kane counties, Utah: *U.S. Geological Survey Bulletin 1746-E*, p. E1-E23. (KANE COUNTY, MINERAL-RESOURCES, UTAH, WASHINGTON COUNTY, WILDERNESS AREAS, ZION NATIONAL PARK)
3213. Van, L.R.E., Sable, E.G., Blank, H.R., Jr., Barton, H.N., Cook, K.L., and Zelten, J.E., 1988, Mineral resources of the Parunuweap Canyon Wilderness Study Area, Kane County, Utah: *U.S. Geological Survey Bulletin 1746-B*, p. B1-B18. (KANE COUNTY, MINERAL-RESOURCES, PARUNUWEAP CANYON WILDERNESS AREA, UTAH, WILDERNESS AREAS)
3212. Van, L.R.E., Sable, E.G., Blank, H.R., Jr., Turner, R.L., Kreidler, T.J., Zelten, J.E., and Cook, K.L., 1988, Mineral resources of the Canaan Mountain and The Watchman Wilderness Study Areas, Washington and Kane counties, Utah: *U.S. Geological Survey Bulletin 1746-A*, p. A1-A21. (CANAAN MOUNTAIN, KANE COUNTY, MINERAL-RESOURCES, UTAH, WASHINGTON COUNTY, WATCHMAN WILDERNESS AREA, WILDERNESS AREAS)
4178. Vuke-Foster, S.M., Berg, R.B., and Colton, R.B., 1989, Preliminary geologic map of the Belt quadrangle, Montana: *Montana Bureau of Mines and Geology Open-File Map 212*. (BELT

QUADRANGLE, GEOLOGIC MAP, GEOLOGY, MAP, MONTANA, OPEN-FILE)

4169. Vuke-Foster, S.M., Berg, R.B., Colton, R.B., and O'Brien, H.E., 1992, Geologic map of the Belt 30' X 60' quadrangle, central Montana: Montana Bureau of Mines and Geology Open-file Map 253. (BELT QUADRANGLE, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, QUADRANGLE)
4160. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Arrow Peak quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (ARROW PEAK, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, QUADRANGLE)
4161. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Arrow Creek quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (ARROW CREEK, GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, QUADRANGLE)
4162. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Geyser quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (GEOLOGIC MAP, GEYSER QUADRANGLE, MAP, MONTANA, OPEN-FILE, QUADRANGLE)
4163. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Highwood Baldy quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (GEOLOGIC MAP, HIGHWOOD BALDY QUADRANGLE, MAP, MONTANA, OPEN-FILE, QUADRANGLE)
4164. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Jiggs Flat quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (GEOLOGIC MAP, JIGGS FLAT QUADRANGLE, MAP, MONTANA, OPEN-FILE, QUADRANGLE)
4165. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Leiberg Coulee quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (GEOLOGIC MAP, LEIBERG COULEE QUADRANGLE, MAP, MONTANA, OPEN-FILE, QUADRANGLE)
4166. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Palisade Butte quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, PALISADE BUTTE QUADRANGLE, QUADRANGLE)
4167. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Pownal quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, POWNAL QUADRANGLE, QUADRANGLE)
4168. Vuke-Foster, S.M., and Colton, R.B., 1988, Geologic map of the Strouf Island quadrangle, Montana: Montana Bureau of Mines and Geology Open-file Map 213. (GEOLOGIC MAP, MAP, MONTANA, OPEN-FILE, QUADRANGLE, STRAUF ISLAND QUADRANGLE)
4172. Vuke-Foster, S.M., and Colton, R.B., 1989, Coal and clinker outcrop map of the Glendive 30' X 60' quadrangle, eastern Montana and western North Dakota, in Scholes, M.A., Vuke-Foster, S.M., and Derkey, P.D., Coal stratigraphy and correlation in the Glendive 30' X 60' quadrangle, eastern Montana and adjacent North Dakota: Montana Bureau of Mines and Geology Geologic Map Series, 49. (CLINKER, COAL, GEOLOGIC MAP, GLENDIVE QUADRANGLE, MAP, MONTANA, NORTH DAKOTA)

2488. Vuke-Foster, S.M., Colton, R.B., Stickney, M.C., Wilde, E.M., Robocker, J.E., and Christensen, K.C., 1986, Geology of the Baker and Wibaux 30X60-minute quadrangles, eastern Montana and adjacent North Dakota: Montana Bureau of Mines and Geology Geologic Map Series, 41; scale 1:100,000. (MONTANA, NORTH DAKOTA, RETIRED)
4004. Wahrhaftig, C., Bartsch-Winkler, S., and Stricker, G.D., 1994, Coal in Alaska, in Plafker, G., and Berg, H.C., eds., The Geology of Alaska: Geological Society of America, The Geology of North America, v. G-1, p. 937-978. (ALASKA, COAL, GEOLOGY)
3673. Walton-Day, K., Filipek, L.H., and Papp, C.S.E., 1991, Mechanisms controlling Cu, Fe, Mn, and Co profiles in peat of the Filson Creek Fen, northeastern Minnesota: *Geochimica et Cosmochimica Acta*, v. 54, p. 2933-2946. (COBALT, COPPER, ENVIRONMENTAL GEOCHEMISTRY, FEN, FILSON CREEK FEN, GEOCHEMISTRY, IRON, MANGANESE, MINNESOTA, PEAT, WETLANDS)
2715. Wardlaw, B.R., and Warwick, P.D., in press, Paleocene and Eocene Stratigraphy in northern Pakistan: Depositional and structural implications: *Geological Society of America Bulletin*, 17 manuscript pages. (DEPOSITIONAL ENVIRONMENT, EOCENE, INTERNATIONAL, PAKISTAN, PALEOCENE, STRATIGRAPHY, STRUCTURE, TERTIARY)
2826. Warlow, R.C., Bragg, L.J., Windolph, J.F., Jr., Hickling, N.L., Oman, J.K., and Kerr, P.T., 1986, Chemical analyses and evaluation of 40 samples from the Upper Cretaceous coal beds from the Wind River Basin, Wyoming: U.S. Geological Survey Open-File Report 86-187, 51 p. (ANALYSES, COAL, CRETACEOUS, GEOCHEMISTRY, OPEN-FILE, USCHEM, WIND RIVER BASIN, WYOMING)
641. Warne, J.E., Gardner, M.H., Ethridge, F.G., Houston, W.S., and Flores, R.M., 1991, Tertiary non-marine stratigraphic section along Shelikof Straits, Katmai National Park, Alaska: *Geological Society of America Abstracts with Programs*, v. 23, p. 107. (ABSTRACT, ALASKA, STRATIGRAPHY, TERTIARY)
2717. Warwick, P.D., 1985, Petrographic characteristics of an Eocene subbituminous coal, Powder River Basin, Wyoming: *Geological Society of America Abstracts with Programs*, v. 17, p. 141. (ABSTRACT, COAL, EOCENE, POWDER RIVER BASIN, TERTIARY, WYOMING)
3837. Warwick, P.D., 1993, USGS undertakes lignite study, in Daly, D.J., ed: *Low Rank Coal Newsletter, Energy and Environmental Research Center, Grand Forks, North Dakota*, v. 3, p. 1. (ABSTRACT, ENERGY RESOURCES, LIGNITE, NORTH DAKOTA)
3824. Warwick, P.D., in press, Overview of the geography, geology, and structure of the Potwar Regional Framework Assessment study area, Pakistan, in Warwick, P.D., and Wardlaw, B.R., eds., *Regional Studies of the Potwar Plateau Area, Northern Pakistan: U.S. Geological Survey Bulletin 2078*, 19 manuscript pages, 1 map 1:250,000 scale; 19 manuscript pages, 1 map 1:250,000 scale. (COAL, GEOGRAPHY, GEOLOGY, INTERNATIONAL, LITHOFACIES, PAKISTAN, PATALA FORMATION, POTWAR REGION, SALT RANGE COAL FIELD, STRUCTURE)
3946. Warwick, P.D., Crowley, S.S., Ruppert, L.F., and Pontolillo, J., 1994, Petrography, geochemistry,

- and depositional setting of selected U.S. Gulf Coast coal deposits, in Chiang, Shaio-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1137-1141. (COAL, COAL-QUALITY, DEPOSITIONAL ENVIRONMENT, FACIES, GEOCHEMISTRY, GULF COAST, LIGNITE, PALEOENVIRONMENT, PETROGRAPHY)
3959. Warwick, P.D., Crowley, S.S., Ruppert, L.F., and Pontolillo, J., 1994, Petrography, geochemistry, and geology of the San Miguel Lignite, Jackson Group (Eocene), South Texas: Eleventh Annual Meeting of the Society for Organic Petrology Abstracts, v. 2, p. 115-118. (ABSTRACT, COAL, COAL-QUALITY, EOCENE, GEOCHEMISTRY, GEOLOGY, JACKSON GROUP, LIGNITE, PETROGRAPHY, SAN MIGUEL LIGNITE, TERTIARY, TEXAS)
2718. Warwick, P.D., and Flores, R.M., 1985, Fluvial styles in the Eocene Wasatch Formation, Powder River Basin, Wyoming: Third International Fluvial Sedimentology Conference Abstracts Volume, Colorado State University, p. 37. (ABSTRACT, EOCENE, FLUVIAL, POWDER RIVER BASIN, TERTIARY, WASATCH-FORMATION, WYOMING)
1247. Warwick, P.D., and Flores, R.M., 1987, Evolution of fluvial styles in the Eocene Wasatch Formation, Powder River Basin, Wyoming, in Ethridge, F.G., Flores, R.M., and Harvey, M.D., eds., Recent Developments in Fluvial Sedimentology: Society of Economic Paleontologists and Mineralogists, Special Publication, p. 303-310. (EOCENE, FLUVIAL, PALEOENVIRONMENT, POWDER RIVER BASIN, TERTIARY, WASATCH-FORMATION, WYOMING)
3826. Warwick, P.D., and Flores, R.M., in press, Depositional environments and stratigraphy of lignite-bearing fluvial deposits in southwestern North Dakota: North Dakota Geological Survey Special Publication, 23 manuscript pages. (COAL, DEPOSITIONAL ENVIRONMENT, FLUVIAL, LIGNITE, NORTH DAKOTA, STRATIGRAPHY, WILLISTON-BASIN)
2708. Warwick, P.D., and Husain, F., 1990, Coal fields of Punjab and North-West Frontier Provinces, and Azad Kashmir, Pakistan, in Kazmi, A.H., and Siddiqi, R.A., eds., Significance of the Coal Resources of Pakistan: Geological Survey of Pakistan Publication, p. 15-26. (COAL, COAL RESOURCES, COAL-FIELDS, INTERNATIONAL, KASHMIR, PAKISTAN, PUNJAB)
3831. Warwick, P.D., Javed, S., Mashhadi, T.A., Shakoor, T., Khan, A.M., and Khan, L.A., in press, Lithofacies and palynostratigraphy for some Cretaceous and Paleocene rocks, Surghar and Salt Range coal fields, northern Pakistan: U.S. Geological Survey Bulletin, 107 manuscript pages. (COAL, CRETACEOUS, FACIES, INTERNATIONAL, LITHOFACIES, PAKISTAN, PALEOCENE, PALYNOLOGY, PALYNOSTRATIGRAPHY, SALT RANGE COAL FIELD, STRATIGRAPHY, SURGHAR COAL FIELD, TERTIARY)
3838. Warwick, P.D., Johnson, E.A., and Khan, I.H., 1993, Paralic and marine facies of the Ghazij Formation: Evidence for Eocene tectonism along the northwestern margin of the Indian Plate: The Society for Sedimentary Geology Annual Meeting Abstracts with Program, p. 60. (EOCENE, FACIES, GHAZIJ FORMATION, INDIAN, INDIAN PLATE, INTERNATIONAL, MARINE, PARALIC, TECTONISM, TERTIARY)
3832. Warwick, P.D., Johnson, E.A., Khan, I.H., and Kazim, M.A., in press, Reference section for part of the Eocene Ghazij Formation, Gishtari Nala area, Mach coal field, Balochistan, Pakistan: U.S.

- Geological Survey Miscellaneous Field Studies Map. (COAL, EOCENE, GHAZIJ FORMATION, INTERNATIONAL, MACH COAL FIELD, MAP, PAKISTAN, REFERENCES, TERTIARY)
3608. Warwick, P.D., Landis, E.R., Roberts, S.B., and Johnson, E.A., 1993, Worldwide coal-related activities of the U.S. Geological Survey, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1052-1055. (ABSTRACT, COAL, COAL RESOURCES, FUEL RESOURCES, GLOBAL, INTERNATIONAL, WORLD)
3610. Warwick, P.D., Pierce, B.S., and Landis, E.R., 1993, A preliminary review of coal exploration activities conducted by the Government of Armenia, and the resource potential of Armenia: U.S. Geological Survey Open-File Report 93-681, 13 p. (ABSTRACT, ARMENIA, COAL, INTERNATIONAL, OPEN-FILE, RESOURCES)
2631. Warwick, P.D., SanFilipo, J.R., Thomas, R.E., and Fassett, J.E., 1992, The coal resource evaluation and assessment project (COALREAP) in Pakistan--energy for the future, in Carter, L.M.H. (ed), U.S. Geological Survey Research on Energy Resources - 1992 Program and Abstracts, 8th V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1074, p. 79-81. (ABSTRACT, COAL, COAL RESOURCES, COALREAP, ENERGY-SOURCES, INTERNATIONAL, PAKISTAN, RESOURCE ASSESSMENT)
2704. Warwick, P.D., and Shakoor, T., 1988, Preliminary report on the coal characteristics in the Salt Range area of north-central Pakistan: U.S. Geological Survey Open-File Report 88-637, 333 p. (COAL, INTERNATIONAL, OPEN-FILE, PAKISTAN, SALT-RANGE)
2720. Warwick, P.D., and Shakoor, T., 1988, Controls on the distribution and lithofacies of marginal-marine Paleocene Formations of the Salt Range, Pakistan: Geological Society of America Abstracts with Programs, v. 20, p. A90. (FACIES, INTERNATIONAL, MARINE, PAKISTAN, PALEOCENE, SALT-RANGE, TERTIARY)
2724. Warwick, P.D., and Shakoor, T., 1992, Relations between coal bed characteristics and depositional environments in the Paleocene Patala Formation, Salt Range coal field, northern Pakistan: First South Asian Geological Congress, Islamabad, Pakistan, p. 45. (ABSTRACT, COAL, COAL CHARACTERISTICS, DEPOSITIONAL ENVIRONMENT, INTERNATIONAL, PAKISTAN, PALEOCENE, PATALA FORMATION, SALT RANGE COAL FIELD, TERTIARY)
3822. Warwick, P.D., and Shakoor, T., in press, Lithofacies and depositional environments of the coal-bearing Paleocene Patala Formation, Salt Range coal field, Northern Pakistan, in Warwick, P.D., and Wardlaw, B.R., eds., Regional Studies of the Potwar Plateau Area, Northern Pakistan: U.S. Geological Survey Bulletin 2078; 34 manuscript pages. (COAL, DEPOSITIONAL ENVIRONMENT, FACIES, INTERNATIONAL, LITHOFACIES, PAKISTAN, PALEOCENE, PATALA FORMATION, SALT RANGE COAL FIELD, TERTIARY)
2710. Warwick, P.D., Shakoor, T., Javed, S., Mashhadi, S.T.A., Hussain, H., Anwar, M., and Ghaznavi, M.I., 1990, Chemical and physical characteristics of coal and carbonaceous shale samples from the Salt Range coal field, Punjab Province, Pakistan: U.S. Geological Survey Open-File Report 90-524. (CARBONACEOUS SHALE, COAL, INTERNATIONAL, OPEN-FILE, PAKISTAN, PUNJAB PROVINCE, SALT RANGE COAL FIELD, SALT-RANGE)

2722. Warwick, P.D., Shakoor, T., Javed, S., Mashhidi, S.T.A., and Ghaznavi, M.I., 1990, Chemical and physical characteristics of coal beds from the Salt Range coal field, Punjab Province, Pakistan, in USGS Research on Energy Resources - 1990 Program and Abstracts, V.E. McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 1060, p. 86. (ABSTRACT, CHEMISTRY, COAL, GEOCHEMISTRY, INTERNATIONAL, PAKISTAN, PUNJAB PROVINCE, SALT RANGE COAL FIELD)
2091. Warwick, P.D., and Stanton, R.W., 1986, Depositional controls on the geometry of the Wyodak-Anderson coal bed, northeastern Wyoming, in Carter, L. M. H., ed., The Second Annual McKelvey Forum on Mineral and Energy Resources: U.S. Geological Survey Circular 974, p. 71-72. (ABSTRACT, ANDERSON COAL BED, COAL, DEPOSITIONAL ENVIRONMENT, PALEOENVIRONMENT, PEAT, SEDIMENTOLOGY, WYODAK COAL, WYOMING)
2093. Warwick, P.D., and Stanton, R.W., 1986, Depositional effects on the geometry and composition of subbituminous Tertiary coal beds, Powder River Wyoming: International Symposium on Coal and Coal-bearing Strata, Abstracts of Papers, Geological Society of London, p. 32. (ABSTRACT, COAL, DEPOSITIONAL ENVIRONMENT, GEOMETRY, POWDER RIVER BASIN, SUBBITUMINOUS COAL BED, TERTIARY, WYOMING)
2094. Warwick, P.D., and Stanton, R.W., 1986, Petrographic variability in the Wyodak-Anderson coal bed, Paleocene, Powder River Basin, Wyoming: Society of Organic Petrology Proceedings, Fourth Annual Meeting, Lexington, Kentucky, p. 1-3. (ANDERSON COAL BED, COAL, PALEOCENE, PETROGRAPHY, POWDER RIVER BASIN, TERTIARY, WYODAK COAL, WYOMING)
2031. Warwick, P.D., and Stanton, R.W., 1988, Depositional models for two Tertiary coal-bearing sequences in the Powder River Basin, Wyoming, USA: Journal of the Geological Society, London, v. 145, p. 613-620. (COAL, DEPOSITIONAL ENVIRONMENT, POWDER RIVER BASIN, TERTIARY, WYOMING)
2032. Warwick, P.D., and Stanton, R.W., 1988, Petrographic characteristics of the Wyodak-Anderson coal bed Paleocene, Powder River Basin, Wyoming, U.S.A: Organic Geochemistry, v. 12, p. 389-399. (COAL, GEOCHEMISTRY, PALEOCENE, POWDER RIVER BASIN, TERTIARY, WYODAK-ANDERSON COAL BED, WYOMING)
2726. Warwick, P.D., and Wardlaw, B.R., 1992, Paleocene-Eocene Stratigraphy in northern Pakistan, Depositional and structural implications: 7th Himalaya-Karakoram-Tibet Workshop Programme and Abstracts, Department of Earth Sciences, Oxford University, England, April 6-8, 1992, p. 97. (ABSTRACT, DEPOSITIONAL ENVIRONMENT, EOCENE, INTERNATIONAL, PAKISTAN, PALEOCENE, SEDIMENTOLOGY, STRATIGRAPHY, STRUCTURE, TERTIARY)
2719. Warwick, P.D., Wnuk, C., Khan, I.A., Khan, M.J., and Rasheed, S., 1987, Depositional environments of the coal of the Lakhra coal field, Pakistan: Geological Society of America Abstracts with Programs, v. 19, p. 882. (COAL, DEPOSITIONAL ENVIRONMENT, INTERNATIONAL, LAKHRA COAL FIELD, PAKISTAN, PALEOENVIRONMENT)
3928. Watson, C., Watson, W.D., and Bryant, K., 1994, The potential for Indian coal in export markets:

- Proceedings of the 8th Pacific Rim Coal Conference, Delhi, India. (ABSTRACT, COAL, ECONOMICS, EXPORTS, INDIA, INDIAN)
2333. Watson, W.D., 1987, Efficient federal/state cooperative funding for spillover capture: U.S. Geological Survey V.E. McKelvey Forum on Mineral and Energy Resources.
2334. Watson, W.D., 1987, The regional environment in a pricing nutshell: National Capital Planning Commission, Washington, D.C. (ECONOMICS)
2337. Watson, W.D., 1987, U.S. Geological Survey pricing policy: U.S. Geological Survey V.E. McKelvey Forum on Mineral and Energy Resources. (ECONOMICS)
2338. Watson, W.D., 1988, Does rising economic rent signal a coal resource shortage?: Modeling and Simulation, vol. XIX. (COAL, COAL RESOURCES, ECONOMICS)
2339. Watson, W.D., 1989, Rising economic rent does not signal a coal resource shortage: Proceedings of the International Symposium on Energy Systems, Management and Economics, Tokyo, Japan. (COAL, ECONOMICS)
2372. Watson, W.D., 1990, Rising economic rent does not signal a coal resource shortage: IFAC Proceedings. (ABSTRACT, COAL, COAL RESOURCES, ECONOMICS, STATISTICS)
2838. Watson, W.D., 1991, Rising economic rent does not signal a coal resource shortage, in Energy systems, Management, and Economics, International Federation of Automatic Control: Oxford, Pergamon Press, p. 393-398. (COAL, ECONOMICS)
2908. Watson, W.D., 1992, Opportunity costs of federal land-use restrictions for U.S. coal markets: Natural Resource Modeling, 27 p. (COAL, DEVELOPMENT, ECONOMIC GEOLOGY, ECONOMICS, ENERGY RESOURCES, LEASES, REGULATIONS, RESTRICTIONS, STATISTICS, TRACTS)
2947. Watson, W.D., 1992, Economic prospects for the Gulf Cooperation Council: Journal of Energy and Development, 36 p. (COAL, DEVELOPMENT, ECONOMICS, ENERGY RESOURCES, GULF COAST, LIGNITE, OIL AND GAS)
3145. Watson, W.D., 1993, Predicted coal production trends in Kentucky--the result of available coal resources, coal quality demands and regulatory factors, in Chiang, Shiao-Hung, ed., Coal-Energy and the Environment: Proceedings of the Tenth Annual International Pittsburgh Coal Conference, p. 1044-1049. (COAL, COAL PRODUCTION, COAL RESOURCES, COAL-QUALITY, ECONOMICS, KENTUCKY, MINING, REGULATIONS, STATISTICS, TRENDS)
3148. Watson, W.D., 1993, Preserving natural environments on coal lands at minimum cost: Eastern Economics Association Meeting. (ABSTRACT, COAL, ECONOMICS, ENVIRONMENTAL GEOLOGY, MINING, RECLAMATION)
3927. Watson, W.D., 1993, Accounting for natural resource depletion in national income accounts: Association of Environmental and Resource Economists Workshop. (ABSTRACT, ACCOUNTING, COAL, ECONOMICS, ENERGY RESOURCES, OIL AND GAS, RESOURCE

ASSESSMENT)

3925. Watson, W.D., 1994, Emerging trends in regional coal production, in Chiang, Shaio-Hung, ed., Coal-Energy and the Environment: Eleventh Annual International Pittsburgh Coal Conference Proceedings, v. 2, p. 1142-1147. (ABSTRACT, COAL, COAL PRODUCTION, ECONOMICS, STATISTICS, TRENDS)
2323. Watson, W.D., and Bernknopf, R.L., 1985, Aggregate revenues and coal industry shifts from cost recovery proposals to cover office of surface mining, mine permitting costs: U.S. Geological Survey V.E. McKelvey Forum on Mineral and Energy Resources. (COAL, ECONOMICS)
3929. Watson, W.D., and Bryant, K., 1993, Assessing U.S. coal resources: An integration of GIS and statistical methods: GIS/LIS Proceedings, v. 2, Minneapolis, p. 738-752. (COAL, COAL RESOURCES, COMPUTER APPLICATIONS, ECONOMICS, GIS, STATISTICS, USA)
3709. Watson, W.D., Bryant, K., Gardner, N.K., Grim, M.S., and Lebing, G., 1994, Assessing Crow Indian coal resources: GIS in Action: International Society for Photogrammetry and Remote Sensing, v. 30, part 4, Proceedings of the Symposium, Mapping, and Geographic Information Systems, May 31-June 3, 1994, Athens, GA, USA, Roy Welch and Marguerite Remillard eds., Center for Remote Sensing and Mapping Science (CRMS), The University of Georgia, Athens, p. 44-51. (ABSTRACT, COAL, COAL AVAILABILITY, COAL RESOURCES, CROW INDIAN RESERVATION, GIS, INDIAN, RESERVATION)
2837. Watson, W.D., Medlin, A.L., Krohn, K.K., Brookshire, D.S., and Bernknopf, R.L., 1991, Economic effects of western federal land use restrictions on U.S. coal markets: U.S. Geological Survey Circular 1042, 197 p. (COAL, ECONOMICS, FEDERAL LAND)
2325. Watson, W.D., and Schmidt, W.A., 1985, Completion of the U.S. Geological Survey western region center, Menlo Park, California: U.S. Geological Survey, V.E. McKelvey Forum on Mineral and Energy Resources.
3147. Watson, W.D., and Verrechia, S., 1989, Effects of user fees on regional coal production: Atlantic Economic Journal. (ABSTRACT, COAL)
2234. Weaver, J.N., 1986, Haiti coal briquette feasibility study - Inventory of resource data and collection of samples: U.S. Geological Survey Open-File Report 86-566. (COAL, HAITI, INTERNATIONAL, OPEN-FILE)
2237. Weaver, J.N., ed., 1987, Recent developments in fluvial sedimentology: Society of Economic Paleontologists and Mineralogists, Special Publication; editor. (DEPOSITIONAL ENVIRONMENT, FLUVIAL, SEDIMENTARY ENVIRONMENTS, SEDIMENTOLOGY)
2241. Weaver, J.N., 1988, Stratigraphy and facies analysis of Tertiary units, Western Medicine Lodge Basin, Montana, in Carter, L.M.H., ed., U.S. Geological Survey research on energy resources, 1988, Program and abstracts, V.E. McKelvey Forum: U.S. Geological Survey Circular 1025, p. 64. (ABSTRACT, FACIES, MEDICINE LODGE BASIN, MONTANA, STRATIGRAPHY, TERTIARY)

1032. Weaver, J.N., Bergin, M.J., Brownfield, M.E., and Landis, E.R., 1988, Indigenous sources of fossil fuels, Sahel Region of North Africa, in Carter, L.M.H., ed., USGS Research on Energy Resources, 1988 Program and Abstracts: U.S. Geological Survey Circular 1025, p. 64-65. (ABSTRACT, AFRICA, COAL, ENERGY RESOURCES, FUELS, INTERNATIONAL)
2258. Weaver, J.N., Brownfield, M.E., and Bergin, M.J., 1990, Coal in sub-Saharan African countries undergoing decertification, in Kogbe, C.A., ed: Journal of African Earth Sciences and the Middle East, Pergamon Press, Inc., New York, v. 11, no. 314, p. 261-271. (AFRICA, COAL, INTERNATIONAL)
2255. Weaver, J.N., Cubilla, G., and Samuels, R., 1989, Assessment of the Zent Coalfield, southeastern Costa Rica: Circum-Pacific Energy and Mineral Conference, August 1990, Hawaii. (ABSTRACT, COAL RESOURCES, COSTA RICA, INTERNATIONAL, ZENT COAL FIELD)
2230. Weaver, J.N., and Flores, R.M., 1985, Paleotectonic and sedimentologic controls on coal deposition in the Powder River Basin, Wyoming, U.S.A: 12th International Sedimentological Congress, Canberra, Australia, Abstract published in proceedings, 440 p. (COAL)
2233. Weaver, J.N., and Flores, R.M., 1986, Sedimentologic and stratigraphic framework of the Paleocene Fort Union Formation, western Powder River Basin, Wyoming: U.S. Geological Survey Miscellaneous Field Studies Map MF-1929. (FORT UNION FORMATION, GEOLOGIC MAP, MAP, PALEOCENE, POWDER RIVER BASIN, STRATIGRAPHY, TERTIARY)
2243. Weaver, J.N., and Flores, R.M., 1988, A summary description of synorogenic, conglomerate in the Fort Union Formation: Alluvial Fan Facies, Mowry Basin, Wyoming, in Holden, G.S., ed: Geological Society of America Field Trip Guidebook, 1988, Colorado School of Mines Professional Contributions, no. 12, p. 187-190. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
1265. Weaver, J.N., and Flores, R.M., 1989, Environments of deposition of Late Paleocene coals, western Powder River Basin, Wyoming, U.S.A: Geological Society of Australia, Special Publication. (COAL, PALEOCENE, POWDER RIVER BASIN, TERTIARY)
1298. Weaver, J.N., and Flores, R.M., 1989, Synorogenic conglomerates in the Fort Union Formation: An alluvial fan, Mowry Basin, Wyoming: American Geophysical Union, 28th International Geological Congress Field Trip, p. 11-14. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
1306. Weaver, J.N., and Flores, R.M., 1989, Rudite-dominated alluvial-fan and fan-delta facies in intermontane Tertiary basin margins, Montana and Wyoming, U.S.A.: 4th International Conference on Fluvial Sedimentology, Abstracts with Programs, p. 241. (TERTIARY)
2248. Weaver, J.N., and Flores, R.M., 1989, A summary description of synorogenic conglomerates in the Fort Union Formation: Alluvial fan facies, Mowry Basin, Wyoming, in Flores, R.M., ed., 28th International Geological Congress Field Trip Guidebook T132: American Geophysical Union, Washington, D.C., p. 11-14. (FORT UNION FORMATION, PALEOCENE, TERTIARY)
2266. Weaver, J.N., and Flores, R.M., 1989, Rudite-dominated alluvial-fan and fan-delta facies in intermontane Tertiary basin margins, Montana and Wyoming, USA:, Programa I Resums de

- Comunicacions, 4th International Conference on Fluvial Sedimentology, Barcelona, Spain October 1989, p. 241. (ABSTRACT, DEPOSITIONAL ENVIRONMENT, MONTANA, SEDIMENTARY ENVIRONMENTS, TERTIARY, WYOMING)
2246. Weaver, J.N., Flores, R.M., and M'Gonigle, J.W., 1989, Facies comparison of rudite-rich facies in Tertiary intermontane basins, Montana and Wyoming: American Association of Petroleum Geologists Bulletin, v. 73, p. 424. (BASINS, FACIES, MONTANA, PALEOGEOGRAPHY, RUDITE, TERTIARY, WYOMING)
2236. Weaver, J.N., Flores, R.M., and Pierce, F.W., 1987, Paleocene alluvial fans in the Mowry Basin, Wyoming: Geological Society of America Abstracts with Programs, Rocky Mountain Section, v. 19, no. 5, p. 341. (PALEOCENE, TERTIARY)
2262. Weaver, J.N., and Gruber, J.R., Jr., 1991, Tertiary fluvial systems, within the Bear Creek coal field, northern Big Horn Basin, Montana: American Association of Petroleum Geologists, Rocky Mountain Section Meeting, Abstract with Program, p. 79. (COAL, TERTIARY)
2256. Weaver, J.N., and Landis, E.R., 1990, Coal and peat in the sub-Saharan Region of Africa, Alternative energy options, in Knowles, R., ed: Natural Resources Forum, Graham and Trotman, U.K., February 1990, p. 64-69. (ABSTRACT, AFRICA, COAL, ENERGY RESOURCES, INTERNATIONAL, PEAT, SUB-SAHARAN REGION)
1811. Weaver, J.N., and M'Gonigle, J.W., 1987, Location of coal and carbonaceous shale beds exposed in the eastern part of the Sage and Kemmerer 15-minute quadrangles, Lincoln County, Wyoming: U.S. Geological Survey Coal Investigations Map C-110. (CARBONACEOUS SHALE, COAL, KEMMERER QUADRANGLE, LINCOLN COUNTY, MAP, SAGE QUADRANGLE, SHALE, WYOMING)
2251. Weaver, J.N., Rameriz, O., Malavassi, L., and Bolanos, K., 1989, Coal exploration in Costa Rica: A case study: Proceedings from the Twelfth Caribbean Geologic Conference, St. Croix, U.S. Virgin Islands, p. 178. (ABSTRACT, CARIBBEAN, COAL, COAL EXPLORATION, COSTA RICA, INTERNATIONAL, VIRGIN ISLANDS)
2227. Weaver, J.N., and Wehrfritz, B., 1985, Cenozoic paleogeography of west-central U.S: American Association of Petroleum Geologists Rocky Mountain Section-SEPM Special Publication, p. 460.
1297. Weber, J.C., 1986, Bedrock geology and structural analysis in portions of the Cossatot Mountains, Athens Plateau and Mazarn Basin, Pike and Montgomery counties, Arkansas: 112 p. (ARKANSAS, STANLEY-FORMATION, STRUCTURAL-ANALYSIS, STRUCTURAL-GEOLOGY, USA)
1276. Weber, J.C., 1989, Proto-Ouachita Basin; early Paleozoic palinspastic reconstruction and tectonic modeling, Dymek, Robert F., Shelton, Kevin L. eds.: Geological Society of America Abstracts with Programs, 1989 Annual Meeting, Washington University, Department of Lunar and Planetary Science, St. Louis, MO, v. 21, p. 367. (ABSTRACT, ARKANSAS, GEOPHYSICAL-SURVEYS, GRAVITY-SURVEYS, OKLAHOMA, OUACHITA-BASIN, OUACHITA-MOUNTAINS, PALEOZOIC, SEISMIC-SURVEYS, STRUCTURAL-GEOLOGY, TECTONICS, USA)

1280. Weber, J.C., and Zimmerman, J., 1988, Macroscopic structural geology of the central Cossatot Mountains and surrounding areas, Benton Uplift, Arkansas, in McFarland, J.D., III, ed., Contributions to the geology of Arkansas: Miscellaneous Publication of the Arkansas Geological Commission, v. III, p. 85-94. (ARKANSAS, FAULTS, STRUCTURAL-GEOLOGY, TECTONICS, THRUST-FAULTS, UPLIFTS, USA)
4048. Weems, R.E., Robbins, E.I., and Cornet, B., in press, Map of biostratigraphic age control of Newark Supergroup in the northern Hatfield, Deerfield, and Northfield basins, Massachusetts: U.S. Geological Survey Map Folio Series Map 1-D. (AGE DATING, BIOSTRATIGRAPHY, DEERFIELD BASIN, HATFIELD BASIN, MAP, MASSACHUSETTS, NEWARK SUPERGROUP, NORTHFIELD BASIN)
4049. Weems, R.E., Robbins, E.I., and Cornet, B., in press, Map of biostratigraphic age control of Newark Supergroup in the southern Hartford and Pomperoy basins, Connecticut: U.S. Geological Survey Map Folio Series Map 2-D. (BIOSTRATIGRAPHY, CONNECTICUT, HARTFORD BASIN, MAP, NEWARK SUPERGROUP, POMPEROY BASIN)
4050. Weems, R.E., Robbins, E.I., and Cornet, B., in press, Map of biostratigraphic age control of Newark Supergroup in the eastern Newark basin, New Jersey and New York: U.S. Geological Survey Map Folio Series Map 3-D. (BIOSTRATIGRAPHY, MAP, NEW-JERSEY, NEW-YORK, NEWARK SUPERGROUP, NEWARK-BASIN)
3936. Weintraub, V.C., 1992, The first documentation of a lower Middle Upland flora from the eastern margin of the Eastern Interior Basin (Illinois Basin): MS Thesis, 87 p. (FLORA, ILLINOIS BASIN, INTERIOR BASIN, PALEONTOLOGY, PLANTS, THESIS)
256. Whelan, J.F., Cecil, C.B., Dulong, F.T., and Stanton, R.W., 1985, Distribution and isotopic composition of sulfur in the Upper Freeport coal of western Pennsylvania: Geological Society of America Abstracts with Programs, v. 17. (ABSTRACT, COAL, COAL ANALYSES, FREEPORT COAL BED, GEOCHEMISTRY, ISOTOPE, PENNSYLVANIA, SULFUR)
1255. Whipkey, C.E., Cavaroc, V.V., and Flores, R.M., 1987, Provenance of Tertiary Powder River Basin sandstones, northeastern Wyoming and southeastern Montana: Geological Society of America Abstracts with Programs, Southeastern Section, v. 19, p. 136. (ABSTRACT, TERTIARY, POWDER RIVER BASIN, MONTANA, WYOMING)
1866. Whipkey, C.E., Cavaroc, V.V., and Flores, R.M., 1991, Uplift of the Bighorn Mountains, Wyoming and Montana; a sandstone provenance study: U.S. Geological Survey Bulletin 1917-D, p. D1-D20. (CLASTIC ROCKS, MONTANA, SANDSTONE, SEDIMENTARY ROCKS, SEDIMENTOLOGY, STRUCTURAL-GEOLOGY, TECTONICS, WASATCH-FORMATION, WYOMING)
3905. Whipkey, C.W., Cavaroc, V.V., and Flores, R.M., 1993, Uplift of the Bighorn Mountains, Wyoming and Montana- A sandstone provenance study: U.S. Geological Survey Bulletin 1917, Chapter D, p. D1-D20. (BIGHORN MOUNTAINS, MONTANA, SANDSTONE, TECTONICS, UPLIFTS, WYOMING)
1302. Wier, K., 1986, Metamorphic map of the Iron River 1 degrees by 2 degrees Quadrangle, Michigan

- and Wisconsin: U.S. Geological Survey, Miscellaneous Investigations Series, I-1360-G. (MAP, METAMORPHIC ROCKS, METAMORPHISM, MICHIGAN, MINERAL-ASSEMBLAGES, MINERAL-EXPLORATION, PETROLOGY, WISCONSIN)
1304. Wier, K., and Pavlides, L., 1985, Piedmont geology of the Spotsylvania Quadrangle, Spotsylvania County, Virginia: U.S. Geological Survey, Miscellaneous Investigations Series, I-1568. (ATLANTIC COASTAL PLAIN, GEOLOGIC MAP, GEOMORPHOLOGY, MAP, METAMORPHIC ROCKS, NORTH-AMERICA, PIEDMONT, SEDIMENTOLOGY, TERRANES, USA, VIRGINIA)
3696. Wildeman, T.R., Filipek, L.H., and Gusek, J.J., 1994, Proof of principle studies on the treatment of acid rock drainage and mill tailings solutions from a gold operation in Nevada: Proceedings of the Third International Conference on Abatement of Mine Drainage, 12 p. (GOLD, MINING, MINING WASTES, NEVADA, PASSIVE TREATMENT, TAILINGS, TREATMENT)
2543. Wilkes, G.P., Bragg, L.J., Hostettler, K.K., Oman, C.L., and Coleman, S.L., 1992, Coal sample analyses from the Southwest Virginia Coalfield: Virginia Division of Mineral Resources Publication 122, 431 p. (COAL, COAL ANALYSES, GEOCHEMISTRY, VIRGINIA)
3562. Wilkes, G.P., Johnson, S.S., and Milici, R.C., 1989, Exposed and inferred early Mesozoic basins onshore and offshore, Virginia: Virginia Division of Mineral Resources Publication 94, scale 1:500,000. (BASINS, CONTINENTAL, DEPOSITIONAL ENVIRONMENT, GEOLOGY, MARINE, MESOZOIC, PALEOENVIRONMENT, VIRGINIA)
3328. Williams, P.L., Covington, H.R., and Mytton, J.W., 1991, Geologic map of the Stricker 2 Quadrangle, Twin Falls and Cassia counties, Idaho: U.S. Geological Survey, Miscellaneous Investigations Series I-2146. (CASSIA COUNTY, GEOLOGIC MAP, GEOLOGY, IDAHO, MAP, TWIN FALLS COUNTY)
3330. Williams, P.L., Mytton, J.W., and Covington, H.R., 1990, Geologic map of the Stricker 1 Quadrangle, Cassia, Twin Falls, and Jerome counties, Idaho: U.S. Geological Survey, Miscellaneous Investigations Series I-2078. (CASSIA COUNTY, GEOLOGIC MAP, IDAHO, JEROME COUNTY, MAP, TWIN FALLS COUNTY)
645. Wilson, M.A., and Hatcher, P.G., 1988, Detection of tannins in modern and fossil barks and in plant residues by high-resolution solid-state (13)C nuclear magnetic resonance: Organic Geochemistry, v. 12, p. 539-546. (AUSTRALIA, COAL, COALIFICATION, GEOCHEMISTRY, LIGNITE, NMR-SPECTRA, NUCLEAR, ORGANIC, PEAT, SEDIMENTARY ROCKS, SOILS, TANNIN, VICTORIA)
2796. Wilson, M.A., Sawyer, J., Hatcher, P.G., and Lerch III, H.E., 1989, 1, 3, 5,-Hydroxybenzene structures in mosses. Phytochemistry, v. 28, no. 5, p. 1395-1400.
2827. Windolph, J.F., Jr., Warlow, R.C., Hickling, N.L., and Bragg, L.J., 1986, Comparative geochemistry of two coal beds from contrasting depositional environments of late Cretaceous age in the western part of the Wind River Basin, Wyoming, in Garbini, S., and Schweinfurth, S.P., eds., Symposium on coal quality: U.S. Geological Survey Circular 979, 263 p. (COAL, COAL-QUALITY, CRETACEOUS, DEPOSITIONAL ENVIRONMENT, GEOCHEMISTRY, WIND

RIVER BASIN, WYOMING)

2080. Windolph, J.F., 1989, Lithostratigraphic cross section of Mississippian, Pennsylvanian and Permian(?) strata from Scioto County, Ohio to Pocahontas County, West Virginia: Geological Society of America Abstracts with Programs, v. 21, no. 6, p. 166. (ABSTRACT, APPALACHIAN BASIN, CARBONIFEROUS, LITHOSTRATIGRAPHY, MISSISSIPPIAN, OHIO, PALEOZOIC, PENNSYLVANIAN, PERMIAN, POND RUN OHIO, STRATIGRAPHY, USA, WEST VIRGINIA)
2097. Winston, R.B., and Stanton, R.W., 1987, Paleoecological analyses of a columnar sample from the Upper Freeport coal bed, Allegheny Formation Pennsylvanian: Geological Society of America Book of Abstracts, Northeastern Section Meeting, v. 19, no. 1, p. 66. (COAL)
2103. Winston, R.B., and Stanton, R.W., 1987, Lateral and vertical variation in plant megafossil assemblages in the Upper Freeport coal bed Middle Pennsylvanian, west-central Pennsylvania,: Society for Organic Petrology, Abstracts and Program, 4th Annual Meeting, San Francisco, CA, Sept. 30 - Oct. 3, 1987, p. 38-40. (ABSTRACT, COAL)
2107. Winston, R.B., and Stanton, R.W., 1988, Paleobotanical composition of some Pennsylvanian coal beds from the central Appalachian basin as an indication of paleoclimate, in Carter, L.M.H., ed., 1988, McKelvey Forum, U.S. Geological Survey Research on Energy Resources 1988: U. S. Geological Survey Circular 1025, p. 65-66. (CLIMATE, COAL, PALEOCLIMATE)
2042. Winston, R.B., and Stanton, R.W., 1989, Plants, coal, and climate in the Pennsylvanian of the Central Appalachian Basin, Carboniferous Geology of the Eastern United States: 28th International Geological Congress Field Trip Guidebook, p. 118-126. (COAL)
2451. Wise, D.U., Belt, E.S., and Lyons, P.C., 1991, Clastic diversion by fold salients and blind thrust ridges in coal-swamp development: Geology, v. 19, p. 514-517; May 1991. (COAL)
2493. Wnuk, C., 1985, The ontogeny and paleoecology of *Lepidodendron rimosum* and *Lepidodendron bretonense* trees from the Middle Pennsylvanian of the Bernice Basin (Sullivan County, Pennsylvania): *Palaeontographica*, v. 195B, p. 153-181.
2514. Wnuk, C., 1985, Transition from clastic to peat sedimentation in Appalachian Basin Pennsylvanian swamps in West Virginia and Pennsylvania: American Association of Petroleum Geologists Bulletin, v. 69, p. 1452. (PEAT)
2494. Wnuk, C., 1986, Preliminary observations on the paleoecological significance and taphonomic history of underclay floras, in W.E. Cox and W.F. Snyder, eds., Proceedings, New River Symposium, Wytheville, Virginia, Oak Hill, Eastern National Park and Monument Association, p. 89-98. (FOSSILS, FLORA, PALEOECOLOGY)
2499. Wnuk, C., 1988, Carboniferous seat-earth floras in the Anthracite Fields, in J.D. Inners, ed., Bedrock and glacial geology of the North Branch Susquehanna lowland and the Eastern-Middle Anthracite Field, northeastern Pennsylvania: Guidebook for the 53rd Annual Field Conference of Pennsylvania Geologists, p. 56-62. (ANTHRACITE, FLORA, FOSSILS, GLACIAL GEOLOGY, GUIDEBOOK, PENNSYLVANIA)

2502. Wnuk, C., 1989, Stop 6: Paleobotany of the Bear Valley strip mine, in J.R. Eggleston and W.E. Edmunds, Anthracite Fields of eastern Pennsylvania, Pottsville to Shamokin Pennsylvania: 28th International Geological Congress Field Trip Guidebook, p. 22-27. (ANTHRACITE, GUIDEBOOK, PALEOBOTANY, PENNSYLVANIA)
2503. Wnuk, C., 1989, Ontogeny and Paleoecology of the Middle Pennsylvanian arborescent lycopod *Bothrodendron punctatum*, Bothrodendraceae (Western Middle Anthracite Field, Shamokin Quadrangle, Pennsylvania): American Journal of Botany, v. 76, p. 966-980. (PALEOECOLOGY, PENNSYLVANIA, PENNSYLVANIAN)
2518. Wnuk, C., 1989, Diversity of Middle Pennsylvanian clastic swamp communities. 28th International Geological Congress, Abstracts, v. 3, p.3-373. (ABSTRACT, PALEOECOLOGY, PENNSYLVANIAN)
2519. Wnuk, C., 1989, The composition, architecture, and organization of an in-situ tree fern-lycopod clastic swamp forest, Shamokin Pennsylvania: American Journal of Botany, v. 76, p. 178. (PALEOBOTANY, PALEOECOLOGY, PENNSYLVANIA)
2521. Wnuk, C., 1991, Methodology and interpretation of plant fossil censuses: Professor Birbal Sahni Centenary International Conference: Global Environment and Diversification of Plants through Time, November 13-16, Abstracts, p. 8. (ABSTRACT, FOSSIL, PALEOBOTANY)
2510. Wnuk, C., 1992, Paleobotany; Stop 1: Bear Valley Mine - paleobotany; Stop 4: Pottsville Formation type section - paleobotany at the Pottsville type section; Stop 5: Saint Clair fossil plant locality, in Levine J.R., and Eggleston, J.R., eds., Field Trip Guidebook: The Anthracite Basins of Eastern Pennsylvania: 1992 Joint Meeting, International Committee for Coal and Organic Petrology (44th) and the Society for Organic Petrology (9th), Pennsylvania State University, p. 33-34, 54-55, and 64-65. (ANTHRACITE, BASINS, COAL, FIELD TRIP, FOSSIL, GUIDEBOOK, PALEOBOTANY, PENNSYLVANIA, POTTSVILLE FORMATION, ROAD LOG)
2524. Wnuk, C., 1992, The taphonomic history of an in situ *Mesocalamites* stand from the Lower Pennsylvanian Pocohontas Formation, Camp Creek, West Virginia: International Geologic Congress, v. 2, p. 355; Abstracts, 29th International Geological Congress. (ABSTRACT, PENNSYLVANIAN, POCOHONTAS FORMATION, WEST VIRGINIA)
2512. Wnuk, C., in press, The methodology of censussing plant fossil assemblages: Birbal Sahni Centenary Volume, 29 manuscript pages. (BOTANY, FOSSIL, PALEOBOTANY)
2522. Wnuk, C., Brouwers, E., and Frederiksen, N., 1992, Late Paleocene and Early Eocene terrestrial and marine environments, Lakhra Coal Field, Sind Province, Pakistan: V.E. McKelvey Forum on Mineral and Energy Resources, U.S. Geological Survey Circular 1074, p.81-82. (COAL, EOCENE, INTERNATIONAL, PAKISTAN, PALEOCENE, TERTIARY)
2507. Wnuk, C., Fariduddin, M., Fatmi, S.F., and SanFilipo, J.R., 1991, The stratigraphy and geometry of the Lakhra Formation in the Lakhra Coal Field area and Implications for the coal resource potential north of Lakhra, Sind Province, Pakistan: A progress report: U.S. Geological Survey Open-File Report 91-9, 104 p. (COAL, COAL RESOURCES, INTERNATIONAL, LAKHRA COAL)

FIELD, LAKHRA FORMATION, OPEN-FILE, PAKISTAN, SINDH PROVINCE,
STRATIGRAPHY)

2504. Wnuk, C., and Maberry, J.O., 1990, Enigmatic eight-meter trace fossils in the Lower Pennsylvanian Lee Sandstone, Central Appalachian Basin, Tennessee, U.S.A: *Journal of Paleontology*, v. 64, p. 440-450. (TENNESSEE)
2495. Wnuk, C., and Pfefferkorn, H.W., 1987, A Pennsylvanian-age terrestrial storm deposit: Using plant fossils to characterize the history and process of sediment accumulation: *Journal of Sedimentary Petrology*, v. 57, p. 212-221. (FOSSILS, PALEOBOTANY, PENNSYLVANIAN)
2520. Wnuk, C., and Pfefferkorn, H.W., 1990, The biogeography of Late Paleozoic floras: 34th Annual Report on Research Under Sponsorship of the Petroleum Research Fund Administered by the American Chemical Society, v. 34, p. 511. (PALEOZOIC)
2505. Wnuk, C., and Pfefferkorn, H.W., in press, Community structure and paleoecology in a Middle Pennsylvanian pteridosperm-lycopod clastic swamp forest (Bernice Basin, Sullivan County, Pennsylvania, U.S.A.): *Palaios Special Issue*, 27 p. (BOTANY, PALEOECOLOGY, PALUDAL-ENVIRONMENT, PENNSYLVANIA, PENNSYLVANIAN, SWAMPS)
3920. Wnuk, C., SanFilipo, J.R., Chandio, A.H., and Fatmi, F., 1993, The stratigraphy and coal resource potential of the Bara Formation in the Fort Ranikot area, Sindh Province, Pakistan: U.S. Geological Survey Open-File Report 93-256, 63 p. (BARA FORMATION, COAL, COAL RESOURCES, FORT RANIKOT, INTERNATIONAL, OPEN-FILE, PAKISTAN, SIND PROVINCE, SINDH PROVINCE, STRATIGRAPHY)
2523. Wnuk, C., SanFilipo, J.R., Fariduddin, M., Fatmi, F., and Chandio, A., 1992, Tidally dominated Paleocene sand ridges in the Bara Formation, Sindh, Pakistan: 29th International Geological Congress Abstracts, v. 2, p. 317. (ABSTRACT, BARA FORMATION, DEPOSITIONAL ENVIRONMENT, FACIES, INTERNATIONAL, MARINE, PAKISTAN, PALEOCENE, PALEOENVIRONMENT, SIND PROVINCE, SINDH PROVINCE, TERTIARY, TIDAL)
3921. Wnuk, C., SanFilipo, J.R., Fariduddin, M., Fatmi, F., Khan, S.A., and Chandio, A., 1992, Measured sections from the Bara, Lakhra, and Laki Formations in Sindh Province, Pakistan: A progress report: U.S. Geological Survey Open-File Report 92-281, 90 p. (BARA FORMATION, COAL, INTERNATIONAL, LAKHRA FORMATION, LAKI FORMATION, MEASURED SECTIONS, OPEN-FILE, PAKISTAN, SIND PROVINCE, SINDH PROVINCE, STRATIGRAPHY)
2508. Wnuk, C., SanFilipo, J.R., Fatmi, F., and Fariduddin, M., 1991, The stratigraphy and coal resource potential of the Sohnari Member of the Laki Formation in Sindh Province, Pakistan: A progress report: U.S. Geological Survey Open-File Report 91-326, 68 p. (COAL, COAL RESOURCES, INTERNATIONAL, LAKI FORMATION, OPEN-FILE, PAKISTAN, SIND PROVINCE, SINDH PROVINCE, SOHNARI MEMBER, STRATIGRAPHY)
3922. Wnuk, C., SanFilipo, J.R., Fatmi, F., Khan, S.A., and Farididdin, M., 1993, Lithological and geophysical characteristics of the Pakistan Mineral Development Corporations THL core hole: Implications for the coal resource potential of the lower and middle part of the Bara Formation in the Lakhra area of Sindh, Pakistan: U.S. Geological Survey Open-File Report 93-255, 137 p.

(BARA FORMATION, COAL, COAL RESOURCES, DRILLING, GEOPHYSICAL LOGS, INTERNATIONAL, LAKHRA FORMATION, LITHOLOGIC LOGS, MINERALS, OPEN-FILE, PAKISTAN, SIND PROVINCE, SINDH PROVINCE)

44. Wood, G.H., Jr., and Carter, M.D., UNKNOWN YEAR, Tectonics of the Anthracite region: Pennsylvania Geological Survey Bulletin. (COAL, PENNSYLVANIA, TECTONICS)
328. Wood, G.H., Jr., Kehn, T.M., and Eggleston, J.R., 1985, Depositional and Structural History of the Pennsylvania Anthracite Region, in Lyons, P.C. and Rice, C.L., editors, Paleoenvironmental and tectonic controls in coal-forming basins of the United States: Geological Society of America Special Publication, 54 p. (ANTHRACITE, COAL, DEPOSITION, PENNSYLVANIA, SEDIMENTATION, STRUCTURAL-GEOLOGY)
2139. Woodruff, L.G., Cannon, W.F., and Back, J.M., 1992, Chalcocite mineralization in the Portage Lake Volcanics of the Midcontinent Rift, Keweenaw Peninsula, Michigan; Anonymous. Geological Society of America, 1992 annual meeting. Abstracts-with-Programs-Geological-Society-of-America. 24. (7). p. 61; Geological Society of America, 1992 annual meeting, Cincinnati, OH, Oct. 26-29, 1992. (ABSTRACT, BASALT, CHALCOCITE, COPPER, IGNEOUS-ROCKS, METAL ORES, ORE FORMING FLUIDS, PORTAGE LAKE LAVA SERIES, PRECIPITATION, PREHNITE PUMPELLYITE FACIES, SULFIDES, VEINS, VOLCANIC ROCKS)
470. Yeakel, J.D., and Finkelman, R.B., 1988, A new model for predicting fouling deposit weight of coal: American Chemical Society, Fuel Chemistry Division, v. 33, p. 91-102. (ABSTRACT, COAL)
100. Yeats, R.S., McDougall, J.W., and Stitt, L.T., 1986, Cenozoic structure of the Val Verde 7 1/2-minute Quadrangle and south half of the Whitaker Peak 7 1/2-minute Quadrangle, California: U.S. Geological Survey Open-File Report, 23 p. (CALIFORNIA, FAULTS, GEOLOGIC MAP, GEOLOGY, MAP, NEOTECTONICS, OPEN-FILE, PACIFIC-COAST, STRIKE SLIP FAULTS, STRUCTURAL-ANALYSIS, STRUCTURAL-GEOLOGY)
540. Zech, R.S., Arndt, H.H., Biewick, L.R.H., Hardie, J.K., Johnson, R.C., Ridgley, J.L., Williamson, C., and Wright-Dunbar, R., 1992, Energy Research on Indian Lands, in Carter, L.M.H., ed., U.S. Geological Survey Research on Energy Resources, 1992, Program and Abstracts from the 8th V.M. McKelvey Forum: U.S. Geological Survey Circular 1074, p. 82-83. (ABSTRACT, COAL, ENERGY RESOURCES, INDIAN, INDIAN RESERVATION, RESOURCE ASSESSMENT)
1874. Zeller, H.D., 1990, Geologic map and coal stratigraphy of the Petes Cove Quadrangle, Kane County, Utah: U.S. Geological Survey Coal Investigations Map C-132, scale 1:24,000. (COAL, ECONOMIC GEOLOGY, GEOLOGIC MAP, KANE COUNTY, LITHOSTRATIGRAPHY, MAP, ORGANIC, PETES COVE QUADRANGLE, SEDIMENTARY ROCKS, STRATIGRAPHY, USA, UTAH, WESTERN-U.S)
1875. Zeller, H.D., 1990, Geologic map and coal stratigraphy of the east of the Navajo Quadrangle, Kane County, Utah: U.S. Geological Survey Coal Investigations Map C-130, scale 1:24,000. (COAL, CORRELATION, ECONOMIC GEOLOGY, GEOLOGIC MAP, KANE COUNTY, LITHOSTRATIGRAPHY, MAP, ORGANIC, SEDIMENTARY ROCKS, STRATIGRAPHY, USA, UTAH, WESTERN-U.S)

1877. Zeller, H.D., 1990, Geologic map and coal stratigraphy of the Needle Eye Point Quadrangle, Kane County, Utah: U.S. Geological Survey Coal Investigations Map C-129, scale 1:24,000. (COAL, CORRELATION, ECONOMIC GEOLOGY, GEOLOGIC MAP, KANE COUNTY, LITHOSTRATIGRAPHY, MAP, ORGANIC, SEDIMENTARY ROCKS, STRATIGRAPHY, USA, UTAH, WESTERN-U.S)
1887. Zeller, H.D., and Vaninetti, G.E., 1990, Geologic map and coal stratigraphy of the Ship Mountain Point Quadrangle and the north part of the Tibbet Bench Quadrangle, Kane County, Utah: U.S. Geological Survey Coal Investigations Map C-131, scale 1:24,000. (COAL, CORRELATION, ECONOMIC GEOLOGY, GEOLOGIC MAP, KANE COUNTY, LITHOSTRATIGRAPHY, MAP, ORGANIC, SEDIMENTARY ROCKS, STRATIGRAPHY, USA, UTAH, WESTERN-U.S)
562. Zhou, L., Kyte, F.T., and Bohor, B.F., 1991, Cretaceous/Tertiary boundary of DSDP Site 596, South Pacific: *Geology*, v. 19, p. 694-697. (CRETACEOUS, DSDP, INTERNATIONAL, K/T, SOUTH PACIFIC, TERTIARY)
3895. Zhou, Y., Ren, Y., Tang, D., and Bohor, B.F., 1994, Characteristics of zircons from volcanic ash-derived tonsteins in Late Permian coal fields of eastern Yunnan, China: *International Journal of Coal Geology*, v. 25, p. 243-264. (ASH, CHINA, COAL, COAL-FIELDS, INTERNATIONAL, TONSTEIN, VOLCANIC-ASH, YUNNAN, ZIRCON)
3744. Zodrow, E.L., and Lyons, P.C., in press, Geochemistry of siderite-dolomite coal balls (Westphalian C, Nova Scotia, Canada: Geological Association of Canada, Mineralogical Association of Canada, Joint Annual Meeting, Calgary, Canada, May 1992, v. 25, p. 37. (ABSTRACT, CANADA, COAL, COAL-BALLS, DOLOMITE, GEOCHEMISTRY, NOVA-SCOTIA, SIDERITE, WESTPHALIAN)

APPENDIX

Phone Numbers of Branch Authors

To receive further information on the publications in this bibliography you may contact one of the Coal Branch authors at the following addresses and phone numbers.

RESTON OFFICE

U.S. Geological Survey
MS 956
National Center
Reston, VA 22092

Reston Main Office: 703 648-6405

Asiama, Sara 703 648-6454
Bates, Anne 703 648-6275
Boger, Lewis 703 648-6422
Bragg, Linda 703 648-6451
Bryant, Karen 703 648-6541

Bush, Andre 703 648-6441
Carter, M. Devereux 703 648-6413
Cecil, Blaine 703 648-6415
Collins, Gary 703 648-6404
Congdon, Roger 703 648-6423

Crowley, Sharon 703 648-6453
Dulong, Frank 703 648-6416
Eggleston, Jane 703 648-6464
Finkelman, Robert 703 648-6412
Gardner, Nancy 703 648-6439

Gluskoter, Harold 703 648-6401
Johnson, Donald 703 648-6414
Krasnow, Marta 703 648-6450
Krohn, Kathryn 703 648-6435
Lerch, Harold 703 648-6278

Levine, Mark 703 648-6465
Lyons, Paul 703 648-6449
Milici, Robert (Branch Chief)
or in Denver 703 648-6401
303 236-7726
Neuzil, Sandra 703 648-6443
Oman, Charles 703 648-6452

Oman, Joanne	703 648-6426
Orem, William	703 648-6273
Pierce, Brenda	703 648-6421
Pontolillo, James	703 648-4597
Quinn, Donald	703 648-6499

Raines, Joanne	703 648-6406
Rega, Noreen	703 648-6529
Robbins, Eleanora	703 648-6527
Ruppert, Leslie	703 648-6431
SanFilipo, John	703 648-6436

Spiker, Elliott	703 648-5330
Stanton, Ronald	703 648-6462
Tewalt, Susan	703 648-6437
Thomas, Roger	703 648-6411
Warwick, Peter	703 648-6469

Washington, Paula	703 648-6434
Watson, William	703 648-6541
Weintraub, Vickie	703 648-5309
Wnuk, Christopher	703 648-6418
Wnuk, Lynn	703 648-6447

Volunteers

Altschuler, Samuel	703 648-6454
Outerbridge, William	703 648-6455
Schweinfurth, Stanley	703 648-6476

DENVER OFFICE

U.S. Geological Survey
Box 25046, MS 972
Denver Federal Center
Denver, CO 80225

Denver Main Office:	303 236-7726
---------------------	--------------

Affolter, Ronald	303 236-7752
Betterton, William	303 236-7740
Biewick, Laura	303 236-7773
Blake, Dorsey	303 236-7746
Bohor, Bruce	303 236-8290

Bostick, Neely 303 236-0581
Brownfield, Michael 303 236-7767
Cathcart, James 303 236-7780
Clark, Vickie 303 236-7741
Coates, Donald 303 236-7737

Ellis, Margaret 303 236-7775
Filipek, Lorraine 303 236-3329
Flores, Romeo 303 236-7774
Hatch, Joseph 303 236-5418
Hettinger, Robert 303 236-7770

Holmes, Charles 303 236-7748
Kirschbaum, Mark 303 236-7792
Landis, Edwin 303 236-7756
McCabe, Peter 303 236-7550
M'Gonigle, John 303 236-7776

Milici, Robert (Branch Chief) 303 236-7726
or in Reston 703 648-6401
Molnia, Carol 303 236-7769
Roberts, Laura 303 236-7777
Roberts, Stephen 303 236-7788
Sanchez, J. David 303 236-7758
Stricker, Gary 303 236-7763

Volunteers

Bowers, William 303 236-7785
Colton, Roger 303 236-7787
Dunrud, C. Richard 303 236-7739
Norman, Katherine 303 236-7737