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Annotation of principal geologic literature published  
from 1970 to 1982 in China

by

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This report has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature.

1. U.S. Geological Survey, Reston, Virginia.

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This bibliography contains the principal geologic literature which has been published from 1970 to 1982 in the People's Republic of China and is available in the United States of America. The types of publications are monographs, maps, and journals. Although most of the reports consist of abbreviated texts, generally they provide a fairly good informative statement on specified subjects.

Monographs

Department of Coal Teaching and Researches, Wuhan Geologic College, 1979, [Coal Geology]: Beijing, Geology Press, v. 1, 280 p., 36 pls. (in Chinese).  
Written as a reference book for research in coal geology, this volume deciphers the genesis and constituents of coal and control factors on coalification of organic matters, depositional environments in relationship to tectonic effects, and coal oxidation during weathering.

Department of Coal Teaching and Researches, Wuhan Geologic College, 1981, [Coal Geology]: Beijing, Geology Press, v. 2, 296 p., 11 pls. (in Chinese).  
This volume emphasizes the coal accumulation of principal coal-bearing formations in the Paleozoic, Mesozoic, and Tertiary ages throughout China. A detailed statement is given on the methods of the research.

Han, Dexin and Yang, Qi, Chief Editors, 1980, [Coal Geology of China]: Beijing, Coal Industry Press, v. 2, 415 p. (in Chinese).  
States the patterns of coal accumulation in the principal coal-bearing formations of the Paleozoic, Mesozoic, and Cenozoic ages in China with detailed illustrations of isopachs of coal-bearing formations and columnar stratigraphic correlation.

Institute of Geology, Academia Sinica, and Institute of Geology, State Bureau of Seismology, 1980, [Formation and Evolution of North China Fault Blocks]: Beijing, Science Press, 378 p. (in Chinese).  
Contains 34 papers, which can be grouped into six topics: 1. General summary on the formation and evolution as well as classification of structural elements of the North China fault blocks. 2. Early evolution of Precambrian geology and earth's crust of the North China fault blocks. 3. Paleozoic sedimentary depositional characteristics and southern metamorphosed border zone of the North China fault blocks. 4. Mesozoic and Cenozoic tectonic evolution characteristics and stress analysis of the North China fault blocks. 5. Magmatic activities related to geologic structure in the North China fault blocks. 6. Characteristics of deep-seated geology and geophysics.

Institute of the Daqing Oil Field Development, 1976, [Cretaceous Ostracods of the Songliao Basin]: Beijing, Science Press, 102 p. (in Chinese).  
Detailed study of the Cretaceous Ostracods in the Songliao Basin with 37 pls. and columnar sections.

Institute of Geology, Chinese Academy of Geological Sciences, 1980, [Mesozoic Stratigraphy and Paleontology of the Shaanganning Basin]: Beijing, Science Press, v. 1, 212 p. 98 pls. (in Chinese).

Detailed statement of the Triassic, Jurassic and Cretaceous stratigraphy and areal correlation. Also gives a detailed description of the Mesozoic paleobotany.

Institute of Geology, Chinese Academy of Geological Sciences, 1980, [Mesozoic Stratigraphy and Paleontology of the Shaanganning Basin]: Beijing, Science Press, v. 2, 188 p., 48 pls. (in Chinese).

Detailed description of the Mesozoic lamellibranchs, conchostracans, insects, and mammal fauna.

Institute of Petroleum Exploration and Development, Ministry of Petroleum Chemical Industry; and Nanjing Institute of Geology and Paleontology, Academia Sinica, 1978, Early Tertiary Gastropod Fossils from Coastal Region of Bohai: Beijing, Science Press, 157 p., 33 pls. (in Chinese with English abstract).

The Lower Tertiary strata consist of the Kongdian Formation, the Shahejie Formation, and the Dongying Formation in ascending order. Mostly gastropods are found in Member I of the Shahejie Formation. Of the 39 families and subfamilies, 237 species and 92 genera are recorded. Identified are 224 new species, 15 new genera, 2 new subgenera, and 1 new family.

Institute of Petroleum Exploration and Development, Ministry of Petroleum Chemical Industry; and Nanjing Institute of Geology and Paleontology, Academia Sinica, 1978, Early Tertiary Charophytes from Coastal Region of Bohai: Beijing, Science Press, 49 p., 23 pls. (in Chinese with English abstract).

A detailed description of the charophytes is given from the Lower Tertiary, 4,000 - 5,000 m, sedimentary sequences. Identified are 2 new genera and 51 new species.

Institute of Petroleum Exploration and Development, Ministry of Petroleum Chemical Industry; and Nanjing Institute of Geology and Paleontology, Academia Sinica, 1978, On the Paleogene Dinoflagellates and Acritarchs from the Coastal Region of Bohai: Beijing, Science Press, 190 p., 49 pls. (in Chinese with English abstract).

Dinoflagellates and Acritarchs are very abundant in the Shahejie and Dongying Formations. The Dinoflagellates consist of 36 genera and 142 species, of which 6 genera and 70 species are new. The Acritarchs have 24 genera and 78 species, of which 5 genera and 50 species are new.

Institute of Petroleum Exploration and Development, Ministry of Petroleum Chemical Industry; and Nanjing Institute of Geology and Paleontology, Academia Sinica, 1978, Early Tertiary Ostracode Fauna from the Coastal Region of Bohai: Beijing, Science Press, 205 p., 83 pls. (in Chinese with English abstract).

Forty-one genera and 425 species of ostracods are recorded. A detailed description of 23 new genera is given. Climate control is discussed.

Institute of Petroleum Exploration and Development, Ministry of Petroleum Chemical Industry; and Nanjing Institute of Geology and Paleontology, Academia Sinica, 1978, Early Tertiary Spores and Pollen Grains from the Coastal Region of Bohai: Beijing, Science Press, 177 p., 62 pls. (in Chinese with English abstract).

One hundred and fifty-two genera and 470 species are described.  
Seven genera and 165 species are new.

Institute of Geochemistry, Academia Sinica, 1981, [Geochemistry and Mineralogy of the Platinum-group elements in the Platinum-bearing geologic materials of China]: Beijing, Science Press, 239 p., 84 refs. (in Chinese).

Contains detailed geochemical research on the genesis and mode of occurrence of the platinum-group elements in order to define the ore-forming pattern for exploration and development.

Li, Siguang, 1976, [Methods of Geomechanics]: Beijing, Science Press, 260 p. (in Chinese).

This report contains 14 papers, which Dr. Li Siguang presented from 1926 to 1965 on his concept of mechanism of earth's movement in geologic history. At present, his concept has a great effect on the thinking of structural geologists throughout China.

Liu, Dongsheng, Chief Editor, 1981, Geological and Ecological Studies of Qinghai-Xizang Plateau: Beijing, Science Press; and New York, Gordon and Breach, Science Publishers, Inc. v. 1, 974 p.

Proceedings of a symposium on the Qinghai-Xizang (Tibet) Plateau in Beijing, China, consisting of two volumes. This is the first volume, which contains the reports on the geology, geological history and origin of the Qinghai-Xizang Plateau. Each paper has a concise text and provides a fairly good insight on the subject discussed.

Liu, Dongsheng, Chief Editor, 1981, Geological and Ecological Studies of Qinghai-Xizang Plateau: Beijing, Science Press; and New York, Gordon and Breach, Science Publishers, Inc. v. 2, p. 975-2138.

Proceedings of a symposium on the Qinghai-Xizang (Tibet) Plateau in Beijing, China consisting of two volumes. This is the second volume, which contains numerous concise reports concerning the environment and ecology of the Qinghai-Xizang Plateau.

Neimenggu Geological Survey and Dongbei Institute of Geological Sciences, 1976, [Paleontology of North China - Inner Mongolia]: Part 2, Mesozoic and Cenozoic: Beijing, Geology Press, 261 p., 120 pls. (in Chinese).

Written as reference book for field geologists. Detailed description of the Mesozoic and Cenozoic fauna which occur in the Inner Mongolian Autonomous Region with stratigraphic correlation table.

Nanjing Institute of Geology and Paleontology, Academia Sinica, 1980, [Stratigraphy and Paleontology of the Upper Permian Coal-Bearing Formations in Western Quizhou and Eastern Yunnan, China]: Beijing, Science Press, 277 p. (in Chinese).

Contains five reports, which state the stratigraphic problems and the clarification by fauna contents in the Upper Permian and Triassic strata. Each report has been illustrated by plates.

Regional Stratigraphic Table Editorial Office of the Hebeisheng and Tianjinshi, 1979, [Regional Stratigraphic Tables of North China]: Beijing, Geology Press, Hebeisheng and Tianjinshi subvolume, n. 1, 312 p. (in Chinese).

Contains four major topics and states the purposes and methods of study as well as the stratigraphic summary with index map. Provides a stratigraphic table of North China for the subareas: Yinshan-Nuluerhushan and Yanshan.

Regional Stratigraphic Table Editorial Office of The Hebeisheng and Tianjinshi, 1979, [Regional Stratigraphic Tables of North China]: Beijing, Geology Press, Hebeisheng and Tianjinshi subvolume, n. 2, 228 p. (in Chinese).

Provides regional stratigraphic tables for areas in Shanxi Province, North China Plain, and the grassland of the Inner Mongolian Autonomous Region. Also includes editorial remarks and appendix, which contain the Latin-Chinese fossil names. Two separate pockets contain illustrations for the Hebeisheng and Tianjinshi subvolume. The first contains 14 regional stratigraphic correlation tables of North China, and the second contains 13 items, which consist of areal stratigraphic correlation tables and columnar sections of the Shanxi Province.

Wang, Honchen and Liu, Benpei, 1980, [Historical Geology]: Beijing, Geology Press, 352 p. (in Chinese).

Written as a college textbook for geology majors. It is well written and emphasizes the geological history of China. Contains figures and plates for illustrations. The paleogeography and types of sedimentation from the Proterozoic to Cenozoic are illustrated by the plates, which provide good information on depositional environments and lithofacies of the principal geologic periods.

#### Maps

Bureau of Marine Geology, 1975, [Geological Map of China Seas and Adjacent Regions]: Beijing, Geological Map Printing House of China. 1:3,000,000; 12 sheets (in Chinese).

Compiled on the basis of equal-area projection on standard latitudes, 6° and 34°, and central meridian 115°. Provides excellent 4 geology-earth's crust cross sections across the South China Sea, East China Sea, Yellow Sea, and Bohai. Map legend is generally adequate, but the age of faults is not given. Localities of oil and gas wells and fields are shown. The location of seismic refraction profile measurement and data of the earth's crust structure is given.

Chinese Academy of Geological Sciences, 1973, [Atlas of Provincial Geologic Map of the People's Republic of China]: Beijing, Geological Map Printing House of China. Mostly 1:2,000,000 and 1:3,000,000. Twenty-seven Provincial geologic maps with separate explanation texts, 149 p. (in Chinese).

Maps are detailed to scale. Generally provide good concise informative statements of the geology for each province.

Compilation Group of the Geological Map of Asia, Chinese Academy of Geological Sciences, 1975, [The Geologic Map of Asia]: Beijing, Topographical Publishing House of China. 1:5,000,000; 20 sheets, 1982, Figures and Tables of the Geology of Asia: Beijing, Geology Press (in Chinese).

Detailed to scale. The figures and tables contain 14 stratigraphic correlation tables of the principal geologic periods throughout Asia. The paleogeography and types of sedimentation of principal geologic periods are shown by colored plates.

Chinese Academy of Geological Sciences, 1976, [Geologic Map of the People's Republic of China]: Beijing, Geological Map Printing House of China. 1:4,000,000; 1 sheet (in Chinese).

A reliable geologic map of China. The legend, however, is brief, and an explanation of the text is not available.

Institute of the Plateau Geology, Chinese Academy of Geological Sciences, 1980, [Geological Map of the Qing-Zang Plateau]: Beijing, Topographical Publishing House of China. 1:1,500,000; 8 sheets (in Chinese).

Compiled on the basis of equal-angle circular cone projection. Legend consists of 110 stratigraphic map units; magmatic rocks are divided, according to the age and composition, into three major units: plutonic rocks, hypabyssal rocks, and extrusive rocks. Detailed to scale. It is the only available large-scale map for the Qing-Zang Plateau.

Qingzang Structural Research Group of the Institute of Geology, Chinese Academy of Geological Sciences, 1980, [Geologic Map of Xizang]: Beijing, Topographical Publishing House of China. 1:3,000,000; 1 sheet (in Chinese).

Detailed to scale. Legend consists of 31 stratigraphical map units and 18 magmatic rock units, which are delineated according to geologic age and chemical composition.

Qingzang Structural Research Group of the Institute of Geology, Chinese Academy of Geological Sciences, 1980, [Structural Map of Xizang]: Beijing, Topographical Publishing House of China. 1:3,000,000; 1 sheet (in Chinese).

Detailed to scale. Legend consists of 18 structural map units and 17 igneous rock units, which are delineated according to geologic age and rock composition.

Office of Geotectonic Researches, Institute of Geology, Chinese Academy of Geological Sciences, 1979, [Geotectonic Map of China]: Beijing, Topographical Publishing House of China. 1:4,000,000; 1 sheet, 1980, The Geotectonic Evolution of China: Beijing, Science Press, 124 p. text (in Chinese).

Dr. T. K. Huang is the chief editor and compiler of the map and text. Concise description on principal orogenic movements throughout China is given. Gravity and magnetic data of earth's crust are provided. Excellent reference book for detailed research of geotectonics in China.

Zhang Wen-you (Chang, W. Y.), Chief Compiler, 1982\*, The Marine and Continental Tectonic Map of China and Its Environs: Beijing, Geological Map Printing House of China\*. 1:5,000,000; 6 sheets (in English).

Compiled on the basis of the conformal cylindrical projection (Mercator projection) on standard latitudes 30°. The cut-out date of the geologic data is the end of 1980. Legend consists of four major topics: 1. Tectonic layer includes: a) tectonic domain of recent continental crust, b) tectonic domain of recent transitional crust, and c) tectonic domain of recent oceanic crust. 2. Type of formation corresponding to the orogenic cycles consists of sedimentary formation, magmatic formation, and zone of metamorphic facies. 3. Tectonic deformation consists of types of faults and folds, in which the faults are specially differentiated in accord with the deformation order and stress nature, and the color and letters indicate the age of faults, time reactivation, and lithospheric faults. 4. Other map features include the defining of onshore and offshore Mesozoic, Meso-Cenozoic, and Cenozoic basins with isopachs; the delineation of isopach of Paleozoic deposits and isopach of sedimentary covers on the Yangzi fault blocks; and the localities of measuring seismic and magnetic data, deep sea drilling, and heat-flow value.

#### Journals

Acta Geologica Sinica, prior to 1970, edited by the Geological Society of China: Beijing, Science Press, Quarterly (in Chinese with English abstracts)

Excellent informative statement of research results on the subjects of geological sciences. Generally, reports of the journal consist of economic geology, 42 percent; paleontology, 14 percent; petrology, 14 percent; stratigraphy, structure, petroleum geology, and geochemistry, about 7.5 percent each. Prior to 1978 the issues are incomplete.

Acta Geophysica Sinica, prior to 1970, edited by the Geophysical Society of China: Beijing, Science Press, Bimonthly (in Chinese with English abstracts).

Mostly reports decipher the research results of the earth's lithosphere. About 1 percent of reports provide a fairly good informative statement of structural geology of some principal sedimentary basins. The issues are incomplete prior to 1974.

Acta Paleontologica Sinica, 1978, edited by the Paleontological Society of China: Beijing, Science Press, Bimonthly (in Chinese with English abstracts).

Detailed description of research results on the paleontology of China.

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\* Date of Publishing, place published, and the publisher are not shown on map. Cut-out date of cited geological data is 1980. Professor Zhang is the Director of Institute of Geology, Academia Sinica, Beijing, China.

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Acta Petrolei Sinica, 1980, edited by the Chinese Petroleum Society: Beijing, Petroleum Industry Press, Quarterly (in Chinese with English abstracts).

Reports are generally concise and well written. Consists of reports on petroleum exploration, 50 percent; oil field development, 15 percent; petroleum engineering; 25 percent; and petroleum refining, 10 percent.

Acta Seismological Sinica, 1979, edited by the Seismological Society of China: Beijing, Science Press, Quarterly (in Chinese with English abstracts).

Reports on research results of earthquake study and prediction; well written. Short news items are included.

Geochimica, 1973, edited by the Society of Mineralogical and Petrological Geochemistry of China: Beijing, Science Press, Quarterly (in Chinese with English abstracts).

Contains reports on scientific research, discussion, and working reports; well written and edited.

Geological Review, prior to 1970, edited by the Geological Society of China: Beijing, Geology Press, Bimonthly (in Chinese with English abstracts).

Contains reports of geologic research, discussion, research notes, book reviews, correspondence and references, and news. Generally texts are concise, very well written, and informative. Issues are incomplete prior to 1980.

Journal of Stratigraphy, 1978, edited by the Chinese Stratigraphy Committee and the Editorial Board of Journal of Stratigraphy: Beijing, Science Press, Quarterly (in Chinese).

Detailed reports on stratigraphic problems and research results. Each report is well written and illustrated.

Marine Geology and Quaternary Geology, 1981, edited by the Editorial Board of Marine Geology and Quaternary Geology: Qingdao, Shandong Province, China, the Institute of Marine Geology, Ministry of Geology and Mineral Resources, Quarterly (in Chinese with English abstracts).

Contains reports of research results of geophysical investigations on stratigraphy and structure of sedimentary covers, as well as the thickness and structure of the earth's crust. Some reports present the results of mineralogy, petrology, and geochemistry of rocks on or around the sea basins. Reports of paleontology are also included. Each report is generally concise and provides a fairly good insight on the specified topic. This journal is formerly called the Marine Geological Research.

Mineral Deposits, 1982, edited by the Special Committee of the Geology of Mineral Deposits of the Geological Society of China, and the Institute of Geology of Mineral Deposits, Chinese Academy of Geological Sciences: Beijing, Geology Press, Quarterly (in Chinese with English abstracts).

Contains reports of the progress and results on ore genesis, mode of ore occurrence, and ore mineralization in relationship to geologic environments. Each report is well written and illustrated.



Oil and Gas Geology, 1980, edited by the Editorial Board of Oil and Gas Geology: Beijing, the Bureau of Petroleum Investigation and Exploration, the Ministry of Geology and Mineral Resources, and the Special Committee of Petroleum Geology of the Geological Society of China, Quarterly (in Chinese with English abstracts).

Contains reports mostly on petroleum geology and geochemistry. Each report is well written and illustrated. Book review and announcement are generally included.

Oil Geophysical Prospecting, 1980, edited and published by the Editorial Board of Oil Geophysical Prospecting. Zhuoxian, Hebei Province, China, Bimonthly (in Chinese with English abstracts).

Mostly reports present research results and problems of seismic investigation. Some reports on gravity and magnetic surveys, as well as announcements, are included. Texts are generally concise and well illustrated on specific topics.

Petroleum Exploration and Development, 1981, edited by the Editorial Board of Petroleum Exploration and Development: Beijing, the Scientific Institute of Petroleum Exploration and Development, Bimonthly (in Chinese with English abstracts).

Reports consist of lithofacies analyses, depositional environments, composition of oil and gas, methods of research, textural studies of reservoir rocks, and petroleum engineering. Each report is well written and illustrated.

Scientia Geologica Sinica, prior to 1970, edited by the Institute of Geology, Academia Sinica: Beijing, Science Press, Quarterly (in Chinese with English abstracts).

Contains reports on mineralogy, 30 percent; structure, 17 percent; geochronology, 8 percent; petrology, 10 percent; and the remaining 35 percent on stratigraphy, paleontology, engineering geology, glaciology, marine geology, geochemistry, and geothermal. Each report is well organized and illustrated. One of the prominent geologic journals published in China.

Scientia Sinica, prior to 1970, edited by the Editorial Committee of Scientia Sinica: Beijing, Science Press, Monthly (in English).

Contains reports on earth's sciences, about 10 percent. Each report is generally well-written and illustrated.

Seismology and Geology, 1979, edited by the Editorial Board of Institute of Geology, National Bureau of Seismology: Beijing, Seismological Press, Quarterly (in Chinese with English abstracts).

Contains reports on seismology and structure, 40 percent; petrology, 25 percent; earthquake prediction, 15 percent; structure, 10 percent; and remaining 10 percent of the reports cover stratigraphy, gravity, mineralogy, and paleontology. Each report is generally well written and illustrated. One of the prominent seismologic journals.

## Remarks

A considerable amount of English geologic literature has been recently published outside China. Generally, this literature contains a high percentage of reports on petroleum and natural gas deposits. Some of the most important reports are herein annotated.

Mason, John F., Editor, 1980, Petroleum Geology in China: Tulsa, Oklahoma, PennWell Books. 263 p.

Contains principal lectures presented to the United Nations International Meeting on Petroleum Geology, 1980, Beijing, China. Of those 20 reports, 8 papers contain fairly good detailed statements on petroleum and natural gas deposits of China. Guan Shicong gave a general account on the geologic history of hydrocarbon deposits from Late Proterozoic to Triassic. Chang Wenyou described the fault block tectonics in relationship with the oil and gas deposits. Min Yu and Zhou Guangjia in separate presentations described the hydrocarbon accumulation and characteristics of organic matters in the continental Mesozoic and Cenozoic sedimentary basins. Yan Dunshi and Zhai Guangming stated the exploration practice in and prospects of buried-hill oil field in North China. Xu Shice and Wang Hengjian described the deltaic deposits of a large lake basin. Chang Chiyi provided a detailed description of the coarse clastic reservoirs of alluvial fans in the Karamay oil field, Xinjiang Province. Li Desheng gave a detailed account on the geologic structure and hydrocarbon occurrence of the Bohai area. Each report is well-written and illustrated.

Meyerhoff, Arthur A., 1982, Petroleum Basins of the Union of Socialist Soviet Republics and the People's Republic of China and the Politics of Petroleum: Petroleum Exploration Society of Australia, Distinguished Lecture Series, 341 pages, 141 Figures.

Contains an update synthesis on China Petroleum and natural gas resources. The description of each producing basin consists of introduction, regional geologic setting, stratigraphy, and petroleum geology. Text is well written and illustrated. Excellent reference book for more detailed study of each individual producing basin in China.

Petroconsultants, S. A., is located in Switzerland and provides essential but fragmental geologic information on the areal setting and reservoir rock data because of the limitation on obtaining information from China.

Robertson Research International Limited, 1979, the People's Republic of China: Its Petroleum Geology and Resources: Great Britain and France, the Robertson Research Group, v. 1, text, and v. 2, plates.

This is a most comprehensive and systematic study of petroleum geology and resources of China with excellent format of presentation. China has been subdivided into eight regions. The first volume contains concise and well written text of 16 headings and 60 subheadings. The second volume consists of 47 plates, which are made up of geologic maps, stratigraphic and structural cross sections, isopachs, and stratigraphic correlation tables. In this study, the cut-out date of information is 1978. Since 1978, most important literature of petroleum geology and natural gas deposits has been available in Chinese and English, and the insertion of this new material would provide a new look for this handsome publication.