

Index to Geophysical Abstracts 188-191 1962

By JAMES W. CLARKE, DOROTHY B. VITALIANO,
VIRGINIA S. NEUSCHEL, and others

G E O L O G I C A L S U R V E Y B U L L E T I N 1 1 6 6 - E

*Abstracts of current literature
pertaining to the physics of
the solid earth and to
geophysical exploration*



UNITED STATES DEPARTMENT OF THE INTERIOR

STEWART L. UDALL, *Secretary*

GEOLOGICAL SURVEY

Thomas B. Nolan, *Director*

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Price 40 cents (single copy). Subscription price: \$0.00 a year; 00 cents additional for foreign mailing. Use of funds for printing this publication has been approved by the Director of the Bureau of the Budget.

By James W. Clarke and others

AUTHOR INDEX

A

	Abstract
Abdullayev, R. A. Composition of normal travelttime curves and determination of mean velocity to refracting boundaries with the aid of nomograms -----	190-557
Abdullayev, R. N. Tectonics of the deep horizons of Lokbatan and the Khudat-Khachmas area of the cis-Caspian region from seismic prospecting data -----	189-581
Abe, Siro. See Fukushima, Naoshi.	
Abel, J. F., Jr. Ice tunnel closure phenomena -----	191-681
Abelson, P. H. See Hoering, T. C.	
Abubaker, Iya. Disturbance due to a line source in a semi-infinite transversely isotropic elastic medium -----	191-154
— Scattering of plane elastic waves at rough surfaces. I. -----	188-200
Academia Sinica. A direct current amplifier of the modulation type for the telluric current method of geophysical prospecting -----	188-146
Ackerman, R. K. See Ralph, E. K.	
Ackerman, W. See Urbach, W.	
Acta Geophysica Sinica. A supersonic impulse well-logging instrument -----	188-542
Adams, E. W., and Huffaker, R. M. Parent body hypothesis for origin of tektites -----	191-67
Adams, J. A. S., and Rogers, J. J. W. Bentonites as absolute time-stratigraphic calibration points -----	188-41
Adams, R. D. Thickness of the earth's crust beneath the Campbell Plateau -----	189-351
— Total magnetic field surveys between New Zealand and the Ross Sea -----	188-467
Adams, W. M., and Allen, D. C. Seismic decoupling for explosions in spherical underground cavities -----	188-221
Adams, W. M., and Swift, L. M. The effect of shotpoint medium on seismic coupling -----	188-220
Adler, Isidore, and Dwornik E. J. Electronprobe analysis of schreibersite (rhabdite) in the Canyon Diablo meteorite -----	188-109
Afanas'yev, G. D. The petrographic interpretation of geophysical data on the structure of the earth's crust -----	189-352
Afanas'yev, G. D., Borisevich, I. V., and Shanin, L. L. On the geologic interpretation of radiological data according to determinations of the absolute age of rocks -----	191-1
Afanas'yev, G. D., Shanin, L. L., Gol'tsman, Yu. V., and Noskova, V. G. Tie points for the absolute time scale and some principles of its establishment -----	188-4
Afanas'yev, N. L. Determination of the center of a disturbing body from gravity anomalies -----	188-331
— Interpretation of V_{sz} anomalies by the direct method -----	191-337
Afanas'yeva, V. I. Preliminary results of investigation of magnetic storms for the first half of the IGY -----	189-391

- Agamaliyev, G. M. See Logovskaya, G. K.
- Agarwal, R. G. Earthquake of May 15, 1909 ----- 190-116
 — Interpretation of aeromagnetic data in west central Saskatchewan and east central Alberta ----- 190-479
- Agostinelli, Cataldo. On the movement of a glacier. New hypothesis on the determination of the profile of a right angle section --- 189-274
- Aguirre, Luis. See Ruiz, Carlos.
- Ahrens, T. J., and Katz, Samuel. An ultrasonic interferometer for high-pressure research ----- 191-205
- Airinei, Ștefan. Gravimetric and geomagnetic investigations in the zone of bend of the eastern Carpathians and the Țara Birsei ----- 188-357
 See also Ștefanescu, S. S.
- Akamatsu, H. See Uyeda, Seiya.
- Akasofu, Syun-Ichi. On a self-consistent calculation of the ring current field ----- 191-429
- Akasofu, Syun-Ichi, Cain, J. C., and Chapman, Sydney. The magnetic field of a model radiation belt, numerically computed ----- 188-392
 — The magnetic field of the quiet-time proton belt ----- 191-452
- Akasofu, Syun-Ichi, and Chapman, Sydney. The ring current and a neutral line discharge theory of the Aurora Polaris ----- 190-426
- Aki, Keiiti. Revision of some results obtained in the study of the source function of Rayleigh waves ----- 191-105
 — The use of long-period surface waves in the study of earthquake mechanism ----- 189-109
- Aki, Keiiti, and Press, Frank. Upper mantle structure under oceans and continents from Rayleigh waves ----- 188-373
 See also Miyamura, Setumi.
- Akopyan, Ts. G. Paleomagnetism of effusive rocks of the Armenian SSR, and the migration of the earth's poles during the Cenozoic era ----- 190-464
- Akrabova, A. Applying the method of refracted waves to the areas of fault tectonics in the Kamchia foredeep ----- 191-630
- Aksel'rod, S. M. On the scale of the curves of induction logging --- 190-224
 — Water-oil contact determination by the method of induced sodium activation under the conditions of the oil fields of Azerbaijan --- 189-522
- Aksel'rod, S. M., and Putkaradze, L. A. Application of radioactive methods for investigation of drill holes in the oil industry of the Azerbaijan SSR ----- 189-537
 — Concerning the question of calibration of radioactivity logging apparatus (RK) ----- 191-598
- Aksin, Vladimir. Recent work in investigation of oil and gas in the territory of Serbia ----- 188-289
- Alcaraz, Arturo. Tilt measurements in Philippine volcanic areas --- 190-628
- Aldrich, L. T., Hart, S. R., Wetherill, G. W., Davis, G. L., Tilton, G. R., and Doe, B. R. The earth's crust-radioactive ages of rocks ----- 189-2
 See also Asada, Toshi, and Davis, G. L.
- Aleksandrov, K. S., and Ryzhova, T. V. Elastic properties of the rock-making minerals. Pt. 2. Phyllosilicates ----- 191-201
 — Elastic properties of the rock-making minerals. Pt. 3. Feldspars ----- 191-202
- Aleksandrov, S. Ye., Sukhodol'skiy, V. V., and Izmaylov, Y. P. New pendulum device for gravity determination at sea ----- 191-358
- Alekseyev, A. S., Babich, V. M., and Gel'chinskiy, B. Ya. The ray method of calculation of intensity of wave fronts ----- 191-174

Abstract

- Alekseyev, A. S., and Gel'chinskiy, B. Ya. The ray method of calculation of head wave intensities ----- 191-178
- Alekseyev, F. A. Radiometric method of direct exploration for oil and gas ----- 190-515
- Alekseyev, F. A., and Denisik, S. Ts. Radioactivity methods of control of exploitation of oilfields ----- 189-507
- Alekseyev, F. A., Denisik, S. Ts., Miller, V. V., and Odinkov, V. P. Application of the method of gamma-radiation spectroscopy in borehole investigations ----- 189-510
- Alekseyev, F. A., Grumbkov, A. P., and Gottikh, R. P. Radiometry and radiogeochemistry in direct search of oil and gas ----- 189-495
- Alekseyev, F. A., Odinkov, V. P., and Shimelevich, Yu. S. Activation analysis of rocks under borehole conditions, and its application to locating oil-bearing and water-bearing strata ----- 189-521
- Alekseyev, F. A., Yerozolimskiy, B. G., Bepalov, D. F., Bondarenko, L. N., Voytsik, L. P., Popov, N. V., Khaustov, A. I., Romanovskiy, V. F., Shimelevich, Yu. S., Shkolnikov, A. S., and Yudin, L. I. On the results of application of neutron pulse methods and instrumentation for investigation of sections of wells ----- 189-516
- Alekseyeva, K. N., and Tovarenko, K. A. The dielectric constant of stone meteorites ----- 191-47
- See also Burkser, Ye. S.
- Aleksić, D. See Perić, M.
- Alessio, Marisa, Allegri, Lucia, and Bella, Francesco. A CO₂-proportional counter of small volume and high efficiency for low level β -counting ----- 189-8
- Alexander, I. H. Horizontal earth movement in the Baldwin Hills, Los Angeles area ----- 190-287
- Alexandrov, V. A., Pudovkin, M. I., and Yanovsky, V. M. The field of magnetic disturbances in the Arctic and Antarctic ----- 189-395
- Alfano, Luigi. Geoelectrical explorations for natural steam near "Monte Amiata" ----- 188-253
- Alferov, B. A., Purtova, S. I., Serabryakova, Z. D., and Yastrebova, T. A. Research drill holes of the U.S.S.R. Uvat research drill hole (Tyumen Region) ----- 191-257
- Aliyev, S. A. Magnitude of the geothermal step in the Bibieybat field ----- 188-366
- See also Mekhtiyev, Sh. F.
- Aliyev, V. I. See Kashkay, M. A.
- Alksne, A. Y. See Spreiter, J. R.
- Alldredge, L. R., and Van Voorhis, G. D. Source of the great Arctic magnetic anomaly ----- 189-373
- Allegri, Lucia. See Alessio, Marisa.
- Allen, C. R. See Kovach, R. L.
- Allen, J. R. L., and Wells, J. W. Holocene coral banks and subsidence in the Niger Delta ----- 191-312
- Allen, W. B. See Tuttle, C. R.
- Allingham, J. W. Aeromagnetic interpretation of zoned intrusions in northern Maine ----- 188-447
- Allingham, J. W., and Bates, R. G. Use of geophysical data to interpret geology in Precambrian rocks of central Wisconsin ----- 188-450
- Allonby, R. H. See Clarke, A. M.
- Allsup, J. R. See Eckelmann, W. R.

- Alperovich, L. A. See Troitskaya, V. A.
- Alterman, Z. See Pekeris, C. L.
- Alypova, O. M. See Markhinin, Ye. K.
- Ambraseys, N. N. A note on the chronology of Willis' list of earthquakes in Palestine and Syria ----- 189-77
- On the seismicity of south-west Asia. Data from a XV century Arabic manuscript ----- 189-87
- Amirkhanov, Kh. I., Brandt, S. B., and Bartnitsky, Ye. N. Radiogenic argon in minerals and its migration ----- 188-24
- Amirova, A. V. See Khat'yanov, F. I.
- Amiruddin, A. See Ehmann, W. D.
- An, V. A. See Vladimirov, N. P.
- Anders, Edward. See Fitch, Frank.
- Andersen, F. See Loomer, E. I.
- Anderson, D. L. Love waves dispersion in heterogeneous anisotropic media ----- 191-153
- The plastic layer of the earth's mantle ----- 191-410
- See also Harkrider, D. G.
- Anderson, K. A. See Winckler, J. R.
- Anderson, L. A. A remanent magnetometer and magnetic susceptibility bridge ----- 188-423
- Ando, Kiyomi. See Umezu, Naganori.
- Ando, Seiichi. See Miyamura, Setumi.
- Andreas, Dieter, and Hecht, Günter. Induced polarization as a well logging method in nonferrous metal prospecting ----- 188-269
- Andreasen, G. E., and Kane, M. F. Isostatic compensation in the Sangre de Cristo Mountains, New Mexico ----- 188-342
- Andreasen, G. E., Kane, M. F., and Zietz, Isidore. Aeromagnetic and gravity studies of the Precambrian in northeastern New Mexico ----- 190-477
- Andreyev, B. A. Development and adoption of methods of processing and interpretation of the results of gravity surveys ----- 190-308
- Andreyev, B. A., Boronin, V. P., and Krylov, S. V. Geophysical characteristics of oil-bearing structures of the Volga-Ural province ----- 190-531
- Andreyev, V. I. Taking account of certain demagnetizing factors in interpretation of magnetometric data ----- 191-471
- Andreyev, V. I., and Kuprin, V. I. Geologic-geophysical evaluation of the prospects of an iron ore field in deep horizons as exemplified by the Tashtagol deposits ----- 191-555
- Angenheister, G. H., and Consbruch, Claus von. Pulsations of the geomagnetic field at Göttingen for 1953-58. Pt. 2 ----- 188-405
- Anjaneyulu, T. S. S. Microseisms at Madras associated with disturbances in the Bay of Bengal ----- 190-491
- Annau, Edgar, and Vefalosn, Antall. Materials concerning the structure of the earth crust in northeast China ----- 188-370
- Annell, Charles. See Overstreet, W. C.
- Anpilogov, A. P. Problem of quantitative estimation of reservoir properties of terrigenous rocks according to SP logs ----- 191-253
- Anpilogov, A. P., Korshikov, V. N., and Zudakina, Ye. A. Testing of methods of determination of reservoir properties of terrigenous strata of the Tuymazy and Serafimovka fields according to geophysical logging data ----- 189-209
- Antes, A. C. See Lorenz, P. J.

- Abstract
- Antevs, Ernst. Transatlantic climatic agreement versus C^{14} dates -- 189-7
- Antsilevich, M. G. Interaction of the sun's corpuscular streamers with the earth's magnetic field ----- 190-444
- Antsyferov, M. S. The seismoacoustic control in the mining of coal seams with a tendency toward gas and coal bursts ----- 191-669
- Ao, Shunji. See Sato, Takahiro.
- Aoki, Harumi. Free oscillations of spherical seismic origins ----- 190-179
- Apostol, Ecaterina. See Costa-Foru, Alexandru.
- Archambeau, Charles. See Press, Frank.
- Arenales, Ricardo. The earthquake of San Salvador, Corpus-Christi—June 7, 1917 ----- 190-118
- Argentiere, Romulo. Notes on the radioactivity survey in the south part of Bahia ----- 189-501
- Arkhangel'skaya, V. M. Dispersion of surface waves and structure of the crust ----- 189-344
- Investigation of short period surface seismic Rayleigh waves --- 189-131
- Arkhangel'skaya, V. M., and Fedorov, S. A. Some results of study of attenuation of Rayleigh surface waves ----- 189-133
- Arkhangel'skiy, V. T. A method for changing the amplification of an electrodynamic seismograph preserving the shape of its frequency characteristics ----- 191-145
- Arnold, A. B. Case-hardening effect on unconfined compressive strength and elastic modulus of Iron Canyon, agglomerate, California ----- 191-664
- Arnold, J. R. Nuclear effects of cosmic rays in meteorites ----- 189-39
- Arnold, J. R., Honda, Masatake, and Lal, Devendra. Record of cosmic-ray intensity in the meteorites ----- 190-67
- See also Honda, Masatake.
- Arnold, K. C. See Weber, J. R.
- Arnold, Kurt. A graphic aid for the gravimetric correction of astronomic levelings ----- 190-277
- The determination of the geoid from gravity values and the theory of Molodenskiy ----- 190-272
- The methods of free-air reduction and of isostatic reduction in their reciprocal relations----- 189-289
- Arnold, R. G. Equilibrium relations between pyrrhotite and pyrite from 325° to 743°C ----- 191-395
- Arogyaswamy, R. N. P. Prospecting for clay deposits ----- 190-205
- Aronov, L. Ye. Photoelectrical automatic device for controlling the recording of electrical processes ----- 191-132
- See also Borisevich, Ye. S.
- Aronovich, Z. I. On an approximate transformation of seismograph parameters ----- 191-146
- Arshvila, S. V. See Borisevich, Ye. S.
- Arslanov, Kh. A. See Starik, I. Ye.
- Artamonov, L. V., and Shuval-Sergeyev, N. M. On dipole induction profiling in airborne electrical prospecting ----- 189-164
- Artemov, Yu. M. See Zhironov, K. K.
- Artem'yev, M. E., and Tarakanov, Yu. A. Gravimetric observations in one of the mines of the Krivoi Rog basin ----- 191-375
- Arthur, D. W. G., and Whitaker, E. A. Orthographic atlas of the moon, pt. 2. Limb areas ----- 188-139
- Asada, Toshi, Steinhart, J. S., Rodríguez, B., Tuve, M. A., and Aldrich, L. T. The earth's crust-seismic studies ----- 191-88
- Ashirov, K. B. See Mzhachikh, K. I.

- Abstract
- Aswathanarayana, U. Age of the Cuddapahs, India----- 189-28, 190-21
- Asylbayev, U. Kh. See Cherdyntsev, V. V.
- Atanasiu, Ion. Earthquakes in Rumania ----- 188-160
- Auberger, Michel, and Rinehart, J. S. Method for measuring at-
tenuation of ultrasonic longitudinal waves in plastics and rocks -- 190-166
- See also Klima, Karel.
- Aubert de la R  e, E. The present manifestations of volcanism in the
New Hebrides (Melanesia) ----- 190-631
- Aue, L. F. Concerning the question of the geologic utilization of
maps of the second vertical derivative of potential fields ----- 190-331
- Ault, W. U., Richter, D. H., and Stewart, D. B. A temperature
measurement probe into the melt of the Kilauea Iki lava lake in
Hawaii ----- 190-609
- Austin, C. F., and Slawson, W. F. Isotopic analyses of single
crystals: A clue to history of deposition ----- 188-384
- See also Slawson, W. F.
- Avdulov, M. V. Determination of the error in the representativity
of gravity anomalies by the method of mean gradients ----- 190-312
- Aver'yanov, A. G., Veytsman, P. S., Gal'perin, Ye. I., Zverev,
S. M., Zayonchkovskiy, M. A., Kosminskaya, I. P., Krak-
shina, R. M., Mikhota, G. G., and Tulina, Yu. V. Deep seis-
mic sounding in the transition zone from the Asian Continent to
the Pacific Ocean during the International Geophysical Year ---- 190-357
- Averyev, V. V., Ivanov, V. V., and Piyp, B. I. Problems of us-
ing volcanic thermae of the Kurile-Kamchata island arc for
power ----- 190-345
- Avramchev, L. See Tuparev, P.
- Axford, W. I. The interaction between the solar wind and the
earth's magnetosphere ----- 191-422
- Axford, W. I., and Reid, G. C. Polar-cap absorption and the mag-
netic storm of February 11, 1958----- 189-418
- Ayzberg, R. Ye., Germanyyuk, M. M., and Kamyshv, N. N. Di-
rection of geological-geophysical work for oil and gas in the
Gaurdak-Kerkki region ----- 190-589
- Ayzenshtadt, G. Ye. -A., Grinberg, I. G., D'yakov, B. F., Nevolin,
N. V., Trofimov, N. K., Cherepanov, N. N., and Eventov, Ya.
S. Prospects for oil and gas productivity of west Kazakhstan
and the main directions of regional, exploration, and prospecting
operations ----- 190-249
- Ayzenshtadt, G. Ye. -A., and Pinchuk, I. A. Research drill holes
of the U. S. S. R. Yuzhno-Emba 2 and Tugarakchan 5 research
drill holes ----- 191-260
- Azeem, Mohmmad. See Husain, M. K.
- Azimi, Sh. A., and Ogil'vi, A. A. Experiment in application of a
single channel seismic apparatus for engineering-geological in-
vestigations ----- 190-576

B

- Baadsgaard, Halfdan, Campbell, F. A., Folinsbee, R. E., and
Cumming, G. L. The Bruderheim meteorite ----- 190-71
- Baadsgaard, Halfdan, Folinsbee, R. E., and Lipson, J. I. Caledo-
nian or Acadian granites of the northern Yukon Territory ----- 188-59
- Baadsgaard, Halfdan, Lipson, J. I., and Folinsbee, R. E. The
leakage of radiogenic argon from sanidine ----- 188-26
- See also Burwash, R. A., Folinsbee, R. E., and Lipson, J. I.
- Baba, Kenzo. See Odani, Yoshitaka.

Abstract

- Babayants, S. P., and Zavarzin, G. N. Application of geophysical surveying on a scale of 1:200,000 in covered regions ----- 188-291
- Babich, V. M. Analytic extension of solutions of the wave equation into a complex region and the caustic ----- 191-182
- Analytic properties of the field of a nonstationary wave in the neighborhood of a caustic ----- 191-181
- Concerning convergence of series of the ray method for calculating wave front intensities ----- 191-175
- The ray method of calculation of intensity of wave fronts in the case of an elastic nonhomogeneous anisotropic medium ----- 191-176
- See also Alekseyev, A. S.
- Bacon, L. O. A method of determining dynamic tensile strength of rock at minimum loading ----- 191-654
- Badak, Jerzy. See Kita-Badak, Maria.
- Bagdasarova, A. M., Islamov, K. Sh., Koridalin, Ye. A., Kuznetsov, V. P., Kuz'mina, N. V., Nenilina, V. S., Nersesov, I. L., Sultanova, Z. Z., and Kharin, D. A. Seismicity of the east part of the south foothills of the main Caucasus Range and some methodological problems of study of the seismicity of individual regions. Pt. 1 ----- 188-161
- Seismicity of the east part of the south spurs of the main Caucasus Range and some methodological problems of study of the seismicity of individual regions. Pt. 3 ----- 188-162
- Bailey, R. W. Madison River-Hebgen Lake earthquake and highway problems ----- 188-150
- Bailey, S. W. See Tyler, S. A.
- Bainbridge, A. E., Suess, H. E., and Wänke, H. The tritium content of three stony meteorites and one iron meteorite ----- 190-84
- Baker, C. O., and Bott, M. H. P. A gravity survey over the Freetown basic complex of Sierra ----- 188-353
- Baker, George. A naturally etched Australite from Naremben, Western Australia ----- 189-62
- The largest known australite and three smaller specimens from Warralakin, Western Australia ----- 190-94
- Balakina, L. M., Shirokova, H. [Ye.] I., and Vvedenskaya, A. V. Study of stresses and ruptures in earthquake foci with the help of dislocation theory ----- 189-102
- Balakrishna, S. Earth tides ----- 188-193
- Balakrishna, S., and Johnson, P. V. Influence of earthquake shocks on the Askania gravimeter spring ----- 188-194
- See also Hayakawa, Masami.
- Balashov, V. N., and Polyakov, A. K. Experimental work with radiometric testing in an antimony mine ----- 188-500
- Baldwin, H. L., Jr. See Hill, D. P., and Pakiser, L. C.
- Balsamo, J. J. See Hemenway, C. H.
- Balsley, J. R. Aeromagnetic maps of Maine ----- 191-533
- Balsley, J. R., Meuschke, J. L., and Blanchett, Jean. Aeromagnetic map of the Eagle Harbor quadrangle, Keweenaw County, Michigan ----- 191-542
- Baltac, Alexandru. See Costa-Foru, Alexandru.
- Balyasnyy, N. D., Kogan, R. M., Renne, O. S., and Fridman, Sh. D. An experiment in determining the concentration of RaC' , ThC'' , and K-40 in homogeneous granites according to the energy composition of γ -rays ----- 190-499
- Banas, Henryk. Technical progress in seismic prospecting ----- 188-521
- Banno, Shohei. See Miller, J. A.
- Baramzina, V. A. See Dolina, L. P.

	Abstract
Baranov, V. I., and Knorre, K. G. Age and evolution of meteorite and terrestrial matter in the light of subsequent investigations---	191-30
Bareja, Henryk. Micromagnetics as an auxiliary method for investigation of the youngest geological deposits -----	190-473
Barinov, Ye. A., and Zhogolev, L. P. A device for measuring remanent magnetization of specimens of rocks -----	189-435
Barinova, A. Ya. See Kukhtikova, T. I.	
Barkan, S. Branching ratio of α and β emissions from $^{212}\text{Bi}(\text{ThC})$ -	190-495
Barker, Harold, and Mackey, John. British Museum natural radio-carbon measurements III -----	190-28
Barnes, D. F. Gravity low at Minto Flats, Alaska -----	188-351
Barnes, V. E. Tektites -----	188-132
Barnett, C. H. A suggested reconstruction of the land masses of the earth as a complete crust-----	191-300
Barr, K. G. The use of a selective amplifier to increase the useful sensitivity of short period electromagnetic seismographs -----	189-136
Barta, György. Connections between the secular variations of the earth's magnetic field and other phenomena -----	189-386
Bartels, Julius. Geomagnetic activity in the International Geophysical Year, discussed against the background of previous years---	189-390
Bartnitsky, Ye. N. See Amirkhanov, Kh. I.	
Barvenko, H. Ya. Surface ice movement of the Lesser Almatinsky glaciers of the Zailiyskiy Altay range -----	191-321
— Surface motion of the ice in the Central Tuyuksuysky glacier ---	189-280
Barygin, V. M. Prospecting for kimberlite pipes from the air----	191-560
Barykin, D. D. See Khalevin, N. I.	
Basin, Ya. N. See Kukharensko, N. K.	
Bass, M. N., and Shagam, Reginald. Rb-Sr ages of the crystalline rocks of the Merida Andes, Venezuela -----	189-20
Bassett, W. A. See Schaeffer, O. A.	
Batalina, E. P. See Dyad'kin, I. G.	
Bateman, P. C. Granitic formations in the east-central Sierra Nevada near Bishop, California -----	188-49
— Willard D. Johnson and the strike-slip component of fault movement in the Owens Valley, California, earthquake of 1872 -----	188-151
Bates, C. C. VELA UNIFORM, the nation's quest for better detection of underground nuclear explosions -----	188-222
Bates, L. F. Modern magnetism -----	190-449
Bates, R. G. Airborne radioactivity surveys—A geologic exploration tool -----	190-506
— Natural gamma aeroradioactivity of the Oak Ridge National Laboratory area, Tennessee and Kentucky -----	191-591
See also Allingham, J. W.	
Bath, G. D. See Irwin, W. P.	
Bath, Markus. Direction of approach of microseisms-----	191-565
— The Conrad discontinuity -----	190-352
Bath, Markus, and Lopez Arroyo, Alfonso. Attenuation and dispersion of G-waves -----	190-137
Battelli, O. See Molina, F.	
Bayambitov, F. G. Method of interpretation of diagrams of radioactive logging in reefs -----	189-542
Bażyński, Józef. Tasks and results of applying geophysics in geophysics in geological engineering -----	190-263
Beard, D. B. Self-consistent calculation of the ring current-----	191-428
Beard, D. B., and Jenkins, E. B. The magnetic effects of magnetosphere surface currents -----	191-421

Abstract

- Beck, A. E. Terrestrial flow of heat near Flin Flon, Manitoba ---- 191-389
- Beck, A. E., and Valliant, H. D. On minimum pendulums ----- 189-300
- Beckmann, W. C. See McGuinness, W. T.
- Bedcher, A. Z., Yeremina, A. S., and Stolovitskiy, B. M. Distribution of upper Miocene reservoirs in the West Kuban downwarp according to data of electrical logging and their gas-oil productivity ----- 189-216
- Bednářová-Nováková, Bohumila. A note on the question of the origin of geomagnetic storms ----- 191-458
- Connection between geomagnetic storms in IGY and IGC and occurrence of some kinds of filaments ----- 191-461
- Begery, W., R. Geophysical and geochemical surveys in the Con-nors area, St. Catherine, Jamaica ----- 190-208
- Behrendt, J. C. Geophysical and glaciological studies in the Filchner ice shelf area of Antarctica ----- 188-319
- Behrendt, J. C., Laudon, T. S., and Wold, R. J. Results of a geophysical traverse from Mount Murphy to the Hudson Mountains, Antarctica ----- 191-265
- Behrendt, J. C., and Parks, P. E., Jr. Antarctic peninsula traverse ----- 191-638
- Behrendt, J. C., Wold, R. J., and Laudon, T. S. Gravity base stations in Antarctica ----- 191-369
- Beland, J. See Neale, E. R. W.
- Belash, V. A. On some methods of interpretation of results of observations by the method of induced polarization ----- 191-224
- Belevtsev, Y. N. The prospecting criteria of iron ores of magnetic anomalies ----- 191-531
- Belikov, B. P. Elastic properties of rocks ----- 190-172
- Belin, R. E. Some observations on the suppression of movement of a rock face by the application of rock bolts ----- 189-593
- Belitskaya, S. G. See Nazarenko, O. V.
- Bell, Henry, III. See Overstreet, W. C.
- Bella, Francesco, and Cortesi, Cesarina. The CO₂-proportional counter of the carbon-14 dating laboratory of the University of Rome ----- 189-9
- See also Alessio, Marisa
- Belous, N. Kh. See Klyarovskiy, V. M.
- Belousov, V. V. Author's reply to the preceding discussion ----- 188-307
- Belshe, J. C. See Everitt, C. W. F.
- Belyankin, F. P. Gravitational effects of the moon and sun on tectonic processes in the earth's crust ----- 188-196
- Ben-Menahem, Ari. Radiation of seismic body waves from a finite moving source in the earth ----- 188-204
- Ben-Menahem, Ari, and Toksöz, M. Nafi. Source-mechanism from spectra of long-period seismic surface-waves. 1. The Mongolian earthquake of December 4, 1957 ----- 190-123
- Bennett, A. D. Study of multiple reflections using a one-dimensional seismic model ----- 191-605
- Bennett, H. F. See Crary, A. P.
- Bentley, C. B., and Ostenso, N. A. On the paper by F. F. Evison, C. E. Ingham, R. H. Orr, and L. H. Lefort, "Thickness of the earth's crust in Antarctica and the surrounding oceans" ----- 191-405
- Beránek, Břetislav. See Zounková, Milada.
- Berckhemer, Hans, Müller, Stephan, and Sellevoll, Markvard, A. The crustal structure in southwest Germany from phase velocity measurements on Rayleigh waves ----- 189-130

- Berezin, E. M., and Kuzivanov, V. A. Nomograms for determination of corrections for the amplitude, temperature, submersion depth, correction for Eötvös effect, and for determination of the co-oscillation coefficient in pendulum observations ----- 191-365
- Berezkin, V. M. Accounting for the effect of the relief of a locality on the gravimeter readings according to the values of relative altitudes at certain points ----- 191-340
- Nomograms for calculating the effect of relief on gravimeter readings according to the values of relative altitudes at characteristic points ----- 191-341
- Berg, E., and Janssen, T. Microseisms and earthquakes preceding the Nyamuragira-Kitimbanyi eruption (central Africa) in 1958----- 190-619
- Berger, I. Studies on geophysical prospecting in the Freiberg-Brand (Sächsisches Erzgebirge) ----- 189-313
- Berishvili, G. P. On the problem of study of variations of the geomagnetic field ----- 191-453
- Berkner, L. V. Geophysics today ----- 190-253
- Bernal, J. D. Comments ----- 189-50
- Significance of carbonaceous meteorites in theories on the origin of life ----- 189-46
- Bernard, Pierre. Annual variation in microseismic agitation at Honolulu ----- 189-479
- On the duality of the origin of microseisms according to the records at Abbadia (Basses-Pyrénées) ----- 190-485
- Berninghausen, W. H., and Van Padang, M. N. Catalogue of the active volcanoes of the world including solfatara fields. Part X, Antarctica ----- 188-591
- Bernshteyn, V. A. On magnetometric investigations in vicinity of volcanoes ----- 190-622
- Berry, D. S. An elastic treatment of ground movement due to mining, I. Isotropic ground ----- 189-590
- Berry, D. S., and Sales, T. W. An elastic treatment of ground movement due to mining, II. Transversely isotropic ground. III. Three dimensional problem ----- 189-590
- Bershteyn, P. Ya. Reflection of waves from a boundary of an anisotropic half-space ----- 190-162
- Berthold, S. M. See Rubin, Meyer.
- Berzon, I. S., Pak, V. A., and Yakovlev, V. N. Seismic sounding of the Fedchenko Glacier ----- 189-582
- Berzon, I. S., Pak, V. A., Yakovlev, V. N., and Leontiyev, I. Y. Seismic sounding of the Fedchenko glacier. Gravimetric observations on the Fedchenko glacier ----- 191-635
- Bespalov, D. F. New radiometric apparatus in commercial geology ----- 188-481
- Bespalov, D. F., and Khaustov, A. I. High voltage source of 100 kv for a borehole neutron generator ----- 189-530
- See also Alekseyev, F. A.
- Bespyatov, B. I. An experience in the use of grouping in the Saratov and Stalingrad district of the Volga region ----- 190-547
- Some problems of grouping theory in seismic prospecting ----- 188-517
- Bespyatov, B. I., and Khramoy, A. I. Experience in the use of seismic stations with magnetic recording ----- 190-539
- Bewersdorff, Axel. The effect of exsolution on remanent magnetization of titanomagnetites ----- 189-429

	Abstract
Bezrukov, P. L. The place of marine geology among related sciences and its basic problems -----	191-688
Bezrukov, P. L., and Petelin, V. P. A manual for collection and preliminary treatment of samples of sea floor deposits -----	191-686
Bhavsar, P. D. See Winckler, J. R.	
Bhimasankaram, V. L. S. See Rao, B. S. R.	
Bichevina, V. N. On the problem of the thickness of the crust in the insular region of the Far East of the USSR -----	191-402
Bidgood, D. E. T., and Harland, W. B. Palaeomagnetic studies of some Greenland rocks -----	188-430
Bien, G. S. See Hubbs, C. L.	
Bilotserkovets', Yu. I. Determination of the thickness of a coal bed according to gamma-gamma logging curves-----	188-506
Birch, W. B., and Dietz, F. T. Seismic refraction investigations in selected areas of Narragansett Bay, Rhode Island -----	190-579
Bjerhammar, Arne. On the gravity field of the earth -----	189-238
Bjerrum, L. The effective shear strength parameters of sensitive clays -----	189-598
Bjerrum, L., Kringsstad, S., and Kummenejo, O. The shear strength of a fine sand -----	189-597
Black, R. A., and Roller, J. C. Relation between gravity and structure of part of the western flank of the Black Hills, South Dakota and Wyoming -----	188-338
See also Roller, J. C.	
Black, R. F. See Evison, F. F., and Norris, D. K.	
Blake, Weston, Jr. Radiocarbon dating of raised beaches in Nord-austlandet, Spitsbergen -----	188-74
Blanchett, Jean. See Balsley, J. R.	
Blankov, Ye. B. Distinguishing the radiation of individual elements in logging oil wells by the method of induced activity of sodium and chlorine -----	189-525
Blankova, T. N. Effectiveness of the methods of induced activity of sodium and chlorine in differentiating Devonian sandstones according to water and oil saturation-----	189-524
Blinstrupas, S.I., and Gedvilayte, N. M. Problem of modelling magnetic and gravity fields (I) -----	189-462
Blot, Claude, Chaigneau, M., and Tazieff, Haroun. New Hebrides (March-May 1959) -----	190-632
Blot, Claude, Crenn, Yvonne, and Rechenmann, Julien. Elements contributed by gravimetry to the knowledge of the deep structure of Senegal-----	189-311
Blot, Claude, and Tazieff, Haroun. Some results of volcanic seismology at the volcano on Tanna, New Hebrides -----	188-597
Bloxam, T. W. Quantitative determination of uranium and thorium in rocks -----	191-575
Blue, D. M. See Savit, C. H.	
Bo, Guan'-Khon. Shallow-water marine seismic surveying-----	190-552
Bobrov, V. A., Polevaya, N. I., and Sprintsson, V. D. Preliminary data on ages of some magmatogenic rocks of the eastern regions of the Mongolian National Republic-----	188-96
Bobrovnik, D. P., and Yasinskaya, A. A. Mineralographic study of a meteorite fragment from the Poltusk collection-----	190-66
Bobrovnik, I. I. On the propagation velocity of seismic waves in bottom sediments of rivers and in the surface layer of marshes -----	188-531
Böðvarsson, Gunnar. Exploration and exploitation of natural heat in Iceland -----	190-343

	Abstract
Bogert, B. P. Seismic data collection, reduction, and digitization -	188-190
— The transfer function of a short-period vertical seismograph---	188-189
Bogorodskiy, V. V. See Rudakov, V. N.	
Bogoslovskiy, V. N. The temperature conditions (regime) and movement of the Antarctic glacial shield -----	189-275
Bokanenko, L. I., and Isayev, V. S. Preliminary results of determination of the thickness of the ice on Mount El'brus by the seismic method-----	191-634
Bollman, Dorothy. See Tuman, V. S.	
Bollo, M. F. Application of microseismic surveying to the construction of galleries-----	191-661
Bol'shakov, A. S. Separation of thermoremanent and normal magnetization components by the temperature method -----	191-470
Bol'shakova, O. V. Some features of the appearance of regular pulsations of the geomagnetic field with a period of 3-7 min at the Lovozero polar station -----	191-446
Bol'shakova, O. V., and Zybin, K. Yu. On the frequency of occurrence and amplitude spectrum of the geomagnetic field pulsations (according to IGY and IGC data) -----	189-397
Bol'shakova, O. V., Zybin, K. Yu., and Mal'tseva, N. F. Certain regularities in the behavior of the vertical component of short-period pulsations of a geomagnetic field of continuous character (Pc)-----	189-398
Bol'shikh, S. F., Gorbatoval, V. P., and Davydova, L. N. A study of kinematic and dynamic characteristics of reflected and head waves on models of a layered medium-----	190-543
Bolt, B. A., and Marussi, Antonio. Eigenvibrations of the earth observed at Trieste -----	191-116
Bonchev, P. R. See Penchev, N. P.	
Bonchkovskiy, V. F. Certain generalizations of results of observations of tilts of the earth's surface-----	189-246
Bondarenko, L. N. See Alekseyev, F. A., and Yerozolimskiy, B. G.	
Bondarenko, V. M., Demidovich, O. A., and Tarkhov, A. G. The first results of coordinated application of geophysical method for direct prospecting of the diamond deposits in the Yakutsk ASSR --	189-221
Bondarenko, V. M., Kovalenko, N. D., and Tarkhov, A. G. Geophysical investigations of uranium deposits by the method of radiowave transparency -----	191-241
Bonnet, G. New possibilities in proton magnetometers (1)-----	190-384
— New possibilities of proton magnetometers (2)-----	191-431
Books, K. G. Natural gamma aeroradioactivity of parts of the Los Angeles region, California -----	191-592
— Remanent magnetism as a contributor to some aeromagnetic anomalies -----	190-453
Boozer, G. D. See Serdengecti, S.	
Borgel, R. Seismic movements in Chile-----	190-119
Borisenko, T. I. See Cherdyntsev, V. V.	
Borisevich, I. V. See Afanas'yev, G. D.	
Borisevich, Ye. S., Gol'dfarb, M. L., Kastorskiy, S. A., and Preobrazhenskiy, V. B. Pen-writing seismic recording device PSERP-I -----	191-139
Borisevich, Ye. S., Gol'dfarb, M. L., and Mosyagina, M. S. A recording device with luminescent memory -----	191-136
Borisevich, Ye. S., Gol'dfarb, M. L., and Preobrazhenskiy, V. B. Changeable pen-writing galvanometers -----	191-141
Borisevich, Ye. S., Kastorskiy, S. A., and Mosyagina, M. S. Seismic oscillograph of the type OSB-V -----	191-130

Abstract

- Borisevich, Ye. S., and Katyushkin, V. F. Type GB galvanometers for seismic oscillographs ----- 191-138
- Borisevich, Ye. S., Zabelin, M. V., and Mosyagina, M. S. Seismic oscillograph of the type OSB-IV ----- 191-129
- Borisevich, Ye. S., Zhilevich, I. I., Aronov, L. Ye., Arshvila, S. V., and Zabelin, M. V. Seismic electrographic oscillograph SEO-I ----- 191-134
- Borisov, O. G. See Borisova, V. N.
- Borisova, V. N., and Borisov, O. G. Observations in the crater of Bezmyanniy Volcano in the summer of 1960 ----- 191-693
- Born, W. T. Technical limitations of present geophysical tools --- 191-282
- Borodachev, N. M. A general solution of the dynamic problem for a viscous-elastic halfspace ----- 189-147
- Boronin, V. P. See Andreyev, B. A.
- Borovinskiy, B. A. Application of geophysical methods to investigations of the Tuyuksu glacier and moraine ----- 189-195
- Electrical exploration of the moraine of the Maloalmatinsky glaciers ----- 189-194
- Geophysical investigations on the Glavnny Bol'shealmatinskiy Glacier ----- 191-268
- On the question of the researches of the glaciers by the methods of the electrical prospect ----- 191-245
- Borovinskiy, B. A., and Vilesova, L. A. Application of electromagnetic methods to the study of hydrologic characteristics of moraines ----- 190-210
- Bortfeld, Reinhard. Exact solution of the reflection and refraction of arbitrary spherical compressional waves at liquid-liquid interfaces and at solid-solid interfaces with equal shear velocities and equal densities ----- 190-154
- Bose, M. K. The concept of continental growth and origin of the Indian Peninsula ----- 190-286
- Bose, S. K. On low period sub-oceanic Rayleigh waves and their attenuation ----- 188-187
- Botezatu, Radu. Gravity net of Rumania. I. Triangulation of gravimetric points of the first order in Rumania ----- 188-337
- See also Constantinescu, Liviu, and Ștefănescu, S. S.
- Bott, M. H. P. A gravity survey off the coast of north-east England ----- 189-309
- A simple criterion for interpreting negative gravity anomalies - 190-305
- Geological interpretation of magnetic anomalies over the Ask-rigg block ----- 190-481
- See also Baker, C. O.
- Bottum, J. L., Gebhardt, R. E., and Townshend, J. B. Horizontal intensity comparisons between the sine galvanometer and the proton vector magnetometer ----- 188-394
- Bourguillot, R. See Cahen, Lucien.
- Bouska, Jan. Research into short-periodic variations of the earth's electromagnetic field at the observatory of Budkov ----- 191-459
- Research into the pulsation characteristics of the different phases of geomagnetic storms with particular regard to sudden commencements ----- 191-462
- The microstructure of ISc of geomagnetic storms ----- 190-435
- Bower, M. E. See Gregory, A. F.
- Bowman, A. L. See Ostlund, H. G.
- Boyarov, A. T. Determination of reservoir properties of strata by specific resistance ----- 188-273

Abstract

- Boyarov, A. T. Method of determination of the specific surface according to geophysical logging data ----- 191-252
 See also Fel'dman, B. Ye.
- Boyd, W. W., Jr. See Crary, A. P.
- Boyer, P. D., Graves, D. J., Suelter, C. H., and Dempsey, M. E. Simple procedure for conversion of oxygen of orthophosphate or water to carbon dioxide for oxygen-18 determinations----- 189-363
- Boyum, B. H. Subsidence case histories in Michigan mines ----- 188-281
- Brace, W. F. Dependence of fracture strength of rocks on grain size ----- 188-575
- Bradley, R. S. Thermodynamic calculations on phase equilibria involving fused salts. Part II. Solid solutions and application to the olivines ----- 191-413
- Bradley, R. S., Jamil, A. K., and Minro, D. C. Electrical conductivity of fayalite and spinel ----- 190-237
- Bradner, Hugh. Pressure variations accompanying a plane wave propagated along the ocean bottom ----- 191-212
- Brandt, S. B. See Amirkhanov, Kh. I.
- Brant, A. A. Beneath the surface ----- 191-288
- Breth, H. The strength of formerly loaded ground----- 191-663
- Briggs, B. H. The correlation of radio star scintillations with geomagnetic disturbances----- 188-408
- Briggs, B. R. See Spreiter, J. R.
- Briggs, M. H. Recent advances in the investigation of meteorites-- 191-34
- Briggs, M. H., and Kitto, G. B. Complex organic micro-structures in the Mokoia meteorite ----- 189-49
- Brodskaya, S. Yu., and Grabovskiy, M. A. Magnetic stability of one-component and two-component artificial systems ----- 191-468
- Brodskaya, S. Yu., and Grabovskiy, M. A. Study of magnetization processes of single-component and double-component ferromagnetic systems ----- 189-426
- Broecker, W. S., and Olson, E. A. Lamont radiocarbon measurements VIII ----- 190-38
 See also Eckelmann, W. R., and Olson, E. A.
- Bromery, R. W. Aeromagnetic map of part of the Shin Pond quadrangle, Penobscot County, Maine----- 191-535
 — Aeromagnetic map of the Grand Lake Seboeis Quadrangle, Aroostook and Penobscot Counties, Maine ----- 191-532
 — Geologic interpretation of the aeromagnetic map of the Lebanon quadrangle, Linn and Marion Counties, Oregon ----- 191-544
- Bromery, R. W., and Gilbert, F. P. Aeromagnetic map of the Mt. Cube quadrangle and part of the Rumney quadrangle, Grafton County, New Hampshire, and Orange and Windsor Counties, Vermont ----- 191-539
 — Aeromagnetic map of the Skinner and parts of the Attean and Sandy Bay quadrangles, Somerset and Franklin Counties, Maine----- 191-537
- Bronshteyn, V. A. On the problem of motion in the atmosphere of the Tungus meteorite----- 191-59
- Brookins, D. G. See Hurley, P. M.
- Brouwer, H. A. Vulcanism and tectonics----- 190-605
- Brovar, V. V., Magnitskiy, V. A., and Shimbirev, B. P. Theory of the figure of the earth ----- 190-269
- Brown, F., Goldsmith, P., Green, H. F., Holt, A., and Parham, A. G. Measurements of the water vapour, tritium and carbon-14 content of the middle stratosphere over southern England ----- 190-370

Abstract

- Brown, Harrison. See Duke, Michael.
- Brown, R. R., and Campbell, W. H. An auroral-zone electron precipitation event and its relationship to a magnetic bay ----- 189-406
- Brundage, H. T. Productivity in exploration----- 190-256
- Brune, J. N. Attenuation of dispersed wave trains ----- 189-122
- Correction of initial phase measurements for the southeast Alaska earthquake of July 10, 1958, and for certain nuclear explosions ----- 191-104
- Radiation pattern by Rayleigh waves from the southeast Alaska earthquake of July 10, 1959 ----- 189-110
- See also Kuo, John.
- Bryant, Bruce, and Reed, J. C., Jr. Structural and metamorphic history of the Grandfather Mountain area, North Carolina ----- 189-12
- Bryant, H. L. Flowing well logs can save you money ----- 188-509
- Bryusov, B. A. On a method of determination of the location of a disturbing mass from gravimetric data----- 190-313
- Buben, Jiri. Seismic investigations of mine bumps near Kladno in the year 1960 ----- 191-670
- Bubleynikov, F. D., and Ivanov, A. G. Geophysical methods of prospecting for mineral resources----- 188-295
- Bucha, Vaclav. Palaeomagnetic pole positions in the Pre-Cambrian and Palaeozoic periods investigated from Czechoslovak rocks (preliminary report) ----- 191-487
- Buchar, E. Determination of the flattening of the earth by means of the displacement of the node of the second Soviet satellite (1957 β) ----- 188-301
- Buchheim, Wolfgang. Theoretical principles of the measurement of electrical resistivity and dielectric constants of rocks in boreholes by induction according to the reaction method----- 191-247
- Buchwald, Vagn, and Sorensen, Henning. An autoradiographic examination of rocks and minerals from the Ilimaussaq batholith, South West Greenland ----- 188-473
- Budde, Enno. See Wendt, Immo.
- Bufoalini, M. See Hoering, T. C.
- Buffet, A. See Layat, C.
- Bugajski, H. J., and Willis, D. E. An auxiliary instrument for monitoring seismic signals ----- 189-137
- Bugaylo, V. A. An experience in interpreting magnetic and gravity anomalies in the Urals and Trans-Urals with the aid of logarithmic master charts ----- 191-510
- Bukhnikashvili, A. V. An apparatus for measuring natural potentials of ore samples----- 188-278
- Bukhnikashvili, A. V., and Dzhashi, G. G., and Khvitiya, G. P. Certain features of the local natural electrical field exemplified by the Adzhar polymetallic deposits in Georgian SSR----- 190-242
- Bulakh, Ye. G. Generalization of certain criteria for verification of interpretation of gravity anomalies ----- 191-347
- Bulakh, Ye. G., and Yevsikova, L. G. An integral method of interpreting gravity and magnetic anomalies ----- 191-335
- Bulanzhe, Yu. D. Co-oscillation of the support of quartz gravimeters having a horizontal torsion filament ----- 191-362
- Bulashevich, Yu. P., and Sen'ko-Bulatnyy, I. N. Experimental verification of the optimum conditions for continuous activation logging ----- 188-502
- Bulatova, G. A. See Troitskaya, V. A.
- Buldyrev, V. S. Generalization of the pass method for the case of two proximate saddle points----- 191-183

- Buldyrev, V. S. Wave field in the neighborhood of caustics in non-stationary diffraction problems in cases of spherical and cylindrical interfaces of the mediums ----- 191-186
- Bulgakov, Yu. I., Veshev, A. V., and Larionov, L. V. Bridge devices for measurement of magnetic susceptibility of rocks and ores ----- 188-424
- Bulin, N. K. Magnitude of the mean velocity ratio for longitudinal and transverse waves in the sedimentary deposits in Turkmenia ----- 191-602
- Bull, C., Irving, E., and Willis, I. Further palaeomagnetic results from South Victoria Land, Antarctica ----- 191-492
- Bullard, E. C., and Griggs, D. T. The nature of the Mohorovičić discontinuity ----- 189-353
- Bullard, F. M. Volcanoes—in history, in theory, in eruption ----- 190-606
- Bullen, K. E. Oscillations of the earth and the earth's deep internal structure ----- 191-399
- Bullerwell, W. Interpretation of geophysical surveys ----- 188-293
- Bulmasov, A. P. The area and conditions governing the use of geophysical survey methods in permafrost regions ----- 189-231
- Bunce, E. T., and Fahlquist, D. A. Geophysical investigations of the Puerto Rico trench and outer ridge ----- 191-619
- Burdin, Yu. B. See Voskoboynikov, G. M.
- Burger, A. J., Nicolaysen, L. O., and de Villiers, J. W. L. Lead isotopic compositions of galenas from the Witwatersrand and Orange Free State, and their relation to the Witwatersrand and Dominion Reef uraninites ----- 188-383
- See also Nicolaysen, L. O.
- Burgin, Lorraine. See Rinehart, J. S.
- Burkser, Ye. S., Alekseyeva, K. N., Vetshteyn, V. Ye., Gol'denfel'd, I. V., Davidyuk, L. A., Demidenko, S. G., Yeliseyeva, G. D., Lechekhev, V. R., and Shcherbak, M. P. Properties of the standard samples of radioactive minerals for absolute age determination by the lead method ----- 188-16
- Burlatskaya, S. P., and Petrova, G. N. The archeomagnetic method of study of the geomagnetic field in the past ----- 191-485
- Burnev, P. H. See Nedelkov, I. P.
- Burov, B. M., Darvoyd, G. N., Denisik, S. Ts., Odinkov, V. P., and Shcherbinskiy, V. G. Utilization of the neutron-neutron method (NNM), according to the epithermal neutrons for evaluation of porosity of sand and carbonate reservoirs ----- 189-509
- Bursa, Milan. On the determination of the curvature of the surface representing the figure of the earth according to astrogeodetic and gravimetric data ----- 191-295
- Theory of the determination of the nonparallelity of the minor axis of the reference ellipsoid with the polar axis of inertia of the earth, and of the plane of the astronomic prime meridian with that of the geodetic prime meridian according to observations of artificial earth satellites ----- 191-294
- Theory of the solution of the fundamental geodetic problem and the building of a uniform world geodetic system on the basis of artificial earth satellite observations ----- 191-297
- Burwash, R. A., Baadsgaard, Halfdan, and Peterman, Z. E. Precambrian K-Ar dates from Western Canada sedimentary basin -- 189-17
- Bushnell, V. C. See Rigsby, G. P.

	Abstract
Butkovich, T. R., and Landauer, J. K. The flow law for ice -----	189-605
Butler, R. A. See Doig, R. P., and Saull, V. A.	
Buttlar, H. von, Stahl, W., and Wiik, B. Tritium measurements on rainwater without isotope enrichment -----	189-359
Byerly, P. E. Discussion of "Gravity and aeromagnetic exploration in the Paradox Basin," by Nelson C. Steenland -----	190-325
Byerly, Perry. Release of energy at the source of an earthquake --	189-98
Bykova, K. I. See Troitskiy, S. G.	
Byron, L. G. Wild steam well controlled by directional drilling ---	189-329
Bystritskaya, P. M. Results and problems of seismic work in the territory of Saratov -----	190-584

C

Cagniard, Louis. Expansion of the core, contraction of the crust, and orogenic cycles -----	189-355
— Reflection and refraction of progressive seismic waves -----	191-603
Cahen, Lucien, Pasteels, Paul, Ledent, Dolly, Bourguillot, R., Wambeke, L. van, and Eberhardt, Peter. Research on the abso- lute age of uraniferous mineralizations of Katanga and Northern Rhodesia -----	190-16
Cahill, L. J. Evidence for ionospheric currents near the geomag- netic equator -----	188-393
Cailleux, André, and Tricart, J. Background noise, information, and earth sciences -----	190-258
Cain, J. C. See Akasofu, Syun-Ichi.	
Cambron, E. See Gouin, Pierre.	
Camotim, Data. See Wiegel, R. L.	
Campbell, Colin. Statistics on employment of exploration geophys- icists -----	191-284
Campbell, F. A. See Baadsgaard, Halfdan.	
Campbell, W. H., and Matsushita, Sadami. Auroral-zone geomag- netic micropulsations with periods of 5 to 30 seconds -----	188-403
See also Brown, R. R.	
Canada Geological Survey. Aeromagnetic maps of Manitoba -----	191-546
— Aeromagnetic maps of Northwest Territories -----	191-548
— Aeromagnetic maps of Ontario -----	191-545
— Aeromagnetic maps of Sackatchewan -----	191-547
Canadian Mining Journal. Upper mantle project -----	190-361
Capron, P. C. See Dossin, J. M.	
Caputo, Michele. Deformation of a model of the earth caused by su- perficial distribution of gravitational mass -----	191-327
— Tables for the deformation of an earth model by surface mass distribution -----	189-240
See also Desio, Ardito.	
Carabelli, Edmondo. Glacier surveys and glaciological studies on the occasion of the International Geophysical Year (Miage Gla- cier)—geophysical exploration -----	190-294
Carder, D. S., and Mickey, W. V. Ground effects from under- ground explosions -----	189-159
Cardús, J. O. Note concerning solar, geomagnetic, and iono- spheric activity (January-March, 1960) -----	190-389
— Note concerning solar, geomagnetic, and ionospheric activity (January-March 1961) -----	190-391
— Note concerning solar, geomagnetic, and ionospheric activity (October-December, 1960) -----	190-390

	Abstract
Carey, S. W. Folding -----	190-281
Carlson, J. E. See Kane, M. F.	
Carlson, R. L. See Fisher, D. H.	
Carpenter, E. W., Savill, R. A., and Wright, J. K. The dependence of seismic signal amplitudes on the size of underground explosions -----	191-208
See also Savill, R. A., and Wright, J. K.	
Carrier, G. F. See Stewart, R. W.	
Carron, Jean-Paul, and Nozières, Philippe. Discontinuity of seismic background noise on the border faults of the Limagne -----	189-578
Carrozzo, M. T., and Morelli, Carlo. Master charts for magnetic interpretation -----	191-525
Carrozzo, M. T., and Mosetti, F. On the linear combination of observational data for the reduction of certain maps -----	191-342
Carsey, J. B., and Roberts, M. S. Exploratory drilling in 1961 ---	190-245
Carsola, A. J., Fisher, R. L., Shippek, C. J., and Shumay, George. Bathymetry of the Beaufort Sea -----	188-584
Carts, S. L., Jr. See Cook, J. C.	
Case, J. E., and Joesting, H. R. Precambrian structures in the Blanding Basin and Monument upwarp, southeast Utah -----	188-451
See also Joesting, H. R.	
Cassinis, Roberto. Application of seismic methods to geothermal energy exploration -----	188-555
— Refraction seismic surveying in the study of deep structure ---	190-554
Cattani, D. See Priestner, W.	
Cavin, R. S. See Crosby, J. W., III.	
Cazeneuve, Horacio. See Olsson, Ingrid.	
Central Water and Power Research Station Poona. Geophysical investigations: I. Dudhganga project sites. II. Godavari anicut at Dowlaiswaram -----	191-272
— In-situ elasticity of rock in tunnels - New Bhira tunnel project -	191-194
— Seismic refraction survey - Proposed Ukai dam site -----	191-637
— Seismological investigations - Kopili dam project, Assam -----	191-95
Cepeda, H. See Munk, W. H.	
Ceplecha, Zdeněk. Multiple fall of Příbram meteorite photographed ---	191-51
— Note on the mass determination of the Příbram meteorites ---	191-50
Červeňý, Vlastislav. On the length of the interference zone of a reflected and head wave beyond the critical point and on the amplitudes of head waves -----	190-156
Červeňý, Vlastislav, and Hron, František. Reflection coefficients for spherical waves -----	191-162
Chaigneau, M. See Blot, C.	
Chakravortty, K. C., and Ghosh, D. P. Seismological study of the crustal layers in Indian region from the data of near earthquakes -	189-345
Chambers, R. E. See Clarke, A. M.	
Chang, C. C. Outer Van Allen belts and neutral points on interface between solar wind and geomagnetic field -----	191-423
Chang, T. Y. Geophysical case history of Theuvenins Creek field, Tyler County, Texas -----	188-553
Chao, E. C. T., Fahey, J. J., and Littler, Janet. Coesite from Wabar Crater near Al Hadida, Arabia -----	189-55
Chapman, C. A. See Donati, G. R. L.	
Chapman, Sydney. Magnetic storms; their geometrical and physical analysis, and their classification -----	191-460
See also Akasofu, Syun-Ichi, and Sugiura, Masahisa.	

	Abstract
Charlesworth, H. A. K. Some observations on deformation, crustal shortening, and uplift in the Canadian Rocky Mountains -----	190-282
Chauveau, Jean. Analogical study of the propagation of a seismic signal -----	190-159
Chekhovskaya, G. Yu., and Repina, V. L. Some results of application of geophysical methods of investigation for determination of the parameters of a stratum -----	190-217
Chelok'yan, R. S. Development of one-channel borehole radioactivity logging apparatus for operation in boreholes with temperatures up to 250°C -----	189-532
— Drill hole apparatus for simultaneous registration of radioactivity logs and joints in the casing -----	189-533
Chenoweth, P. A. Comparison of the ocean floor with the lunar surface -----	188-142
Cherdyntsev, V. V. Argon - the determiner of geologic time -----	191-10
— Determination of the absolute age of Quaternary fossil bones according to the isotopic ratio of the heavy elements -----	189-3
Cherdyntsev, V. V., Orlov, D. P., Isabayev, Ye. A., Asylbayev, U. Kh., Ivanov, V. I., Usatov, E. P., and Borisenko, T. I. Variation of the isotopic composition of natural uranium -----	188-389
See also Isabayev, Ye. A.	
Cheremenskiy, G. A. Theory of an ellipsoidal sonde in the resistivity method with a shielded ground -----	190-195
Cherepanov, N. N. See Ayzenshtadt, G. Ye. A.	
Cherkasov, P. A. Glacier ablation and its role in feeding the Baskan River of the Dzhungarsky Altay Range -----	191-322
Cherkasov, P. A., and Zenkova, V. A. History of the studies of present and ancient glaciation of the Dzhungarskiy Alatau Range -	189-285
Chernosky, E. J. Changes in the geomagnetic field associated with magnetic disturbances -----	190-417
Chernov, G. A. Reconstruction of geologic events by structural analysis and absolute age determination by the argon method on the Byelokurikhin massif in the Altay -----	188-85
Chernyshev, I. V. Analysis of errors in the lead method of absolute age determination -----	191-4
— Nomograms for calculation of errors in determination of absolute age by the lead method -----	191-5
Cherry, J. T., Jr. The azimuthal and polar radiation patterns obtained from a horizontal stress applied at the surface of an elastic half space -----	189-140
Chessex, Ronald. Applications of thermoluminescence to geology --	190-7
Chessex, Ronald, de Montmollin, F., Ferrara, G., and Longinelli, A. Measurements of the age of the Vallorcine granite (Switzerland) -----	189-25
Chetty, T. N. See Rao, H. N. R.	
Chiguryayeva, A. A., and Ismail-Zade, T. A. Palynological data for the Apsheron deposits of the Ali-Bayramly region, and their correlation with the magnetic stability parameter -----	189-440
Chikvaidze, B. G. See Rubinshteyn, M. M.	
Chinnery, M. A. Terrain corrections for airborne gravity gradient measurements -----	188-324
Chirvinskaya, M. V. Experiment in combining seismic surveying and drilling operations -----	190-586
Chon, K. S. See Rustanovich, D. N.	
Choudhury, M. A. On the longitudinal waves from artificial earthquakes in western Europe -----	189-343

- Chow, T. J., and Patterson, C. C. The occurrence and significance of lead isotopes in pelagic sediments ----- 189-360
- Chrest, S. A. See Soberman, R. K.
- Chujo, Junsuke. Gravitational survey of Kumamoto district in Kyushu ----- 189-316
- Chujo, Junsuke; Kondo, Nobuoki; and Kurasawa, Hajime. Marine sonic survey and land geological survey on the Shimabara Kaiwan ----- 188-563
- Chukin, V. T. Certain problems of the seven-electrode apparatus for lateral logging ----- 190-231
- Chzhan', Se-Chzhen'. Sounding by the method of induced potentials ----- 190-192
- Clar, E. Rock structure and geomechanics ----- 191-645
- Clark, S. P., Jr. Heat flow in the Austrian Alps ----- 188-365
- Clark, T. H. See Saul, V. A.
- Clarke, A. M., Chambers, R. E., Allonby, R. H., and McGraw, D. A marine geophysical survey of the undersea coalfields of Northumberland, Cumberland, and Durham ----- 189-577
- Clarke, R. S., Jr., and Henderson, E. P. Georgia tektites and related glasses ----- 189-61
- Clarke, W. B., and Thode, H. G. Xenon in the Bruderheim meteorite ----- 190-72
- Claus, George. See Nagy, Bartholomew.
- Cleary, J., and Doyle, H. A. Application of a seismograph network and electronic computer in near earthquake studies ----- 191-122
- Clebsch, Alfred, Jr. Tritium-age of ground water at the Nevada Test Site, Nye County, Nevada ----- 188-382
- Clegg, J. A. See Everitt, C. W. F.
- Clement, A. C. See Layat, C.
- Cloud, W. K. See Steinbrugge, K. V.
- Clough, R. W. Earthquake analysis by response spectrum superposition ----- 191-109
- Cobb, J. C. Dating of black shales ----- 188-12
- Cole, F. See Hemenway, C. L.
- Cole, J. A. See Shaw, S. H.
- Cole, K. D. Hydromagnetic radiation of the sun and its effect at the earth ----- 190-429
- On solar wind generation of polar geomagnetic disturbance ---- 189-410
- Colley, G. C. Gravity surveys in heavy sand dunes ----- 188-326
- Compston, W., Jeffery, P. M. Metamorphic chronology by the rubidium-strontium method ----- 188-19
- Compston, W., and Pidgeon, R. T. Rubidium-strontium dating of shales by the total-rock method ----- 191-29
- See also Wilson, A. F.
- Conrad, W. Calculation of disturbing bodies in the field of micro-magnetics ----- 189-461
- Consbruch, Claus von. See Angenheister, G. H.
- Constantinescu, Liviu, and Botezatu, Radu. Contribution to the physical interpretation of anomalies of potential fields. I. Analytical continuation in a lower halfspace ----- 188-327
- Contribution to the physical interpretation of anomalies of potential fields. II. Conditions of application of analytical continuations ----- 188-328
- Constantinescu, Liviu, Soare, Andrei, and Soare, Alexandra. Degree of geomagnetic perturbation in the interval 1954-59 on a basis of measurements at the Surlai Geophysical Observatory --- 188-400

	Abstract
Constantinescu, Liviu, and Șteflea, Vladimir. Secular variations of the geomagnetic field of the territory of the Rumanian Peoples Republic in the interval 1950-60 -----	188-399
Cook, A. H. The comparison of the earth's gravitational potential derived from satellite observations with gravity observations on the surface -----	189-286
Cook, G. E. Luni-solar perturbations of the orbit of an earth satellite -----	191-329
Cook, J. C., and Carts, S. L., Jr. Magnetic effects and properties of typical topsoils -----	189-436
Coombs, H. A. Catalogue of the active volcanoes and solfatara fields of the United States of America -----	188-588
Cooter, I. L. See Sanford, R. L.	
Coppens, René. See Roubault, Marcel.	
Coppolino, S. See Petrucci, Giuseppe.	
Cordell, L. E. See Joesting, H. R.	
Cortesi, Cesarina. See Bella, Francesco.	
Corvalán, José. See Ruiz, Carlos.	
Costa-Foru, Alexandru; Ghelfan, Pavel; Apostol, Ecaterina; and Baltac, Alexandru. Studies of the magnetic properties of some sedimentary rocks of the Rumania Peoples Republic -----	188-425
Costello, J. T., and Wilson, W. T. The many advantages of the sonic log -----	189-564
Cox, Allan, and Doell, R. R. Magnetic properties of the basalt in hole EM 7, Mohole project -----	191-472
See also Doell, R. R.	
Craig, Harmon. Mass-spectrometer analyses of radiocarbon standards -----	190-6
Cram, I. H., Jr. A crustal structure refraction survey in South Texas -----	188-369
Crampin, Stuart. See Jeffreys, Harold.	
Crane, H. R., and Griffin, J. B. University of Michigan radiocarbon dates VI -----	190-35
— University of Michigan radiocarbon dates VII -----	190-56
Crary, A. P. Glaciological studies at Little America Station, Antarctica, 1957 and 1958 -----	188-320
Crary, A. P., Field, W. O., and Meier, M. F. The United States glaciological researches during the International Geophysical Year -----	189-258
Crary, A. P., and Robinson, E. S. Oversnow traverse from McMurdo to the South Pole -----	189-583
Crary, A. P., Robinson, E. S., Bennett, H. F., and Boyd, W. W., Jr. Glaciological regime of the Ross ice shelf -----	190-296
Creer, K. M. A statistical inquiry into the partial remagnetization of folded Old Red Sandstone rocks -----	189-453
— The dispersion of the geomagnetic field due to secular variation and its determination for remote times from paleomagnetic data -----	191-484
Crenn, Yvonne. Definition of an index characterizing the irregularity of gravity profiles -----	190-307
See also Rechenmann, Julien.	
Cress, P., and Wyness, R. The Devon Island expedition: Observation of glacial movements -----	188-318
Crews, A., and Futterman, J. Geomagnetic micropulsations due to the motion of ocean waves -----	189-407
Cromie, W. J. Preliminary results of investigations on Arctic Drift Station Charlie -----	191-684

	Abstract
Crosby, J. W., III, and Cavin, R. E. Geochemical and resistivity prospecting methods—A field investigation in Pend Oreille County, Washington -----	189-190
Crowley, F. A. Gravity observations along the northern coast of Ellesmere Island -----	190-328
Crozier, W. D. Five years of continuous collection of black, magnetic spherules from the atmosphere-----	190-88
Cumming, G. L. See Baadsgaard, Halfdan.	
Curedale, R. G. See Parkinson, W. D.	
Curtis, G. H. A clock for the ages -----	188-30
Curtis, G. H., and Evernden, J. F. Age of basalt underlying Bed I, Olduvai -----	191-22
Curtis, G. H., Savage, D. E., and Evernden, J. F. Critical points in the Cenozoic -----	188-45

D

Dadashev, A. M. Logging characteristics of the section of the productive unit of the Kyanizadag area -----	188-272
Dahm, J. N. See Earl, J. H.	
Dakhnov, V. N. Present status of geophysical methods of determination of reservoir properties and oil-gas saturation of rocks and means for their further investigations-----	189-203
Dakhnov, V. N., D'yakonov, D. I., Kobranova, V. N., Latyshova, M. G., Pechernikov, V. F., Dobrynin, V. M., Vendel'shteyn, B. Yu., Larionov, V. V., Kholin, A. I., Neyman, Ye. A., Pozin, L. Z., and Lebedev, A. P. On the terminology and symbols used in logging geophysics -----	188-300
Damnjanović, Konstantin, and Milanović, Božidar. Possibility of determination of the position of an ore body on the basis of a magnetic anomaly at an ore deposit in Macedonia -----	188-459
See also Perić, M.	
Damon, P. E., and Giletti, B. J. The age of the basement rocks of the Colorado Plateau and adjacent areas-----	188-46
Damon, P. E., and Long, Austin. Arizona radiocarbon dates III----	190-58
Daneš, Z. F. Structure calculation from gravity data and density logs -----	189-292
Danilevich, S. I. See Komlev, L. V.	
Darvoyd, G. N. See Burov, B. M.	
Datta, S. K. Shear waves in a semi-infinite visco-elastic medium due to transient torsional couple applied on the circumference of a circle on the plane boundary -----	189-144
Davidyuk, L. A. See Burkser, Ye. S.	
Davis, E. M. See Stipp, J. J.	
Davis, F. J., and Reinhardt, P. W. Extended- and point-source radiometric program -----	191-588
— Radiation measurements over simulated plane sources -----	191-587
Davis, G. L., Tilton, G. R., Doe, B. R., Aldrich, L. T., and Hart, S. R. The ages of rocks and minerals -----	189-1
Davis, G. L., Tilton, G. R., and Wetherill, G. W. Mineral ages from the Appalachian Province in North Carolina and Tennessee -	190-9
See also Aldrich, L. T.	
Davis, T. N., and Kimball, D. S. The auroral display of February 13-14, 1958 -----	190-403
Davydov, A. Ya. Positive anomalies of the natural electric field over sulfide ore bodies -----	190-243

Abstract

- Davydov, V. F. See D'yachkov, N. P.
- Davydova, L. N. See Bol'shikh, S. F.
- Davydova, N. I. Study on models of the dependence of dynamic characteristics of longitudinal head waves on the thickness of re-fracting layers ----- 191-191
- de Bremaecker, J. Cl. Seismicity of the graben of central Africa-- 188-159
- de Bremaecker, J. Cl., Donoho, Paul, and Michel, J. G. A direct digitizing seismograph ----- 191-123
- Decae, A. On some movements of the ground in Geneva----- 191-566
- Deevey, E. S. See Stuiiver, Minze.
- de Feiter, L. D. See Roosen, J.
- Deffeyes, K. S., and Martin, E. L. Absence of carbon-14 activity in dolomite from Florida Bay ----- 190-12
- Degens, E. T., and Epstein, Samuel. Relationship between O^{18}/O^{16} ratios in coexisting carbonates, cherts, and diatomites ----- 190-378
- Delsemme, A. H. First contribution to the study of the energy release of Nyiragongo Volcano ----- 188-596
- Demenitskaya, R. M. Basic features of the structure of the earth's crust according to geophysical data ----- 189-337
- Demidenko, S. G. See Burkser, Ye. S.
- Demidovich, O. A. See Bondarenko, V. M.
- de Montmollin, F. See Chessex, Ronald.
- Dempsey, M. E. See Boyer, P. D.
- Dempsey, W. J. Aeromagnetic maps of Maine ----- 191-536
- See also King, E. R.
- Den, S. K. See Van, Z. C.
- Denisik, S. Ts. See Alekseyev, F. A., Burov, B. M., and Odinovkov, V. P.
- Deniskin, N. A., Nikiforova, N. N., and Lomakina, Z. D. On electromagnetic sounding of the earth's deep layers ----- 188-143
- Denkhaus, H. G. See Hill, F. G.
- DeNoyer, John, Willis, D. E., and Wilson, James T. Observed asymmetry of amplitudes from a high explosive source ----- 189-161
- DeNoyer, John. See also Meecham, W. C.
- Deresiewicz, H. A note on Love waves in a homogeneous crust overlying an inhomogeneous substratum ----- 191-152
- The effect of boundaries on wave propagation in a liquid-filled porous solid: IV. Surface waves in a half-space----- 191-149
- Deresiewicz, H., and Rice, J. T. The effect of boundaries on wave propagation in a liquid-filled porous solid: III. Reflection of plane waves at a free boundary ----- 191-148
- De Santis, L. First measurements of natural radioactivity of air at Bari----- 189-492
- Desio, Ardito, and Longinelli, Antonio. On the age of the Baltoro granites (Karakorum-Himalaya) ----- 188-95
- Desio, Ardito; Marussi, Antonio; and Caputo, Michele. Glaciological research of the Italian Karakorum expedition, 1953-55----- 191-271
- Dessler, A. J., Hanson, W. B., and Parker, E. N. A mechanism to establish the magnetic storm ring current----- 190-427
- de Turville, C. M. Terrestrial accretion and the solar wind ----- 189-35
- Deumer, J. M. See Dossin, J. M.
- Deuser, W. G. A new method for the separation of strontium from rubidium for Rb-Sr ----- 190-4
- Deuser, W. G., and Herzog, L. F. Rubidium-strontium age determinations of muscovites and biotites from pegmatites of the Blue Ridge and Piedmont ----- 190-10

- de Villiers, J. W. L. See Burger, A. J.
- de Visintini, G. More selectivity in residuation ----- 191-352
- DeWitt, R. N. The occurrence of aurora in geomagnetically conjugate areas ----- 189-392
- D'Hoeraene, J. Deconvolution of real traces ----- 189-546
- Dibeler, V. H. See Shields, W. R.
- Dicke, R. H. Dating the galaxy by uranium decay ----- 190-61
— The Eötvös experiment ----- 191-324
- Dickey, D. D., and Johnson, R. B. Influence of natural fractures on the shape of explosion-produced craters ----- 188-129
- Dickson, G. O. Thermoremanent magnetization of igneous rocks -- 189-422
- Dietz, F. T. See Birch, W. B.
- Diment, W. H. See Stewart, S. W.
- Dmitriyev, A. N. See Klyarovskiy, V. M.
- Dmitriyev, M. K., Flaks, Ya. Sh., and Golovin, A. P. Experience in the application of radiometric investigations for the direct prospecting for oil deposits in the Bashkir ASSR ----- 189-503
- Dmitriyev, V. I. Diffraction of electromagnetic waves at a conducting plate in a conducting medium ----- 191-234
- Dobrin, M. B. Exploration Geophysics—today and tomorrow ----- 191-276
- Dobronravova, A. N., Levskiy, L. K., Murin, A. N., and Titov, N. Ye. Study of the yields of Xe and Kr isotopes formed by irradiation of uranium by protons having an energy of 680 Mev ---- 190-380
- Dobrovolny, Ernest, and Lemke, R. W. Engineering geology and the Chilean earthquakes of 1960 ----- 188-177
- Dobrovol'skiy, V. P. Certain characteristics of the interpretation of electrical sounding curves obtained during investigation of permafrost thickness ----- 189-185
- Dobrowolski, T., and Young, J. The determination of the half life or RaC' ----- 188-469
- Dobrynin, V. M. Determination of permeability of sandy and clayey rocks by the method of potentials of induced polarization ----- 190-223
See also Dakhnov, V. N.
- Dodd, R. T., Jr. See Hart, S. R.
- Doe, B. R. Relationships of lead isotopes among granites, pegmatites, and sulfide ores near Balmat, New York ----- 191-415
See also Aldrich, L. T., and Davis, G. L.
- Doell, R. R., and Cox, Allan. Paleomagnetism ----- 189-446
See also Cox, Allan.
- Doig, R. P., Saull, V. A., and Butler, R. A. A new borehole thermometer ----- 189-330
See also Saull, V. A.
- Dokouřil, Stanislav; Karpinsky, Jurij; and Kaspar, Milan. The attenuation of electromagnetic waves in rocks ----- 190-240
- Dolbikina, N. A. See Monakhov, F. I.
- Dolginov, S. Sh., Zhuzgov, L. N., and Pushkov, N. V. Preliminary report on geomagnetic measurements with the third Soviet artificial earth satellite ----- 188-401
- Dolina, L. P., Ivanchuk, L. F., and Baramzina, V. A. Introduction of geophysical methods of determination of reservoir properties of strata for calculation of oil reserve and analysis of exploitation of oil pools ----- 189-207
- Domokurov, I. A. See Rekunov, N. A.
- Donaldson, I. G. Temperature gradients in the upper layers of the earth's crust due to convective water flows ----- 191-384

Abstract

- Donath, F. A., and Kuo, J. T. Seismic-refraction study of block faulting, south-central Oregon ----- 190-580
- Donati, G. R. L., and Chapman, C. A. Meteorites in the University of Illinois Natural History Museum—A descriptive catalog ----- 188-119
- Donato, R. J., O'Brien, P. N. S., and Usher, M. J. Absorption and dispersion of elastic energy in rocks ----- 188-211
- Donoho, Paul. See De Bremaecker, J. Cl.
- Đorđević, Vojislav. See Ristić, Vojislav.
- Dorman, James. Period equation for waves of Rayleigh type on a layered, liquid-solid half space ----- 189-150
See also Oliver, J. E.
- Dorman, M. L., and Nikolayevskiy, A. A. New data on the geology of the Vilyuy syncline according to data of geophysical investigations ----- 190-591
- Dorn, T. F., Fairhall, A. W., Schell, W. R., and Takashima, Y. Radiocarbon dating at the University of Washington I ----- 190-39
- Dorofeyeva, M. K. See Sveshnikov, G. B.
- Dossin, J. M., Deumer, J. M., and Capron, P. C. Louvain natural radiocarbon measurements I ----- 190-49
- Douloff, A. A. The response of a disk in a dipole field----- 188-225
- Doykov, Zh. See Tuparev, P.
- Doyle, D. See Studt, F. E.
- Doyle, H. A. See Cleary, J.
- Dragašević, Tihomir. Some characteristics of seismic refraction investigations in the Ulcinj area ----- 188-557
- Drake, C. L. Geophysics, GEOPHYSICS, and engineering ----- 190-255
- Drummond, J. E., and McNabb, A. On the analysis of surface temperature surveys ----- 189-321
- Dryakhlova, Ye. A., and Rozin, A. A. Research drill holes of the U.S.S.R. Pokur research drill hole (Tyumen district) ----- 189-220
- Du Bar, J. R. New radiocarbon dates for the Pamlico formation of South Carolina and their stratigraphic significance ----- 190-11
- Dubin, Maurice. Meteoritic dust measured from Explorer I ----- 188-127
- DuBois, R. L. Magnetic characteristics of a massive hematitic body ----- 190-459
- Dubrovin, L. I. Investigations on ground traverses in Antarctic during the period of the IGY----- 189-585
- Duclaux, Françoise. The diurnal variation in the terrestrial magnetic field at Tamanrasset from 1948 to 1955 (horizontal component) ----- 190-404
- Ducrot, Marcel. The active volcano of Reunion Island. Surveillance and study of the activity. Possibilities of utilization of the energy released ----- 190-633
- Duda, Seweryn. Phenomenological investigation of an aftershock series from the Aleutian Islands region ----- 189-75
- Dudarev, A. N. On the magnetic properties of rocks and ores of the Altay-Sayan Region ----- 191-477
- Due Rojo, Antonio. Seismic notes for 1960 ----- 190-115
- Duesterhoeft, W. C., Jr., and Smith, H. W. Propagation effects on radial response in induction logging ----- 191-248
- Duffus, H. J., Shand, J. A., and Wright, C. S. Short-range spatial coherence of geomagnetic micropulsations ----- 189-403
- Duke, Michael, Maynes, Donald, and Brown, Harrison. The petrography chemical composition of the Bruderheim meteorite----- 190-70
- Dunayev, V. A. See Ovchinnikov, L. N.

- Dunford, H. B. See Thode, H. G.
 Dunning, K. L. See O'Keefe, J. A.
 Dürschner, Horst. On the character of reflections and the travel-time curves according to velocity logs ----- 189-553
 Dutta, Subhas. Motion in a non-homogeneous elastic medium by a twisting impulsive force on the surface of a spherical cavity ---- 188-203
 Dvorkin, I. L., and Rezvanov, P. A. On the application of scintillation counters for counting slow neutrons in oil wells ----- 189-528
 Dwornik, E. J. See Adler, Isidore.
 D'yachkov, N. P., Davydov, V. F., and Vershinin, V. I. Use of a pantograph for transformation of ΔT curves ----- 190-476
 Dyadin, N. N. See Harris, M. A.
 Dyad'kin, I. G., and Batalina, E. P. Temporal change of space-energy distribution of neutrons from an impulse source ----- 188-501
 D'yakonov, D. I. See Dakhnov, V. N.
 D'yakonova, M. I., and Kharitonova, V. Ya. Chemical composition of 18 stone meteorites from the collection of the Academy of Sciences of the U.S.S.R. ----- 191-61
 D'yakov, B. F. See Ayzenshtadt, G. Ye. A.
 Dychno, N. M. See Schattenstein, A. I.
 Dyck, W., and Fyles, J. G. Geological Survey of Canada radiocarbon dates I ----- 190-40
 Dzhabarova, Kh. S. See Ismail-Zade, T. A.
 Dzhaifarov, Kh. D. Some new data on the geology of the Agdzhabedy-Zhdanovsk region of the Kirovabad oil-bearing area ----- 189-223
 Dzhamalov, S. A. The heat of the earth's interior ----- 188-367
 Dzhashi, G. G. See Bukhnikashvili, A. V.

E

- Eardley, A. J. History of geologic thought on the origin of the Arctic Basin ----- 188-583
 Earl, J. H., and Dahm, J. N. Case history—Desert Springs gas field, Sweetwater County, Wyoming----- 188-554
 Eaton, J. P. See Krivoy, H. L.
 Eberhardt, Peter. See Cahen, Lucien.
 Ebert, A. A., Jr. Use of a getter-ion type pump with a mass spectrometer----- 189-366
 Eby, R. E. See Smith, R. F.
 Eckelmann, F. D. See Kulp, J. L.
 Eckelmann, W. R., Broecker, W. S., Whitlock, D. W., and Allsup, J. R. Implications of carbon isotopic composition of total organic carbon of some recent sediments and ancient oils -- 190-368
 Eckels, Ann. See Lecar, Myron, and O'Keefe, J. A.
 Egyed, László. Palaeomagnetism and the ancient radii of the earth- 188-427
 Ehmann, W. D., Amiruddin, A., Rushbrook, P. R., and Hurst, M. E. Some trace element abundances in the Bruderheim meteorite ----- 190-74
 Ekren, E. B. See Frischknecht, F. C.
 Ellansky, M. M. On the possibility of estimating the permeability of water-bearing reservoirs from geophysical logging data ----- 190-226
 Emery, C. L. The measurement of strains in mine rocks----- 191-655
 — The photoelastic technique for studying rock strains----- 191-657
 Emiliani, Cesare, and Mayeda, Toshiko. Carbonate and oxygen isotopic analysis of core 241A ----- 188-385
 See also Rosholt, J. N.

	Abstract
Emura, Kinya. Elastic waves generated by a directional source (1)-	189-544
See also Kato, Yoshio, and Nakamura, Kohei.	
Endo, G., Shibato, Kihei, and Momose, H. Relations between geology, ore deposit, and spontaneous polarization potential -----	189-180
Endo, Kunihiro. See Kigoshi, Kunihiro.	
Enenshteyn, B. S., and Ivanov, A. P. The method of continuous frequency sounding-----	190-194
See also Ivanov, M. A.	
Enescu, Dumitru. On the determination of energy emitted by the focuses of earthquakes in the form of seismic waves-----	190-132
Engel, Leonard. See Ewing, Maurice.	
Engstrand, L. G., and Ostlund, H. G. Stockholm natural radiocarbon measurements IV -----	190-52
Eppley, R. A. See Wood, H. O.	
Epstein, Samuel. See Degens, E. T., Sharp, R. P., and Taylor, H. P., Jr.	
Erickson, G. P., and Kulp, J. L. Potassium-argon dates on basaltic rocks -----	188-38
Eto, Tsuneo. On the electromagnetic seismographs at Syowa Base, Antarctica -----	190-147
Eventov, Ya. S. See Ayzenshtadt, G. Ye. A.	
Everdingen, R. O. van. Studies on the igneous rock complex of the Oslo Region 17. Peleomagnetic analysis of Permian extrusives in the Oslo Region, Norway -----	188-432
Everitt, C. W. F. The magnetic properties of three Carboniferous sills -----	189-454
Everitt, C. W. F., and Belshé, J. C. Paleomagnetism of the British Carboniferous system -----	188-431
Everitt, C. W. F., and Clegg, J. A. A field test of palaeomagnetic stability -----	191-474
Evernden, J. F., and Richards, J. R. Potassium-argon ages at Broken Hill, Australia -----	188-98
See also Curtis, G. H.	
Evison, F. F. Rock magnetism and low-angle faulting -----	191-483
See also Thompson, A. A.	
Ewald, H. See Urbach, W.	
Ewing, J. I., Worzel, J. L., and Ewing, Maurice. Sediments and oceanic structural history of the Gulf of Mexico -----	190-582
Ewing, Maurice, and Engel, Leonard. Seismic shooting at sea ----	190-351
See also Ewing, J. I., Gerard, Robert, and Heezen, B. C.	
Eygenon, M. S. Cosmic factors of geotectonics -----	190-280

F

Fahey, J. J. See Chao, E. C. T.	
Fahlquist, D. A. See Bunce, E. T.	
Fahrig, W. F. The geology of the Athabasca formation -----	189-18
Fairbairn, H. W. See Hurley, P. M., and Pinson, W. H., Jr.	
Fairbridge, R. W. Solar radiation and cyclic variations of sea level -----	188-321
Fairhall, A. W. See Dorn, T. F.	
Fairhurst, C. Laboratory measurement of some physical properties of rock -----	188-576
Fajklewicz, Zbigniew. Approximation of the regional fields of gravity by higher order polynomials in the light of the possibility of their numerical calculation -----	190-298

- Faradzhev, A. S. See Terekhin, Ye. I.
- Farrand, W. R., and Gajda, R. T. Isobases on the Wisconsin marine limit in Canada ----- 190-289
- Faul, Henry. Some Paleozoic dates in Maine, western Europe, and southern United States----- 188-35
- Faust, L. Y. Case history of geological-geophysical cooperation -- 191-614
- Fay, Vey-Tsin. Dynamical impulse method of determination of elastic parameters of specimens of rocks under high confining pressures ----- 190-174
- Faytel'son, A. Sh. Utilization of the results of gravity exploration for distinguishing the main paleostructural elements of the western regions of the Soviet Baltic----- 188-358
- Fechtig, H., Gentner, W., and Kalbitzer, S. Argon determination on potassium minerals-9. Measurements concerning the different types of argon diffusion ----- 189-6
- Fedin, A. A. Improvement of the circuit for the shot-time mark by radio----- 190-578
- Fedorov, S. A. See Arkhangel'skaya, V. M.
- Fedorov, Ye. P. Study of the motion of the poles ----- 190-150
- Fedorova, N. A. Nomograms for calculation of H and Z over a paraboloid of revolution ----- 191-521
- Fedotov, S. A. Seismicity of the south of the Kuril Islands ----- 188-163
- Fel'dman, B. Ye., and Boyarov, A. T. Determination of oil saturation and reservoir properties of rocks of the Kuybyshev area according to geophysical data ----- 189-208
- Fel'dman, I. I. On the method of the quantitative determination of boron and manganese contents in rock strata----- 189-505
- Fergusson, G. J., and Libby, W. F. University California, Los Angeles dates I----- 190-51
- Fernandzhiev, I. I. Effect of relief on the magnetic field of the earth----- 191-527
- Fernald, A. T. Radiocarbon dates relating to a widespread volcanic ash deposit, eastern Alaska ----- 190-13
- Ferraes, S. G. Note on the determination of the earthquake mechanism by S waves ----- 191-103
- Ferrara, G., Fornaca-Rinaldi, G., and Tongiorgi, Ezio. Carbon-14 dating in Pisa-II ----- 190-34
- See also Chessex, Ronald.
- Ferreira, H. A. Report on two recent manifestations of volcanic activity in Portuguese territory ----- 190-617
- Fesenkov, V. G. Nature of comets and the conditions of their fall on the earth ----- 191-53
- On the comet nature of the Tungus meteorite ----- 189-43
- On the nature of the Tungus meteorite ----- 189-44
- Some problems of meteorites ----- 189-40
- Field, W. O. See Crary, A. P.
- Fielder, Gilbert. Origin of the Mare Imbrium ----- 188-138
- Small-scale explosion craters, impact craters, and the physical structure of the moon's surface ----- 189-63
- Structure of the moon's surface ----- 189-64
- See also Warner, Brian.
- Figuroa Abarca, Jesús. Earthquake of Jaltipan ----- 188-152
- Note on seismic periods----- 188-182
- Some consideration about the effect of Mexican earthquakes ---- 189-115
- Filatov, V. A. See Konstantinov, G. N.
- Filin, T. D. See Popov, V. I.

Abstract

- Filippov, M. S., Kozlev, L. V., and Kuchina, G. N. Age data of the argon method for rocks of the northwest Ukrainian shield ---- 188-78
- Filippov, Ye. M. Investigation by the method of groups of neutron density distribution in highly absorbing rocks intersected by a borehole ----- 188-503
- On the problem of the depth of investigation of rocks and ores by the method of diffused gamma radiation ----- 191-596
- Some problems of the technique and theory of the gamma-gamma method ----- 189-529
- See also Polak, L. S.
- Finn, R. S., and Heap, W. O. How vibratory seismic systems are performing----- 190-533
- Fireman, E. L. The Ehole meteorite, its acquisition and its radioactivity----- 190-82
- Fireman, E. L., and Fisher, D. E. Uranium in the Sikhote-Alin meteorite and its relation to the lead method of age determination ----- 188-116
- Fireman, E. L., and Rowland, F. S. An additional measurement of the tritium content of atmospheric hydrogen of 1949 ----- 190-372
- Firsoff, V. A. Surface of the Moon - Its structure and origin----- 191-69
- Fisher, D. E. See Fireman, E. L.
- Fisher, D. H., Carlson, R. L., and Holden, F. C. Apparatus for mechanical testing at temperatures above 2000 F ----- 189-588
- Fisher, R. L. See Carsola, A. J.
- Fitch, Frank, Schwarcz, H. P., and Anders, Edward. "Organized elements" in carbonaceous chondrites----- 189-48
- Fitch, J. L. See Patton, B. J.
- Flaks, Ya. Sh. See Dmitriyev, M. K.
- Flanagan, F. J. Fatigue in scintillation counting ----- 188-484
- Fleyshman, D. G., and Glazunov, V. V. Determination of the beta-decay constant of K-40 ----- 191-573
- Flinn, E. A. Exact transient solution of some elementary problems of elastic wave propagation ----- 189-139
- Florensov, N. A. On the neotectonics and seismicity of Mongol-Baikal mountain region ----- 191-94
- Fokin, A. F. The field of a point source current and of a charged conductor on the flat surface of the earth for the case of a non-homogeneous medium ----- 189-168
- See also Ryss, Yu. S.
- Folinsbee, R. E., Baadsgaard, Halfdan, and Lipson, J. I. Potassium-argon dates of Upper Cretaceous ash falls, Alberta, Canada ----- 188-54
- See also Baadsgaard, Halfdan, and Lipson, J. I.
- Fomenko, K. Ye. See Godin, Yu. N.
- Fomin, V. M. See Tal'-Virskiy, B. B.
- Fomina, V. I. Determination of the parameters of a section in interpretation of multilayered VES curves of type H ----- 188-239
- Improvement in the accuracy of determination of the thickness of a sedimentary complex by using data on regularities of measurement of the mean longitudinal resistivity ρ_1 ----- 190-211
- Foose, R. M. See Hoy, R. B.
- Forncac-Rinaldi, G. See Ferrara, G.
- Fortin, Jean-Pierre. See Rinehart, J. S.
- Foster, M. R., Hicks, W. G., and Nipper, J. T. Optimum inverse filters which shorten the spacing of velocity logs ----- 190-560

	Abstract
Foster, T. D. Heat-flow measurements in the northeast Pacific and in the Bering Sea -----	190-333
Fougere, Paul. The terrestrial magnetic field -----	190-383
Fowler, W. A., Greenstein, J. L., and Hoyle, Fred. Deuteronomy. Synthesis of deuterons and the light nuclei during the early history of the solar system -----	189-36
— Nucleosynthesis during the early history of the solar system ---	190-63
Frantti, G. E., Willis, D. E., and Wilson, James T. The spectrum of seismic noise -----	189-477
Frantz, F. H., Sr. Boost bridge accuracy with a null amplifier ---	190-261
Franz, P. Geomagnetic and petrographic investigation in the southwest part of the Schwarzburg Saddle and in the southwest Thüringian-Franconian Triassic area, as a contribution to the interpretation of regional magnetic anomalies -----	189-473
Fraser, G. D. See Witkind, I. J.	
Frassetto, Roberto. See Northrop, John.	
Freedman, R. O. See Krueger, H. W.	
Freitag, C. A. See Light, D. E.	
Fremd, V. M. Piezoelectric seismic pickup for strong movements- ---	191-125
Fridman, Sh. D. See Balyasnyy, N. D.	
Friend, J. P. See Walton, Alan.	
Frischknecht, F. C., and Ekren, E. B. Electromagnetic studies in the Twin Buttes quadrangle, Arizona-----	188-250
See also Keller, G. V., and Plouff, Donald.	
Frissora, J. See Soberman, R. K.	
Fritsch, Volker. The geoelectric investigation of medicinal waters in the vicinity of Lake Neusiedler in Burgenland -----	188-254
Fritsch, Volker, and Mosetti, Ferruccio. Geophysical problems in prospecting for bauxite with particular regard to the prospecting for its deposits in the Adriatic basin -----	190-201
Fröhlich, Lothar. On geomagnetic and petromagnetic investigations in the region of the Frankenwald transverse zone as a contribution to the regional geophysical anomalies -----	189-471
Frölich, Friedrich, Stiller, Heinz, and Wagner, F. C. Experiences with laboratory methods of rock investigations -----	189-449
See also Mauersberger, Peter, and Stiller, Heinz.	
Frosch, R. A. See Northrop, John.	
Fukushima, Naoshi. Morphology of magnetic storms -----	190-423
— Some remarks on the morphology of geomagnetic bays-----	190-402
Fukushima, Naoshi, and Abe, Siro. The initial phase of the magnetic storm on Feb. 11, 1958 -----	190-445
See also Nagata, Takesi.	
Fukutomi, Takaharu. On the possibility of volcanic hot springs of meteoric and magmatic origin and their probable life span -----	188-600
— Rates of discharge of heat energy from the principal hot spring localities in Hokkaido, Japan-----	191-392
Fullam, E. F. See Hemenway, C. L., and Soberman, R. K.	
Fuller, M. D. A magnetic fabric in till -----	191-480
Furcron, A. S. Geologic age of the tektite shower and its associated rocks of the Georgia Coastal Plain -----	190-93
Furumoto, A. S. The use of ScS-wave data in focal mechanism determinations -----	191-102
Furuya, Shigemasa, and Ninagawa, Shinji. Seismic prospecting at the Ombara district of Ningyo-toge -----	188-562
Futterman, J. See Crews, A.	
Fyles, J. G. See Dyck, W.	

G

Abstract

- Gadzhiev, T. A. See Tsaturyants, A. B.
- Gajardo, E., and Lomnitz, Cinna. Seismic provinces of Chile----- 188-158
- Gajda, R. T. See Farrand, W. R.
- Galanopoulos, A. G. On magnitude determination by using macro-seismic data ----- 191-98
- Gallant, R. Frequency of meteorite falls throughout the ages ----- 189-52
- Gal'perin, Ye. I. On the change of the displacement direction of particles during passage of seismic waves through a zone of low velocities ----- 191-166
- Gal'perin, Ye. I., Goryachev, A. V., and Zverev, S. M. Crustal structure researches in the transition region from the Asiatic Continent to the Pacific----- 189-346
- See also Aver'yanov, A. G.
- Galushko, P. Ya. Once more concerning the possibility of determining the cause of vertical movements of the earth's crust from gravity anomalies----- 189-241
- Gamkrelidze, P. D. Meso-Cenozoic orogenic phases of the Alpine zone of southern U.S.S.R. ----- 190-285
- Gamow, George. Gravity ----- 191-325
- Gantar, C., Morelli, Carlo, and Pisani, M. Some effects of internal pressure variations at various temperatures on the scale factor of Worden gravimeters----- 190-318
- Gantar, C., Morelli, Carlo, Pisani, M., Segre, A. G., and Zampieri, L. The magnetic relief of southern Italy ----- 190-482
- Gantar, C., Morelli, Carlo, and Sancin, S. A comparison between the precise leveling of 1949 in the harbor zone of Trieste and a repetition carried out in 1958 ----- 190-290
- Gantar, C., Morelli, Carlo, Segre, A. G., and Zampieri, L. Gravimetric studies and geological considerations of Pantelleria Island ----- 191-373
- Gantar, C., Zampieri, L. New gravimetric measurements connecting the airports of Rome and Catania ----- 191-367
- See also Morelli, Carlo.
- Garkalenko, I. O. Differentiation of coal seams and determination of their thickness by gamma-gamma logging ----- 188-505
- The effect of caverns in investigations by the gamma-gamma logging method ----- 188-508
- Garland, G. D. Natural earth currents and electric logging----- 189-200
- The Upper Mantle Project ----- 190-360
- Garland, G. D., and Lennox, D. H. Heat flow in western Canada -- 190-337
- See also Vozoff, Keeva.
- Garner, E. L. See Shields, W. R.
- Gasnenko, L. B. Interpretation parameters of an electromagnetic field ----- 188-236
- Gasnenko, L. B., and Sholpo, G. P. On the theory of electromagnetic sounding ----- 188-230
- See also Van'yan, L. L.
- Gassmann, Fritz. A spatial n-layer problem of seismic refraction surveying ----- 188-520
- Solution of an n-layer problem by a seismic reflection method-- 188-523
- Gast, P. W. The rubidium-strontium method ----- 188-18
- See also Giletti, B. J., and Wetherill, G. W.
- Gauer, Z. Ye. See Leypunskaya, D. I.

- Gault, D. E. See Shoemaker, E. M.
- Gavrilova, L. K. See Tugarinov, A. I.
- Gayanov, A. J. See Zommer, I. E.
- Gaynanov, A.G., and Smirnov, L. P. Crustal structure in the area of transition from the Asiatic continent to the Pacific Ocean ----- 190-334
- Gayskiy, V. N. On certain regularities of the seismic process as exemplified by Tadzhikistan earthquakes ----- 191-99
- Gayskiy, V. N., and Katok, A. P. Certain problems connected with study of seismic regime as exemplified by the earthquakes of the Pamir-Hindu-Kush zone ----- 189-88
- Gazaryan, Yu. L. On a geometric-acoustic field approximation in the neighborhood of a nonsingular point of the caustic ----- 191-179
- On propagation of sound in nonhomogeneous mediums ----- 191-180
- Gebhardt, R. E. See Bottum, J. L.
- Gedonov, L. I. See Shvedov, V. P.
- Gedvilayte, N. M. See Blinstrupas, S. I.
- Geertsma, J. On Tuman's paper on "Refraction and reflection of sonic energy in velocity logging" ----- 190-561
- Velocity-log interpretation: The effect of rock bulk compressibility ----- 188-540
- Geiss, Johannes, Oeschger, Hans, and Signer, Peter. Radiation ages of chondrites ----- 188-118
- See also Jäger, Emilie, and Rosholt, J. N.
- Gel'chinskiy, B. Ya. Formula for geometric divergence ----- 191-177
- See also Alekseyev, A. S., and Vavilova, T. I.
- Gel'fand, N. I. On interpretation of geophysical anomalies by the method of tangents ----- 191-500
- On interpretation of geophysical anomalies of higher derivatives of magnetic potential ----- 191-501
- Gel'man, O. Ya. See Rubinshteyn, M. M.
- Gennai, N. Result of drilling at Bagnore (Monte Amiata, Italy) ---- 190-344
- Gentner, W. See Fechtig, H., Koenigswald, G. H. R., von, and Zähringer, J.
- Geographical Survey Institute. Magnetic survey of Japan, 1951-57 -- 189-380
- Gerard, Robert, Langseth, M. G., Jr., and Ewing, Maurice. Thermal gradient measurements in the water and bottom sediment of the western Atlantic ----- 189-324
- Gerling, E. K. Present status of the argon method of age determination and its application in geology ----- 188-22
- Gerling, E. K., Morozova, I. M., and Kurbatov, V. V. On the retention of radiogenic argon in pulverized potassium-bearing minerals ----- 191-12
- The retentivity of radiogenic argon in ground micas ----- 188-23
- Gerling, E. K., and Ovchinnikova, G. V. Anomalous ages obtained by the rubidium-strontium method ----- 188-76
- Gerling, E. K., Shukolyukov, Yu. A., and Matveyeva, I. I. Determination of the age of beryls and other minerals containing inclusions by the Rb/Sr method ----- 191-7
- Gerling, E. K., Yashchenko, M. L., Varshavskaya, E. S., and Matveyeva, I. I. Comparative study of the argon and strontium methods of absolute geologic age determination ----- 188-71
- See also Polkanov, A. S.
- Germanyuk, M. M. See Ayzberg, R. Ye.
- Gernik, V. V., and Potapov, V. G. An attempt at differentiating volcanic layers in the Polar Urals by means of magnetic exploration ----- 190-483

	Abstract
Gettemy, J. W. Magnetic daily variation at Koror	189-401
Geyh, M. A., Schneekloth, Heinrich, and Wendt, Immo. Hannover radiocarbon measurements II -----	190-53
Geyman, B. M. Geologic interpretation of the gravity anomalies of west Uzbekistan -----	190-333
Gèze, Bernard. Is the use of volcanoes to increase the rainfall the Sahara utopian -----	190-620
Gfeller, Chr., Oeschger, H., and Schwarz, U. Bern radiocarbon dates II -----	190-26
Gheith, M. A. Age of basement rocks in eastern United Arab Re- public and northern Sudan -----	188-64
Ghelfan, Pavel. See Costa-Foru, Alexandru.	
Ghosh, D. P. See Chakravorty, K. C.	
Ghosh, M. L. On the singing phenomenon in the offshore seismic experiments -----	188-519
Gianfrani, A. Geomagnetic survey of Monte Nuovo -----	191-549
Giannini, M., Prosperi, D., and Sciuti, S. Decay scheme of ^{212}Pb -----	190-494
Giesecke, Alberto. The Geophysical Institute of Peru -----	191-290
Gil'bershteyn, P. G. On designing of perforated models of seismic mediums -----	190-175
Gil'bershteyn, P. G., and Koloskov, I. A. A small-scale field seismoscope for measurement of the velocity of elastic waves ---	190-181
Gilbert, F. P. See Bromery, R. W., and Meuschke, J. L.	
Gilbert, Freeman, and Knopoff, Leon. The directivity problem for a buried line source -----	188-197
Gilbert, Freeman, and Laster, S. J. Excitation and propagation of pulses on an interface -----	189-143
— Experimental investigation of PL modes in a single layer -----	189-141
Giletti, B. J., and Gast, P. W. Absolute age of pre-Cambrian rocks in Wyoming and Montana -----	188-47
Giletti, B. J., Lambert, R. St. J., and Moorbath, Stephen. The basement rocks of Scotland and Ireland -----	188-69
See also Damon, P. E.	
Gill, E. D. Eustasy and the Yarra Delta, Victoria, Australia -----	188-317
Gillett, M. F. On Rigassi's note on "Faults and earth tides" -----	190-149
Gilliland, W. N. Possible continental continuation of the Mendocino fracture zone -----	191-309
Ginn, R. M. Geology of Porter township -----	189-16
Gintzburg, M. A. On a new mechanism of producing micropulsa- tions of the earth's magnetic field -----	190-399
Ginzburg, Avihu, and Meidav, Tsvi. Compute seismic wave lengths via nomogram -----	190-534
Giorgio, A. Effect of the reference plane on seismic reflection ----	190-537
Girdler, R. W. Initiation of continental drift -----	191-305
— The measurement and computation of anisotropy of magnetic susceptibility of rocks -----	188-417
Gladkiy, K. V. Separation of total gravity fields as a process of frequency filtering -----	188-329
Glazunov, V. V. See Fleyshman, D. G.	
Glen, J. W. Measurement of the strain of a glacier snout -----	191-317
Glendenin, L. E. Present status of the decay constants -----	188-17
Glicken, Milton. Eötvös corrections for a moving gravity meter ---	191-353
Glogovskiy, V. M. On the joint smoothing of a system of travelttime curves of reflected waves -----	190-546
Glotov, O. K. Construction of reflecting horizons by the method of middle points -----	190-540

- Glover, R. N. See Watt, D. E.
- Gloyna, E. F. See Reynolds, T. D., and Serata, Shosei.
- Glyuzman, A. M. Field of a point-source current, located at points on a surface having the form of a parabolic cylinder ----- 190-183
- The theory of electric surveying of buried structures. 1 ----- 191-222
- Gnoiński, Adam. See Kalinowska-Widomska.
- Godin, Yu. N., Vol'vovskiy, B. S., Vol'vovskiy, I. S., and Fomenko, K. Ye. A study of the structure of the earth's crust in regional seismic investigations on the Russian platform and in central Asia ----- 190-354
- Godwin, Harry, and Willis, E. H. Cambridge University natural radiocarbon measurements III----- 190-30
- Cambridge University natural radiocarbon measurements IV; Nuclear-weapon testing and the atmospheric radiocarbon concentration ----- 190-31
- Cambridge University natural radiocarbon measurements V----- 190-45
- Goel, P. S., and Kohman, T. P. Cosmogenic carbon-14 in meteorites and terrestrial ages of "finds" and craters ----- 190-87
- Goering, Marjory. See Woodruff, Ray.
- Goguel, Jean. Some considerations on the utilization of geothermal energy, a propos of New Zealand ----- 190-349
- Goldberg, E. D., and Koide, Minoru. Geochronological studies of deep sea sediments by the ionium/thorium method----- 190-603
- Goldberg, R. A., and Schmerling, E. R. The distribution of electrons near the magnetic equator ----- 191-420
- Gol'denfel'd, I. V. On the problem of distinguishing two groups of different age in the Archean in southwest Ukrainian SSR----- 191-26
- See also Burkser, Ye. S.
- Gol'dfarb, M. L., and Preobrazhenskiy, V. B. A four-channel pen-writing recording device ----- 191-140
- See also Borisevich, Ye. S.
- Gol'din, S. V. On the study of mean velocity variation down to a marker refelcting horizon ----- 190-544
- Goldsmith, P. See Brown, F.
- Goldthwait, R. P. Study of ice cliff in Nunatarssuaq, Greenland --- 189-261
- Golenetskiy, S. I. On the traveltime curves of seismic waves for the South Baykal area ----- 191-119
- Golomb, V. E. Experience in prospecting with gravimeters-altimeters for oil and gas in Siberia ----- 190-314
- Golovin, A. P. See Dmitriyev, M. K.
- Gol'tsman, F. M. On the experimental analysis of interferences and the reliability of the results of grouping of signals ----- 190-523
- Statistical evaluation of the reliability of the results of grouping of signals ----- 190-524
- Gol'tsman, F. M., and Keyl'man, Yu. N. Universal filters of seismic signals ----- 188-547
- Gol'tsman, Yu. V. See Afanas'yev, G. D.
- Golubchira, M. N. See Tugarinov, A. I.
- Goodman, A. See Hemenway, C. L.
- Gorai, Masao. Ultimate origin of granite ----- 191-416
- Gorazdovskiy, T. Ya. Theoretical premises of a method for predicting mechanical failure of ice and permafrost fields----- 189-607
- Gorbachev, I. F. Research drill holes of the U.S.S.R. Rubin research drill hole (Krasnoyar Territory) ----- 190-236
- Gorbatova, V. P. See Bol'shikh, S. F.
- Gordienko, P. A. The Arctic Ocean ----- 188-286

Abstract

- Gorelov, L. A., and Shabanov, B. A. On large scale surveying by the method of telluric currents ----- 190-112
 See also Shabanov, B. A.
- Gorodenskiy, S. N. On magnetic anomalies ΔT of arbitrary intensity ----- 188-436
 — Some general features of magnetic anomalies ΔT of considerable intensity ----- 188-435
- Gorokhov, I. M. See Komlev, L. V., and Yashchenko, M. L.
- Gorshkov, E. S. See Yanovski, B. M.
- Gorshkov, G. P. Recent tectonic movements and the geology of earthquakes ----- 190-135
- Gorshkov, G. S. Determination of the explosion energy in some volcanoes according to barograms ----- 190-607
 — Notes on the eruption of Karymskiy volcano in 1960 ----- 191-695
 — Some results of seismometric investigations at the Kamchatka Volcanological Station ----- 190-634
- Goryachev, A. V. See Gal'perin, Ye. I.
- Goryunov, I. I. The study of rock fracturing from electrical logging data ----- 191-254
- Gottikh, R. P. See Alekseyev, F. A.
- Gouin, Pierre. Reversal of the magnetic daily variation at Addis Ababa ----- 189-388
- Gouin, Pierre, and Cambron, E. Geomagnetic activity at Addis Ababa - January-June 1960 ----- 191-435
- Goupillaud, P. L. An approach to inverse filtering of near-surface layer effects from seismic records ----- 188-524
- Gow, A. J. Drill-hole measurements and snow studies at Byrd Station, Antarctica ----- 189-262
- Grabovskiy, M. A. See Brodskaya, S. Yu.
- Grachev, A. A., and Petrovskiy, A. D. Some results of radiowave translucence on iron-ore deposits of the middle Urals ----- 190-184
- Graeffe, G., and Nurmia, M. The use of thick sources of alpha spectrometry ----- 189-483
- Graham, K. W. T. The remagnetization of a surface outcrop by lightning currents ----- 189-448
- Graham, K. W. T., and Hales, A. L. Preliminary palaeomagnetic measurements on Silurian sediments from South Africa ----- 188-433
- Grammakov, A. G., Ovchinnikov, A. K., Lyubavin, Yu. P., Ovchinnikov, V. M., and Sazonov, A. M. The effect of the weight of uranium ore and of the thickness of the layer of the iron absorber on the scintillation spectrums of their gamma radiation ----- 190-517
- Grannis, P. D. Electrostatic erosion mechanisms on the moon ----- 188-135
- Gratsinskiy, V. G. On distortions of spectrums of seismic impulses by resonance analyzers, and methods of their corrections ----- 190-160
- Graulich, J. M. Presentation and interpretation of the magnetic map of the Grand Halleux massif ----- 189-469
- Graves, D. J. See Boyer, P. D.
- Green, D. H. See Miller, J. A.
- Green, H. F. See Brown, F.
- Green, Jack. Lunar volcanic mechanisms ----- 190-97
 — The atmosphere of the moon ----- 190-98
 — The geology of the lunar base ----- 190-99
- Green, Ronald. Thermoelectric currents in meteorites ----- 188-106
 See also Hill, P. A.

	Abstract
Greenhouse, J. P. The Devon Island Expedition-----	189-193
Greenstein, J. L. See Fowler, W. A.	
Gregory, A. F., Bower, M. E., and Morley, L. W. Geological interpretation of aerial magnetic and radiometric profiles, Arctic Archipelago, Northwest Territories -----	190-480
— Geological interpretation of aeromagnetic profiles from the Canadian Arctic Archipelago -----	189-468
Georgy, A. F., Morley, L. W., and Bower, M. E. Airborne geophysical reconnaissance in the Canadian Arctic Archipelago -----	188-455
Gregory, P. H. Identity of organized elements from meteorites ---	191-36
Griffin, J. B. See Crane, H. R.	
Griffiths, D. H., and King, R. F. Discussion of paper by N. D. Opdyke, "The paleomagnetism of the New Jersey Triassic: a field study of the inclination error in red sediments" -----	188-429
Griggs, D. T. See Bullard, E. C.	
Grigorova, E. I. See Kirov, K. T.	
Grigor'yev, D. P. On the constitution of meteorite mineralogy ----	188-110
Grigor'yev, I. G. See Rubinshteyn, M. M.	
Grinberg, I. G. See Ayzenshtadt, G. Ye. A.	
Griscom, Andrew, and Peterson, D. L. Aeromagnetic, aeroradioactivity, and gravity investigations of Piedmont rocks in the Rockville quadrangle, Maryland -----	188-280
Gritchenko, Z. G. See Shvedov, V. P.	
Gross, W. H., and Strangway, D. W. Remanent magnetism and the origin of hard hematites in Precambrian banded iron formation --	191-475
Grosse, Siegfried. The representation of the relief of the Upper Cretaceous with thin cover in seismic refraction data -----	191-628
Grosse, Siegfried, Kopf, Manfred, and Sonntag, Klaus. Results of gravimeter measurements in the western Erzgebirge -----	190-330
See also Kopf, Manfred.	
Grumbkov, A. P. An experiment in separation of thorium and radium components of gamma radiation by an automobile radiometer in prospecting for oil -----	189-494
Grumbkov, A. P. Methods, apparatus, and treatment of data in radioactivity prospecting for petroleum -----	190-516
Grumbkov, A. P., Matveyev, V. V., Semenov, G. S., and Sokolov, A. D. Radiometer-analyzer "Avtogras" and its application to radioactive prospecting for oil and gas -----	189-496
— Use of scintillation apparatus for exploration for oil and gas pools -----	190-509
See also Alekseyev, F. A.	
Grundland, I. Speed of combustion of the elements in the course of nucleosynthesis and age of the elements—functions of the initial mass in which nucleosynthesis takes place. Attempt at evaluation of the proportion of elements heavier than H and He on the planet Jupiter -----	188-102
Grünenfelder, M., and Stern, T. W. The zircon age of the Bergell massif -----	188-66
Grushinskiy, N. P. Experiment in the use of a gravimeter on a surface ship -----	191-381
— Marine gravity measurements in the Antarctic during 1956-1957 -----	191-357
Gryzlov, V. S. On the problem of improving the effectiveness and quality of logging in prospecting for coal deposits -----	190-228
Guberman, Sh. A. Application of similarity principles to solution of borehole radiometry problems -----	189-506

Abstract

- Guberman, Sh. A. On the possibility of an integrated interpretation of the data of neutron-neutron and neutron-gamma methods for investigation of boreholes----- 189-517
- On the spectroscopy of gamma radiation of natural and artificial radioactive isotopes under borehole conditions ----- 189-511
- Gugunava, G. Ye. See Lashkhi, A. S.
- Gulin, Y. A. Effect of conditions of measurement on evaluation of rock porosity from the data of gamma logging----- 189-513
- Gupta, I. N. Resonant oscillations of the overburden excited by seismic waves ----- 189-162
- Gurevich, G. I., Nersesov, I. L., and Kuznetsov, K. K. On interpretation of the law of earthquake frequency ----- 191-106
- Gurevich, V. F. A device for control and testing of seismic apparatus ----- 189-570
- Gusev, Yu. M. On the problem of methods of interpretation of asymmetric ΔT anomalies ----- 191-514
- Gustavsson, John. See Olsson, Ingrid.
- Gutenberg, Beno. The asthenosphere low-velocity layer ----- 191-409
- Gutiérrez Díez, J. L. See Sell Cantalapiedra, J. I.
- Guzanova, I. G. See Komarov, S. G.
- Gykasyan, P. Kh. See Shirinyan, K. G.
- Gzovskiy, M. V. Tectonophysics and earthquake forecasting ----- 191-107

H

- Hadley, J. B. See Witkind, I. J.
- Haefeli, Robert. On the rheology of ice shields in the Arctic and Antarctic ----- 191-316
- Hagedoorn, J. G. On Hawkin's paper "The reciprocal method of routine shallow seismic refraction investigations" ----- 191-611
- Hagiwara, Takahiro, and Kayano, Ichiro. Seismological observations of the Kita Mino earthquake, August 19, 1961 and its after-shocks ----- 191-82
- Hagiwara, Yukio. See Momose, Hiroto.
- Hahn, G. W. See Tuttle, C. R.
- Halenka, Jaroslav. Geomagnetic activity after large chromospheric flares ----- 191-463
- Hales, A. L. An upper limit to the age of the Witwatersrand system ----- 188-62
- See also Graham, K. W.
- Haller, J. See Kulp, J. L.
- Hallgren, D. See Hemenway, C. L.
- Hamada, Kazuo. See Tazime, Kyozi.
- Hamilton, A. C. Evaluation of the Dominion Observatory bronze pendulum apparatus ----- 189-299
- Hamilton, W. S. Structural model of large part of the earth ----- 190-292
- Hamilton, Warren. See Myers, W. B., and Witkind, I. J.
- Hammond, J. W. Ghost elimination from reflection records ----- 191-606
- Hansen, B. L., and Landauer, J. K. Some results of ice cap drill hole measurements ----- 189-276
- Hanson, W. B. See Dessler, A. J.
- Haraldson, Stig. Rapid geomagnetic fluctuations ----- 188-404
- Hardy, H. R., Jr. Standardized procedures for the determination of the physical properties of mine rock under short-period uniaxial compression ----- 189-592

	Abstract
Hargrave, D. R. F. Digital computers in log interpretation -----	190-230
Harkrider, D. G., and Anderson, D. L. Computation of surface wave dispersion for multilayered anisotropic media -----	189-149
See also Press, Frank.	
Harland, W. B. See Bidgood, D. E. T.	
Harris, M. A. Materials for the absolute time scale of the USSR --	188-7
Harris, M. A., Dyadin, N. N., and Zakirova, F. S. Preliminary time scale of the Precambrian and Paleozoic of the southern Urals and the eastern part of the Russian platform -----	188-6
Harris, P. G., and LeMaitre, R. W. Volcanic activity on Tristan da Cunha on December 16-17 -----	189-617
Harrison, E. R. An experiment to determine the nature of the earth's distant magnetic field -----	191-424
— Determination of the nature of the earth's distant magnetic field -----	188-391
— The earth's distant magnetic field -----	191-425
Hart, S. R. Mineral ages and metamorphism -----	188-32
Hart, S. R., and Dodd, R. T., Jr. Excess radiogenic argon in pyroxenes -----	191-9
See also Aldrich, L. T., Davis, G. L., and Hurley, P. M.	
Haruki, Kiyonosuke, and Nakazawa, Jiro. On the radioactivity of the Miocene sedimentary rocks in the Chugoku Mountainland ----	191-594
Harwood, T. A., and Lotz, J. R. The McGill ice research project, 1955-60 -----	189-230
Hasegawa, K. See Kojiro, T.	
Hatuda, Zin'itiro, and Nagai, Jiro. Geological age determination by lead:alpha-ray method-1. Determination of alpha-ray activity by zircon -----	190-2, 191-6
Hatuda, Zin'itiro; Nishimura, Susumu; and Hirose, Yoshihisa. Ra- dioactivity around ore-deposits -----	188-499
Haubrich, R. A. A digital seismograph system for measuring earth noise -----	189-478
Haugen, R. T. See Richter, D. H.	
Haurwitz, M. W. Dependence of interval between flare and associ- ated sudden commencement storm on prestorm conditions -----	190-412
Hawkes, D. D. The structure of the Scotia Arc -----	190-284
Hawkins, G. S. Asteroidal fragments -----	189-41
Hawkins, L. V. Reply to Hagedoorn's discussion on Hawkin's paper "The reciprocal method of routine shallow seismic refraction in- vestigations" -----	191-611
— The application of the seismic method and seismic timers to the investigation of the depth and quality of magnesite deposits near Young, N. S. W. -----	190-592
— The reciprocal method of routine shallow seismic refraction in- vestigations -----	188-533
Hayakawa, Masami. Study of the thermal state in the upper part of the earth's crust -----	189-332
Hayakawa, Masami, and Balakrishna, S. Some theoretical consid- erations for the high ultrasonic velocities in Indian granites ----	188-212
Haynes, C. V. Moon rocks, pt. 1 -----	190-101
Healy, James, and Tazieff, Haroun. Surveillance of the active vol- canoes of New Zealand -----	190-630
Heap, W. O. See Finn, R. S.	
Hecht, Günter. See Andreas, Dieter.	
Heck, N. H. See Wood, H. O.	

Abstract

- Hédervári, Péter. Some selenomorphological remarks to the problem of the hypsometric and hypsographic curves of the moon ---- 189-68
- Heezen, B. C., and Ewing, Maurice. The mid-oceanic ridge and its extension through the Arctic Basin ----- 188-582
- Hefer, F. W. The use of photo-resistive cells as lossier elements in a transistorized seismic amplifier ----- 189-569
- Heigold, P. C. See McGinnis, L. D.
- Heirtzler, J. R. The longest electromagnetic waves ----- 189-370
- Heiskanen, W. A. Is the earth a triaxial ellipsoid ----- 190-268
- Ten years as professor in geodesy in America ----- 189-239
- Heitfeld, K. H. The significance of historical thought patterns in geology for geomechanics ----- 191-646
- Helliwell, R. A. See Mlodnosky, R. F.
- Hemenway, C. L., Soberman, R. K., Fullam, E. F., Balsamo, J. J., Cole, J., Hallgren, D., Yedinak, P., Goodman, A., and Hoff, G. Micrometeorite collection from a recoverable sounding rocket, Article II ----- 190-90
- See also Soberman, R. K.
- Henderson, E. P. See Clarke, R. S., Jr.
- Henderson, J. R., Jr. Aeromagnetic map of the Bridgewater quadrangle, Aroostook County, Maine ----- 191-534
- Hennessey, D. J. See Nagy, Bartholomew
- Henriksen, S. W. The hydrostatic flattening of the earth ----- 188-305
- Heppner, J. P. See Ness, N. F.
- Herbst, R. F. See Werth, G. C.
- Hereth, A., and Schombierski, A. Determination of the anisotropy of strength of a rock body that is traversed by several sets of joints, with electronic computers ----- 191-665
- Herrmann, Horst. Results of a regional seismic reflection profile in the foreland of the Central German Main fracture ----- 191-626
- Herron, Thomas. See Hunkins, Kenneth.
- Hersey, J. B. Findings made during the June 1961 cruise of Chain to the Puerto Rico Trench and Caryn sea mount ----- 189-610
- The Puerto Rico Trench, a geophysical laboratory ----- 188-581
- Hervás Burgos, Pablo. Location of a magnetic vein ----- 191-528
- Herzog, L. F. Analyses of identical samples by more than one laboratory ----- 188-20
- Geological age determination by X-ray fluorescence Rb/Sr ratio measurement in lepidolite ----- 190-5
- See also Deuser, W. G.
- Hesche, Werner. Investigations on multiple reflections in seismic surveying ----- 189-555
- Hess, W. D. See Lorenz, P. J.
- Hesse, Albert. Electrical resistivity measurements on a stratigraphic section of a prehistoric deposit ----- 189-187
- Hessler, V. P. Characteristics of telluric current at land and sea based stations ----- 190-106
- Hibberd, F. H. An analysis of the positions of the earth's magnetic pole in the geological past ----- 189-450
- Hicks, W. G. See Foster, M. R.
- Hill, D. P., Baldwin, H. L., Jr., and Pakiser, L. C. Gravity, volcanism, and crustal deformation in the Snake River Plain, Idaho ----- 188-346
- Hill, F. G., and Denkhaus, H. G. Rock mechanics research in South Africa, with special reference to rockbursts and strata movement in deep level gold mines ----- 189-596

- Hill, M. N., and Mason, C. S. Diurnal variation of the earth's magnetic field at sea ----- 191-441
- Hill, P. A., and Green, Ronald. Thermoelectricity and resistivity of pyrite from Renison Bell and Mt. Bischoff, Tasmania ----- 191-263
- Hilten, Dick van. A deviating Permian pole from rocks in northern Italy ----- 191-486
- Geology and Permian paleomagnetism of the Val-di-Non area, W. Dolomites, N. Italy ----- 189-455
- Presentation of paleomagnetic data, polar wandering, and continental drift ----- 189-445
- Hinterberger, H., König, H., and Wänke, H. Primordial rare gases in the meteorite Breitscheid ----- 191-40
- Hiramatsu, Yoshio, and Oka, Yukitoshi. Stress around a shaft or level excavated in ground with a three-dimensional stress state-- 189-594
- Hirasawa, Kiyoshi. See Honsho, Shizumitsu, and Kaneko, Tetsuichi.
- Hirono, Motokazu. On the magnetic clouds responsible for variations of cosmic-ray and geomagnetic field ----- 189-412
- Hirono, Takuzo. Seismicity of Japan ----- 188-167
- Hirose, Yoshihisa. See Hatuda, Zin'itiro.
- Hjelme, Jørgen. Seismic experiments near Rømnø ----- 189-579
- Ho, Chuan-Da. See Tseng, Jung-Sheng.
- Hobson, G. D. Seismic exploration in the Canadian Arctic islands-- 189-575
- Vaudreuil map-area, Quebec, Part II. The seismic method applied to a bedrock channel problem ----- 190-583
- Hodgson, J. H. The Upper Mantle project ----- 191-406
- Hoering, T. C. The carbon isotope effect in the synthesis of diamond ----- 188-376
- The carbon-isotope effect on the rate of enzymatic decarboxylation of formic and glutamic acid ----- 188-379
- The effect of physical changes on isotope fractionation----- 188-378
- Hoering, T. C., and Abelson, P. H. Carbon isotope effects in aerobic metabolism of microorganisms ----- 189-367
- Hoering, T. C., and Bufalini, M. The isotope effect in the low-temperature adsorption of gases ----- 189-368
- Hoerlin, Herman. Artificial aurora and upper atmospheric shock produced by Teak ----- 189-371
- Höfer, Karl-Heinz. Is there a periodicity of mine bumps----- 191-672
- Hoff, G. See Hemenway, C. L.
- Hoffman, A. A. J. See Horton, C. W.
- Hoffren, V. See Hyyppä, E.
- Hofmann, R. B. Aftershock-energy release versus tidal effects, Hebgen Lake Earthquake, Montana ----- 188-147
- Hofmann, Walther. Tellurometer measurements on the Greenland Ice Cap during the International Glaciological Greenland Expedition (EGIG) summer 1959 ----- 191-313
- Holden, F. C. See Fisher, D. H.
- Hollister, J. C. The effect of the present slump on geophysical education ----- 191-286
- Holm, D. A. New meteorite localities in the Rub'al Khali, Saudi Arabia----- 189-56
- Holmes, G. W. See Ostenso, N. A.
- Holt, A. See Brown, F.
- Holz, Peter. Operating ideas from South Africa - Seismic prospecting ----- 191-617
- Honda, Hirokichi. The generation of seismic waves ----- 189-103

Abstract

- Honda, Masatake, Umemoto, S., and Arnold, J. R. Radioactive species produced by cosmic rays in Bruderheim and other stone meteorites ----- 190-68
 See also Arnold, J. R., Rama, and Stauffer, Heinz.
- Honkasalo, Tauno. Compensation of the north European precise leveling network ----- 190-276
- Honsho, Shizumitsu; Nagumo, Shozaburo; Kamata, Seikichi; and Hirasawa, Kiyoshi. On delay shooting ----- 189-559
- Hoover, D. B. See Warrick, R. E.
- Hoover, T. E. See Stipp, J. J.
- Hôrai, Ki-Iti. See Uyeda, Seiya.
- Hori, Minoru. See Miyamura, Setumi.
- Horibe, Tomio, and Kobayashi, Ryoji. Physical and mechanical properties of coal-measures rocks ----- 188-215
- Horikawa, Yoshio, and Hosono, Takeo. Radiometric survey with car-mounted instrument in the southeastern part of Iwate Prefecture ----- 188-489
- Horikawa, Yoshio; Ujiie, Akira, and Hosono, Takeo. Radiometric survey with car-mounted instrument in the Jōban Province, Fukushima Prefecture ----- 188-491
 See also Sugiyama, Tomonori.
- Horon, Octave, Mégnien, Claude, and Soyer, Robert. Note on the Salt Springs of Saint Père sous Vezelay (Yonne) ----- 188-252
- Horton, C. W., and Hoffman, A. A. J. Power spectrum analysis of the telluric field at Tbilisi, U.S.S.R., for periods from 2.4 to 60 minutes ----- 191-75
- Hoshino, Kazuo. Fissures of alluvium deposits in the Hyuga-nada earthquake, February 27th, 1961, with some geological interpretations ----- 190-124
 See also Nagahama, Haruo.
- Hosono, Takeo. See Horikawa, Yoshio, and Nakai, Junji.
- Hosoyama, Kennosuke. See Nishimura, Eiichi.
- Hou, Zong-Tsu. On the magnetic property of volcanic rocks occurring in the Great Shingan Mountain region, northeast China ----- 188-466
- Houser, F. N., and Poole, F. G. Age relations of the Climax composite stock, Nevada Test Site, Nye County, Nevada ----- 188-48
- Houtz, R. E. Note on minor damage caused by the Suva earthquake of June 1961 ----- 189-82
 — The 1953 Suva earthquake and tsunami ----- 189-81
- Howard, A. D. The hydrothermal phenomena of the Yellowstone National Park ----- 188-598
- Howell, L. G. Chemical and crystal controlled magnetization of rocks ----- 191-465
- Hower, J. See Hurley, P. M.
- Hoy, R. B., and Foose, R. M. Earth deformation from a nuclear detonation in salt ----- 191-289
- Hoyle, Fred. On the origin of the solar nebula ----- 189-33
 See also Fowler, W. A.
- Hoylman, H. W. How to determine and remove diurnal effects precisely ----- 188-445
- Hron, František. See Červený, Vlastislav.
- Hsu, Shao-Hsien. Design, construction, and testing results of the type-581 seismograph ----- 188-191
- Hu, Hai-Chang. On reciprocal theorems in the dynamics of elastic bodies and some applications ----- 190-164
- Hubbs, C. L., Bien, G. S., and Suess, H. E. La Jolla natural radiocarbon measurements II ----- 190-57

- Huber, Carolyn. See Judd, W. R.
- Hudson, D. E. Some problems in the application of spectrum techniques to strong-motion earthquake analysis ----- 189-114
See also Merchant, H. C.
- Hudson, G. B. See Light, D. E.
- Hudson, J. A. Love waves in a heterogeneous medium ----- 190-152
— The total internal reflection of SH waves ----- 191-156
- Huffaker, R. M. See Adams, E. W.
- Huggenberger, A. U. Body and foundation of a construction in their mutual action ----- 191-673
- Hughes, H. See Hurley, P. M.
- Hughes, M. P. Solar radio emissions and geophysical disturbances during July 1959 ----- 190-413
- Hulston, J. R. Isotope geology in the hydrothermal areas of New Zealand ----- 190-371
- Hulston, J. R., and McCabe, W. J. Mass spectrometer measurements in the thermal areas of New Zealand. Pt. 1, Carbon dioxide and residual gas analyses ----- 189-327
— Mass spectrometer measurements in the thermal areas of New Zealand. Pt. 2, Carbon isotopic ratios ----- 189-328
- Hunkins, Kenneth. Seismic studies of the Arctic Ocean floor ----- 189-611
- Hunkins, Kenneth, Herron, Thomas, Kutschale, Henry, and Peter, George. Geophysical studies of the Chukchi cap, Arctic Ocean -- 188-284
- Hunt, C. B. See Straus, W. L., Jr.
- Hurley, P. M., Brookins, D. G., Pinson, W. H., Jr., Hart, S. R., and Fairbairn, H. W. K-Ar age studies of Mississippi and other river sediments ----- 188-43
- Hurley, P. M., Fairbairn, H. W., Pinson, W. H., Jr., and Hower, J. Unmetamorphosed minerals in the Gunflint formation used to test the age of the Animikie ----- 191-19
- Hurley, P. M., Hughes, H., Pinson, W. H., Jr., and Fairbairn, H. W. Radiogenic argon and strontium diffusion parameters in biotite at low temperatures obtained from Alpine Fault uplift in New Zealand ----- 188-27
See also Pinson, W. H., Jr.
- Hurst, M. E. See Ehmann, W. D.
- Hurtig, Eckart. Investigations of the propagation velocity of longitudinal waves in models of petrographic bodies ----- 190-173
- Husain, M. Khurshid; Azeem, Mohammad; and Qurashi, M. M. The design of a simple uranium-thorium discriminator for weakly active ores containing less than 1 percent U_3O_8 equivalent: Pt. II—Design, use, and testing of discriminator ----- 188-479
- Hutton, V. R. S. Equatorial micropulsations ----- 190-430
— Equatorial micropulsations and ionospheric disturbance currents ----- 191-444
- Hyypä, E., Hoffren, V., and Isola, A. Geological Survey of Finland radiocarbon measurements I ----- 190-47

I

- Ibe, Yukimi. See Yokoyama, Hidekichi.
- Idlis, G. M., and Karyagina, Z. V. The comet nature of the Tungus meteorite ----- 191-54
- Igarashi, Toshio. See Koizumi, Hisanao.
- Ignat'yeva, T. S. Recommendations for using a combined survey of average gradients and a micromagnetic survey in prospecting for rare metal pegmatite veins ----- 189-170

Abstract

- Ignat'yeva, T. S., and Il'yushchenko, N. P. An experience in the study of forms of rare metal replacement in pegmatite veins by using the method of high accuracy micromagnetic survey----- 189-463
- Igushkin, I. A. See Rekunov, N. A.
- Iida, Kumizi, and Kumazawa, Mineo. Elastic wave velocity and thermal expansion of volcanic rocks at high temperatures ----- 189-154
See also Shibato, Kihei.
- Iijima, Azuma, and Kagami, Hideo. Cainozoic tectonic development of the continental slope, northeast of Japan ----- 189-257
- Ikegami, Kyohei. Intensity-frequency relation for felt earthquakes in Japan ----- 188-171
- Ilev, N. P. See Kirov, K. T.
- Il'in, A. V. A rift valley in the Atlantic Ocean ----- 189-612
- Il'yushchenko, N. P. See Ignat'yeva, T. S.
- Imbò, Giuseppe. Some phenomena accompanying the preliminary phases of eruptive manifestations of Vesuvius and the relative possibilities of predictions ----- 190-621
- Indian Minerals. Progress in geophysical exploration in recent years by the Geological Survey of India ----- 190-251
- Inghilleri, Giuseppe. See Morelli, Carlo.
- Ingram, R. E. Generalized focal mechanism ----- 189-99
- Innes, M. J. S. Gravity and isostasy in northern Ontario and Manitoba ----- 189-308
- Inoue, Eiji. A new GSI pendulum apparatus ----- 189-302
- Inoue, Eiji, and Seto, Takao. Pendulum determinations of the gravity difference between Tokyo and Melbourne ----- 189-304
- International Geophysical Year Bulletin (No. 45). Ocean tide measurements from Antarctic ice shelves using gravity techniques --- 189-319
- International Geophysical Year Bulletin (No. 56). Preliminary results from Arctic Ocean Drifting Station Charlie ----- 191-685
- International Geophysical Year Bulletin (No. 57). Solar-terrestrial activity during the second half of 1961 ----- 189-417
- International Geophysical Year Bulletin (No. 60). The Year of the Quiet Sun; proposed program of the United States----- 190-447
- Ionescu, Florian. Application of the micromagnetic method to the study of crystalline rocks of the South Carpathians ----- 188-462
See also Ștefănescu, S. S.
- Ionosphere Research Committee. Catalogue of disturbances in ionosphere, geomagnetic field, field intensity of radio wave, cosmic ray, solar phenomena and other related phenomena, no. 21 ----- 189-381
- Catalogue of disturbances in ionosphere, geomagnetic field, field intensity of radio wave, cosmic ray, solar phenomena and other related phenomena, no. 23 ----- 189-382
- Catalogue of disturbances in ionosphere, geomagnetic field, field intensity of radio wave, cosmic ray, solar phenomena and other related phenomena, no. 25 ----- 189-383
- Catalogue of disturbances in ionosphere, geomagnetic field, field intensity of radio wave, cosmic ray, solar phenomena and other related phenomena, no. 30 ----- 189-384
- Iosif, T. Seismic activity in the territory of the Rumanian Peoples Republic (1957-1959) ----- 190-127
- Irie, Tsuneji. See Yoshizumi, Eizaburo.
- Irving, E. Paleomagnetic directions and pole positions, part 4. Pole numbers 4/1 to 4/34----- 189-451
See also Bull, C.

Abstract

- Irwin, W. P., and Bath, G. D. Magnetic anomalies and ultramafic rock in northern California ----- 190-478
- Isaacson, E. de St. Q. Stress waves resulting from rock failure--- 188-577
- Isabayev, Ye. A., Cherdyntsev, V. V., and Yenikyeyev, R. Sh.
Determination of the age of young formations by the ratio of thorium and uranium isotopes ----- 188-15
See also Cherdyntsev, V. V.
- Isacks, Bryan. See Oliver, J. E.
- Isakovich, M. A., and Roy, N. A. Acoustic method of measuring the dynamical parameters of meteorites ----- 188-125
- Isayev, V. S. See Bokanenko, L. I.
- Ishida, Haruko. See Kato, Yoshio, and Suzuki, Ziro.
- Ishida, Tamotsu. Preliminary reports on a traverse to the Yamato Mountains in 1960: Pt. IV, Preliminary report of seismic soundings along the route to the Yamato Mountains ----- 188-565
— Seismic observations of the Yamato Mountains traversing trip-- 190-593
- Ishii, Fujio. See Kunori, Shoichi.
- Islamov, K. Sh. See Bagdasarova, A. M.
- Ismail-Zade, T. A., and Dzhabarova, Kh. S. Relation between the destructive field and data of spore-pollen analysis on Maykop and Sarmat deposits of Talysh ----- 189-441
See also Chiguryayeva, A. A.
- Ismet, A. R., Mamedova, R. A., and Shakhmaliyev, R. N. Concerning gamma-anomalies occurring in oil wells of Apsheron---- 189-536
- Isola, A. See Hyyppa, E.
- Israilewitsch, E. A. See Schatenstein, A. I.
- Itenberg, S. S. Use of geophysical logging data for unification of stratigraphic sections ----- 190-234
- Ito, H. See Kawai, Naoto.
- Ito, Mitsuyoshi. See Kato, Yoshio.
- Ivakin, B. N. Methods of controlling the density and elasticity of a medium during two-dimensional modeling of seismic waves ----- 191-193
- Ivanchuk, L. F. See Dolina, L. P.
- Ivanhoe, L. F. Right-lateral strike-slip movement along the Lake Clarke fault, Alaska ----- 190-288
- Ivankin, P. F., and Malygin, A. A. Method of interpreting and systemizing magnetic anomalies in the example of the Lenino-gorsk mining region ----- 191-554
- Ivankina, A. T., and Morozova, A. A. Composition of a detailed velocity section from neutron gamma logging ----- 188-539
- Ivanov, A. G. Electrical prospecting in China ----- 188-248
— On the dependence on frequency of the specific effective resistance in rocks----- 190-239
See also Bubleynikov, F. D.
- Ivanov, A. I., Lyapichev, G. F., and Zamyatin, N. I. Absolute age of anorthoclase granite porphyries from the Teniz-Korzhunkulsky basin (Central Kazakhstan)----- 188-88
— Absolute age of Caledonian intrusives of the Chingiz Range (Eastern Kazakhstan) ----- 188-86
- Ivanov, A. I., Monich, V. K., Zamyatin, N. I., and Nuriybayev, A. N. Absolute age of the alkalic rocks of the Ishim complex in central Kazakhstan ----- 188-87
- Ivanov, A. P. See Enenshteyn, B. S.
- Ivanov, I. B. See Zhiron, K. K.
- Ivanov, K. G. Energy of the Tungus meteorite ----- 191-55

Abstract

- Ivanov, K. G. Geomagnetic phenomena observed at the Irkutsk magnetic observatory after the Tungus meteorite----- 191-56
- Ivanov, M. A., and Enenshteyn, B. S. A noninertial method of measurement of amplitudes and phases of electric oscillations--- 188-249
- Ivanov, V. I. See Cherdyntsev, V. V.
- Ivanov, V. V. See Averyev, V. V.
- Ivanova, K. S. See Komlev, L. V.
- Ivanova, L. A. See Yepinat'yeva, A. M.
- Ivanova, T. G. See Vasil'yev, Yu. I.
- Ivanova, Z. S. See Khat'yanov, F. I.
- Ives, R. L. Dating of the 1746 eruption of Tres Virgenes volcano, Baja California del Sur, Mexico----- 190-611
- Iwasaki, Shoji; Kanaya, Hiroshi; and Komai, Jiro. Airborne radiometric survey in Jōban area, Fukushima Prefecture----- 188-495
- Airborne radiometric survey in the southern part of Okayama Prefecture----- 188-497
- Airborne radiometric survey in the western part of Kitakami area, Iwate Prefecture----- 188-493
- Iwasaki, Shoji; Kojima, Seishi; and Kanaya, Hiroshi. Airborne radiometric survey in the northern part of Yamaguchi Prefecture-- 188-498
- Iwasaki, Shoji; Kojima, Seishi; Kanaya, Hiroshi; and Komai, Jiro. Airborne radiometric survey in the eastern part of Fukushima Prefecture----- 188-494
- Iwata, Takao. Concentration dependence of the magnetically induced directional order in face-centered cubic non-ideal solid solutions----- 189-430
- Iyer, H. M. World-wide microseismic study----- 191-564
- Izaki, Akira. See Sasa, Yasuo.
- Izakowski, Andrzej. Technical progress in geophysical work----- 190-262
- Izmaylov, Y. P. See Aleksandrov, S. Ye.

J

- Jacchia, L. G. The earth's gravitational potential as derived from satellite 1957 β_1 and 1958 β_2 ----- 188-303
- Jackson, P. L. Thermal noise in electrodynamic seismometers--- 189-138
- Jackson, W. H., Shawe, F. R., And Pakiser, L. C. Gravity study of the structural geology of Sierra Valley, California----- 188-350
- See also Warrick, R. E.
- Jacobs, J. A. Characteristics of geomagnetic pulsations----- 190-437
- Geophysical investigations on the Salmon Glacier, British Columbia----- 189-263
- Jacobs, J. A., and Jolley, E. J. Geomagnetic micropulsations with periods of 0.3-3 sec ("pearls")----- 199-443
- See also Nishida, A., and Westphal, K. O.
- Jacobshagen, V. The isotopic composition of natural waters and their changes during the water cycle----- 191-418
- Jaeger, J. C. Punching tests on disks of rock under hydrostatic pressure----- 189-586
- Jaeger, Wolfgang. Geologic-geophysical investigation of the Hamerunterwiesenthal phonolite (Erzgebirge)----- 188-457
- Jaegglin, R. P. See Koulomzine, T.
- Jaeschke, Rudolf. A horizontal vectograph for the registration of geomagnetic pulsations: construction and first utilization----- 191-432
- Jäger, Emilie; Geiss, Johannes; Niggli, Ernst; Streckeisen, Albert; Wenk, Eduard; and Wuthrich, Hans. Rb-Sr age of rock-forming micas of the Swiss Alps----- 188-67

- Jakowlewa, E. A. See Schattenstein, A. I.
- James, H. L., Pettijohn, F. J., and Wier, K. L. Magnetic surveys [central Dickinson County, Michigan] ----- 188-449
- Jamil, A. K. See Bradley, R. S.
- Jansen, H. S. Comparison between ring-dates and ^{14}C -dates in a New Zealand kauri tree----- 190-24
- Janssen, T. See Berg, E.
- Jarosch, H. See Pekeris, C. L.
- Jayaraman, A. See Newton, R. C.
- Jeffery, P. M., and Reynolds, J. H. Concerning Xe^{129} in meteorite Abee ----- 188-115
- Origin of excess Xe^{129} in stone meteorites----- 190-75
- See also Compston, W., and Wilson, A. F.
- Jefford, G. See Macleod, W. N.
- Jeffreys, Harold. A suggested reconstruction of the land masses of the earth as a complete crust ----- 191-300
- Deep foci and distribution of velocity ----- 191-113
- Small corrections in the theory of surface waves----- 189-129
- Some normal earthquakes----- 191-114
- Jeffreys, Harold, and Crampin, Stuart. Rock creep: a correction-- 189-587
- Jenkins, E. B. See Beard, D. B.
- Jenny, W. P. Aeromagnetics develop new prospects and technique ----- 188-443
- How to correct magnetic data for instrumental drift, diurnals -- 188-444
- Many old, updated magnetic prospects prove to be valid ----- 188-442
- Regional magnetic data show prospective trends (pt. 2)----- 188-441
- Jiang, Bai-Qin. A statistical study of the relations between solar flares and magnetic storms ----- 188-414
- Jiříček, František. On the types and dispersions of whistlers as observed in Czechoslovakia ----- 190-448
- Jobert, Georges. Nonhydrostatic stresses in a gravitating planet - 189-38
- Nonhydrostatic tensions in a gravitating planet----- 189-37
- Joesting, H. R. Discussion of "Gravity and aeromagnetic exploration in the Paradox Basin," by Nelson C. Steenland----- 190-325
- Joesting, H. R., Case, J. E., and Cordell, L. E. The Rio Grande trough near Albuquerque, New Mexico ----- 188-343
- See also Case, J. E.
- Johnson, A. I. See Moston, R. P.
- Johnson, H. M. A history of well logging----- 191-249
- How different mud additives affect R_m - R_{mf} - R_{mc} ratios ----- 188-264
- Johnson, P. V. See Balakrishna, S.
- Johnson, R. B. See Dickey, D. D.
- Jolivet, J. Geophysical surveillances of the volcanoes of the French Antilles. Possibilities of prediction and control of eruptions ---- 190-613
- Jolley, E. J. See Jacobs, J. A.
- Jones, A. R. Airborne gamma monitor for ground contamination -- 188-478
- Jones, D. C. Alternative employment for geophysicists in the oil industry ----- 191-285
- Jones, G. H. S. Transverse motion from repeated explosions ----- 191-206
- Jones, R. V. Sub-acoustic waves from large explosions ----- 188-131
- Judd, W. R., and Huber, Carolyn. Correlation of rock properties by statistical methods ----- 191-641
- Jung, F. R. Altitude systems and altitude reduction ----- 190-275
- Junge, C. E. See de Turville, C. M.
- Junger, Arne. Signal, noise, and seismic records ----- 189-549

K

Abstract

- Kaasa, R. A. See Mooney, H. M.
- Kagami, Hideo. See Iijima, Azuma.
- Kaganov, M. A., and Rozenshtok, Yu. L. On the measurement of thermal fluxes with the aid of heat meters ----- 189-331
- Kage, Erhardt. Magnetic tape recording technique in seismic reflection surveying for electronic interpretation ----- 191-616
- Kahler, F. Rock mechanics and geomechanics. Formation, course, and goal of a new science ----- 191-644
- Kailasam, L. N. Seismic exploration in the Karaikal-Nagore of the Cauvery basin, Madras State ----- 189-224
- Kakioka Magnetic Observatory. Report of the geomagnetic and geoelectric observations, 1959-60 ----- 191-436
- Kaku, Hidezo. Studies on SP phenomena (1) and (2) ----- 189-177
- Kalbitzer, S. See Fechtig, H.
- Kalenov, Ye. N. Change of S according to data of electrical sounding near a vertical contact ----- 190-196
- Kalina, Jaroslav. See Marušiak, Ivan.
- Kalinowska-Widomska, Ewa; Marianiuk, Janusz; and Gnoiński, Adam. A signaling apparatus for magnetic storms at the Świder Geophysical Observatory ----- 190-385
- Kalliokoski, Jorma. Temperatures of formation and origin of the Nigadoo and Brunswick Mining and Smelting No. 6, deposits, New Brunswick, Canada ----- 191-396
- Kal'vanskaya, V. P. Investigation of curves of magnetic susceptibility logging on models ----- 188-440
- Kamata, Seikichi. See Honsho, Shizumitsu, and Nagumo, Shozaburo.
- Kamenetskiy, F. M., and Kovalenko, V. F. Some results of testing MPP ----- 191-237
- Kamenev, S. P. Interpretation of diagrams of electrical logging opposite clayey sands in fields northwestern Sakhalin ----- 188-274
- Kamo, Kosuke. Nature of the volcanic micro-tremors at the Volcano Aso, part 1. Observation of a new type of long-period micro-tremors by long-period seismograph ----- 190-635
- Nature of the volcanic micro-tremors at the Volcano Aso, part 2. Some natures of the volcanic micro-tremors of the 1st kind at the Volcano Aso ----- 190-636
- See also Okano, Kennosuke.
- Kamyshev, N. N. See Ayzberg, R. Ye.
- Kan, Yung-Chū. See Tseng, Jung-Sheng.
- Kanai, Kiyoshi. An empirical formula for the spectrum of strong earthquake motion ----- 188-173
- Kanai, Kiyoshi, and Osada, Kaio. Seismic characteristics in ground of mountainous formation (Observation of the after shocks of the Kita Mino earthquake) ----- 191-87
- Kanakina, M. A. See Zelenov, K. K.
- Kanamori, Hiroo. See Tsuboi, Chuji.
- Kanaya, Hiroshi. See Iwasaki, Shoji.
- Kanayev, V. F. See Zatonskiy, L. K.
- Kane, M. F. A comprehensive system of terrain corrections using a digital computer ----- 191-339
- Structure of plutons from gravity measurements ----- 188-325
- Kane, M. F., and Carlson, J. E. Gravity anomalies, isostasy, and geologic structure in Clark County, Nevada ----- 188-345

- Kane, M. F. See also Andreasen, G. E., Oliver, H. W., and Pakiser, L. C.
- Kaneko, Tetsuichi. A simple method of determination for three velocity layers by the seismic refraction ----- 188-536
- Reflection signal from a layered refractor ----- 188-528
- Kaneko, Tetsuichi, and Hirasawa, Kiyoshi. An experiment on the reduction of wave noises by using multiple geophone setting and pattern shooting ----- 188-529
- Kanellakos, D. P., and Villard, O. G., Jr. Ionospheric disturbances associated with the solar flare of September 28, 1961 ----- 190-411
- Kang, Yong-ho. On the anomalies of the geomagnetic field due to Mt. Kabuto, Hyogo Prefecture, Japan ----- 189-475
- Role of pyrrhotite in rock magnetism ----- 191-479
- See also Kawai, Naoto.
- Kanizay, S. P. Mohr's theory of strength and Prandtl's compressed cell in relation to vertical tectonics ----- 188-569
- Kántás, Karl. Computing and plotting seismic data with electronic computer ----- 188-551
- Kapitanov, Yu. T., Serdyukova, A. S., and Korenkov, A. P. Express method of concentration determination of radium A and correlation between the decay products of radon in the air ----- 190-505
- Kaplan, B. L., and Mayorov, V. V. On the problem of generation of transverse waves by directed shots ----- 188-516
- Karakama, Ikuo. See Omote, Syun'itiro.
- Karapatyan, G. A. See Shirinyan, K. G.
- Karapetyan, K. I. On the new Gegam type of volcano ----- 191-690
- Karatayev, G. I. Structure of the earth's crust in western Siberia according to geophysical data ----- 191-557
- Karlen, Ingvar. See Olsson, Ingrid.
- Kárník, Vít. Epicenter maps for Europe ----- 191-77
- New seismic maps of Czechoslovakia ----- 189-86
- Kárník, Vít, Kondorskaya, N. V., Riznichenko, Yu. V., Savarenskiy, Ye. F., Solov'yev, S. L., Shebalin, N. V., Vaněk, Jiří, and Zátópek, Alois. Standardization of the earthquake magnitude scale ----- 190-131
- Kárník, Vít, and Tobyaš, Vladimír. Underground measurements of the seismic noise level ----- 191-569
- See also Vanek, I.
- Karpins'ka, N. M., and Kharechko, G. E. On the problem of some physical properties of rocks of the Northern Sivash area ----- 188-359
- Karpinsky, Jurij. See Dokouřil, Stanislav.
- Karpushin, D. M., Kudymov, B. Ya., and Shirokov, A. S. Problems of the method of determination of the economic effectiveness of new geophysical technique ----- 188-298
- Karus, Ye. V., and Saks, M. V. Impulse ultrasonic logging ----- 190-562
- Karyagina, Z. V. See Idlis, G. M.
- Kashkay, M. A., and Aliyev, V. I. Structure and composition of the Yarymly iron meteoritic shower ----- 191-43
- Kašpar, Jan. Conformal representation of one surface on another under selected conditions ----- 190-278
- Kaspar, Milan. See Dokouřil, Stanislav.
- Kastorskiy, S. A. See Borisevich, Ye. S.
- Kato, Yoshio. Geomagnetic micropulsations ----- 190-401
- Geomagnetic pulsations and hydromagnetic oscillations of exosphere ----- 190-439

Abstract

- Kato, Yoshio, and Saito, Takao. Morphological study of geomagnetic pulsations ----- 190-433
- Kato, Yoshio; Suzuki, Ziro; Nakamura, Kohei; Takagi, Akio; Emura, Kinya; Ito, Mitsuyoshi; and Ishida, Haruko. The Chile tsunami of 1960 observed along the Sanriku coast of Japan----- 189-117
- Kato, Yoshio, and Tamao, T. Hydromagnetic waves in the earth's exosphere and geomagnetic pulsations ----- 190-434
- Katok, A. P. See Gayskiy, V. N.
- Kats, A. Z. Seismic microregionalization on a basis of differentiation of grounds according to deformations caused by the passage of seismic waves----- 190-125
- Kats, S. A. The equivalence principle of interference systems ---- 190-522
- Katyushkin, V. F. See Borisevich, Ye. S.
- Katz, Samuel. See Ahrens, T. J.
- Kaufman, A. A. On an approximate theory of induction logging ---- 191-251
- Three methods of field excitation in low-frequency electrical prospecting of ore deposits ----- 191-223
- Kauranen, Pentti. Alpha branching in the decay of Pb^{210} and Bi^{210} a new mercury isotope Hg^{206} ----- 189-485
- Kavin, A. V. Electrical exploration operations by the telluric current method in the Chinese Peoples Republic----- 188-145
- Kawachi, Yosuke; Obi, Itsuaki; Saito, Tsuguo; and Uno, Kaichi. Reconnaissance radiometric survey on Nan-etsu Mine, Niigata Prefecture ----- 191-595
- Kawai, Naoto. Mountain-building movement in Japan and its vicinity ----- 188-311
- Subsolidus phase relation in titanomagnetite and its significance in rock-magnetism----- 189-424
- Kawai, Naoto, Ito, H., and Kume, Shoichi. Deformation of the Japanese Islands as inferred from rock magnetism ----- 189-458
- Kawai, Naoto, and Kang, Yong-ho. Magnetic minerals in black and red beds in Japan ----- 189-444
- Kawashima, Takeshi. See Nagumo, Shozaburo.
- Kayano, Ichiro. See Hagiwara, Takahiro, and Omote, Syun'itiro.
- Kazakov, G. A. See Polevaya, N. I.
- Kazanchan, P. P. Data for the study of seasonal movements of the crust under the conditions of the Armenian SSR----- 189-255
- Kazinskiy, V. A. Approximation of the deflection of plumbines observed in the gravity field of the earth ----- 191-328
- Kebuladze, V. V., and Kiziriya, L. V. Steady short-period oscillations of the field of earth currents ----- 191-71
- Keeling, C. D. The concentration and isotopic abundance of carbon dioxide in rural and marine air----- 188-377
- Kelarev, V. V. See Ovchinnikov, L. N.
- Keller, G. V. Electrical properties of a part of the Portage Lake lava series, Houghton County, Michigan----- 188-275
- Electrical resistivity of rocks in the Area 12 tunnels, Nevada Test Site, Nye County, Nevada ----- 190-238
- Keller, G. V., and Frischknecht, F. C. Electrical resistivity studies on the Athabasca Glacier, Alberta, Canada ----- 189-191
- See also Plouff, Donald, and Zablocki, C. J.
- Kellogg, P. J. Flow of plasma around the earth----- 191-426
- Kellogg, P. J., and Winckler, J. R. Cosmic ray evidence for a ring current ----- 188-411

- Kellogg, W. C. Airborne AFMAG theory, equipment and operation in the western United States----- 189-172
- Kelly, S. F. Geophysical exploration for water by electrical resistivity----- 191-238
- Kempton, J. P. See McGinnis, L. D.
- Kennedy, G. C., and La Mori, P. N. The pressures of some solid-solid transitions----- 188-375
- See also Newton, R. C.
- Kern, J. W. A note on the generation of the main-phase ring current of a geomagnetic storm----- 191-456
- Effects of moderate stress on directions of thermoremanent magnetization----- 188-415
- The effect of stress on the susceptibility and magnetization of a partially magnetized multidomain system----- 188-416
- See also Vestine, E. H.
- Kevorkov, R. A., Sarbash, V. F., and Sluchanko, Z. Ye. Some results of phase measurements in the charge method on alternating current----- 189-174
- Keylis-Borok, V. I. Differentiation of the spectra of surface waves due to earthquakes and underground explosions----- 189-151
- Some new investigations of earthquake mechanism----- 189-104
- The density of seismic energy and the level of predominant frequency of earthquakes----- 189-95
- Keyl'man, Yu. N. See Gol'tsman, F. M.
- Keyser, A. R., Rice, J. A., and Schearer, L. D. A metastable helium magnetometer for observing small geomagnetic fluctuations----- 189-374
- Keyvsar, Z. I. See Komarov, S. G.
- Khain, V. Ye. Main stages of development of the crust (in the areas of the present continents)----- 189-250
- Khakhlev, Ye. M. See Tal'virskiy, D. B.
- Khalevin, N. I., and Barykin, D. D. An apparatus for acoustic investigations in boreholes----- 190-563
- Khalturin, V. I. See Nersesov, I. L.
- Khan, M. A. The anisotropy of magnetic susceptibility of some igneous and metamorphic rocks----- 190-452
- Khan', Yuan'. Seismicity of the Tsilyan'shan and adjacent regions from the point of view of seismology----- 190-128
- Kharaz, I. I., and Raykher, L. D. The $t_0/2$ lines process in the method of reflected waves----- 188-525
- Kharchenko, F. M. See Kravets', V. V.
- Kharechko, G. E. See Karpins'ka, N. M.
- Kharin, D. A. See Bagdasarova, A. M., Kirnos, D. P., and Rulev, B. G.
- Kharitonova, V. Ya. See D'yakonova, M. I.
- Khat'yanov, F. I. On the prospects of exploration of the oil-gas bearing reef masses in the zone of the Cis-Ural downwarp----- 188-290
- Khat'yanov, F. I., Amirova, A. V., and Ivanova, Z. S. Layer zonality of seismic wave velocity within several oil-bearing platform structures of Bashkiria----- 190-585
- Khaustov, A. I. See Alekseyev, F. A., and Bespalov, D. F.
- Khitrov, L. M., and Kotlyarov, K. A. Deep-water gamma radiometer and measurement of the radioactivity of the deep layers of the water of the Indian Ocean----- 190-502
- Khlobustov, A. A. On the direction of experimental investigations on deformation of rocks----- 191-653

- Khokhlov, P. V. See Soluyan, S. I.
- Kholin, A. I. See Dakhnov, V. N.
- Khomenko, V. I. On the feasibility of using magnetization of rocks
for tectonic regionalization ----- 191-493
— Types of magnetic anomalies of the Transcarpathians ----- 191-551
- Khomenyuk, Yu. V. Method of double rotating field ----- 191-233
— On an efficient analyzer for a system with accumulation and
transformation of frequency ----- 190-571
— Semiconductor voltage transformers for power supply of seismic
stations from storage batteries ----- 190-577
- Khramov, A. I. Method of processing of seismic logging observa-
tions ----- 190-564
— On seismological regionalization ----- 190-567
See also Bespyatov, B. I.
- Khutsaidze, A. L. See Rubinshteyn, M. M.
- Khvitiya, G. P. See Bukhnikashvili, A. V.
- Kigoshi, Kunihiro; Tomikuna, Yoshio; and Endo, Kunihiro. Gaku-
shuin national radiocarbon measurements I ----- 190-48
- Kimball, D. S. See Davis, T. N.
- King, E. R. An aeromagnetic profile from Anchorage to Nome,
Alaska ----- 188-453
- King, E. R., Zietz, Isidore, and Dempsey, W. J. The significance
of a group of aeromagnetic profiles off the eastern coast of North
America ----- 188-446
- King, R. F., and Rees, A. I. The measurement of the anisotropy
of magnetic susceptibility of rocks by the torque method ----- 189-428
See also Griffiths, D. H.
- Kinosita, Seiiti. Transformation of snow into ice by plastic com-
pression ----- 189-602
- Kireyev, V. F. Electric log characteristics of the lower Apsheron
deposits of the Klamas area in relation to their oil-gas produc-
tivity ----- 189-217
- Kirnos, D. P., Moskvina, A. G., and Shebalin, N. V. On selection
of an effective method for determination of constants of electro-
dynamic seismographs ----- 191-143
- Kirnos, D. P., Rulev, B. G., and Kharin, D. A. The seismograph
VEGIK for use in engineering seismology and in recording of
weak near and local earthquakes ----- 190-144
- Kirnos, D. P., and Solov'yev, V. N. Seismograph with optical reg-
istration for recording strong and destructive earthquakes ----- 191-131
See also Savarenskiy, Ye. F., and Ye, Shi-Yan'.
- Kirov, K. T., and Grigorova, E. I. Seismic regionalization of
Bulgaria ----- 191-90
- Kirov, K. T., Grigorova, E. I., and Ilev, N. P. Contribution to
the seismicity of Bulgaria ----- 189-78
- Kiselev, M. I. Method of eliminating the record of an air wave in
generating elastic oscillations by air shots ----- 190-548
- Kishinouye, Fuyuhiko. Microseisms and subsoil conditions ----- 190-493
- Kishinouye, Fuyuhiko, and Onda, Isao. Field studies of the Kita
Mino earthquake on August 19, 1961 ----- 191-80
- Kita-Badak, Maria, and Badak, Jerzy. Occurrence of radioactive
shales in sediments of the Menilite series in the Carpathians ---- 188-476
- Kitsunezaki, Choro. Study on high frequency seismic prospecting
(2) ----- 188-564
- Kitto, G. B. See Briggs, M. H.

- Kivioja, L. A. Development of gravity Bouguer anomalies of state of Ohio and the isostatic anomalies of north Atlantic in Fourier series ----- 191-338
- Kizawa, Takashi. See Yamaguchi, Rinzo
- Kiziriya, L. V. See Kebuladze, V. V.
- Klíma, Karel; Pros, Zdeněk; and Vaněk, Jiří. Ultrasonic attenuation of longitudinal waves in solids----- 190-167
- See also Vanek, I.
- Klimentov, P. P. Hydrogeologic investigations in boring for thermal water ----- 191-391
- Klugman, I. Yu., and Lerner, B. L. Programming of kinematic corrections in the apparatus for automatic seismic profiling from the data of seismic prospecting MOV ----- 190-538
- Klushin, I. G. Methods of combined interpretation of geophysical data for the purpose of studying the density of deep layers of the crust ----- 191-349
- On evaluation of the depth of the crystalline basement from data of magnetic and gravity anomalies ----- 190-467
- Klushin, I. G., and Tolstikhin, I. N. Distinguishing linear tectonic dislocations on geophysical maps ----- 191-292
- Klyarovskiy, V. M., Dmitriyev, A. N., Kozhevnikov, V. S., and Belous, N. Kh. Absolute age of Cretaceous and Tertiary sediments of the western Siberian iron ore basin according to glauconites ----- 188-91
- Kment, Vítězslav, and Kuhn, Arno. Technique of measuring radioactive radiation ----- 188-480
- Knopoff, Leon. Analytical calculation of the fault-plane problem --- 189-100
- Statistical accuracy of the fault-plane problem----- 189-101
- See also Gilbert, Freeman.
- Knoppe, K. G. See Vinogradov, A. P.
- Knorre, K. G. See Baranov, V. I., and Zhirov, K. K.
- Knothe, Christian. Homogeneous three-component arrangements for deep seismic investigations----- 188-543
- Knudsen, W. C. Elimination of secondary pressure pulses in off-shore exploration ----- 189-550
- Kobayashi, H. See Ohashi, Shuji.
- Kobayashi, Hajime. Electrical prospecting at Nawaji Mine, Shizuoka Prefecture ----- 188-260
- Electrical prospecting at Okuyama Mine, Shizuoka Prefecture - 189-197
- Kobayashi, Kazuo. An experimental demonstration of the production of chemical remanent magnetization with Cu-Co alloy ----- 188-420
- Kobayashi, Naota. See Takeuchi, Hitoshi.
- Kobayashi, Ryoji. See Horibe, Tomio.
- Kobranova, V. N. See Dakhnov, V. N.
- Koch, L. See Kulp, J. L.²³⁰ to ²³²
- Koczy, F. F. Ratio of Th^{230} to Th^{232} in deep-sea sediments----- 188-31
- See also Rosholt, J. N.
- Koenigswald, G. H. R. von, Gentner, W., and Lippolt, H. J. Age of the basalt flow at Olduvai, East Africa ----- 190-17
- Kogan, R. M. See Balyasnyy, N. D.
- Kogan, S. D. See Pasechnik, I. P.
- Kogan, S. Ya. Determination of the coefficient of absorption of seismic waves----- 191-112
- Problem of determination of the energy of body seismic waves - 188-184
- Kohman, T. P. See Goel, P. S.

Abstract

- Köhlsing, Juliusz. Graphical method of interpretation of electrical exploration investigations in the search for water ----- 188-240
 — Laboratory determination of the modulus of elasticity of rocks - 189-156
- Koide, Minoru. See Goldberg, E. D.
- Koizumi, Hisanao; Igarashi, Toshio; Ohmachi, Hokuichiro; Okumi, Shizuka; and Okano, Takeo. Radiometric reconnaissance of the metallic ore deposits at the environs of Kesennuma City, Miyagi Prefecture ----- 188-487
- Kojima, Seishi. See Iwasaki, Shoji.
- Kojiro, T., Suyama, Junji, and Hasegawa, K. On the problem of the SP measurement ----- 189-182
- Kokouchi, Yukio. Severe magnetic storms recorded at Kakioka ---- 189-420
- Kokubun, Susumu. See Nagata, Takesi.
- Kolbenheyer, Tibor. On the boundary problem of electrical surveying for a layered triaxial ellipsoid ----- 191-227
 — On the theory of the gravitational field of homogeneous and non-homogeneous infinite prisms ----- 191-333
 — The gravitational field of a homogeneous circular cylinder ---- 191-334
- Kolesnikov, Yu. A. A device for photo-optical recording of earthquakes by the variable width method and for subsequent reproduction of seismograms ----- 191-137
- Kolmakov, M. V. Integral determination of effective velocities in the method of reflected waves ----- 190-545
- Kologrivov, R. See Kulp, J. L.
- Kolomenskiy, V. D. Results of the X-ray investigation of the stone meteorite Nikol'skoye ----- 188-123
 — X-ray investigation of the fusion crust of the Kunsak meteorite - 190-65
- Koloshov, I. A. See Gil'bershteyn, P. G.
- Kolyubakin, V. V., and Lapina, M. I. A survey of methods of solution of direct and inverse problems of magnetic exploration ---- 188-438
- Komai, Jiro. See Iwasaki, Shoji, and Sugiyama, Tomonori.
- Komarov, S. G., Keyvsar, Z. I., Kozina, Z. K., Skoblikova, G. I., and Guzanova, I. G. Determination of porosity by SP ----- 189-210
- Komarov, V. A. Elements of the theory of induced polarization---- 189-167
- Komissarov, O. D., Nazarova, T. N., Neugodov, L. N., Poloskov, S. M., and Rusakov, L. S. Rocket and satellite investigation of micrometeorites ----- 188-125
- Komissarova, R. A., and Slautsitays, I. P. On the age of the Ashin formation according to paleomagnetic data----- 189-457
- Komlev, L. V., and Gorokhov, I. M. Age of some Ukrainian micas by the strontium method ----- 188-79
- Komlev, L. V., Savonenkov, V. G., Danilevich, S. I., Ivanova, K. S., Kuchina, G. N., and Mikhalevskaya, A. D. On the geologic significance of regional processes of rejuvenation in the ancient formations of the southwest Ukrainian crystalline shield --- 191-25
 See also Filippov, M. S.
- Kommissiya po Opredeleniyu Absolyutnogo Vozrasta Geologicheskikh Formatsiy. Absolute time scale based on the data of geochronologic laboratories of the USSR in the year 1960----- 188-11
- Komovskiy, G. F. Thermoluminescence of stone meteorites ----- 191-48
- Kondo, Nobuoki. See Chujo, Junsuke.
- Kondorskaya, N. V., and Vvedenskaya, N. A., eds. Bulletin of strong earthquakes of the USSR for 1958----- 190-122
 See also Kárník, Vít, and Vanek, I.
- Kondrat'yev, O. K. See Yepinat'yeva, A. M.
- Konečný, Mojmír. Some types of geomagnetic pulsations studied at the fast-recording observatory Budkov with an inductive magnetometer ----- 191-449

- König, H. See Hinterberger, H.
- Kononkov, V. F. Determination of depth of occurrence of the center of gravity of anomalous masses according to data of gravity surveying ----- 189-293
- Konovalov, M. M. Borehole seismic prospecting ----- 188-538
- Konstantinov, G. N., Konstantinova, L. S., and Filatov, V. A. On the problem of determination of the zero level of magnetic anomalies ----- 191-518
- Konstantinova, A. G. Dependence of natural frequency of oscillations of specimens of rocks on unilateral pressure ----- 191-200
- Konstantinova, L. S. See Konstantinov, G. N.
- Kopayev, V. V., and Martynova, T. A. A test of the application of the results of laboratory measurements of magnetic properties of iron quartzites to interpretation of magnetic anomalies of the KMA ----- 188-464
- Kopayev, V. V., and Martynova, T. A. On the magnetic susceptibility of ferruginous quartzites of the Sary Oskol iron ore region of the KMA ----- 189-438
- Kopf, Manfred. Studies on methods of geologic interpretation of geomagnetic results, illustrated by the example of Elbe Valley Schiefergebirge ----- 189-470
- Kopf, Manfred, Grosse, Siegfried, and Sonntag, Klaus. Density determination on rocks of the western Erzgebirge ----- 190-329
- See also Grosse, Siegfried.
- Korchagina, O. A., Meshkov, M. M., and Monakhov, F. I. On the problem of frequency selection of oceanic storm microseisms --- 191-571
- Korenkov, A. P. See Kapitanov, Yu. T.
- Korhonen, Jorma. Adjustment of levellings in region of slow vertical movement ----- 188-313
- Koridalin, Ye. A. Certain characteristics of type L_g and R_g waves and regional features of their propagation ----- 189-132
- See also Bagdasarova, A. M.
- Korshikov, V. N. See Anpilogov, A. P.
- Koryagin, V. V., and Sokolov, A. F. On cross-profiling in the method of reflected waves ----- 190-551
- Koshelev, I. P., and Syromyatnikov, N. G. Some regularities in the migration of isotopes of U-234 and U-238 ----- 188-390
- Kosminskaya, I. P. See Aver'yanov, A. G., and Yepinat'yeva, A. M.
- Kostelka, Ludwig. Noteworthy rock stress phenomena in the Bleiberg-Kreuth mine workings ----- 191-660
- Kotadia, K. M., and Ramanathan, K. R. Magnetic and ionospheric disturbances in low latitudes ----- 189-396
- Kotlyarov, K. A. See Khitrov, L. M.
- Kotyuk, A. F. See Mizyuk, L. Ya.
- Koulomzine, T., and Jaeggli, R. P. Discovery of the iron ore deposit of Mount Wright Iron Mines Co. Limited ----- 188-454
- Kouvo, Olavi, and Kulp, J. L. Isotopic composition of Finnish galenas ----- 188-73
- See also Wetherill, G. W.
- Kovach, R. L., Allen, C. R., and Press, Frank. Geophysical investigations in the Colorado delta region ----- 190-327
- Kovalenko, G. V. See Vlasov, A. Ya.
- Kovalenko, N. D. See Bondarenko, V. M.
- Kovalenko, V. F. See Kamenetskiy, F. M.
- Kovalevskiy, G. F. See Plekhanov, G. F.

Abstract

- Kovtun, A. A. Magnetotelluric investigations of stratified non-homogeneous structures ----- 190-111
- Kovtun, A. A., and Novoselova, S. M. Build-up of an alternating electromagnetic field over a layered homogeneous medium ----- 188-229
- Kovylin, V. M. Results of seismoacoustic investigations in the area of the Java deep-sea trench ----- 189-613
- See also Sysoyev, N. N.
- Kozachok, I. A. On the slowing down of neutrons in an absorbing medium ----- 190-521
- Kozhevnikov, V. S. See Klyarovskiy, V. M.
- Kozina, Z. K. Porosity determination from resistivity curves----- 190-222
- See also Komarov, S. G.
- Kozlenko, S. P. Tectonic regionalization of Lower Volga region --- 190-248
- Kozlov, A. V. On determination of the coordinates of the point of intersection of a seismic ray and inclined boundary----- 189-125
- Kozlov, E. A. On the accuracy of determining the effective velocity by combined traveltimes curves of reflected waves ----- 190-541
- Kozlov, I. G., Yastrebova, T. A., Purtova, S. I., and Serabryakova, Z. D. Research drill holes of the U. S. S. R. Khanty-Mansiysk research drill hole (Tyumen Region) ----- 191-256
- Kozłowski, Mieczysław. On some special cases of magnetic storms recorded at the Polish-Vietnamese station at Cha-Pa (Vietnamese Democratic Republic)----- 190-446
- Kozulin, Yu. N. On the theory of frequency electromagnetic sounding of multilayered structures ----- 191-235
- Krakshina, R. M. See Aver'yanov, A. G.
- Krasnov, B. A. Experience in operating the GVP-1 gravimeter-altimeter ----- 191-356
- Kravchenko, G. L. Nature of the Mangush magnetic anomaly southeast of the Sea of Azov ----- 188-465
- Kravets', V. V. On the velocities of elastic oscillations and anisotropy of certain metamorphic rocks ----- 191-198
- Kravets', V. V., and Kharchenko, F. M. On nonstationary processes in the seismics of refracted waves ----- 190-558
- Kravtsov, G. S. On determination of mean velocities from the traveltimes curves of refracted waves ----- 191-115
- Krinari, A. I. Some results of the search for efficient methods of determination of reservoir properties and oil saturation or rocks according to the borehole electrometry under the conditions of Tartaria ----- 189-206
- Kringstad, S. See Bjerrum, L.
- Krinov, E. L. Some considerations on collection of meteoritic matter in polar countries ----- 188-120
- Krivoy, H. L., and Eaton, J. P. Preliminary gravity survey of Kilauea Volcano, Hawaii ----- 188-352
- Křivský, Ladislav. Anomalous D-region during X-emission from flares and geomagnetic activity ----- 191-450
- Krizhansky, L. M. See Zhironov, K. K.
- Kropotkin, P. N. Paleomagnetism, paleoclimates, and the problem of great horizontal movements of the crust of the earth -- 188-310, 190-461
- Krouse, H. R., and Thode, H. G. Thermodynamic properties and geochemistry of isotopic compounds of selenium ----- 190-379
- Krueger, H. W., and Freedman, R. O. K^{40} -Ar age determinations and subsurface correlation ----- 190-1
- Kruglyakova, G. I. Results of paleomagnetic investigations in the Ukraine----- 190-462

	Abstract
Krulc, Zvonimir. Geomagnetic investigation of the iron deposit of Baščine near Ljubije -----	188-461
Krulc, Zvonimir, and Vidović, Nada. Application of the resistivity method in investigation of bauxite deposits under a cover in Istria -----	188-256
Krummenacher, Daniel. Determinations of isotopic age made on some rocks of the Himalayas of Nepal by the potassium-argon method -----	189-29
Krummenacher, Daniel, Merrihue, C. M., Pepin, R. O., and Reynolds, J. H. Meteorite krypton and barium versus the general isotopic anomalies in meteoritic xenon -----	190-83
Krutikhovskaya, Z. A. See Kuzhelov, G. K., and Zavoy's'kiy, V. M.	
Krylov, A. Ya. The possibility of utilizing the absolute age of metamorphic and fragmental rocks in paleogeography and paleotectonics -----	188-34
See also Ravich, M. G., Starik, I. Ye., and Vistelius, A. B.	
Krylov, S. V. On determination of horizontal variations of velocity from traveltimes curves of reflected waves -----	190-542
See also Andreyev, B. A.	
Krylova, M. D. On the problem of determining the temperatures of formation of rocks by T. F. Barth's method -----	190-350
Kuchina, G. N. See Filippov, M. S., and Komlev, L. V.	
Kudymov, B. Ya. See Karpushin, D. M.	
Kuhm, Arno. See Kment, Vítězslav.	
Kukhareenko, N. K. Role of instrumental and borehole factors in the determination of stratum porosities according to data of neutron-gamma logging of boreholes -----	189-518
Kukhareenko, N. K., and Basin, Ya. N. On the problem of porosity determination of strata from neutron gamma logging data -----	190-518
Kukhtikova, T. I. Dislocations in foci of the Tadzhik depression ---	189-107
Kukhtikova, T. I., and Barinova, A. Ya. The mechanism of movements at the focuses during the Shurob earthquake and its after-shocks -----	189-80
Kukuruza, V. D. The point method of interpretation of VES curves -----	188-238
Kulikov, V. I. On the problem of geological interpretation of gravity anomalies -----	189-298
— On the problem of geological interpretation of seismic prospecting data -----	189-548
Kulikova, M. V. See Stroiteleva, A. V.	
Kulinkovich, A. Ye. Regularities in curves of resistivity logging --	190-221
— Use of the Monte Carlo method for solution of problems of geophysical methods of prospecting -----	190-257
Kulp, J. L., and Eckelmann, F. D. Potassium-argon isotopic ages on micas from the southern Appalachians -----	188-40
Kulp, J. L., Kologrivov, R., Haller, J., and Koch, L. Potassium-argon ages on rocks from eastern Greenland -----	190-15
Kulp, J. L., and Neumann, Henrich. Some potassium-argon ages on rocks from the Norwegian basement -----	188-70
See also Erickson, G. P., and Kouvo, Olavi.	
Kumar, P. Geotectonic movements and their influence on the hydrography of Indo-Gangetic Plains -----	189-256
Kumazawa, Mineo. Disturbances in electromagnetic field in rocks due to piezoelectric effects in connection with seismic waves ----	190-141
See also Iida, Kumizi.	

Abstract

- Kume, Shoichi. On the changes in remanent magnetization of ferro-magnetic bodies subjected to hydrostatic pressures----- 190-454
See also Kawai, Naoto.
- Kummeneje, O. See Bjerrum, L.
- Kun, V. V. Peculiarities of seismic waves in mediums with layers that pinch out (according to model experiments)----- 191-168
See also Yepinat'yeva, A. M.
- Kundorf, Woldemar, and Rotter, Dietrich. An investigation of the application of the method of natural high-frequency seismic fields (self-impulse method) in coal and ore mining ----- 190-568
- Kunori, Shoichi. Historical review of the generation of S. P. current ----- 188-247
- Kunori, Shoichi, and Ishii, Fujio. Studies on the relation between spontaneous polarization potential and mineralization on the adit in the Ôizumi Mine, Yamagata Prefecture ----- 189-199
- Kunz, Bruno. The hyperbolic increase of depth with time ----- 190-155
- Kuo, J. J., Brune, James, and Major, Maurice. Rayleigh wave dispersion in the Pacific Ocean for the period range 20 to 140 seconds----- 189-128
See also Donath, F. A.
- Kuo, Tseng-Chien. Fault-plane determination by means of S-waves recorded at two stations ----- 188-176
- Kuprin, V. I. See Andreyev, V. I.
- Kurasawa, Hajime. See Chujo, Junsuke.
- Kurbatov, V. V. See Gerling, E. K.
- Kutenkov, M. V. See Petrov, G. I.
- Kutschale, Henry. See Hunkins, Kenneth.
- Kuzhelov, G. K., and Krutikhovskaya, Z. A. Formation of remanent magnetization and its distribution in rocks ----- 191-482
- Kuzivanov, V. A. Gravity determination by a gravimeter on a moving base ----- 191-364
See also Berezin, E. M.
- Kuz'min, A. M. On the retention of argon in microline ----- 191-13
- Kuz'mina, N. V. See Bagdasarova, A. M.
- Kuznetsov, G. A. See Polak, L. S.
- Kuznetsov, G. F. On the problem of interpretation of magnetic anomalies with the aid of OVKA master charts for vertical layers ----- 191-511
- Kuznetsov, K. K. See Gurevich, G. I.
- Kuznetsov, V. P., and Vaysman, G. I. A relay for audible signals warning about burned out bulbs and exhausted storage batteries -- 191-127
See also Bagdasarova, A. M.
- Kuznetsov, Yu. V. See Starik, I. Ye.
- Kvale, Anders. Norwegian earthquakes in relation to tectonics ---- 190-126
- Kvapil, Rudolf. Effect of radiation energy on rock properties----- 191-650
- Kvasha, L. G. Some data on the structure of chondrites ----- 191-56

L

- Laboratory of Logging of the Academy of Petroleum of the MNP.
Laterologging ----- 190-229
- Lachenbruch, A. H. Depth and spacing of tension cracks----- 188-568
- Ladynin, A. B. Processing of gravimetric observations by introducing the zero-point correction according to nonlinear law by the successive approximation method----- 191-351

- Lafargue, Maurice. See Millecamps, M. M. R.
- LaGow, H. E., Schaefer, D. H., and Schaffert, J. C. Micrometeorite impact measurements on a 20 in. diameter sphere at 700-2,500 km altitude ----- 188-126
- Lakin, H. W. See McCarthy, J. H., Jr.
- Lal, Devendra. See Arnold, J. R.
- Lamar, D. L. Comments on paper by W. H. Munk, and G. F. J. MacDonald, "Continentality and the gravitational field of the earth" ----- 191-326
- Lambert, R. St. J., and Mills, A. A. Some critical points for the Paleozoic time scale from the British Isles ----- 188-2
- See also Giletti, B. J.
- La Mori, P. N. See Kennedy, G. C.
- Landauer, J. K. See Butkovich, T. R., and Hansen, B. L.
- Landergrén, Sture. The content of ^{13}C in the graphite-bearing magnetite ores and associated carbonate rocks in the Norberg mining district, central Sweden ----- 190-369
- Langbein, W. B. See Matalas, N. C.
- Lange, Wolfgang. Gravimetry at sea ----- 190-315
- Langford, G. T. Radiation surveys aid oil search ----- 190-507
- Langleben, M. P. Young's modulus for sea ice ----- 188-216
- Langseth, M. G., Jr. See Gerard, Robert.
- Lapina, M. I. See Kolyubakin, V. V.
- Larionov, L. V. See Bulgakov, Yu. I.
- Larionov, V. A. A contribution to the problem of determination of the value of the ratio of remanent to inductive magnetization under field conditions ----- 191-481
- Calculations of the magnetic field in a vertical plane for certain simple bodies ----- 191-505
- Method of vertical magnetic sounding ----- 191-512
- Larionov, V. V. Determination of rock porosities from neutron-gamma logging data ----- 189-519
- Evaluation of porosity of reservoirs and their clay content from the data of borehole radiometry ----- 190-519
- See also Dakhnov, V. N.
- Larochelle, Andre. Palaeomagnetism of the Monteregian Hills, southeastern Quebec ----- 189-452
- Lashkhi, A. S., and Gugunava, G. Ye. On the problem of correlation between intensity variation of cosmic electric radiation and electrotelluric disturbances ----- 190-114
- Lashkhi, B. A. See Rubinshteyn, M. M.
- Laster, S. J. See Gilbert, Freeman.
- Latyshova, M. G. See Dakhnov, V. N.
- Laubenbakh, A. I. See Yermakov, V. L.
- Laudon, T. S. See Behrendt, J. C.
- Lauffer, H. A device for ascertaining rock flexibility for the adjustment of pressure-tunnel and pressure-shaft linings ----- 191-662
- Lauterbach, Robert. Geomagnetic fabric investigation in the Northeast Heath of Mecklenburg ----- 189-472
- Remarks on the present state of the micromagnetic investigation method ----- 189-460
- See also Mauersberger, Peter.
- Lawrence, L. J., and Rafter, T. A. Sulfur isotope distribution in sulfides and sulfates from Broken Hill South, New South Wales -- 191-417

Abstract

- Layat, C., Clement, A. C., Pommier, Gilbert, and Buffet, A.
Some technical aspects of refraction seismic prospecting in the
Sahara ----- 188-532
- Lazarev, G. Ye., and Shumskiy, P. A. Preliminary results of
gravimetric investigations of thickness of the ice sheet ----- 191-383
See also Ushakov, S. A.
- Lazareva, A. P. See Savarenskiy, Ye. F.
- Lebeau, André. On a property of the nighttime magnetic activity at
the Dumont d'Urville station (Adélie Land) ----- 189-405
- Lebedev, A. P. See Dakhnov, V. N.
- Lebedev, T. S., and Sobakar, G. T. Certain new data on the den-
sity of sedimentary rocks of the southern margin of the Donets
Basin ----- 191-376
- Lebedeva, F. V. See Shamina, O. G.
- Lecar, Myron, Sorenson, John, and Eckels, Ann. A determination
of the coefficient J of the second harmonic in the earth's gravita-
tional potential from the orbit of satellite 1958 β_2 ----- 188-304
- Lechekhev, V. R. See Burkser, Ye. S.
- Ledent, Dolly. See Cahen, Lucien.
- Lee, Pang-Nian. See Tseng, Jung-Sheng.
- Leenhardt, Olivier. Analysis of a seismic profile drawn by the re-
fraction method off of the Vanoise coast ----- 190-602
- Leet, F. J. See Leet, L. D.
- Leet, L. D. The detection of underground explosions ----- 191-207
- Leet, L. D., and Leet, F. J. Cause of microseisms--a theory---- 191-562
- Legar, A. P. Rapid method of determination of the declination of
the magnetic field ----- 190-474
- Legin, V. K. See Starik, I. Ye
- Légrand, R. Epeirogeny, source of tectonics. According to some
examples selected in Belgium ----- 188-309
- Lehmann, Inge. The travel times of the longitudinal waves of the
Logan and Blanca atomic explosions and their velocities in the
upper mantle ----- 191-408
- LeMaitre, R. W. See Harris, P. G.
- LeMarne, A. E., and Sass, J. H. Heat flow at Cobar, New South
Wales ----- 191-393
- Lemke, R. W. See Dobrovolny, Ernest.
- Lennon, G. W. The deviation of the vertical at Bidston in response
to the attraction of ocean tides ----- 188-195
- Lennox, D. H. See Garland, G. D.
- Lensen, G. J. Principal horizontal stress directions as an aid to
the study of crustal deformation ----- 189-112
- Leonard, R. S. Measurements of localized distortions in the
earth's magnetic field near the auroral zone ----- 190-424
- Leontiyev, I. Y. See Berzon, I. S.
- Leprêtre, Bernard. The bar correction in magnetic measurements
made by means of a theodolite ----- 188-395
- Lerner, B. L. See Klugman, I. Yu.
- Levadnyy, V. T. On microanisotropy of Meso-Cenozoic deposits of
the south of the West Siberian Lowland ----- 191-246
- Vertical electric sounding over a system of three layers lying
on a horizontal basement ----- 191-225
- Levi, V. A. On the problem of transformation of isonormals into
isoverentials ----- 188-513
- Levin, B. Yu. Meteorites ----- 188-104

	Abstract
Levin, F. K. The seismic properties of Lake Maracaibo-----	191-622
Levskiy, L. K. Cosmogenic isotopes in the Yarymly meteorite---	191-44
See also Dobronravova, A. N.	
Leypunskaya, D. I., and Gauer, Z. Ye. On neutron activation analysis of rocks-----	189-526
Li, C. K. See Van, Z. C.	
Libby, W. F. See Fergusson, G. J.	
Liebenberg, W. R. See Nicolaysen, L. O.	
Light, D. E., Freitag, C. A., Hudson, G. B., and Nurse, E. J. The flotation of radioactive minerals—Pt. 2-----	188-482
Linehan, D., Murphy, S. J., and Murphy, V. J. Engineering seismology applications in metropolitan areas-----	189-562
Lineras, Enrique. The geochronological methods and some ages of minerals of the Argentine, obtained by means of the lead-uranium ratio-----	189-21
Link, František. Volcanic activity and eclipses of the moon-----	191-700
Link, Harald. On the differences between statically, dynamically, and seismically determined moduli of elasticity of rock and bed-rock-----	191-643
Link, T. A. Feast or famine in the oil and gas producing industry-----	191-281
Lippolt, H. J. See Koenigswald, G. H. R., von.	
Lipson, J. I., Folinsbee, R. E., and Baadsgaard, Halfdan. Periods of orogeny in the western Cordillera-----	188-56
See also Baadsgaard, Halfdan, and Folinsbee, R. E.	
Lisitsyn, A. P. See Zhivago, A. V.	
Littler, Janet. See Chao, E. C. T.	
Litvinenko, O. K. Application of calculating machines for distinguishing local and regional gravity anomalies-----	188-330
Livingston, C. W. The natural arch, the fracture pattern, and the sequence of failure in massive rocks surrounding an underground opening-----	188-579
Lliboutry, Louis. The dynamics of the glacier and the wave of 1891-95 according to the measurements of Joseph Vallot-----	189-266
Lockett, F. J. The reflection and refraction of waves at an interface between viscoelastic materials-----	188-198
Logachev, A. A. The present state and possibilities of improvement of a geologic interpretation of magnetic measurement-----	191-530
Logovskaya, G. K., and Agamaliyev, G. M. Determination of the coefficient of porosity of reservoirs and horizons of producing oilfields of the Pri-Kura depression according to geophysical data-----	191-250
Løken, Olva. The late-glacial and postglacial emergence and the deglaciation of the northernmost Labrador-----	190-14
Lomakina, Z. D. See Deniskin, N. A.	
Lombard, D. B. The Hugoniot equation of state of rocks-----	188-217
Lombard, D. B., and Power, D. V. Close-in shock studies-----	191-209
Lomnitz, Cinná. A study of the Maipo Valley earthquakes of September 4, 1958-----	188-154
— An Andean structure-----	189-341
— Application of the logarithmic creep law to stress wave attenuation in the solid earth-----	189-124
— Stresses and strains in the interior of a nonevolutive planet---	191-397
See also Gajardo, E.	

Abstract

- Long, Austin. See Damon, P. E.
- Long, L. E. Isotopic ages from northern New Jersey and south-eastern New York ----- 188-37
- Some isotopic ages from south-west England ----- 189-23
- Longinelli, A. See Chessex, Ronald, and Desio, Ardito.
- Longman, I. M. A Green's function for determining the deformation of the earth under surface mass loads. 1. Theory ----- 190-148
- Loomer, E. I. Record of observations at Resolute Bay Magnetic Observatory 1957-1958. With a summary of earlier observations ----- 188-397
- Loomer, E. I., and Andersen, F. Record of observations at Baker Lake Magnetic Observatory 1957-1958. With a summary of earlier observations ----- 188-398
- Lopez Arroyo, Alfonso. See Báth, Markus.
- Lorenz, P. J., Rodenberg, O. C., Shadle, L. G., Antes, A. C., and Hess, W. D. Background radioactivity in the Decorah fault region ----- 189-500
- Lorius, Claude. Concentration of deuterium in layers of névé in the Antarctic ----- 189-358
- Löser, Günter. Radioactive soil air measurements as a contribution to clarification of structural problems on the southwest border of the Thüringer Wald ----- 189-502
- Loshchakov, A. I. Concerning the question of interpretation of aeromagnetic observations made in the diamond regions of western Yakutia ----- 191-558
- Experiment in interpretation of the regional magnetic field and the relation of magnetized bodies to tectonics in the diamond-bearing regions of western Yakutia ----- 191-559
- Lossovskiy, Ye. K. On evaluation of accuracy of the method of mean velocities in the seismics of refracted waves ----- 189-123
- Peculiarities of amplitude graphs of elastic plane waves in a layered medium ----- 191-170
- Lotgering, F. K. Paramagnetic susceptibilities of Fe^{2+} and Ni^{2+} ions at tetrahedral or octahedral sites of oxides ----- 191-466
- Lotz, J. R. See Harwood, T. A.
- Lotze, Franz. Actuo-geologic characteristics of the year 1959 ---- 189-84
- Lovejoy, E. M. P. Comments on paper by V. V. Belousov, "The origin of folding in the earth's crust" ----- 188-307
- Lovering, J. F. See Green, Ronald.
- Lovering, T. S. See McCarthy, J. H., Jr.
- Lovtsyus, A. V. See Starik, I. Ye.
- Lovtsyus, G. P. See Starik, I. Ye.
- Lowdon, J. A. Geological age determinations ----- 188-50
- See also Wanless, R. K.
- Lowman, P. D., Jr. See O'Keefe, J. A.
- Lozano Calvo, Luis. On the mechanical interpretation of terrestrial deformations ----- 191-651
- See also Morelli, Carlo.
- Lozinskiy, Z. N. Application of high frequency filtration of seismic apparatus in the Kuybyshev region on the Volga ----- 188-545
- Lucas, H. F., Jr. See Machta, Lester.
- Lucas, K. A. See Milne, W. G.
- Lucke, Otto. On the plasma-theory representation of the geomagnetic variation field ----- 189-387
- See also Mauersberger, Peter.

- Ludwig, R. See Urbach, W.
 Lugn, R. V. See Shoemaker, E. M.
 Lundbergh, Holger. Swedish "Operation Ice Tunnel" ----- 190-295
 Lyapichev, G. F. See Ivanov, A. I.
 Lyons, P. L. Economics of geophysics in oil exploration ----- 191-279
 — Geophysical background of Arkoma basin tectonics ----- 190-324
 Lyttleton, R. A. Dynamical calculations relating to the origin of the solar system ----- 189-34
 Lyubavin, Yu. P. See Grammakov, A. G.
 Lyubimova, Ye. A. On the processes of heat transfer in earth's mantle ----- 191-387
 Lyuke, Ye. I. On the experimental relationship of the energy of seismic waves to the conditions of the explosion ----- 190-528
 Lyustikh, Ye. N. Some investigations of isostasy and earth's contraction ----- 191-302
 Lyustikh, Ye. N., and Saltykovskiy, A. Ya. On the problem of the formation of the granitic layer of the earth's crust ----- 191-400

M

- Mabey, D. R. Regional magnetic and gravity anomalies in the Darwin area, California ----- 188-452
 McAulay, I. R., and Watts, W. A. Dublin radiocarbon dates I ---- 190-27
 McBurney, C. B. M. Absolute age of Pleistocene and Holocene deposits in the Haua Fteah ----- 188-63
 McCabe, W. J. See Hulston, J. R.
 McCallum, K. J., and Wittenberg, J. University of Saskatchewan radiocarbon dates III ----- 190-46
 McCarthy, J. H., Jr., Lovering, T. S., and Lakin, H. W. Density comparison method for the determination of O^{18}/O^{16} ratios in prepared waters ----- 188-386
 McCaslin, William. See Meuschke, J. L.
 McConnell, Duncan. Dating of fossil bones by the fluorine method -- 190-8
 McCormick, G. R. Petrology of Precambrian rocks of Ohio ----- 188-42
 Macdonald, G. A. Prediction of eruption of Hawaiian volcanoes ---- 190-610
 MacDonald, G. J. F. On the internal constitution of the inner planets ----- 191-31
 McDonald, H. R., and Wantland, Dart. Geophysical procedures in ground water study ----- 189-232
 MacDowall, J. A local survey of the earth's magnetic field in the vicinity of Royal Society Base, Halley Bay ----- 189-476
 — Geomagnetic activity at Halley Bay on disturbed days ----- 190-408
 McGinnis, L. D., and Heigold, P. C. Regional maps of vertical magnetic intensity in Illinois ----- 188-448
 McGinnis, L. D., and Kempton, J. P. Integrated seismic, resistivity, and geologic studies of glacial deposits ----- 189-573
 McGraw, D. See Clarke, A. M.
 McGuinness, W. T., Beckmann, W. C., and Officer, C. B. The application of various geophysical techniques to specialized engineering projects ----- 189-551
 Machado, Frederico. Secular variation of seismo-volcanic phenomena in the Azores ----- 190-615
 Machado, Frederico, Parsons, W. H., Richards, A. F., and Mulford, J. W. Capelinhos eruption of Fayal Volcano, Azores, 1957-1958 ----- 191-691

Abstract

- Machta, Lester, and Lucas, H. F., Jr. Radon in the upper atmosphere ----- 190-504
- Mackey, John. See Barker, Harold.
- McLarty, D. M. E. Geonomics ----- 191-277
- McLean, A. C. A gravity survey of the Sanquhar coalfield ----- 191-371
- Density measurements of rocks in south-west Scotland ----- 191-372
- MacLeod, W. N., and Jefford, G. The Akwanga meteorite ----- 189-54
- McManis, L. B. Proposed standards for seismic amplifiers—and what they mean to field records ----- 188-546
- McMath, V. E. Rapid sedimentation and phase transition at the M discontinuity ----- 189-243
- McNabb, A. See Drummond, J. E.
- McNair, A. The half-life of vanadium-50 ----- 188-468
- McNair, A., and Wilson, H. W. The half-life of rubidium-87 ----- 189-482
- Macpherson, J. D. A new interpretation of seismic refraction profiles obtained in the Hartlen Point region of the Scotian Shelf ---- 191-620
- Seismic refraction measurements of the bottom structure off the north shore of Prince Edward Island ----- 189-574
- Maeda, Hiroshi, Sakurai, K., Ondoh, U., and Yamamoto, M. Solar-terrestrial relationships during the IGY and IGC ----- 190-420
- Maeda, Kenjiro. See Nakamura, Hisayoshi.
- Magnitskiy, V. A. The upper mantle and its effect on the development of the crust of the earth ----- 190-365
- The upper mantle project ----- 188-374
- See also Brovar, V. V.
- Maisuradze, O. M. On a particular phase characteristic of certain earthquakes of the Gegechkori region ----- 191-118
- Major, Maurice. See Kuo, John.
- Makarevich, K. G. Concerning the dynamics of the Central Tuyuksuysky Glacier in the last decade ----- 191-320
- Makarevich, K. G., and Tokmagambetov, G. A. Some data on ice formation on the Maloalmatinsky glaciers ----- 189-281
- Makarov, A. N. Application of neutron gamma logging in coal deposits ----- 188-507
- Makarova, S. D. Some problems of the seismotectonics of middle Asia ----- 191-93
- Makino, Naofumi. On the potential distribution of spontaneous polarization ----- 189-179
- Maksimov, L. S., and Tokmakov, V. A. Remote control of a Long-period vibration pickup ----- 191-142
- Maletskaya, T. S. Application of the methods of logging geophysics for determination of porosity and productivity of the Lower Cretaceous and Miocene reservoirs as exemplified by the Leningrad, Kalinin, and north Ukrainian areas ----- 190-216
- Malina, J. A super-shear test in phyllite rock with the tested bodies in undisturbed position ----- 191-674
- Mal'tseva, N. F. See Bol'shakova, O. V.
- Malygin, A. A. Magnetic properties of rocks of the Leninogorsk region ----- 188-426
- See also Ivankin, P. F.
- Mälzer, Hermann, and Möller, Dietrich. Leveling by the International Glaciological Greenland Expedition (EGIG) - Summer campaign 1959 ----- 191-314
- Mamedova, R. A. See Ismet, A. R.
- Managadze, G. D. Problem of determination of a density interface- 189-297

	Abstract
Mandelbaum, Hugo. On Rigassi's note on "Faults and earth tides" -	190-149
Mann, V. I. Bouguer gravity map of North Carolina -----	190-323
Marek, František. Methods of interpretation of logarithmic travel-time curves -----	191-607
Mariani, F., and Molina, F. Geomagnetic, auroral, ionospheric, and cosmic ray perturbations: interdependence and relations with solar activity. 4. The cosmic ray perturbations -----	191-451
Marianiuk, Janusz. See Kalinowska-Widomska.	
Markhinin, Ye. K., Alypova, O. M., Nikitina, I. B., Pugach, V. B., and Tokarev, P. I. Studies of the condition of the volcanoes of the Klyuchevskoy group and Sheveluch Volcano in 1960 -	191-692
Markhinin, Ye. K., Sirin, A. N., Timerbayeva, K. M., and Tokarev, P. I. Attempt at volcano-geographic regionalization of Kamchatka and the Kurile Islands -----	191-697
Markov, A. V. The Moon -----	190-103
Markuze, L. S. Use of theoretical traveltime curves in interpretation of seismic exploration data in the Pripyat' depression -----	188-515
Marshall, C. H. Thickness of the Procellarian system, Letronne Region of the moon -----	188-141
Marshall, R. R. Mass spectrometric study of the lead in carbonaceous chondrites -----	190-79
Martin, E. L. See Deffeyes, K. S.	
Martynova, T. A. See Kopayev, V. V.	
Marušiak, Ivan, Kalina, Jaroslav, and Vičánek, Jan. The determination of the resistivity of a bed 100 percent saturated with water in shaly sands -----	189-212
Marussi, Antonio. See Bolt, B. A., and Desio, Ardito.	
Marych, M. I. A new derivation of N. K. Migay's formula for determination of the figure of the earth -----	190-271
Marzahn, Kurt. Investigation of the pendulum and gravimeter measurements on the European gravimeter calibration system (status as of July 1, 1959) -----	190-304
Masaytis, V. L. See Rustanovich, D. N.	
Mason, Brian. Potassium-argon ages of metamorphic rocks and granites from Westland, New Zealand -----	188-100
Mason, C. S. See Hill, M. N.	
Matalas, N. C., and Langbein, W. B. Information content of the mean -----	191-273
Matsuda, Takeo, Tateishi, Tetsuo, and Suda, Yoshiro. Gravity survey at the southern part of Jōban coal field -----	189-317
Matsuda, Tokihiko. See Morimoto, Ryōhei.	
Matsui, M. See Miyamoto, S.	
Matsuo, H. See Ohashi, Shuji.	
Matsuo, Sadao. On the chemical nature of fumarolic gases of Volcano Showashinzan, Hokkaido, Japan -----	189-622
— The behavior of volatiles in magma -----	189-626
Matsushima, Shogo. On the strength distribution of the earth's crust and the upper mantle, and the distribution of the great earthquakes with depth -----	188-172
Matsushita, Sadami. On geomagnetic sudden commencements, sudden impulses, and storm durations -----	191-457
See also Campbell, W. H.	
Mattana, N., Sanna, S., and Serra, A. The natural radioactivity at Cagliari and its correlation with some meteorological elements --	191-579
Matumoto, Hideteru. See Miyamura, Setumi.	

Abstract

- Matumoto, Tosimatu. See Sato, Yasuo.
- Matveyev, A. V. On the problem of aerial prospecting in wooded areas ----- 191-582
- Matveyev, B. K. Electrical field of a point source in a multi-layered medium with a spherical inclusion ----- 191-213
- Matveyev, V. V., and Sokolov, A. D. Scintillation liquid radiometer-analyzer "Aviagras" ----- 189-497
See also Grumbkov, A. P.
- Matveyeva, E. T. See Molochnov, G. V.
- Matveyeva, I. I. See Gerling, E. K.
- Mauersberger, Peter; Lucke, Otto; Lauterbach, Robert; and Frölich, Friedrich. Geomagnetism and Aeronomy, v. 3. Concerning the magnetic field originating in the interior of the earth ----- 189-372
- Mayaud, Pierre-Noel. Measurement of the "K" index at Addis Ababa - January 1958 to June 1961 ----- 191-434
- Mayeda, Toshiko. See Emiliani, Cesare.
- Maynes, Donald. See Duke, Michael.
- Mayorov, V. V. See Kaplan, B. L.
- Mazor, E. Radon and radium content of some Israeli water sources and a hypothesis on underground reservoirs of brines, oils and gases in the Rift Valley ----- 191-580
- Medvedev, S. V. Effects of earthquakes of 8 and 7 points on systems of one degree of freedom ----- 190-133
- Meecham, W. C., and DeNoyer, John. Azimuthal asymmetry of a point source in a cylindrical low velocity medium ----- 189-142
- Mégnyien, Claude. See Horon, Octave.
- Meidav, Tsvi. See Ginzburg, Avihu.
- Meier, M. F. Vertical profiles of velocity and the flow law of glacier ice ----- 189-270
See also Crary, A. P.
- Mekhtiyev, Sh. F., and Aliyev, S. A. Factors affecting the geothermal step of the oil fields of Azerbaijan ----- 190-341
- Mel'kanovitskiy, I. M. Crustal structure of the territory of the Peri-Tashkent region, Kyzyl-Kum, and adjacent regions according to geophysical data ----- 189-222
- Geological interpretation of data of deep geophysical investigations in the closed part of the Tashkent region ----- 191-269
- Melle, F. A. Van. Current research to improve the effectiveness of standard geophysical methods ----- 191-613
- Mel'nikov, A. G. See Mirsalimov, R. M.
- Mel'nikov, D. A. See Nechay, A. M.
- Mel'nikova, M. V. See Troitskaya, V. A.
- Menard, H. W. Correlation between length and offset on very large wrench faults ----- 191-307
- The East Pacific Rise ----- 188-586
- Mencher, E. See Pinson, W. H., Jr.
- Mende, Rastislav. Determination of average density from gravimetric data ----- 188-335
- Merchant, H. C., and Hudson, D. E. Mode superposition in multi-degree of freedom systems using earthquake response spectrum data ----- 189-120
- Merino y Coronado, J. The earthquake of Jaltipan, Veracruz on August 26, 1959 ----- 188-153
- Merrihue, C. M., Pepin, R. O., and Reynolds, J. H. Rare gases in the chondrite Pantar ----- 190-80
See also Krummenacher, Daniel.
- Merrill, R. H. See Obert, Leonard.

	Abstract
Merritt, J. W. Geochemistry and radiation surveying for oil and gas -----	190-508
Meshcheryakov, Yu. A. Application of radiometric methods for the investigations of drill holes in the Kuybyshev area on the Volga --	189-538
— Secular movements of the earth's crust and related problems --	190-291
Meshkov, M. M. See Korchagina, O. A.	
Metallova, V. V., Ryazanova, V. N., and Rzhesskaya, I. V. On the problem of reversed polarity of titanomagnetites -----	189-442
Metallova, V. V., and Vey, Tsing-yun'. Some results of investigation of magnetostriction of rocks -----	188-422
Meuschke, J. L., Petty, A. J., and Gilbert, F. P. Aeromagnetic maps of New Hampshire and Vermont -----	191-538
Meuschke, J. L., Petty, A. J., and McCaslin, William. Aeromagnetic map of the Keene quadrangle and parts of the Brattleboro and Monadnock quadrangles, Cheshire County, New Hampshire, and Windham County, Vermont -----	191-540
See also Balsley, J. R.	
Mey, Shi-yun. See Savarenskiy, Ye. F.	
Meyer, R. P. See Steinhart, J. S.	
Meyer, V. A. Logging of boreholes in prospecting for polymetallic deposits -----	189-202
— On the factors that influence measurement in the method of electrode potentials -----	188-263
— The effect of shot on the character of SP anomalies in ore boreholes -----	188-265
Mezhiborskaya, Kh. B. Photoneutron method of determining beryllium -----	191-574
Michel, J. G. See De Bremaecker, J. Cl.	
Mickey, W. V. See Carder, D. S.	
Miguel y Gonz��les Miranda, Luis de. Geomagnetic observations made at Toledo during the I. G. Y. -I. G. C. -----	190-392
Mihalov, J. D. See Nakada, M. P.	
Mikhalevskaya, A. D. See Komlev, L. V.	
Mikhaylov, A. A., ed. Papers on the force of gravity and the figure of the earth -----	190-270
Mikhaylov, A. D. See Rekunov, N. A.	
Mikhaylova, N. P. New data on the specific resistance of rocks of the Ukrainian crystalline shield -----	188-277
— On the natural magnetization of gabbro-pyroxenites of the Oktyabr'skiy alkaline massif -----	191-476
— On the remanent magnetization of the Devladov peridotites -----	190-458
Mikheyenko, V. N., and Nenashev, N. I. Absolute age of formation and relative age of intrusion of the Yakutsk kimberlites -----	188-90
Mikhota, G. G. See Aver'yanov, A. G.	
Mikisha, A. M. See Romanyuk, V. A.	
Mikov, B. D. A rapid method of determination of the elements of a magnetic field for certain bodies of regular shape -----	191-503
— Equations of magnetic field intensity for certain bodies of regular shape when the line of observation is inclined -----	191-504
Mikov, D. S. Determination of the depth of occurrence of geologic bodies using the ratio of the area of the anomalistic graphs to the maximum intensities -----	191-520
Milanovi��, Bo��idar. See Damnjanovic, Konstantin.	
Militzer, H. Near-seismic investigations with a ground vibrator ---	188-550

Abstract

- Millecamps, M. M. R. On a new method of glaciological investigation ----- 191-318
- Millecamps, M. M. R., and Lafargue, Maurice. An account of an original electro-acoustic method for the study of the mechanism of ice-flow and deformation in the depth of a glacier ----- 190-293
- Miller, J. A. The potassium-argon ages of the Skiddaw and Eskdale granites ----- 191-23
- Miller, J. A., and Green, D. H. Age determinations of rocks in the Lizard (Cornwall) Area ----- 189-24
- Miller, J. A., and Mudie, J. D. Potassium-argon age determinations on granite from the Island of Mahe in the Seychelles Archipelago ----- 189-26
- Miller, J. A., and Shibata, Ken. Potassium-argon age of Ryoke granite from Obatake, Yamaguchi Prefecture ----- 189-30
- Miller, J. A., Shibata, Ken, and Munro, Mary. The potassium-argon age of the lava of Killerton Park, near Exeter ----- 191-24
- Miller, J. A.; Shido, Fumiko; Banno, Shohei; and Uyeda, Seiya. New data on the age of orogeny and metamorphism in Japan ----- 190-23
- Miller, V. V. See Alekseyev, F. A.
- Mills, A. A. See Lambert, R. St. J.
- Milne, W. G., and Lucas, K. A. Seismic activity in western Canada 1955 to 1959 inclusive ----- 188-157
- Milovanović, D. See Perić, M.
- Mil'shteyn, D. M. Use of seismic surveying for study of the subsurface of southeast Turkmenistan ----- 190-590
- Minami, K. See Ono, Yoshihiko.
- Minro, D. C. See Bradley, R. S.
- Mironov, V. S. Gravity anomalies of the Rudnyy Altay and their geologic importance ----- 188-360
- Mironov, V. S. On the theory of a gravimeter designed according to the principle of Golitsyn's vertical pendulum ----- 188-336
- See also Zhogolev, L. P.
- Mirsalimov, R. M., and Mel'nikov, A. G. Capacitance effect of electric sounding electrodes on the performance of geophysical apparatus ----- 188-261
- Mishin, S. V. See Rykunov, L. N.
- Misra, A. K. See Murrell, S. A. F.
- Miyamoto, S. Magnetic boiling and underground structure of the moon ----- 188-136
- Miyamoto, S., and Matsui, M. Photographic atlas of the moon ---- 188-140
- Miyamura, Setumi; Hori, Minoru; Aki, Keiiti; Matumoto, Hideteru; and Ando, Seiichi. Observation of aftershocks of the Kita Mino earthquake, August 19, 1961 ----- 191-84
- Miyamura, Setumi, and Okada, Atusi. Results of levelling resurvey between Wakayama and Gobo, Wakayama Prefecture ----- 188-316
- Miyasawa, Ryofu. See Yamamoto, Mikio.
- Mizyuk, L. Ya., and Kotyuk, A. F. Methods of airborne electrical prospecting ----- 191-242
- Mladenović, M. Lj. Electrical surveys, Yugoslavia, coal basins -- 188-257
- Mlodnosky, R. F., and Helliwell, R. A. Graphic data on the earth's main magnetic field in space ----- 190-382
- Mochalov, Yu. Z. See Zhirov, K. K.
- Moffatt, H. K. Intensification of the earth's magnetic field by turbulence in the ionosphere ----- 190-396
- Mohr, P. A. The Ethiopian rift system ----- 191-306

- Moiseyenko, F. S. Geologic nature of the gravity anomalies of Ulu-tau, Betpak-Daly, and Yerementau (eastern Kazakhstan) ----- 189-315
- Molina, F., and Battelli, O. On the position of the focus of the system of Sq currents ----- 191-438
- See also Mariani, F.
- Möller, Dietrich. See Mälzer, Hermann.
- Molochnov, G. V. On the effect of conductivity of the first layer in determination of the depth of the conducting basement by the dipole electromagnetic method ----- 188-233
- The dipole electromagnetic method of determination of the depth of occurrence of a conducting layer with an inclined boundary --- 188-234
- Molochnov, G. V., Matveyeva, E. T., and Osokina, G. N. Electromagnetic field of a vertical magnetic dipole over a two-layer formation having a boundary in the form of a bench ----- 188-232
- Molochnov, G. V., and Spiridovich, G. N. On the observational error of the dipole electromagnetic method ----- 188-235
- Molotkov, I. A. Asymptotic behavior of a nonstationary wave field in the neighborhood of the slip front in a diffraction problem on a convex cylinder ----- 191-185
- Certain properties of cylindrical functions and of their zeros -- 191-187
- Molotkov, L. A. On engineering equations of oscillation of plates of layered structure ----- 191-190
- On propagation of elastic waves in mediums containing thin plane-parallel layers ----- 191-188
- On propagation of low frequency oscillations in liquid halfspaces separated by a thin elastic layer ----- 191-189
- Molotova, L. V., and Vasil'yev, Yu. I. On the magnitude of the ratio of the velocities of longitudinal and transverse waves in rocks. Pt. 2 ----- 191-601
- Momose, Hiroto, Hagiwara, Yukio, and Wani, Katsunosuke. On the gravity prospecting in the metal mine area ----- 188-361
- See also Endo, G., and Okabe, Katsuhiko.
- Momose, Kanichi. See Nagata, Takesi, and Takeshita, Hisashi
- Monakhov, F. I., and Dolbikina, N. A. Structure of microseisms and methods for determining the directions of the sources of their formation ----- 191-572
- See also Korchagina, O. A.
- Mongelli, F., and Morelli, Carlo. Contributions to geothermal prospecting ----- 191-386
- Monich, V. K. See Ivanov, A. I.
- Monster, Jan. See Thode, H. G.
- Montandon, Frédéric. The great catastrophes caused by the forces of nature during the years 1958, 1959, and 1960 ----- 189-235
- Mooney, H. M., and Kaasa, R. A. Air waves in engineering seismology ----- 190-535
- Moorbath, Stephen. Lead isotope abundance studies on mineral occurrences in the British Isles and their geological significance -- 189-22
- See also Giletti, B. J.
- Moore, C. M., Jr. Problems of the geophysical contractor ----- 191-280
- Moore, D. G., and Richards, A. F. Conversion of "relative shear strength" measurements by Arrhenius on East Pacific deep-sea cores to conventional units of shear strength ----- 189-599
- Moore, J. G. See Richter, D. H.
- Moore, R. W. Observations on subsurface exploration using direct procedures and geophysical techniques ----- 188-522

Abstract

- Morais, M. X. de. Radioactivity of the nepheline syenite of the Guiculungo quarry (Upper Golongo, Angola)----- 189-487
- Moralev, V. M. See Yel'yanov, A. A.
- Morelli, Carlo, Gantar, C., Inghilleri, Giuseppe, and Solaini, Luigi. Gravimeter measurements along the European calibration line between Bad Harzburg and the Etna Observatory ----- 191-366
- Morelli, Carlo, and Lozano Calvo, Luis. The Rome-Barcelona tie with the European gravimetric net ----- 191-368
- See also Carrozzo, M. T., Gantar, C., and Mongelli, F.
- Morgan, T. A. See Obert, Leonard.
- Morimoto, Ryōhei. Submarine eruption of Myojian Reef----- 190-627
- Morimoto, Ryōhei, and Matsuda, Tokihiko. Geology of the area damaged by the Kita Mino earthquake. Part 1, The upper reaches of the Uchinami River and the Itoshiro River, Fukui and Gifu Prefectures, Japan ----- 191-86
- Morley, L. W. See Gregory, A. F.
- Morozova, A. A. See Ivankina, A. T.
- Morozova, I. M. See Gerling, E. K.
- Morrison, L. S. How useful are electronic computers in exploration ----- 190-259
- Mosetti, Ferruccio. See Carrozzo, M. T., and Fritsch, Volker.
- Moskvina, A. G. Calculation of the main constants of a seismograph from the shape of the magnification curve----- 191-144
- Moskvina, A. G., and Shebalin, N. V. A study of seismic noise and calculation of the optimum seismograph constants ----- 191-568
- See also Kirnos, D. P.
- Moston, R. P., and Johnson, A. I. Geophysical exploration of wells as an aid in location of salt-water leakage, Alameda Plain, California ----- 188-268
- Mosyagina, M. S. See Borisevich, Ye. S.
- Mrazek, J. A relation between the frequency of the sporadic E-layer and the geomagnetic activity ----- 189-400
- Mu, Iyun'-Guan'. Integration of the calculation of effective velocity----- 190-553
- Mudie, J. D. See Miller, J. A.
- Mudretsova, Ye. A. Underground gravimetric work at chalcopyrite deposits of the Middle Urals ----- 190-332
- Muguruma, Jiro. See Nakaya, Ukichiro.
- Mulford, J. W. See Machado, Frederico.
- Muller, J. E. Notes on age determinations made on Cordilleran rocks ----- 188-55
- Müller, Karel. Regional magnetic investigation and the structure of the Kleine Donau Plain----- 188-458
- Müller, Leopold. Geomechanics in engineering and mining practice ----- 191-647
- On the origin of joints parallel to the surface. Attempt at a geomechanical explanation ----- 191-648
- Müller, Stephan. See Berckhemer, Hans.
- Mumme, I. A. Geophysical investigation of the Blinman Dome----- 189-318
- Gravimetric investigations - Eden fault zone, Glen Osmond, Beaumont and Rosslyn Park areas ----- 191-380
- Mumme, W. G. A note on the mixed polarity of magnetization in Cainozoic basalts in Victoria, Australia ----- 191-491
- Munk, W. H., and Cepeda, H. Concerning a remarkably sharp peak in the sea level spectra at Acapulco ----- 189-116
- Munro, Mary. See Miller, J. A.

	Abstract
Murai, Isamu, and Tsuya, Hiromichi. Some notes on the geologic structure of the Kita Mino district -----	191-85
Murin, A. N. See Dobronravova, A. N.	
Murina, G. A., and Sprintsson, V. D. On retention of radiogenic argon in glauconites -----	191-14
See also Polevaya, N. I.	
Murozumi, Masayoshi. Exo- and endo-magnetic hydrothermal differentiations observed among the chemical components exhaled by Noboribetsu volcanic activity -----	189-619
See also Ohashi, Shuji.	
Murphy, S. J. See Linehan, D.	
Murphy, V. J. See Linehan, D.	
Murrell, S. A. F., and Misra, A. K. Time-dependent strain or "creep" in rocks and similar nonmetallic materials -----	191-639
Murthy, V. R. Isotopic anomalies of molybdenum in some iron meteorites -----	190-77
— The isotopic composition of silver in iron meteorites -----	190-85
Murthy, V. R., and Patterson, C. C. Primary isochron of zero age for meteorites and the earth -----	189-53
Musgrave, A. W. Wave-front charts and three dimensional migrations -----	189-543
Mužijević, R. S. Results of geophysical research carried out for the purpose of exploration for oil deposits at Vojvodina -----	188-288
Myers, W. B., and Hamilton, Warren. Deformation accompanying the Hebgen Lake, Montana, earthquake of August 17, 1959— Single-basin concept -----	188-149
See also Witkind, I. J.	
Mzhachikh, K. I., and Ashirov, K. B. On the geochemistry of deuterium in oils and bitumens of the oil group -----	188-380

N

Nabighian, M. N. See Ștefănescu, S. S.	
Naboko, S. I. At the foot of volcanoes -----	190-625
— Change in the fumarole regime of Kliuchevsky volcano -----	190-623
Nag, K. R. Disturbance due to shearing-stress discontinuity in a semi-infinite elastic medium -----	191-155
— On "SH" type of motion due to body forces in a semi-infinite elastic medium -----	188-202
Nagahama, Haruo, and Hoshino, Kazuo. Radioactive anomalies in eastern Tsuyama, Okayama Prefecture -----	188-488
Nagai, Jiro. Age of Hiei granite determined with zircon and lead-alpha method -----	190-22, 191-28
— Determination of thorium-uranium ratio in radioactive minerals by alpha-ray counting -----	190-3
See also Hatuda, Zin'itiro.	
Nagata, Takesi. Polar magnetic storms, especially in the southern polar region -----	190-425
Nagata, Takesi, Kokubun, Susumu, and Fukushima, Naoshi. Similarity and simultaneity of magnetic disturbance in the Northern and Southern Hemispheres -----	190-418
Nagata, Takesi, Oguti, Takasi, and Momose, Kanichi. Preliminary report of geomagnetic observations at Prince Harald Coast, Antarctica -----	189-385
Nagumo, Shōzaburō. Elastic wave propagation in a liquid layer overlying a sloping rigid bottom -----	188-201

	Abstract
Nagumo, Shozaburo; Kamata, Seikichi; and Kawashima, Takeshi. A new method of continuous profiling with off-set L-spread -----	190-536
Nagumo, Shozaburo, and Kawashima, Takeshi. On the interpretation of seismic reflection method (2). Making of seismic cross-section -----	188-527
See also Honsho, Shizumitsu.	
Nagy, Bartholomew; Claus, George; and Hennessy, D. J. Organic particles embedded in minerals in the Orgeuil and Ivuna carbonaceous chondrites -----	189-51
Nakada, M. P., and Mihalov, J. D. Accretion of solar wind to form a lunar atmosphere -----	189-66
Nakagawa, Ichiro. Some problems on time change of gravity, Pt. 1. On effect of oceanic tides upon the tidal variation of gravity -----	190-299
— Some problems on time change of gravity, Pt. 2. On analytical treatments for data of the tidal variation of gravity -----	190-300
— Some problems on time change of gravity, Pt. 3. On precise observation of the tidal variation of gravity at the gravity reference station -----	190-301
— Some problems on time change of gravity, Pt. 4. On continuous and precise gravity observation during the period of annular eclipse on April 19, 1958 -----	190-302
— Some problems on time change of gravity, Pt. 5. On free oscillations of the earth observed at the time of the Chilean earthquake on May 22, 1960 -----	190-138
See also Nishimura, Eiichi.	
Nakai, Junji, and Hosono, Takeo. Radiometric survey with car mounted instrument in Hiroshima Prefecture -----	188-492
See also Sano, Shun-Ichi.	
Nakamura, Hisayoshi. Report on the geological studies of hot-springs in Japan -----	191-698
Nakamura, Hisayoshi, and Maeda, Kenjiro. Thermal waters and hydrothermal activities in Arima hotspring area, Hyogo Prefecture -----	189-625
Nakamura, Hisayoshi, and Sumi, Kiyoshi. Geothermal investigations of Matsukawa hotspring area, Iwate Prefecture -----	188-599
Nakamura, Hisayoshi; Yanagihara, Chikataka; and Takagi, Shini-chiro. The third drilling for geothermal investigations in the Onikobe basin, Miyagi Prefecture -----	189-333
Nakamura, Kohei. Normal mode waves in an elastic plate, pt. 1 --	188-207
— Normal mode waves in an elastic plate, pt. 3 -----	188-208
— Velocity of long gravity waves in the ocean -----	191-111
Nakamura, Kohei, and Emura, Kinya. Maximum water height at bay head in case of tsunami invasion -----	189-118
See also Kato, Yoshio.	
Nakaya, Ukichiro. The deformation of single crystals of ice -----	189-604
— Visco-elastic properties of snow and ice in Greenland Ice Cap --	189-271
Nakaya, Ukichiro, and Muguruma, Jiro. Physical properties of the ice of Fletcher's Ice Island (T-3) -----	190-600
Nakazawa, Jiro. See Haruki, Kioyonsuke.	
Nałęcz, Maciej, and Zawicki, Ignacy. A Hall-effect seismograph --	189-135
Namnandorzh, O. See Vorob'yev, G. G.	
Nanda, S. N. A proposed mechanism of generation of micro-seisms -----	190-484
Napalkov, Yu. V. On the theory of grouping of seismic receivers --	190-526

	Abstract
Nassonov, V. A. Extension of magnetic anomalies of complicated shape to a given altitude -----	191-522
— Solution of certain problems in magnetometry by using the similarity of anomalies-----	190-469
Nature. Royal Society Expedition to Tristan da Cunha—preliminary report -----	190-616
Naumchky, G. L. See Subbotin, S. I.	
Nazarenko, O. V. On the effect of the lengths of measuring and input lines on the results of using a dipole axial arrangement -----	189-176
Nazarenko, O. V., and Belitskaya, S. G. On the problem of induced polarization of measuring electrodes observed during the process of electric prospecting -----	190-190
Nazarov, A. G. The method of engineering analysis of seismic forces -----	191-110
Nazarov, G. N. On some results of electrical prospecting of the salt dome structure of Baskunchak -----	188-259
Nazarova, T. N. See Isakovich, M. A.	
Nazmutdinov, R. Sh. See Rekunov, N. A.	
Neale, E. R. W., Beland, J., Potter, R. R., and Poole, W. H. A preliminary tectonic map of the Canadian Appalachian Region based on age of folding -----	189-15
Nechay, A. M. Evaluation of the productivity and reservoir properties of fractured carbonate rocks -----	188-271
Nechay, A. M., and Mel'nikov, D. A. Investigation of reservoir properties of strata according to geophysical data in the regions of the north-east cis-Caucasus -----	189-215
Nechayev, V. A. Seismic microregionalization of the territory of the city of Stalinabad, based on the instrumental-geological method -----	189-90
Nedelkov, I. P., and Burnev, P. H. Determination of gravitational fields in depth -----	189-290
Nedyalkov, I. P. On magnetization of bodies of weak magnetic permeability -----	189-432
— On the inverse problem of potential for n bodies -----	189-226
Negi, J. G. Diffraction of electromagnetic waves by an inhomogeneous sphere -----	191-230
— Inhomogeneous cylindrical ore body in presence of a time varying magnetic field -----	190-182
— Radiation resistance of a vertical magnetic dipole over an homogeneous earth-----	188-228
Nekhoroshev, A. S. To the problem of the methods for determining the presence of volcanic vapours at depth-----	190-336
Nenashev, N. I. See Mikheyenko, V. N.	
Nenilina, V. S. See Bagdasarova, A. M.	
Nepomnyashchikh, A. A. On the theory of interpretation of magnetic anomalies -----	191-523
Neprochnov, Yu. P. See Sysoyev, N. N.	
Neret, Lucien. Can earthquakes be predicted -----	188-179
Nersesov, I. L., and Khalturin, V. I. The Karategin earthquake of January 7, 1958 -----	189-79
See also Bagdasarova, A. M., and Gurevich, G. I.	
Ness, N. F., Skillman, T. L., Searce, C. S., and Heppner, J. P. Magnetic field fluctuations on the earth and in space -----	190-432
Neugodov, L. N. See Isakovich, M. A.	
Neumann, Henrich. See Kulp, J. L.	

Abstract

- Neumann van Padang, M. Measures taken by the authorities of the
Vulcanological Survey to safeguard the population from the conse-
quences of volcanic outbursts ----- 190-629
— The steam borings in Kawah Kamodjang ----- 190-347
See also Berninghausen, W. H.
- Neumann, W. Irregular geomagnetic anomalies and their explana-
tion ----- 189-427
- Neunhöfer, Horst. Theoretical investigations of the reflection and
transmission of sonic and ultrasonic waves at cracks in sylvinite,
hard salt, and rock salt that are filled with carbon dioxide ----- 190-169
- Neuvonen, K. J. The apparent age pattern of the crust----- 189-11
- Nevolin, N. V. See Ayzenshtadt, G. Ye. A.
- Newfarmer, L. R. Geophysics' share of the exploration dollar in
the U. S. and Canada----- 191-278
- Newton, R., and Round, G. F. The diffusion of helium through sed-
imentary rocks ----- 189-236, 191-293
- Newton, R. C., Jayaraman, A., and Kennedy, G. C. The fusion
curves of the alkali metals up to 50 kilobars ----- 190-367
- Neyman, V. S. See Shapiro, D. A.
- Neyman, Ye. A. See Dakhnov, V. N.
- Nicholls, H. R. Coupling explosive energy to rock ----- 190-177
— In situ determination of the dynamic elastic constants of
rock ----- 190-168, 191-195
- Nicolaysen, L. O. Graphic interpretation of discordant age meas-
urements on metamorphic rocks ----- 188-33
- Nicolaysen, L. O., Burger, A. J., and Liebenberg, W. R. Evi-
dence for the extreme age of certain minerals from the Dominion
Reef conglomerates and the underlying granite in the Western
Transvaal ----- 188-61
See also Burger, A. J.
- Niggli, Ernst. See Jäger, Emilie.
- Nikiforova, N. N. See Deniskin, N. A.
- Nikitina, I. B. See Markhinin, Ye. K.
- Nikolayev, D. S. See Starik, I. Ye.
- Nikolayevskiy, A. A. See Dorman, M. I.
- Nikolov, N. S. Meteorites of Bulgaria ----- 191-63
- Nikolsky, A. P. On the distribution of periods of activity of mag-
netic disturbances over the 24 hours of the day----- 189-415
— On the problems connected with comparing magnetic distur-
bances of the Arctic and the Antarctic----- 189-394
- Ninagawa, Shinji. See Furuya, Shigemasa.
- Nipper, J. T. See Foster, M. R.
- Nishida, Atsuhiko, and Jacobs, J. A. World-wide changes in the
geomagnetic field ----- 188-402, 190-419
- Nishimura, Eiichi; Nakagawa, Ichiro; Hosoyama, Kennosuke; Saito,
Masanori; and Takeuchi, Hitoshi. Free oscillations of the earth
observed on gravimeters ----- 188-180
- Nishimura, Susumu. Variation in radioactivity across igneous con-
tacts III ----- 189-488, 190-513
— Variations in radioactivity and chemical elements across ig-
neous contacts ----- 189-489, 190-514
See also Hatuda, Zin'itiro.
- Noakes, J. E. See Stipp, J. J.
- Noble, D. C. Stabilization of crustal subsidence in geosynclinal
terrane by phase transition at M—a reply----- 189-244

	Abstract
Nodia, M. Z., and Vekua, L. V. On the problem of paleomagnetic variations-----	188-428
Nomura, Yukichi, and Takaku, Koshun. Propagation of elastic waves in a layered inhomogeneous earth sphere-----	190-165
Nordquist, J. M. A special-purpose program for earthquake location with an electronic computer-----	189-94
Nordyke, M. D. An analysis of cratering data from desert alluvium-----	190-266
Noritomi, Kazuo. The electrical conductivity of rock and the determination of the electrical conductivity of the earth's interior--	190-241
Norris, D. K., and Black, R. F. Application of paleomagnetism to thrust mechanics-----	188-434
— Palaeomagnetism and differential rotation in the Lewis thrust plate-----	189-459
— Rock magnetism and low-angle faulting-----	191-483
Northrop, John. Evidence of dispersion in earthquake T phases----	191-121
Northrop, John, Frosch, R. A., and Frassetto, Roberto. Bermuda-New England Seamount Arc-----	190-601
Noskova, V. G. See Afanas'yev, G. D.	
Novoselova, S. M. See Kovtun, A. A.	
Nozières, Philippe. See Carron, J. P.	
Nurlybayev, A. N. See Ivanov, A. I.	
Nurmia, M. See Graeffe, G., and Taagepera, R.	
Nurse, E. J. See Light, D. E.	
Nuttli, O. W., and Whitmore, J. D. On the determination of the polarization angle of the S wave-----	189-121
Nydal, Reidar. Trondheim natural radiocarbon measurements III--	190-55
Nye, J. F. A theory of wave formation in glaciers-----	189-267

O

Obashev, S. O. Geomagnetic effect of the Tungus meteorite-----	191-57
Obayashi, Tatsuzo. Propagation of solar corpuscles and interplanetary magnetic field-----	189-408
— Solar corpuscular radiation and polar ionospheric disturbances-	188-413
Obert, Leonard. Effects of stress relief and other changes in stress on the physical properties of rock-----	191-640
— In situ determination of stress on rock-----	191-659
Obert, Leonard, Merrill, R. H., and Morgan, T. A. Borehole deformation gage for determining the stress in mine rock-----	190-597
Oberti, Guido. Experimental investigations on the characteristics of the deformability of rocks-----	191-675
Obi, Itsuaki. See Kawachi, Yosuke.	
Oblogina, T. I. A new method for determination of the absorption coefficient of seismic waves-----	191-604
Oborina, S. F. On the problem of crustal structure in the Arctic --	189-340
Obotnin, N. F. See Yudin, I. A.	
O'Brien, P. N. S. See Donato, R. J.	
Obukhov, G. G. See Savarenskiy, Ye. F.	
Obukhov, V. A. Automatic spectrum analyzer of ultrasonic vibrations registered in seismic modeling-----	190-161
Öcal, Nevzat. Determination of the mechanism of some Anatolian earthquakes-----	189-108
Odani, Yoshitaka, and Baba, Kenzo. Geophysical explorations at Magome and Mizuhiki mines, Fukushima Prefecture—Investigation of the applicability of magnetic method for lead and zinc deposits of contact type-----	189-225

Abstract

- Odinokov, V. P., Denisik, S. A., and Shimelevich, Yu. S. Determination of the location of the water-oil contact from data of the neutron-gamma method and scintillation counter (NGM-LS) and of the neutron-neutron method according to thermal neutrons ----- 189-512
 See also Alekseyev, F. A., and Burov, B. M.
- Oeschger, Hans, Renaud, André, and Schumacher, Ernst. Attempt at dating by tritium of the snow layers of the Jungfraufirn and determination of the annual accumulation ----- 189-357
 See also Geiss, Johannes, and Gfeller, Chr.
- Officer, C. B., Jr. Use of continuous seismic profiler (Sparker) in geologic investigations for vehicular tunnel and bridge crossings- 188-548
 See also McGuinness, W. T.
- Ogawa, Kenzo. Gravity survey at Yamagata basin, Yamagata Prefecture ----- 190-335
- Ogil'vi, A. A. Geophysical methods of investigation ----- 189-228
 — Role of geophysical methods in study of ground water ----- 190-202
 See also Azimi, Sh. A.
- Ogilvie, K. W. The half-value period of radium C' ----- 190-496
- Ogorodov, N. V. An active volcano in the Sredinny Khrebet ----- 188-593
- Oguti, Takasi. K indices at Syowa Station, Antarctica ----- 188-407
 See also Nagata, Takesi.
- Ohashi, Shuji, Kobayashi, H., Matsuo, H., and Murozumi, Masayoshi. On the contributions of surface soil and topography to the SP distribution ----- 189-181
- Ohl, A. I. Pulsations during sudden commencements of magnetic storms and long period pulsations in high latitudes ----- 190-431
- Ohmachi, Hokuichiro. See Koizumi, Hisanao.
- Ohya, Masahiko. The relationship between abnormal tidal waves "tsunami" caused by the Chilian earthquakes and topography of the coasts of Kii Peninsula in the western part of Japan ----- 190-136
- Oil in Canada. Geophysical work almost holds own ----- 188-282
- Oilweek. Electro-Tech has portable seismograph ----- 190-143
 — Greater penetration for marine seismic method ----- 190-570
 — Logging with pipe in hole possible with new tool ----- 189-214
 — Rogers develops new seismic system and truck ----- 188-549
- Oka, Yukitoshi. See Hiramatsu, Yoshio.
- Okabe, Katsuhiko, Sato, Konosuka, Tsujimura, H., and Momose, H. A part of self potential method at the exploration of ore deposits - 189-183
- Okada, Atusi. See Miyamura, Setumi.
- Okada, Hiroshi, and Tazime, Kyozi. Love-waves in stratified three layers ----- 190-529
- Okano, Kennosuke, and Kamo, Kosuke. Direction of approach of microseisms observed in Kyushu ----- 190-492
- Okano, Takeo. See Koizumi, Hisanao.
- O'Keefe, J. A., Eckels, Ann, and Squires, R. K. Pear-shaped component of the geoid from the motion of Vanguard I ----- 188-306
- O'Keefe, J. A., Lowman, P. D., Jr., and Dunning, K. L. Gases in tektite bubbles ----- 191-68
- Oksa, D. R. Resolution and curved path computation of steep dip using an electronic computer ----- 189-552
- Okumi, Shizuka. See Koizumi, Hisanao.
- Olaussen, Eric. Studies of deep-sea cores ----- 188-65
- Oliveira, Geraldo de. Analytic and graphic determination of the refracting horizon by means of envelope parabolas ----- 190-532
- Oliver, H. W., Pakiser, L. C., and Kane, M. F. Gravity anomalies in the central Sierra Nevada, California ----- 188-348

- Oliver, J. E. A summary of observed seismic surface wave dispersion ----- 189-127
 — A worldwide storm of microseisms with periods of about 27 seconds ----- 191-563
- Oliver, J. E., and Dorman, James. On the nature of oceanic seismic surface waves with predominant periods of 6 to 8 seconds -- 188-185
- Oliver, J. E., and Isacks, Bryan. Seismic waves coupled to sonic booms ----- 191-211
 See also Rexin, E. E.
- Olson, E. A., and Broecker, W. S. Lamont natural radiocarbon measurements VII ----- 190-37
 See also Broecker, W. S.
- Olsson, Ingrid; Cazeneuve, Horacio; Gustavsson, John; and Karlén, Ingvar. Uppsala natural radiocarbon measurements III ----- 190-32
- Olszak, Gerd. Some investigations on the action of group shooting in seismic reflection surveying ----- 189-554
 See also Teupser, Christian.
- Omote, Syun'itiro; Karakama, Ikuo; Nakajima, Naoyoshi; Saito, Sadao; and Kayano, Ichiro. Aftershocks of the Kita Mino earthquake of August 19, 1961. Observations at the Kadohara and Hirugano stations ----- 191-83
- Ona, Isao. See Kishinouye, Fuyuhiko.
- Ondoh, Tadanori. Geomagnetic bay-like disturbances before geomagnetic sudden commencements or sudden impulses ----- 190-442
 — Ionospheric currents responsible for sudden commencements observed at the geomagnetic equator ----- 188-410
- Ondoh, U. See Maeda, Hiroshi.
- Ono, Y., Suga, M., and Minami, K. Investigations on the crustal structure and seismic activity in and near Hokkaido (using the data at Sapporo D. M. O.) ----- 189-93
- Ono, Yoshihiko. Electrical survey by resistivity method for uranium deposits of sedimentary type ----- 189-196
- Ono, Yoshihiko; Suyama, Junji; and Takagi, Shin'ichiro. Geoelectrical prospecting at Matsukawa geothermal field ----- 190-212
 — On the electrical prospecting by the direct current method in Izu-Oshima Island ----- 190-214
- Onwumechilli, C. A. Lunar daily variation of the magnetic declination at Ibadan, Nigeria ----- 188-406
- Öpik, E. J. The survival of stray bodies in the solar system ----- 188-107
- Opitz, Dietrich. Geometric evaluation of average velocities in seismic reflection measurements with "expanding spread" ----- 189-556
- Orellana Silva, Ernesto. Erroneous criteria in the interpretation of electric soundings ----- 191-226
- Orlov, D. P. See Cherdyntsev, V. V.
- Orlov, G. G. On some formulas applied to cases of oblique magnetization ----- 190-466
- Orlov, V. P. Surface correlations of airborne surveys ----- 190-475
 — Unusually large changes in the values of secular variations of the geomagnetic field ----- 191-526
- Orsini, C. Q. On the relative abundance of carbon, nitrogen, and oxygen in the cosmic rays ----- 188-108
- Osada, Kaio. See Kanai, Kiyoshi.
- Osadchaya, R. I. See Ovchinnikov, L. N.
- Osawa, Yutaka. On the damage to buildings during the Kita Mino earthquake of August 19, 1961 ----- 191-81

	Abstract
Osipov, I. O. Character of variation of velocities of propagation of elastic waves in anisotropic mediums -----	191-163
— Reflection and refraction of plane elastic waves at the boundary of a liquid and a solid anisotropic body -----	191-169
— Transfer of seismic energy in anisotropic media -----	191-165
Osokina, G. N. See Molochnov, G. V.	
Ostenso, N. A., and Holmes, G. W. Gravimetric determinations of ice thickness of Jarvis Glacier, Alaska-----	191-370
See also Bentley, C. B., and Thiel, Edward.	
Osterwald, F. W. Deformation and stress distribution around coal mine workings in Sunnyside No. 1 mine, Utah-----	188-570
— USGS relates geologic structures to bumps and deformation in coal mine workings -----	189-591
Ostlund, H. G., Bowman, A. L., and Rusnak, G. A. Miami natural radiocarbon measurements I -----	190-44
See also Engstrand, L. G.	
Ostroumov, G. V. The neutron method of analysis of skarn-type ores for boron-----	188-504
Otaki, Takemichi. Investigations of S. P. anomaly at the Matsuo mine field-----	189-198
Oulianoff, Nicolas. Crossed (rhomboid) ripple marks and the general problem of fossilification of ridges -----	188-580
Oulianoff, Nicolas. Movement of the glaciers (Plasticity of the ice, structure of the rock basement) -----	189-268
Ovanesov, M. G. See Yermakov, V. I.	
Ovchinnikov, A. K. See Grammakov, A. G.	
Ovchinnikov, L. N. Ural materials for the absolute time scale ----	188-8
Ovchinnikov, L. N., Kelarev, V. V., Panova, M. V., Dunayev, V. A., Shangareyev, F. L., and Osadchaya, R. I. On the problem of argon retention in micas -----	191-15
Ovchinnikov, L. N., Panova, M. V., and Dunayev, V. A. Correlation of the absolute age of Paleozoic effusives of the Urals with biostratigraphic positions -----	188-83
Ovchinnikov, L. N., Panova, M. V., and Shangareyev, F. L. Absolute age of some rocks from Hungary -----	188-68
Ovchinnikov, V. M. See Grammakov, A. G.	
Ovchinnikova, G. V. See Gerling, E. K.	
Overseas Geological Surveys. Geophysical field surveys - Bechuanaland 1961 -----	191-623
— Geophysical field surveys - British Borneo 1961 -----	191-561
Overstreet, W. C., Bell, Henry, III, Rose, H. J., Jr., and Stern, T. W. Recent lead-alpha age determinations on zircon from the Carolina Piedmont -----	188-39
Overstreet, W. C., Stern, T. W., Ansell, Charles, and Westley, Harold. Lead-alpha ages of zircon from North and South Carolina -----	191-16
Özdoğan, İhsan. Geomagnetic bays in Turkey. Part I: Statistical study -----	190-405

P

Paghis, Irvine. Magnetic impulses and sun-earth relations-----	190-416
Paicu, Dumitru, and Patrichi, Constantin. Seismic results obtained on metamorphic and igneous formations -----	188-558
Pak, V. A. See Berzon, I. S.	

- Pakiser, L. C. Gravity, volcanism, and crustal deformation in Long Valley, California----- 188-349
- Pakiser, L. C., and Baldwin, H. L., Jr. Gravity, volcanism, and crustal deformation in and near Yellowstone National Park ----- 188-339
- Pakiser, L. C., and Kane, M. F. Geophysical study of Cenozoic geologic structures of northern Owens Valley, California ----- 190-244
- See also Hill, D. P., Jackson, W. H., Oliver, H. W., and Warrick, R. E.
- Pal'gov, N. N. Thickness of the Kazakhstan glaciers and evaluation of the methods for its determination ----- 189-284
- Thickness of the Kazakhstan glaciers in accordance with the calculation methods and seismic measurements ----- 191-636
- Palik, P. Further life-forms in the Orgueil meteorite ----- 191-37
- Pancini, Mario. Results of the first series of tests performed on a model reproducing the actual structure of the abutment rock of the Vaiont dam ----- 191-678
- Panek, L. A. Measurement of rock pressure with a hydraulic cell - 189-595
- Methods for determining rock pressure ----- 190-595
- Panova, M. V. See Ovchinnikov, L. N
- Parasnia, D. S. Magnetism, from lodestone polar wandering ----- 190-450
- Parham, A. G. See Brown, F.
- Parker, E. N. See Dessler, A. J.
- Parkhomenko, E. I. See Volarovich, M. P.
- Parkinson, W. D. The influence of continents and oceans on geomagnetic variations ----- 191-440
- Parkinson, W. D., and Curedale, R. G. Isomagnetic maps of Australia for the epoch 1957.5. Pt. 2—Central and western Australia ----- 191-437
- Parks, P. E., Jr. See Behrendt, J. C.
- Parry, L. G. See Green, Ronald.
- Parsons, W. H. See Machado, Frederico.
- Pasechnik, I. P., Kogan, S. D., Sultanov, D. D., and Tsibul'skiy, V. I. The results of seismic observations of underground nuclear and TNT explosions ----- 188-223
- Pasteels, Paul. See Cahen, Lucien.
- Patchett, J. G. Log interpretation of the Tertiary and Upper Cretaceous of Wyoming and surrounding areas ----- 188-267
- Paterson, M. S., and Weiss, L. E. Experimental folding in rocks - 191-642
- Paterson, N. R. An interpretation technique for airborne gravity gradient measurements----- 188-323
- Experimental field data for the dual-frequency phase-shift method of airborne electromagnetic prospecting----- 188-227
- Helicopter E. M. test, Mobrun orebody, Noranda----- 191-236
- Trends and prospects in mining geophysics----- 191-283
- Patrichi, Constantin. See Paicu, Dumitru.
- Patterson, C. C. See Chow, T. J., and Murthy, V. R.
- Patton, B. J., and Fitch, J. L. Anhysteretic remanent magnetization in small steady fields ----- 189-421
- Design of a room-size magnetic shield ----- 189-434
- Pavlović, B. V. Radioactive disequilibrium systems among uranium, ionium, and radium in sediments----- 188-471
- See also Vučić, V. M.
- Pavlovskiy, V. I., and Serebryakov, Ye. B. Nomogram for determining the form, dimensions, and density contrast of two-dimensional bodies of rectangular cross section from the U_{xz} curve --- 190-310

	Abstract
Payo Subiza, Gonzalo. Love wave dispersion along very long Euro-Asiatic paths-----	190-139
Peacock, J. D., and Williamson, R. Radon determination as a prospecting technique-----	191-585
Pearson, R. C.; Tweto, Odgen; Stern, T. W., and Thomas, H. H. Age of Laramide porphyries near Leadville, Colorado-----	191-18
Pearson, Ronald. Life-forms in carbonaceous chondrites-----	191-35
Pěč, Karel. Lg and Rg phases observed at Prague-----	191-117
— Theory of the waves excited in the elastic half space by a plane source (Part 1)-----	189-145
— Theory of waves excited in an elastic half space by a plane source (Part 2)-----	190-157
— Theory of waves excited in an elastic half space by a plane source (Part 3)-----	190-158
Pechernikov, V. F. See Dakhnov, V. N.	
Pěčová, Jana. On the rapid variations of the electrotelluric field at Budkov (Czechoslovakia)-----	191-448
Pedersen, Arne. Time, height, and latitude distribution of Dlayers in the subauroral zone and their relation to geomagnetic activity and aurora-----	190-397
Pegum, D. M. Gravity survey of the Willunga basin-----	191-379
Pekeris, C. L., Alterman, Z., and Jarosch, H. Effect of the rigidity of the inner core on the fundamental oscillation of the earth-----	191-412
Pelyushenko, V. M. Field magnetic station-----	188-396
Penchev, N. P., Pencheva, Y. N., and Bonchev, P. R. On the chemical composition of meteorite Gumoshnik (Bolgariya)-----	188-121
Pencheva, Y. N. See Penchev, N. P.	
Penta, Francesco. Natural vapors ("endogene forces")-----	190-342
Pepin, R. O. See Krummenacher, Daniel, and Merrihue, C. M.	
Perić, M., Damnjanović, Kostantin, and Aleksić, D. Possibility of the application of electrical logging methods in some coal basins-----	188-270
Perić, M., and Milovanović, D. Comparison of the results of geomagnetic and mining exploration on the magnetite-hematite ore body at Damjan in east Macedonia-----	188-460
Per'kov, N. A. Album of type geologic-geophysical sections of boreholes of oil regions of the Volga-Ural province-----	189-218
— On the methods of geophysical borehole investigations of carbonate reservoirs-----	189-213
Pernikov, M. Sh. The method of determination of permeability of oil-bearing strata according to electric logging data-----	189-204
Peschel, Gerald. See Särchingen, Hellmuth.	
Petelin, V. P. See Bezrukov, P. L.	
Peter, George. See Hunkins, Kenneth.	
Peterman, Z. E. See Burwash, R. A.	
Peterson, D. L. See Griscom, Andrew.	
Petkevich, G. I. A scheme of the types of velocity profiles in the Cis-carpathian downwarp-----	191-631
— Seismic logging study in the Cis-carpathian depression-----	190-566
Petkov, I. N. On an analytical method of determining the layer velocities of seismic waves-----	189-545
Petrov, G. I., Kutenkov, M. V., Tenenbaum, I. M., and Yevseyeva, L. S. Methods of geological-geophysical development of uranium mines-----	189-498

	Abstract
Petrova, G. N. Various laboratory methods of determination of geomagnetic stability of rocks-----	190-456
Petrova, G. N., and Trukhin, V. I. Spontaneous variation in H_c of rapid cycles of magnetization of cooled ferromagnetics-----	189-425
Petrova, G. N., and Zhilyayeva, V. A. A laboratory criterion of magnetic stability of rocks-----	188-421
See also Burlatskaya, S. P.	
Petrovskiy, A. D. See Grachev, A. A.	
Petrucci, Giuseppe, and Coppolino, S. Some tests on water-bearing formations with the induced polarization and resistivity methods, using a bipolar measuring set-up-----	191-239
Petrushevskiy, B. A. Earthquakes and the possibility of their predictions-----	191-108
— Earthquakes and what causes them-----	189-85
— Investigations of seismicity of the territory of the Chinese Peoples Republic-----	189-92
— On the geologic setting of the Kansu earthquake of 1920-----	188-166
Pettijohn, F. J. See James, H. L.	
Petty, A. J. See Meuschke, J. L.	
Péwé, T. L. Age of moraines in Victoria Land, Antarctica-----	189-31
Phinney, R. A. Propagation of leaking interface waves-----	188-183
Pichugin, N. I. Mapping steep contacts and tectonic dislocations according to VES data-----	190-197
Pick, Miloš. Effect of one of the systematic errors in geographic latitude determination on the form of the geoid-----	191-298
— Projective method for the transformation of a triaxial ellipsoid with nonparallel axes-----	191-296
Pidgeon, R. T. See Compston, W.	
Pierau, H. The origin of multiple impulses due to pulsating gas bubbles ("Bubbler") in seismic reflection measurements on land-----	191-608
Pinchuk, I. A. See Ayzenshtadt, G. Ye. A.	
Pinson, W. H., Jr. Some points on the geological time scale from Nova Scotia and New England-----	188-36
— The potassium-argon method: The problem of potassium analysis-----	188-21
Pinson, W. H., Jr., Hurley, P. M., Mencher, E., and Fairbairn, H. W. K-Ar and Rb-Sr ages of biotites from Colombia, South America-----	191-21
Pinson, W. H., Jr., and Schnetzler, C. C. Rubidium-strontium correlation of three tektites and their supposed sedimentary matrices-----	190-92
See also Hurley, P. M.	
Pisani, M. See Gantar, C.	
Pisharoty, P. R., and Srivastava, B. J. Rise times versus magnitudes of sudden commencements of geomagnetic storms-----	190-410
Piyp, B. I. See Averyev, V. V., and Vlodavets, V. I.	
Plekhanov, G. F., Kovalevskiy, G. F., Zhuravlev, V. K., and Vasil'yev, N. V. The effect of the explosion of the Tungus meteorite on the geomagnetic field-----	191-58
Plewa, Stanisław. Detection of water and gas horizons by the methods of drilling geophysics under the conditions of Rybniki Coal District-----	190-233
Plokhikh, N. A. The solution of some plane problems in d-c electrical prospecting-----	191-221
Plouff, Donald. Gravity profile along Roberts Tunnel, Colorado---	188-340

	Abstract
Plouff, Donald. Gravity survey near Tucson, Arizona -----	188-344
Plouff, Donald, Keller, G. V., Frischknecht, F. C., and Wahl, R. R. Geophysical studies on IGY drifting station Bravo, T-3, 1958 to 1959 -----	188-285
Plumstead, E. P. Ancient plants and drifting continents -----	189-249
Pod'yapol'skiy, G. S., and Vasil'yev, Yu. I. The Rayleigh type wave on a free surface -----	188-206
Pogrebnikov, M. M., Rotshteyn, A. Ya., and Tsirel', V. S. Prob- lems of study and calculation of variations in connection with using nuclear-resonance apparatus -----	189-376
Pohly, R. A. Gravity work may aid search for Trenton fracture zones -----	189-306
Polak, L. S., Filippov, Ye. M., Kuznetsov, G. A., and Zhavoronkov, V. Ya. Investigation of the spectrum of diffuse gamma radiation as applied to the solution of certain problems of geophysics -----	191-597
Polevaya, N. I. Data for compilation of the post-Precambrian scale of absolute geochronology -----	188-10
Polevaya, N. I., Murina, G. A., and Kazakov, G. A. Utilization of glauconite in absolute dating -----	188-28
Polevaya, N. I., Putintsev, V. K., and Sprintsson, V. D. The age of some magmatic and metamorphic rocks of North Korea -----	188-97
See also Bobrov, V. A.	
Polkanov, A. A., and Gerling, E. K. The pre-Cambrian geochro- nology of the Baltic shield -----	188-3
Polonskiy, A. M. The calculation of magnetic moments -----	191-218
Poloskov, S. M. See Isakovich, M. A.	
Polshkov, M. K. The quasi-steady processes in a seismic ampli- fier having π -shaped filters in the upper and lower frequencies --	190-573
— Problem of the theory and design of an electrodynamic seismo- graph taking into account the input circuit of the seismic ampli- fier -----	188-544
— The quasi-steady processes in a seismic amplifier having T- shaped filters in the upper and lower frequencies -----	190-574
— Transient-to-steady processes in a seismic amplifier of rheo- stat type, having a symmetrical T-shape link of the high fre- quency -----	190-575
Polyakov, A. K. Geologic-geophysical methods of servicing non- ferrous mines -----	190-510
See also Balashov, V. N.	
Polyakov, A. S. On the physical nature of apparent resistivity ----	190-198
Pomirleanu, V. V. Geothermometric investigations on the metalli- ferous deposit in the Nistru basin, Baia Mare region -----	189-334
See also Savul, M.	
Pommier, Gilbert. See Layat, C.	
Poncelet, E. G. Theoretical aspects of rock behavior under stress- 188-572	
Ponomarev, V. N., and Zakharchenko, V. F. Determination of azimuth of a magnetized sphere -----	190-451
Poole, F. G. See Houser, F. N.	
Poole, W. H. See Neale, E. R. W.	
Popov, I. I. See Savarenskiy, Ye. F.	
Popov, N. V. See Alekseyev, F. A.	
Popov, V. I. Relationship of the earthquakes of central Asia to the continuing development of the crust -----	191-311
— Some principal aspects of the nuclear theory of development of the crust -----	191-303

- Popov, V. I., and Filin, T. D. Continental blocks (provinces), nuclear and internuclear areas of middle Asia and south Kazakhstan ----- 191-304
- Popov, V. K. Some problems in using cores and logging geophysics for evaluation of reservoir properties of strata ----- 190-225
- Popov, V. V. On temperature deformations of the earth's surface - 189-245
- Popov, Ye. I. Evaluation of the accuracy of measurements of the acceleration of gravity at sea by gravimeters ----- 191-354
- Quartz gravimeter for observations at sea ----- 191-360
- Popovici, Dorin. See Ștefănescu, S. S.
- Porstendorfer, Gottfried. Telluric surveying—fundamentals, technique, and new possibilities of application ----- 190-107
- Potapov, I. I. On the problem of the origin of the earth ----- 191-32
- Potapov, V. G. See Gernik, V. V.
- Potapov, V. P. Some results of determination of porosity of the Yasnoye Pole substage of the Lower Carboniferous of the Perm region of the Kama River according to SP diagrams -- ----- 190-219
- Potter, R. R. See Neale, E. R. W.
- Pounder, E. R., and Stalinsky, P. Elastic properties of Arctic sea ice ----- 191-204
- Power, D. V. See Lombard, D. B.
- Poyarkova, Z. N. Research drill holes of the USSR Chulym research drill hole (Toms Region) ----- 191-259
- Pozin, L. Z. See Dakhnov, V. N.
- Praus, Oldfich. A contribution to the asymptotic expression of the electromagnetic field of an electric dipole ----- 191-232
- Prentiss, David. See Rexin, E. E.
- Preobrazhenskiy, V. B. See Borisevich, Ye. S., Gol'dfarb, M. L., and Vetchinkin, A. N.
- Press, Frank, and Archambeau, Charles. Release of tectonic strain by underground nuclear explosions ----- 188-219
- Press, Frank, Harkrider, David, and Seafeldt, C. A. A fast, convenient program for computation of surface-wave dispersion curves in multilayered media ----- 188-186
- See also Aki, Keiiti, and Kovach, R. L.
- Price, A. T. The theory of magnetotelluric methods when the source field is considered ----- 190-104
- Priester, W., and Cattani, D. On the semiannual variation of geomagnetic activity and its relation to the solar corpuscular radiation ----- 190-395
- Pris, G. V. Possibilities of quantitative interpretation of inductive anomalies at low frequencies ----- 191-216
- The parameters of cylindrical conductors in the induction method of prospecting ----- 190-188
- The transient processes in a cylindrical conductor after an external magnetic field is switched off. 1 ----- 191-219
- Determination of the parameters of ore inclusions from the transient process curve in the method of field establishment. 2 -- 191-220
- Pros, Zdeněk. See Klíma, Karel, and Vanek, I.
- Proskuryakova, T. A. See Vasil'yeva, T. L.
- Prosperi, D. See Giannini, M.
- Protodyakonov, M. M. Methods of studying the strength of rocks used in the U. S. S. R. ----- 191-668
- Prouvost, Jean. Distribution of radioactivity in the granitic rocks of the Avallon region ----- 190-498

Abstract

- Provodnikov, L. Ya. Determination of the depth of occurrence of magnetized bodies taking into account error in selection of the normal field----- 191-508
- Master charts for a more precise definition of zero-level of the field of anomalies of the last order ----- 191-506
- On the problem of determination of the depth of occurrence of the upper part of the surface of magnetized bodies in the form of a horizontal cylinder----- 191-507
- The relief of the folded basement of the West Siberian Lowland - 191-556
- Pudovkin, I. M. Spatial analysis of the structure of a magnetic field, and its application to the practice of interpretation of anomalies----- 188-439
- See also Alexandrov, V. A.
- Pugach, V. B. See Markhinin, Ye. K.
- Purtova, S. I. See Alferov, B. A.
- Puskhov, N. V. See Dolginov, S. Sh.
- Putintsev, V. K. See Polevaya, N. I.
- Putkaradze, L. A. See Aksel'rod, S. M.
- Puzyrev, N. N. Regarding application of simplified procedures of observation in the study of the folded basement of the West Siberian Lowland by the method of refracted waves----- 191-612
- Pyatnitskiy, V. K. Determination of the depth of occurrence of magnetized bodies by characteristic points of the curve Z_a or ΔT ----- 191-499

Q

- Qurashi, M. M. See Husain, M. K.
- Qureshy, M. N. Gravimetric-isostatic studies in Colorado ----- 190-326

R

- Rabcewicz, L. von. From tunnel construction practice. Some experiences with true rock pressure ----- 191-679
- Raff, A. D. Further magnetic measurements along the Murray Fault ----- 189-467
- Rafter, T. A. See Lawrence, L. J.
- Ragimov, Sh. S. About a peculiarity of the group velocities of Rayleigh waves ----- 191-120
- Ralph, E. K., and Ackerman, R. K. University of Pennsylvania radiocarbon dates IV ----- 190-25
- Ralph, E. K., and Stuckenrath, Robert, Jr. University of Pennsylvania radiocarbon dates V ----- 190-54
- Rama, and Honda, Masatake. Cosmic-ray-induced radioactivity in terrestrial materials ----- 190-497
- Natural radioactivity in the atmosphere ----- 190-503
- Ramage, C. S. The Hawaii Institute of Geophysics ----- 189-233
- Ramananthan, K. R. See Kotadia, K. M.
- Ramaswamy, G. Discussion of "An evaluation of basement depth determination from airborne magnetometer data" by Peter Jacobsen----- 191-529
- Ramazanade, M. G. See Rostomyan, P. M.
- Ramsayer, K. The accuracy of the gravity reduction of levelings -- 190-303
- Rao, B. S. R., and Bhimasankaram, V. L. S. Studies on magnetic properties in relation to magnetic prospecting of Kodur manganese belt, pt. 3. Correlation of the field results with the laboratory studies ----- 189-443

- Rao, H. N. R., and Chetty, T. N. A method of correlation of measured and calculated resistance of grounding systems: A single driven rod ----- 191-240
- Rao, K. S. R. Lunar and solar geomagnetic tides in the geomagnetic equatorial region. II. Geomagnetic tidal variations at Alibag ----- 190-394
- Lunar geomagnetic tides in the low latitudes region ----- 190-407
- Rao, V. B. See Sarma, V. V. J.
- Raspopov, O. M. Calculation of the vertical gravity gradient from the known distribution of the gravity anomaly on a surface of arbitrary shape ----- 189-295
- Method of calculating the effect of topographic masses on the value of the vertical gradient of gravity ----- 189-296
- Method of determination of the disposition of anomalous bodies according to data of gravity prospecting ----- 188-332
- On the anomalies of the vertical gravity gradient in mountainous region ----- 188-333
- Rastogi, R. G. The effect of geomagnetic activity on the F₂ region over Central Africa ----- 189-389
- Ratthew, A. R. Helicopterborne electromagnetic, magnetic, and radiometric survey, Coronation mine, Saskatchewan ----- 190-246
- Rautian, T. G. Decay of seismic waves and the energy of earthquakes. I ----- 189-96
- Ravich, M. G., and Krylov, A. Ya. Age of the metamorphic complexes of the Taymyr ----- 188-89
- See also Starik, I. Ye.
- Raykher, L. D. See Kharaz, I. I.
- Rechenmann, Julien. Map of isostatic anomalies of the Ivory Coast and of the Bamako and Bobo-Dioulasso areas ----- 189-310
- See also Blot, Claude.
- Reed, J. C., Jr. See Bryant, Bruce.
- Reed, J. J. Survey of developments in the field of rock mechanics - 189-589
- Rees, A. I. See King, R. F.
- Reesor, J. E. Valhalla complex ----- 188-58
- White Creek Batholith ----- 188-57
- Refai, Eglal. Magnetic anomalies and magnetization of basalts in the area around Kemnath (Oberpfalz) ----- 189-437
- Reid, G. C. See Axford, W. I.
- Reinhardt, H. G. Results of seismic reflection reconnaissance measurements in the northeastern Altmark ----- 191-627
- Reinhardt, P. W. See Davis, F. J.
- Rekunov, N. A., Mikhaylov, A. D., Domokurov, I. A., Nazmutdinov, R. Sh., and Igushkin, I. A. Seismic logging station SKS-8-59K ----- 190-565
- Renaud, André. See Oeschger, Hans.
- Renne, O. S. See Balyasnyy, N. D.
- Renner, J. Gravity research in Hungary in the years 1957 through 1959 ----- 191-374
- Repina, V. L. See Chekhovskaya, G. Yu.
- Research Group for Explosion Seismology. Observations of seismic waves from the second Hokoda explosion ----- 190-358
- Reuter, F. Relaxation phenomena in the Rappsbodetal dam excavation, Harz ----- 191-677
- Rexin, E. E., Oliver, J. E., and Prentiss, David. Seismically-induced fluctuations of the water level in the Nunn-Bush well in Milwaukee ----- 189-119

Abstract

- Reynolds, J. H. Isotopic composition of xenon from enstatite chondrites ----- 188-113
 See also Jeffery, P. M., Krummenacher, Daniel, and Merrihue, C. M.
- Reynolds, T. D., and Gloyna, E. F. Creep measurements in salt mines ----- 188-571
- Reysner, G. I. Preparation of maps of velocity gradients of vertical tectonic movements of the crust as exemplified in the northern Tien Shan ----- 188-314
- Rezanov, I. A. Crustal structure in platform areas ----- 189-336
- Tectonics and seismicity of the Turkmen-Khorasan Mountains-- 189-91
- Rezvanov, P. A. See Dvorkin, I. L.
- Rezvanov, R. A. Potentiality of the method of induced activity for quantitative evaluation of oil saturation and other parameters of a stratum----- 189-523
- Ri, Sok-Hang. The direct current dipole method of geoelectrical prospecting ----- 190-193
- Rice, J. A. See Keyser, A. R.
- Rice, J. T. See Deresiewicz, H.
- Rice, R. B. Inverse convolution filters ----- 191-599
- Richards, A. F. Geology of the Islas Revillagigedo, Mexico. 1. Birth and development of Volcano Bárcena, Isla San Benedicto -- 190-612
 See also Machado, Frederico, and Moore, D. G.
- Richards, J. R. Isotopic composition of Australian leads. 2. Experimental procedures and interlaboratory comparisons ----- 189-361
 See also Evernden, J. F.
- Richter, D. H., Moore, J. G., and Haugen, R. T. Recent growth of Halemaumau, Kilauea Volcano, Hawaii ----- 190-608
 See also Ault, W. U.
- Richter, Kurt. Interpretation of telluric measurements by model experience ----- 190-108
- Rigassi, D. A. Faults and earth tides----- 188-192
- Rigsby, G. P. Fabrics of glacier and laboratory deformed ice ---- 189-277
- Rigsby, G. P., and Bushnell, V. C. Proceedings of the third annual Arctic planning session, November 1960 ----- 188-283
- Rikitake, Tsuneji. Geomagnetic bays in Turkey. Part II: A theory on current systems of geomagnetic bays----- 190-406
 — Supplement to paper " S_q and ocean" ----- 190-105
- Rinehart, J. S., and Auberger, Michel. Authors' reply to preceding discussion [Ultrasonic attenuation of longitudinal waves in solids] ----- 190-167
- Rinehart, J. S., Fortin, J. P., and Burgin, Lorraine. Propagation velocity of longitudinal waves in rocks. Effect of state of stress, stress level of the wave, water content, porosity, temperature, stratification and texture ----- 189-153
 See also Auberger, Michel.
- Ringwood, A. E. A model for the upper mantle ----- 190-362
 — Mineralogical constitution of the deep mantle ----- 191-411
- Ringwood, A. E., and Seabrook, Merren. Olivine-spinel equilibria at high pressure in the system Ni_2GeO_3 -Mg SiO_4 ----- 190-366
- Rische, Hans. On the detection and interpretation of deep reflections in the Thuringian Basin ----- 191-624
- Ristić, Vojislav, and Đorđević, Vojislav. Geophysical investigation for graphite bodies at Donja Ljubata ----- 188-255
- Ritsema, A. R. Further focal mechanism studies at De Bilt----- 189-106

- Ritsema, A. R., and Scholte, J. G. J. Note on the determination of the best-fitting plane for a given set of directions ----- 188-175
- Riznichenko, Yu. V. On seismic magnitudes of underground nuclear explosions ----- 188-224
- See also Kárník, Vít, and Vanek, I.
- Roberts, M. S. See Carsey, J. B.
- Robin, G. de G. The ice of the Antarctic ----- 191-267
- Robinson, A. R. See Stewart, R. W.
- Robinson, C. S., and Rosholt, J. N., Jr. Uranium migration and geochemistry of uranium deposits in sandstone above, at, and below the water table. Part II, Relationship of uranium migration dates, geology, and chemistry of uranium deposits ----- 188-14
- Robinson, E., Versey, H. R., and Williams, J. B. The Jamaica earthquake of March 1, 1957 ----- 190-117
- Robinson, E. S. See Crary, A. P.
- Rocard, Yves. On the inequalities of seismic propagation of body waves at long distance ----- 189-163
- Rodenberg, O. C. See Lorenz, P. J.
- Rodionov, P. F. Electric prospecting for pyrite deposits of the Urals by the charge method ----- 188-246
- Rodionov, V. P., and Sidorova, E. P. Results of paleomagnetic investigations in the south part of the Siberian platform and adjacent regions ----- 189-456
- Rodrigues, B. See Asada, Toshi.
- Roethlisberger, Hans. The applicability of seismic refraction soundings in permafrost near Thule, Greenland ----- 189-576
- Rogers, J. J. W. See Adams, J. A. S.
- Rokityanskiy, I. I. Curve of deep magnetotelluric sounding (MTZ) according to data of the Borok Observatory ----- 191-74
- Dispersion of conductivity of groundings and rocks at low frequencies ----- 188-244
- On application of magnetotelluric methods on anisotropic and inhomogeneous massifs ----- 190-109
- Roksandić, M. M. Some geotectonic features of the southeast part of the Tuzla basin according to data of geophysical investigations ----- 188-556
- Roller, J. C., and Black, R. A. Determination of thickness of a basalt flow by electrical resistivity method on Buckboard Mesa, Nevada Test Site, Nye County, Nevada ----- 188-251
- See also Black, R. A., and Warrick, R. E.
- Romaña, Antonio. Geomagnetic rapid variations during IGY and IGC ----- 190-436
- Romanov, Yu. A. See Yermakov, V. I.
- Romanovskiy, V. F. See Alekseyev, F. A.
- Romanyuk, V. A. Determination of gravity acceleration by a gravimeter installed on a moving base ----- 190-319
- Determination of the damping coefficient of a highly damped gravimeter ----- 190-320
- Observations of pendulums on a gyrostabilized platform ----- 190-321
- The effect of co-oscillation of the support on the period of pendulum oscillation ----- 191-363
- Romanyuk, V. A., and Mikisha, A. M. Effect of the geometric form of the knife edge of a pendulum on its movement ----- 190-317
- Romberg, F. E. An oscillating system for a long-period seismometer for horizontal motion ----- 188-188

Abstract

- Roosen, J., and de Feiter, L. D. Details of the relation between type IV-outbursts and sc-geomagnetic storms----- 190-421
- Rose, E. R. Iron and titanium in the anorthosite of St. Urbain, Quebec ----- 188-51
- Rose, H. J., Jr. See Overstreet, W. C., and Ruiz, Carlos.
- Rosemann, Heinz. The effect of coupling of the seismometer to the ground on the transfer of energy ----- 191-610
- Rosholt, J. N., Jr. Uranium migration and geochemistry of uranium deposits in sandstone above, at, and below the water table. Part I, Calculation of apparent dates of uranium migration in deposits above and at the water table----- 188-13
- Rosholt, J. N., Jr., Emiliani, Cesare, Geiss, Johannes, Koczy, F. F., and Wangersky, P. J. Pa/231/Th-230 dating and O-18/O-16 temperature analysis of core A254-BR-C ----- 191-20
- See also Robinson, C. S.
- Rostomyan, P. M., and Ramazanzade, M. G. One cause of certain variations in the geothermal step in oil fields ----- 189-322
- Rothé, J. P. Catalogue of the seismicity of the globe during the years 1958 and 1959 (seismological chronicle) ----- 189-83
- The earthquakes of Chile (May 21 to June 22, 1960) ----- 189-76
- Rothe, Klaus. Radiometric determinations on minerals and rocks (Principles, methods of measurement with counting tube, calibration, and application)----- 191-589
- Rotshteyn, A. Ya. Absolute nuclear-resonance digital magnetometer----- 189-375
- On the resolution power of a nuclear resonance airborne magnetometer ----- 189-465
- See also Pogrebnikov, M. M.
- Rotter, Dietrich. See Kundorf, Woldemar.
- Roubault, Marcel, and Coppens, René. Effect of alteration on the distribution of the radioactive elements in rocks ----- 189-486
- Round, G. F. See Newton, R.
- Roux, Jean. Sequel to volcanic activity in Haute-Auvergne ----- 189-623
- Rowe, M. W., and Van Dilla, M. A. On the radioactivity of the Bruderheim chondrite ----- 190-69
- Rowland, F. S. See Fireman, E. L.
- Roy, Amalendu. Ambiguity in geophysical interpretation ----- 191-274
- Rapid computation of gravity anomalies for irregularly shaped three-dimensional bodies ----- 188-322
- Roy, N. A. See Isakovich, M. A.
- Rozenshtok, Yu. L. See Kaganov, M. A.
- Rozin, A. A. See Dryakhlova, Ye. A.
- Rubin, Meyer, and Berthodl, S. M. U. S. Geological Survey radio-carbon dates VI ----- 190-33
- Rubinshteyn, M. M. Some critical points of the post-Cryptozoic geological time scale ----- 188-82
- Rubinshteyn, M. M., Gel'man, O. Ya., Grigor'yev, I. G., Lashkhi, B. A., Uznadze, E. D., Khutsaidze, A. L., and Chikvaidze, B. G. Problem of compilation of the absolute geochronologic scale ----- 188-9
- Rudakov, V. N., and Bogorodskiy, V. V. On the problem of measuring glacier thickness by electromagnetic methods ----- 189-186
- Ruddock, K. A. See Ward, S. H.
- Rudich, K. N., Sirin, A. N., and Timerbayeva, K. M. State of Ploskiy Tolbachik Volcano in August 1961 ----- 191-694

	Abstract
Rudich, Ye. M. Recent movements of Sakhalin -----	188-315
Ruhe, R. V. Age of the Rio Grande Valley in southern New Mexico -	189-13
Ruiz F., Carlos; Aguirre, Luis; Corvalán, José; Rose, H. J., Jr.; Segerstrom, Kenneth; and Stern, T. W. Ages of batholithic in- trusions of northern and central Chile -----	188-60
Ruiz F., Carlos, and Saint Amand, Pierre. Observations concern- ing the Chilean earthquakes of May 1960-----	190-120
Rulev, B. G., and Kharin, D. A. Seismographs for recording large displacements -----	190-145
See also Kirnos, D. P.	
Runcorn, S. K. Statistical methods in rock magnetism-----	188-418
— Towards a theory of continental drift -----	189-248
Ruprechtová, Libuše, and Vvedenskaya, A. V. On the stresses act- ing at the foci of earthquakes near the bend of the Carpathian arc- -----	190-134
Rusakov, L. S. See Isakovich, M. A.	
Rush, Stanley. Methods of measuring the resistivities of anisotro- pic conducting media in situ -----	191-262
Rushbrook, P. R. See Ehmann, W. D.	
Rusnak, G. A. See Ostlund, H. G.	
Russell, R. D. Isotopic studies and geochronology; VIII-----	189-14
— The evolution of the earth's crust—isotopic evidence -----	189-338
Russell, R. D., and Slawson, W. F. Age of the Cuddapahs, India --	190-20
Russell, W. L., and Steinhoff, R. O. Radioactivity of volcanic sediments in Brazos County, Texas-----	188-472
Rustanovich, D. N., Masaytis, V. L., and Chon, Khen Suk. Seis- micity and the problems of seismotectonics and seismic regional- ization of Korea -----	190-129
Ryabov, V. Z. See Vol'vovskiy, B. S., and Vol'vovskiy, I. S.	
Ryall, Alan. The Hebgen Lake, Montana, earthquake of August 18, 1959-----	189-72
Ryan, J. A. The case against thermal fracturing at the lunar sur- face -----	190-95
Ryan, T. G. See Soberman, R. K.	
Ryazanova, V. N. See Metallova, V. V.	
Rykunov, L. N., and Mishin, S. V. Certain features of propagation of microseisms along continental paths-----	189-480
See also Vasil'yeva, T. L.	
Rýsavý, Josef. The development of Czechoslovak geodesy and car- tography from 1945 to 1960 -----	191-299
Ryss, Yu. S. Main characteristics of variable natural electric fields in the ground and their geologic significance -----	189-169
Ryss, Yu. S., Fokin, A. F., and Shatrov, B. B. The possibilities of electrical prospecting by direct and low frequency currents ---	189-173
Ryzhova, T. V. See Aleksandrov, K. S.	
Rzheusskaya, I. V. See Metallova, V. V.	

S

Sadil, Josef. Target—the moon -----	190-102
Saemundsson, T. Statistics of geomagnetic storms and solar activity -----	189-414
Safronov, V. S. How much of cosmic matter falls on the earth-----	191-65
Sagitov, M. U. Calculation of the second vertical derivative of gravity anomaly, and its application to determination of anoma- listic masses-----	189-294

- Abstract
- Saha, B. P. A preliminary note on short period microseisms recorded by Benioff seismograph at Shillong ----- 190-490
- The seismic Lg waves and their propagation along the granitic layer of the crust of Indian sub-continent ----- 190-140
- Saint Amand, Pierre. The earthquakes of May—Chile 1960 ----- 190-121
- See also Ruiz F., Carlos.
- Saito, Masanori. See Nishimura, Eiichi, and Takeuchi, Hitoshi.
- Saito, Sadao. See Omote, Syun'itiro.
- Saito, Takao. Oscillation of geomagnetic field with the progress of pt-type pulsation ----- 189-404
- See also Kato, Yoshio.
- Saito, Tsuguo. See Kawachi, Yosuke.
- Saito, Yutaka. See Takeshita, Hisashi.
- Saks, M. V. See Karus, Ye. V.
- Sakurai, K. See Maeda, Hiroshi.
- Sala, Ilmari. Experimental studies on the stress concentration index of sea-ice ----- 191-682
- Sales, T. W. See Berry, D. S.
- Salisbury, J. W. The lunar environment ----- 190-100
- Saltykovskiy, A. Ya. See Lyustikh, Ye. N.
- Sancin, S. See Gantar, C.
- Sandstrom, N. See Weber, J. R.
- Sanford, R. L., and Cooter, I. L. Basic magnetic quantities and the measurement of the magnetic properties of materials ----- 191-464
- Sanna, S. See Mattana, N.
- Sano, Shun-Ichi. A study on airborne radioactivity surveying ----- 188-483
- Radioactivity logging of sedimentary rocks in the Jōban district- Sano, Shun-Ichi, Nakai, Junji, and Takei, Yoshiyuki. Geophysical loggings at Tazawa Lake district, Akita Prefecture ----- 188-510
- Sano, Shun-Ichi, Takagi, Shin-Ichiro, and Nakai, Junji. Geophysical loggings at Higashi-Tagawa district, Yamagata Prefecture ----- 188-511
- See also Shibato, Kihei.
- Santo, T. A. Dispersion of Love waves along various paths to Japan (Part 1) ----- 191-404
- Division of the south-western Pacific area into several regions in each of which Rayleigh waves have the same dispersion characters ----- 191-403
- Observation of surface waves by Columbia-type seismograph installed at Tsukuba Station, Japan. (Pt. 1)—Rayleigh wave dispersions across the oceanic basin ----- 188-371
- Rayleigh wave dispersion across the oceanic basin around Japan (Pt. 2) ----- 188-372
- Sarbash, V. F. See Kevorkov, R. A.
- Särchingen, Hellmuth, and Peschel, Gerald. Detection of a hitherto unknown part of the Red Iron Ore layer at the south edge of the Btchenberg anticline by geomagnetic measurements ----- 191-550
- Sardarov, S. S. Bond energy and retention of radiogenic argon in micas ----- 191-11
- Sarma, V. V., Jagannadha, and Rao, V. B. Variation of electrical resistivity of river sands, calcite, and quartz powders with water content ----- 191-261
- Sasa, Yasuo, and Izaki, Akira. Submarine geology of the Tsugaru Straits ----- 191-687
- Sass, J. H. See LeMarne, A. E.
- Sato, Koji. On the types of Japanese volcanic thermal water ----- 189-624
- Sato, Konosuka. See Okabe, Katsuhiko.

	Abstract
Sato, Ryosuke. Love waves propagated across transitional zone ---	189-152
— Short-period elastic surface waves propagated along the surface of a semi-infinite isotropic heterogeneous medium -----	189-148
Sato, Takahiro, and Ao, Shunji. A guyot at the north margin of the West Philippine Sea Basin -----	189-614
Sato, Yasuo, and Matumoto, Tosimatu. Vibration of an elastic globe with a homogeneous mantle over a homogeneous core. Vibrations of the first class -----	190-163
See also Usami, Tatsuo.	
Saull, V. A., Clark, T. H., Doig, R. P., and Butler, R. B. Terrestrial heat flow in the St. Lawrence Lowland of Quebec -----	189-323
See also Doig, R. P.	
Savage, D. E. See Curtis, G. H.	
Savarenskiy, Ye. F., and Kirnos, D. P. Elements of seismology and seismometry -----	188-155
Savarenskiy, Ye. F., and Mey, Shi-yun. Investigation of seismic activity of the territory of China -----	188-164
Savarenskiy, Ye. F., and Obukhov, G. G. On the stability of determination of earthquake intensities according to surface waves -----	188-170
Savarenskiy, Ye. F., Popov, I. I., and Lazareva, A. P. Observations of long period waves of Chilean earthquake of 1960 -----	189-134
See also Kárník, Vít, Vanek, I., and Vasil'yeva, T. L.	
Savill, R. A., Carpenter, E. W., and Wright, J. K. The derivation and solution of indicator equations for seismometer-galvanometer combinations including the effect of seismometer inductance -----	191-124
See also Carpenter, E. W., and Wright, J. K.	
Savinskiy, D. Certain analytic and statistical regularities in gamma surveying of deposits of radioactive elements in natural occurrence and in gamma logging-----	190-511
Savit, C. H., Blue, D. M., and Smith, J. G. Exploration seismic techniques applied to oceanic crustal studies-----	190-581
Savonenkov, V. G. See Komlev, L. V.	
Savul, M., and Pomirleanu, V. V. Paleogeothermal investigations of hydrothermal vein deposits of Baia-Sprie -----	188-368
— Paleogeothermometric investigations on complex sulfide deposits localized in crystalline schists in the Eastern Carpathians in the Rumanian People's Republic. 1. Mineralizations of the Lesul Ursului -----	189-335
Saxov, S. E. The vertical movement of Eastern Greenland (Angmagssalik) -----	189-254
Sazonov, A. M. See Grammakov, A. G.	
Scarf, F. L. Micropulsations and hydromagnetic waves in the exosphere -----	189-399
Searce, C. S. See Ness, N. F.	
Schaefer, D. H. See LaGow, H. E.	
Schaeffer, O. A., Stoenner, R. W., and Bassett, W. A. Dating of Tertiary volcanic rocks by the potassium-argon method-----	188-25
Schaffert, J. C. See LaGow, H. E.	
Schäffner, H. J. Interpretation of focal mechanisms by means of asymmetrical dislocations -----	189-113
Schatenstein, A. I., Jakowlewa, E. A., Swjaginzewa, E. N., Warschawski, Ja. M., Israilewitsch, E. A., and Dychno, N. M. Isotope analysis of water -----	188-381
Scheerer, L. D. See Keyser, A. R.	

- Abstract
- Scheidegger, A. E. Niveal effects ----- 189-259
- Stresses in the earth's crust as determined from hydraulic fracturing data ----- 191-666
- The tectonics of Asia in the light of earthquake fault-plane ----- 189-111
- Underground stresses ----- 188-312
- Schell, W. R. See Dorn, T. F.
- Scherbak, M. P. See Burkser, Ye. S.
- Schilling, G. F. Meteorites—Their origin and properties ----- 189-42
- Origin of tektites ----- 189-60
- Schmerling, E. R. See Goldberg, R. A.
- Schmidt, R. A. Temperatures of mineral formation in the Miami-Picher district as indicated by liquid inclusions ----- 191-394
- Schmidt, R. G. Aeroradioactivity survey and areal geology of the Hanford Plant area, Washington and Oregon (ARMS-1) ----- 191-593
- Aeroradioactivity survey and areal geology of the Savannah River plant area, South Carolina and Georgia ----- 189-499
- Schneekloth, Heinrich. See Geyh, M. A., and Wendt, Immo.
- Schneider, Götz. Propagation of microseisms in northern and central Europe ----- 190-486
- Schneider, Manfred. A remark on the determination of the natural period of horizontal pendulums ----- 190-151
- Schnetzler, C. C. See Pinson, W. H., Jr.
- Scholte, J. G. J. See Ritsema, A. R.
- Schombierski, A. See Hereth, A.
- Schulze, Reinhard. Automation of the sea gravimeter Gss2 ----- 191-355
- Schumacher, Ernst. See Oeschger, Hans.
- Schürmann, H. M. E. The Riphean of the Red Sea area ----- 190-19
- Schwarcz, H. P. A possible origin of tektites by soil fusion at impact sites ----- 189-59
- See also Fitch, Frank.
- Schwarz, U. See Gfeller, Chr.
- Science Council of Japan. Proceedings of the second world conference on earthquake engineering ----- 188-178
- Sciuti, S. See Giannini, M.
- Seabrook, Merren. See Ringwood, A. E.
- Seafeldt, C. A. See Press, Frank.
- Segerstrom Kenneth. See Ruiz F., Carlos.
- Segre, A. G. See Gantar, C.
- Sehnal, L. The effect of the equatorial ellipticity of the earth's gravitational field on the motion of a close satellite ----- 191-332
- Seigel, H. O. Induced polarization and its role in mineral exploration ----- 190-187
- Sell Cantalapiedra, J. I., and Gutiérrez Díez, J. L. Geophysical investigation in the lignites of Majorca ----- 190-232
- Sellevoll, M. A. See Berckhemer, Hans.
- Semenenko, N. P. Age of metamorphism of the rocks of the Rakhov massif ----- 188-80
- Geochronological scale of the Precambrian according to measurements in the Academy of Sciences of the Ukraine SSR ----- 188-5
- Semenov, A. S. Ore geophysics in the USSR ----- 190-264
- Semenov, G. S. See Grumbkov, A. P.
- Sengbush, R. L. Stratigraphic trap study in Cottonwood Creek field, Big Horn Basin, Wyoming ----- 191-618
- Sen'ko-Bulatnyy, I. N. See Bulashevich, Yu. P.
- Serabryakova, Z. D. See Alferov, B. A., and Kozlov, I. G.

	Abstract
Serata, Shosei. Transition from elastic to plastic states of rocks under triaxial compression -----	188-573
Serata, Shosei, and Gloyna, E. F. Design principles for underground salt cavities -----	189-600
Serbulenko, M. G. Correlation method of interpretation of two-dimensional potential fields -----	191-515
— On correlation interpretation of higher derivatives of two-dimensional potential fields -----	191-517
Serdengecti, S., and Boozer, G. D. The effects of strain rate and temperature on the behavior of rocks to triaxial compression ---	188-574
Serdyukova, A. S. See Kapitanov, Yu. T.	
Serebryakov, Ye. B. See Pavlovskiy, V. I.	
Serebryanny, L. P. On development of an absolute chronological scale of the upper Pleistocene and Holocene by the radiocarbon method -----	189-10
Serikov, M. I. Determination of the modulus of elasticity of ice by the resonance method -----	189-608
— Mechanical properties of Antarctic sea ice -----	191-683
Serra, A. See Mattana, N.	
Servant, J., and Tanaevsky, Olga. Measurement of natural radioactivity in the Paris region -----	189-491
Service Hydrographique de la Marine and Compagnie Générale de Géophysique. Tidal gravity corrections for 1962 -----	189-303
Seto, Takao. See Inoue, Eiji.	
Seya, Kiyoshi. A theoretical consideration of radioactive intensity in the air -----	191-586
— Consideration of spontaneous polarization potential at the Oage pyrite mine, Aomori Prefecture -----	189-178
Shabanov, B. A. On improving the accuracy of processing tellurograms -----	190-113
Shabanov, B. A., and Gorelov, L. A. Results of testing the method of telluric currents in the border zone of the Peri-Caspian depression -----	191-76
See also Gorelov, L. A.	
Shabanov, P. F. See Vilesov, Ye. N.	
Shabanov, S. F. See Tsaturyants, A. B.	
Shadle, L. G. See Lorenz, P. J.	
Shagam, Reginald. See Bass, M. N.	
Shaginyan, S. A. The results of instrumental determination of dynamic characteristic of coefficient -----	189-89
Shakhmaliyev, R. N. See Ismet, A. R.	
Shakina, V. Determination of reservoir properties and the position of the water-oil contact by geophysical and radiometric methods -	190-215
Shalayev, S. V. Application of the function of a complex variable to geological interpretation of gravity and magnetic data-----	191-496
Shamina, O. G. Investigation of elastic waves on two-dimensional bimorphous models -----	190-171
— Model investigation of head waves and reflected waves beyond the critical angle -----	190-170
— Study of dynamic characteristics of longitudinal waves in layers of various thickness -----	191-172
Shamina, O. G., and Lebedeva, F. V. On transformed waves on models of the crust and the mantle -----	191-167
See also Silayeva, O. I.	
Shand, J. A. See Duffus, H. J.	

Abstract

- Shangareyev, F. L. See Ovchinnikov, L. N.
- Shan'gin, N. V. An arrangement for modeling seismic processes -- 189-571
 — Seismic station for engineering-geological investigations ----- 189-572
- Shan'gin, N. V., and Vilenskaya, S. M. Study of elastic properties and seismic wave velocities in the interior of the earth from drill cores ----- 188-214
- Shanin, L. L. See Afanas'yev, G. D., and Slepnev, Yu. S.
- Shapiro, D. A. Application of the radioactive methods for investigation of drill holes in the Tatar ASSR ----- 189-539
 — Control of boreholes condition by the neutron-gamma logging method ----- 190-520
- Shapiro, D. A., and Neyman, V. S. Evaluation of porosity of strata according to SP diagrams ----- 190-218
- Shapiro, Ralph. See Silverman, S. M.
- Shapley, A. H. International Geophysical Calendar for 1962 ----- 189-234
- Shaposhnikov, D. P. Study of Lipovskiy Khutor meteorite ----- 189-57
- Shapovalov, O. M. An experiment in applying the method of induced polarization ----- 190-191
- Sharp, R. P., and Epstein, Samuel. Oxygen-isotopes ratios and glacier movement----- 189-278
- Shashkin, V. L. See Troitskiy, S. G.
- Shatrov, B. B. See Ryss, Yu. S.
- Shats, M. M. See Starik, I. Ye.
- Shaub, Yu. B. Apparatus for electric prospecting by the method of variation of resonance frequency of the generating circuit ----- 189-166
 — Experimental verification of features of the method of a rotating magnetic field ----- 188-243
 — On the effect of the specific resistance of the country rock on the form of anomalistic curves in airborne electrical prospecting --- 191-217
 — On the utilization of measurements of the parameters of the frame of the generating circuit in electrical prospecting on sonic frequencies----- 189-165
- Shaw, S. H., and Cole, J. A. The use of the electrical resistivity method for prospecting deep leads in the Jos Plateau tinfield ---- 190-209
- Shawe, F. R. See Jackson, W. H.
- Shcherbakov, A. V. See Tokarev, A. N.
- Shcherbakov, D. I. The absolute age scale for geologic formations- 189-4
- Shcherbinskiy, V. G. See Burov, B. M.
- Shcherbo, M. N. See Vasil'yev, Yu. I.
- Shebalin, N. V. On calculation of variations of parameters of electrodynamic seismographs----- 191-147
 See also Kárník, Vít, Kirnos, D. P., Moskvina, A. G., and Vanek, I.
- Shechkov, B. N., and Solov'yeva, O. N. On group velocities of Rayleigh waves for a composite continent-ocean path ----- 189-349
- Sherwood, J. W. C. The Seismoline, an analog computer of theoretical seismograms ----- 191-600
- Sherwood, J. W. C., and Spencer, T. W. Signal-to-noise ratio and spectra of explosion-generated Rayleigh waves ----- 191-151
- Shestakov, G. I. See Zhironov, K. K.
- Shibata, Ken. See Miller, J. A.
- Shibato, Kihei; Iida, Kumizi; and Sano, Shun-Ichi. Geophysical prospecting studies of uranium resources at Hirase Mine, Gifu Prefecture ----- 190-213
 See also Endo, G.

- Shido, Fumiko, See Miller, J. A.
- Shields, W. R., Garner, E. L., and Dibeler, V. H. Absolute isotopic abundance of terrestrial silver ----- 189-364
- Shilin, A. K. See Shumenkova, Yu. M.
- Shima, M., and Thode, H. G. The sulfur isotope abundances in Abee and Burderheim meteorites ----- 190-73
- Shimazu, Yasuo. Physical theory of generation, upward transfer, differentiation, solidification, and explosion of magmas ----- 190-353
- Thermodynamics of tectogenesis ----- 191-301
- Shimbirev, B. P. See Brovar, V. V.
- Shimelevich, Yu. S. See Alekseyev, F. A., Odinkov, V. P., and Yerozolimskiy, B. G.
- Shimozuru, Daisuke. Seismologic study of Nyiragongo Volcano ---- 188-595
- Shipek, C. J. See Carsola, A. J.
- Shirinyan, K. G., Karapatyan, G. A., and Gykasyan, P. Kh. Petrography and absolute age of the Subatan intrusive ----- 188-81
- Shirokov, A. S. Methods of geophysical work in prospecting for mineral resources ----- 190-247
- See also Karpushin, D. M.
- Shirokova, Ye. I. See Balakina, L. M.
- Shkol'nikov, A. S. See Alekseyev, F. A., and Yerozolimskiy, B. G.
- Shneiderov, A. J. On the internal temperature of the earth ----- 188-363
- Radioactively induced stratification and discontinuity zones of the earth ----- 191-577
- The plutono- and tectonophysical processes in an expanding earth ----- 189-252
- Shneyerson, M. B. Interpretation of traveltimes curves of refracted waves in prospecting on flat platform structures ----- 188-535
- Shnurman, G. A. Experience in the application of radiometric methods in the oil areas of the east cis-Caucasus ----- 189-540
- Shoemaker, E. M. Exploration of the moon's surface ----- 189-67
- Shoemaker, E. M., Gault, D. E., and Lugn, R. V. Shatter cones formed by high speed impact in dolomite ----- 188-130
- Sholpo, G. P. See Gasanenko, L. B., and Van'yan, L. L.
- Sholpo, L. E. See Yanovskiy, B. M.
- Shor, G. G., Jr. Seismic refraction studies off the coast of Alaska ----- 189-339
- Shport, L. P. See Yepinat'yeva, A. M.
- Shraybman, V. I. See Vol'vovskiy, I. S.
- Shreve, R. L. The borehole experiment on Blue Glacier, Washington ----- 191-315
- Shteynberg, V. V. Recording of earthquakes with high speed scanning ----- 190-146
- Shukolyukov, Yu. A. See Gerling, E. K.
- Shuleshko, P. A method of integration over the boundary for solving boundary value problems ----- 188-292
- Shul'ts, S. S. Fundamental geostructural elements of the earth according to data on recent tectonics of the U. S. S. R. ----- 191-310
- Shumenkova, Yu. M., and Shilin, A. K. Research drill holes of the U. S. S. R. Maksimkin Yar research drill hole (Tomsk district) --- 189-219
- Shumskiy, P. A. Glaciological investigations in Antarctica ----- 190-252
- The mechanism of ice straining and its recrystallization ----- 189-606
- See also Lazarev, G. Ye.
- Shumway, George. See Carsola, A. J.

	Abstract
Shurbet, D. H. Note on use of a Sofar geophone to determine seismicity of regional oceanic areas -----	191-89
Shuval-Sergeyev, N. M. See Artamonov, L. V.	
Shvank, O. A. Calculation of the first and second derivatives of gravity anomalies -----	191-343
Shvedov, V. P., Gritchenko, Z. G., and Gedonov, L. I. Concentration of Be-7 in ground-level air and atmospheric precipitations -----	191-581
Sidorova, E. P. See Rodionov, V. P.	
Signer, Peter. See Geiss, Johannes	
Silayeva, O. I., and Shamina, O. G. Absorption of ultrasonics in granites -----	189-155
Silin, Yu. I. See Starik, I. Ye.	
Silverman, S. M., Ward, Fred, and Shapiro, Ralph. The correlation between 5577 Å night airglow intensity and geomagnetic activity -----	190-398
Simáné, Jindřich. The "Příbram A" seismoacoustic station -----	191-671
Simeon, G., and Sposito, A. Preliminary report on a peculiarity in the variations of the earth's magnetic field -----	191-439
Simin, Dina. Determination of density in the territory of Vojvodina -----	188-354
Simonenko, T. N. Calculation of derivatives of the "pseudogravitational" field according to magnetic survey data for the case of a plane problem -----	191-502
— On the problem of determination of the direction of magnetization of bodies in their natural occurrence -----	191-513
Singer, S. F. Theory of magnetic storms -----	190-428
Sinno, Kenji. Method of magnetic storm forecasting from the activities of flares accompanied by solar radio noise outbursts -----	189-411
— On the great solar flare which started at 21h09m, February 9th, 1958, as the likely source of geomagnetic storm, February 11th -----	189-419
Siráň, Gustáv. On the determination of secular changes in the geomagnetic field -----	190-393
Sirin, A. N. See Markhinin, Ye. K., and Rudich, K. N.	
Skillman, T. L. See Ness, N. F.	
Skoblikova, G. I. See Komarov, S. G.	
Skolnick, H. Ancient meteoritic dust -----	188-128
Skorupa, Jan. Geophysical aspects of CMEA meeting in Prague -----	188-296
— Methods of geophysical work in exploration for oil and gas deposits in Poland -----	188-297
Skosyreva, L. N. See Yermakov, V. I.	
Skrzat, Zofia. Investigation of radioactivity of pegmatites from the Szklarska Poręba region by the method of nuclear plates -----	188-485
Skur'yat, A. N. A small size illuminator (MO) for tiltmetric and seismic recording -----	191-126
Slautsitays, I. P. See Komissarova, R. A.	
Slawson, W. F., and Austin, C. F. A lead isotope study defines a geological structure -----	189-362
See also Austin, C. F., and Russell, R. D.	
Slepnev, Yu. S., and Shanin, L. L. Absolute age of the rare-metal pegmatites of the eastern Sayan -----	191-27
Śliwiński, Zygmunt, and Soja, Zbigniew. Practical method of construction of seismic reflection profiles -----	189-558
Sluchanko, Z. Ye. See Kevorkov, R. A.	
Smirnov, L. P. See Gaynanov, A. G.	
Smith, D. E. An evaluation of the odd harmonics in the earth's gravitational field -----	191-331

	Abstract
Smith, D. E. Determination of the earth's gravitational -----	191-330
Smith, E. J. A comparison of Explorer VI and Explorer X magne- tometer data -----	189-402
Smith, E. J., and Sonett, C. P. Satellite observations of the dis- tant field during magnetic storms -----	190-415
Smith, H. W. See Duesterhoeft, W. C., Jr.	
Smith, J. G. See Savit, C. H.	
Smith, J. H. Geothermal energy—United Nations Conference on new sources of energy. Commentary -----	188-362
Smith, R. F., Eby, R. E., and Turok, C. W. Variations in iso- topic content of natural uranium -----	188-388
Smith, W. E. Geophysics on the move -----	190-254
Smithson, S. B. A regional gravity study over the Permian Baerum cauldron of the Oslo region -----	189-314
Soare, Alexandra. See Constantinescu, Liviu.	
Soare, Andrei. See Constantinescu, Liviu.	
Sobakar, G. T. See Lebedev, T. S.	
Soberman, R. K., and Hemenway, C. L. Micrometeorite collection from a recoverable sounding rocket, Article III -----	190-91
Soberman, R. K., Hemenway, C. L., Ryan, T. G., Chrest, S. A., Frissora, J., and Fullman, E. F. Micrometeorite collection from a recoverable sounding rocket, Article I -----	190-89
See also Hemenway, C. L.	
Sobolev, G. A. See Volarovich, M. P.	
Sobotovitch, E. V. Possibility of determining the absolute age of the granites of the Terskey Ala-Tau by the lead included in them ----	188-92
See also Starik, I. Ye.	
Sobouti, Y. The relationship between unique geomagnetic and auro- ral events -----	190-414
Soja, Zbigniew. See Śliwiński, Zygmunt.	
Sokhranov, N. N. On the transition zone and determination of the water-oil contact according to geophysical measurements -----	190-220
— Quantitative interpretation of electrical logging data in a transi- tion zone -----	188-262
Sokolov, A. D. See Grumbkov, A. P., and Matveyev, V. V.	
Sokolov, A. F. See Koryagin, V. V.	
Solaini, Luigi. See Morelli, Carlo.	
Solonenko, V. P. On irregularity of distribution of shock intensity of earthquakes on the surface of the earth -----	191-100
— The Gobi-Altay earthquake -----	191-78
Solov'yev, O. A. Application of the two-dimensional integral trans- formation of Fourier for interpretation of magnetic anomalies ---	191-519
— Method of interpretation of magnetic anomalies from their ver- tical and horizontal gradient Z_a -----	191-497
— Some problems of transformation of curves of observed values of magnetic potential derivatives -----	191-516
— The method of determination of the ratio I/σ of obliquely mag- netized bodies of arbitrary forms according to the values of Z_a and V_{zx} -----	191-498
Solov'yev, S. L. See Kárník, Vít, and Vanek, I.	
Solov'yev, V. N. Automatic device for controlling the recording of seismographs AUZ-I -----	191-133
See also Kirnos, D. P., and Ye, Shi-Yan'.	
Solov'yeva, O. N. See Shechkov, B. N.	

	Abstract
Soluyan, S. I., and Khokhlov, P. V. Propagation of acoustical waves of finite amplitude in a dissipative medium -----	191-173
Somerton, W. H. Additional thermal data for porous rocks—Thermal expansion and heat of reaction -----	188-364
Sonett, C. P. See Smith, E. J.	
Sonntag, Klaus. See Grosse, Siegfried, and Kopf, Manfred.	
Sørensen, Henning. See Buchwald, Vagn.	
Sorenson, John. See Lecar, Myron.	
Sougy, J. West African fold belt-----	190-283
Soyer, Robert. See Horon, Octave.	
Spears, D. A. The distribution of alpha radioactivity in a specimen of Shap granite -----	188-474
Spencer, T. W. See Sherwood, J. W. C.	
Spiridovich, G. N. See Molochnov, G. V.	
Sponheuer, Wilhelm. Methods of focal depth determination in macroseismics-----	190-130
Sposito, A. See Simeon, G.	
Spreiter, J. R., and Alksne, A. Y. On the effect of a ring current on the terminal shape of the geomagnetic field -----	190-381
Spreiter, J. R., and Briggs, B. R. Analysis of the effect of a ring current on whistlers -----	191-430
Springer, D. L. See Werth, G. C.	
Sprintsson, V. D. See Bobrov, V. A., Murina, G. A., and Polevaya, N. I.	
Squires, R. K. See O'Keefe, J. A.	
Srivastava, B. J. See Pisharoty, P. R.	
Stacey, F. D. Theory of the magnetic properties of igneous rocks in alternating fields -----	189-423
Stacey, F. D., Lovering, J. F., and Parry, L. G. Reply to preceding discussion [Thermoelectric currents in meteorites]-----	188-106
Stackler, W. F. See Thyssen-Bornemisza, Stephen.	
Stahl, W. See Buttlar, H. von.	
Stalinsky, P. See Pounder, E. R.	
Stam, J. C. Modern developments in shallow seismic refraction techniques -----	189-561
Standard, J. C. Submarine geology of the Tasman Sea -----	188-585
Stankevich, L. I. Research drill holes of the USSR Pestovo research well (Novgorod Region) -----	191-258
Starik, I. Ye., and Arslanov, Kh. A. Age according to radiocarbon of some samples from the Quaternary period -----	188-75
Starik, I. Ye., Krylov, A. Ya., Ravich, M. G., and Silin, Yu. I. The absolute ages of east Antarctic rocks -----	188-101
Starik, I. Ye., Nikolayev, D. S., Kuznetsov, Yu. V., and Legin, V. K. Radioactivity of Black Sea sediments -----	190-500
Starik, I. Ye., Sobotovich, E. V., Lovtsyus, G. P., Shats, M. M., and Lovtsyus, A. V. On the problem of the isotopic composition of lead of iron meteorites -----	191-46
Starik, I. Ye., Sobotovich, E. V., Shats, M. M., and Lovtsyus, G. P. Uranium and lead in tektites-----	188-134
Stauder, William. An application of S waves to focal mechanism studies -----	189-105
— S-wave studies of earthquakes of the north Pacific; Part I: Kamchatka -----	191-132
Stauffer, Heinz. On the production ratios of rare gas isotopes in stone meteorites -----	190-81

	Abstract
Stauffer, Heinz, and Honda, Masatake. Cosmic-ray-produced V-50 and K-40 in the iron meteorite Aroos -----	190-76
Stearns, H. T. Eustatic shorelines on Pacific islands -----	190-267
Steenland, N. C. Gravity and aeromagnetic exploration in the Paradox Basin-----	191-543
Ștefănescu, S. S.; Airinei, Ștefan; Botezatu, Radu; Ionescu, Florian; Popovici, Dorin; and Stoenescu, Scarlet. Geophysical exploration for iron in the vicinity of Constanta -----	188-463
Ștefănescu, S. S., and Nabighian, M. N. Concerning lines of the magnetic field of an input line AB -----	188-241
— On the magnetic perturbation field generated by vertical beds in a direct current -----	188-242
Șteflea, Vladimir. See Constantinescu, Liviu.	
Steinbrugge, K. V., and Cloud, W. K. Epicentral intensities and damage in the Hebgen Lake, Montana, earthquake of August 17, 1959 -----	189-71
Steinemann, Samuel. Thermodynamics and mechanics of ice at the melting point -----	189-272
Steinhart, J. S., and Meyer, R. P. Minimum statistical uncertainty of the seismic refraction profile -----	189-560
See also Asada, Toshi.	
Steinhoff, R. O. See Russell, W. L.	
Stelzer, Johannes. Determination of the magnitude equations for the Potsdam seismic station -----	188-169
Stenin, P. A. See Tslav, L. Z.	
Stenson, H. R. Geophysical case history of the Alturitas concession, state of Zulia, western Venezuela -----	188-287
Stephenson, G. The gravitational instability of an infinite homogeneous rotating viscous medium in the presence of a magnetic field-----	189-287
Stern, T. W. See Grünenfelder, M., Overstreet, W. C., Pearson, R. C., and Ruiz F., Carlos.	
Stewart, D. B. See Ault, W. U.	
Stewart, R. W., Carrier, G. F., Robinson, A. R., and Stommel, Henry. Heat flux from the ocean bed produced by dissipation of the tides -----	189-320
Stewart, S. W., and Diment, W. H. Frequency content of seismograms of nuclear explosions and aftershocks-----	188-181
Stiller, Heinz, Frölich, Friedrich, and Wagner, F. C. Changes of state in magnetic rock samples. The thermomagnetic behavior of the vein material (magnetite) of serpentinite samples -----	188-419
See also Frölich, Friedrich.	
Stipp, J. J., Davis, E. M., Noakes, J. E., and Hoover, T. E. University of Texas radiocarbon dates I -----	190-43
Stockwell, C. H. Structural provinces, orogenies, and time classification of rocks of the Canadian Precambrian shield -----	188-1
Stockwell, C. H., and Wanless, R. K. Canadian shield age program of the Geological Survey of Canada -----	188-52
Stoenescu, Scarlet. See Ștefănescu, S. C.	
Stoenner, R. W. See Schaeffer, O. A.	
Stoian, E. Geophysical applications of computers -----	190-260
Stolovitskiy, B. M. See Bedcher, A. Z.	
Stommel, Henry. See Stewart, R. W.	
Stovas, M. V. Importance of irregularities in the earth's rotation in the formation of planetary deep fractures in the earth's crust -	189-242

Abstract

- Strakhov, V. N. Approximations of functions on a half-axis and application of similar approximations to calculation of integrals used in interpretation of magnetic and gravity anomalies ----- 191-494
- Construction of quadrature formulas with almost equal coefficients ----- 191-495
- Experience in interpretation of magnetic anomalies of the KMA by the method of ΔZ isolines construction in a vertical plane ---- 190-468
- On calculation systems for analytic extension of potential fields. 1 ----- 188-437
- Strangway, D. W. See Gross, W. H.
- Straus, W. L., Jr., and Hunt, C. B. Age of Zinjanthropus ----- 190-18
- Streckeisen, Albert. See Jäger, Emilie.
- Stroiteleva, A. V., and Kulikova, M. V. Short review of geophysical study of the presence of iron deposits in central Kazakhstan-- 191-553
- Stuart, D. J. Gravity study of crustal structure in western Washington----- 188-347
- Stuart, D. J., and Wahl, R. R. A detailed gravity profile across the Southern Rocky Mountains, Colorado ----- 188-341
- Stuchenrath, Robert, Jr. See Ralph, E. K.
- Studt, F. E., and Doyle, D. Electric power generation from geothermal steam at Wairakei, New Zealand----- 190-348
- Stuiver, Minze, and Deevey, E. S. Yale natural radiocarbon measurements VI ----- 190-36
- Yale natural radiocarbon measurements VII ----- 190-59
- See also Washburn, A. L.
- Stupak, N. K. Application of geophysical methods in prospecting for nickel silicate deposits in the middle Dnieper region ----- 191-552
- Subbotin, S. I., and Naumchky, G. L. Concerning the paper by P. Ya. Galushko "On the possibility of determining the cause of vertical movements of the earth's crust from gravity anomalies"- 189-241
- Suda, Yoshiro. On the calibration of the North American gravimeter AGI-108 and AGI-157 ----- 189-301
- See also Matsuda, Takeo.
- Suelter, C. H. See Boyer, P. D.
- Suess, H. E. Thermodynamic data on the formation of solid carbon and organic compounds in primitive planetary atmosphere----- 190-62
- Suess, H. E., and Wänke, H. Radiocarbon content and terrestrial age of twelve stony meteorites and one iron meteorite ----- 190-86
- See also Bainbridge, A. E., and Hubbs, C. L.
- Suga, M. See Ono, Yoshihiko.
- Sugiura, Masahisa. A note on the DS variation of geomagnetic storms: A critical examination of method of analysis----- 190-441
- A study of the morphology of geomagnetic storms ----- 190-440
- Asymmetry of Dst variations of geomagnetic storms with respect to the geomagnetic equator ----- 188-412
- Evidence of low frequency hydromagnetic waves in the exosphere ----- 189-369
- Sugiura, Masahisa, and Chapman, Sydney. The average morphology of geomagnetic storms with sudden commencement ----- 190-443
- See also Wilson, C. R.
- Sugiyama, Tomonori, and Horikawa, Yoshio. Radiometric survey with car-mounted instrument at the surroundings of Mt. Asahidake----- 188-490
- Sugiyama, Tomonori, and Komai, Jiro. Airborne radiometric survey in the western part of Mt. Asahidake ----- 188-496

Abstract

- Sukhodol'skiy, V. V. The PNU device for investigation of tilts and accelerations in gravity determinations at sea ----- 191-361
 See also Aleksandrov, S. Ye.
- Sulimov, I. N. Research drill holes of the U. S. S. R. Zhigalov research drill hole (east Siberia) ----- 190-235
- Sultanov, B. I. Some causes of geothermal anomalies in the Apsheron oil region ----- 189-325
- Sultanov, D. D. See Pasechnik, I. P.
- Sultanova, Z. Z. See Bagdasarova, A. M.
- Šumi, Franč. Geophysical investigations for chromite ----- 188-299
- Sumi, Kiyoshi. See Nakamura, Hisayoshi.
- Suoninen, E. J. On the correction to be applied for variations in the mutual position of the transmitter and receiver in airborne electromagnetic measurements -- ----- 190-186
- Sutton, G. H. Note on long-period noise in seismographs ----- 190-142
- Suyama, Junji. On the interpretation of S. P. log ----- 189-211
 See also Kojiro, T., and Ono, Yoshihiko.
- Suzuki, Ziro, and Ishida, Haruko. On the surface waves of Aleutian, Alaska Philippine earthquakes ----- 189-348
 — On the surface waves of Kamchatka earthquakes ----- 189-347
 See also Kato, Yoshio.
- Svatkov, N. M. Ice movement in Shokalskiy Glacier ----- 191-323
- Sveshnikov, G. B., and Dorofeyeva, M. K. Certain electrochemical properties of sulfide minerals ----- 188-279
- Svetov, B. S. Role of the procedure for exciting a field in the low-frequency inductive method of electrical porspecting----- 191-215
- Svetov, B. S., and Turchin, Yu. A. A simplified apparatus for amplitude-phase measurements of a low frequency electromagnetic field (AFI-U) ----- 190-206
- Svyatlovskiy, A. Ye. Thermal underground waters of the Kamchatka and the role of recent tectonics and volcanism in their dynamics ----- 190-346
- Swain, R. J. Recent techniques for determination of "in-situ" elastic properties and measurement of motion amplification in layered media ----- 189-565
- Swanson, H. E. Model studies of an apparatus for electromagnetic prospecting ----- 189-188
- Swift, L. M. Intermediate range earth motion measurements----- 191-210
 See also Adams, W. M.
- Swthinbank, Charles. Ice movement island ----- 191-319
- Swjaginzewa, E. N. See Schatenstein, A. I.
- Syromyatnikov, N. G. See Koshelev, I. P.
- Sysoyev, N. N., Udintsev, G. B., Neprochnov, Yu. P., and Kovylin, V. M. Seismoacoustic studies of the ocean bottom and problems of tectonics ----- 189-616
- Szabo, Bela. The external terrestrial gravity field ----- 190-297

T

- Taagepera, R., and Nurmia, M. On the relations between half-life and energy release in alpha decay ----- 189-484
- Tabata, Tadashi. Studies on mechanical properties of sea ice, IV. Bending tests of sea ice beams ----- 189-603
- Takagi, Akio. See Kato, Yoshio.
- Takagi, Shin'ichiro. See Nakamura, Hisayoshi, Ono, Yoshihiko, and Sano, Shun-Ichi.

Abstract

- Takahashi, Takehito. Dispersion curves for the higher modes of surface waves in heterogeneous media ----- 191-160
- The dispersion of Love waves in heterogeneous half space overlain by a homogeneous layer ----- 191-159
- Takaku, Koshun. See Nomura, Yukichi.
- Takano, Minoru. Brief considerations on rupture of arch dam abutment ----- 191-676
- Takashima, Y. See Dorn, T. F.
- Takei, Yoshiyuki. See Sano, Shun-Ichi.
- Takeshita, Hisashi; Saito, Yutaka; and Momose, Kanichi. Palaeomagnetisms and volcanic geology of the Shigarami formation ---- 191-490
- Takeuchi, Hitoshi, and Kobayashi, Naota. Torsional oscillations of the earth (pt. 3). Appendix: Torsional oscillations of the moon - 188-210
- Takeuchi, Hitoshi, Saito, Masanori, and Kobayashi, Naota. Statical deformations and free oscillations of a model earth ----- 189-354
- Study of shear velocity distribution in the upper mantle by mantle Rayleigh and Love waves ----- 190-363
- See also Nishimura, Eiichi.
- Talobre, Joseph. Ten years of measurements of internal compression of rocks; progress and practical results ----- 191-667
- Tal'virskiy, B. B., and Fomin, V. M. Nature of the magnetic and gravity anomalies of the Bukharo-Khivin oil-gas area and of Kyzyl-Kum ----- 191-377
- See also Vol'vovskiy, B. S.
- Tal'virskiy, D. B., and Khakhlev, Ye. M. Surface structure of the pre-Jurassic basement in the lower reaches of the Yenisey River according to seismic prospecting ----- 191-633
- See also Vol'vovskiy, B. S.
- Tal'yanskiy, I. I., Bilen'kiy, B. F., and Dragan, Ya. P. To the theory of neutron logging ----- 189-520
- Tamao, T. See Kato, Yoshio.
- Tamrazyan, G. P. Periodicity of seismic activity in the course of the last fifteen hundred to two thousand years (in the example of Armenia) ----- 191-91
- Tanaevsky, Olga. See Servant, J.
- Tandon, A. N. Seismic recording at Delhi of the Russian nuclear explosions on 23 and 30 October 1961 ----- 190-176
- Taneda, Sadakatu. Moving of the magma chamber of the Sakurajima Volcano ----- 189-620
- Temperature variation of active crater—Short communication on the Naka-dake crater of the Aso Volcano ----- 188-594
- Tanner, J. G., and Uffen, R. J. Gravity anomalies in the Gaspé Peninsula, Quebec ----- 189-307
- Tanner, W. F. Components of the hypsometric curve of the earth-- 190-273
- Tarakanov, Yu. A. See Artem'yev, M. E.
- Tarczy-Hornoch, Antal. On the determination of earthquake focuses ----- 188-168
- On the localization of seismic focuses in mining districts ----- 189-566
- Tarkhov, A. G. See Bondarenko, V. M.
- Tateishi, Tetsuo. See Matsuda, Takeo.
- Tatevosyan, L. K. Some features of the deep structure of the crust in the region of the Caucasus according to gravimetric data----- 190-355
- Tauber, Henrik. Copenhagen radiocarbon dates V ----- 190-41
- Danish carbon-14 dating results I ----- 190-60

- Taylor, H. P., Jr., and Epstein, Samuel. Relationship between O^{18}/O^{16} ratios in coexisting minerals of igneous and metamorphic rocks. Pt. 1. Principles and experimental results ----- 190-376
 — Relationship between O^{18}/O^{16} ratios in coexisting minerals of igneous and metamorphic rocks. Pt. 2. Application to petrologic problems ----- 190-377
- Taylor, S. R. Fusion of soil during meteorite impact, and the chemical composition of tektites ----- 191-66
- Tazieff, Haroun. See Blot, C., and Healy, James.
- Tazime, Kyozi. May M-waves be classified into two major branches ----- 188-209
 — Ray-theoretical construction of dispersive Rayleigh waves ----- 191-161
 — Reflection and refraction coefficients of elastic plane waves on a plane boundary ----- 188-199
- Tazime, Kyozi, and Hamada, Kazuo. Transition from dispersive Rayleigh waves to sound waves in a layer overlying a liquid half space ----- 188-205
 See also Okada, Hiroshi.
- Teisseyre, Roman. A dislocation theory of the earthquake processes ----- 188-174
- Telyakova, Z. Kh. Results of investigations of the crust in the south part of West Siberian Lowland by the method of deep seismic sounding ----- 191-632
- Tenenbaum, I. M. See Petrov, G. I.
- Teplitskiy, V. A. Experience in the use of the seismic method of the plane front in Eastern Turkmenia ----- 190-550
- Terekhin, Ye. I., and Faradzhev, A. S. Modeling of electric sounding over non-horizontal interfaces ----- 188-245
- Tereshko, D. L. Calculation of the potential field at different levels according to its distribution on the earth's surface, as given on a map of isolines ----- 189-227
- Terzaghi, Karl. Measurement of stresses in rock ----- 190-596
- Teskey, M. F. Use of high speed computers in geophysics ----- 189-229
- Teupser, Christian, and Olszak, Gerd. A contribution to the technique and application of hammer-blow seismic surveying ----- 189-557
- Thiel, Edward, and Ostenso, N. A. Seismic studies on Antarctic ice shelves ----- 188-566
- Thode, H. G., Monster, Jan, and Dunford, H. B. Sulphur isotope geochemistry ----- 188-387
 See also Clarke, W. B., Krouse, H. R., and Shima, M.
- Thomas, Erich. Structural elements in the east Mecklenburg and northeast Brandenburg area on the basis of seismic refraction survey data ----- 191-625
- Thomas, H. H. See Pearson, R. C.
- Thomas, T. Y. Plastic flow and fracture in solids ----- 188-567
- Thompson, A. A., and Evison, F. F. Thickness of the earth's crust in New Zealand ----- 189-350
- Thorarinsson, Sigurdur. On the possibilities of predicting the next eruption of Katla ----- 188-592
 — On the predicting of volcanic eruptions in Iceland ----- 190-614
- Thyssen-Bornemisza, Stephen, and Stackler, W. F. Micro-gravimetric measurements over a known geologic structure ----- 189-291
- Tikhonov, V. I. See Zatonskiy, L. K.
- Tikhonov, V. Ye. See Zhironov, K. K.
- Tilles, David. Primordial gas in the Washington County meteorite - 190-78

Abstract

- Tilton, G. R. See Aldrich, L. T., Davis, G. L., and Wetherill, G. W.
- Timerbayeva, K. M. See Markhinin, Ye. K., and Rudich, K. N.
- Timofeyev, A. N. On interpretation of magnetic anomalies in the case of variable magnetic susceptibility of rocks ----- 191-509
- Timoshin, Yu. V. On the grouping of seismometers on large bases ----- 191-609
- On the theory of grouping----- 190-525
- Tishchenko, V. Ye. Limitation of the effect of seasonality on the process of geophysical investigations in west Siberia ----- 190-250
- Titov, N. Ye. See Dobronravova, A. N.
- Tobyáš, Vladimír. See Kárník, Vít.
- Tocher, Don. The Hebgen Lake, Montana, earthquake of August 18, 1959, MST ----- 189-69
- Tokarev, A. N., and Shcherbakov, A. V. Radiohydrogeology ----- 189-490
- Tokarev, P. I. See Markhinin, Ye. K.
- Tokmagambetov, G. A. Density and porosity of the ice, firn and snow of the Lesser Almatinskiy glaciers ----- 191-244
- Mechanical properties of ice and firn in the Maloalmatinsky glaciers ----- 189-282
- Thermal conductivity of snow, firn, and ice on the Maloalmatinsky glaciers----- 189-283
- See also Makarevich, K. G.
- Tokmakov, V. A. See Maksimov, L. S.
- Toksöz, M. N. See Ben-Menahem, Ari.
- Tolstikhin, I. N. See Klushin, I. G.
- Tomashevskaya, I. S. Investigation of the shear modulus for rock samples under high confining pressures by the torsion method --- 190-599
- Tomikuna, Yoshio. See Kigoshi, Kunihiro.
- Tomkeieff, S. I. Kamchatka-Kuriles volcanoes ----- 188-590
- Tomoda, Yoshibumi. See Tsuboi, Chuji.
- Tongiorgi, Ezio. See Ferrara, G.
- Toperczer, Max. Textbook on general geophysics ----- 188-294
- Toporets, S. A. On the effect of metamorphism on the electrical and elastic properties of coals ----- 188-276
- Torio, Francisco. The energy of atomic nuclei ----- 191-576
- Tovarenko, K. A. See Alekseyeva, K. N.
- Townshend, J. B. See Bottum, J. L.
- Trautman, M. A., and Walton, Alan. Radiocarbon measurements II ----- 190-42
- See also Walton, Alan.
- Tremmel, E. The estimation of the influence of incomplete propagation of tensile stress in jointed rock on the stress of pressure-shaft sheathing ----- 191-680
- Treskov, A. A. Straight-line epicentrals ----- 191-96
- Tricart, J. See Cailleux, André.
- Trofimov, N. K. See Ayzenshtadt, G. Ye. A.
- Troitskaya, V. A. The microstructure of the magnetic storms in respect of pulsations for the first eight months of the IGY ----- 189-416
- Troitskaya, V. A., Alperovich, L. A., Mel'nikova, M. V., and Bulatova, G. A. Fine structure of magnetic storms in respect of micropulsations (T 20 sec) ----- 190-438
- Troitskiy, S. G., Shashkin, V. L., and Bykova, K. I. Apparatus spectra of gamm-rays from infinite layers of uranium ores ----- 191-583

- Troitskiy, S. G., Shashkin, V. L., and Bykova, K. I. On the possibility of separate determination of uranium and thorium according to the data of measurements of gamma-ray spectra of ores in their natural occurrence ----- 191-584
- Tropin, Yu. D. See Vlasov, A. Ya.
- Trorey, A. W. The information content of a Rieber sonogram ----- 189-547
- Trubitsyn, V. P. Properties of matter at high pressures ----- 191-414
- Trukhin, V. I. See Petrova, G. N.
- Tryggvason, Eysteinn. Crustal structure of the Iceland region from dispersion of surface waves ----- 189-342
- Crustal thickness in Fennoscandia from phase velocity of Rayleigh waves ----- 191-401
- Tsaturyants, A. B., and Gadzhiyeva, T. A. On the geothermal step in the oil-gas regions of Azerbaijan ----- 191-390
- Tsaturyants, A. B., and Shabanov, S. F. Problem of establishing systematic variations in the geothermal step with depth for the fields of Azerbaijan ----- 190-340
- Tseng, Jung-Sheng; Kan, Yung-Chŭ; Ho, Chuan-Da; and Lee, Pang-Nian. A study of the crystalline basement in Chai-Da-Mu basin by the low frequency refraction seismic method ----- 188-561
- Tsepelev, N. V. Propagation of waves in an acoustic medium having a transition layer ----- 191-184
- Tsibul'skiy, V. I. See Pasechnik, I. P.
- Tsikulin, M. A. An approximate estimate of the parameters of the Tungus meteorite of 1908 according to the picture of destruction of the forest massif ----- 191-60
- Tsirel', V. S. Use of a nuclear portable magnetometer for surveys at sea ----- 189-466
- See also Pogrebnikov, M. M.
- Tskhakaya, A. D. On the depths of Caucasus earthquakes ----- 191-92
- Tslav, L. Z. The problem of locating a water-oil contact in carbonate sediments in cased boreholes ----- 189-514
- Tslav, L. Z., and Stenin, P. A. Present status and the possibilities of development of neutron methods for the investigation of drill holes in the Orenburg district ----- 189-541
- Tsuboi, Chuji. Upward continuation of gravitational potential and force for a spherical earth ----- 189-288
- Tsuboi, Chuji, Tomoda, Yoshibumi, and Kanamori, Hiroo. Continuous measurements of gravity on board a moving surface ship --- 190-322
- Tsujimura, H. See Okabe, Katsuhiko.
- Tsuya, Hiromichi. See Murai, Isamu.
- Tugarinov, A. I. To the geologist—methods of absolute age determination on rocks ----- 191-2
- Tugarinov, A. I., Gavrilova, L. K., and Golubchira, M. N. Evolution in the isotopic composition of lead of rocks in Dnieper region ----- 190-375
- See also Vinogradov, A. P.
- Tulin, V. A. Quartz clock for gravity determinations at sea ----- 191-359
- Tulina, Yu. V. See Aver'yanov, A. G.
- Tuman, V. S. Refraction and reflection of sonic energy in velocity logging ----- 188-541
- Tuman, V. S., and Bollman, Dorothy. Application of computers to the interpretation of well logs ----- 189-201
- Tuparev, P., Doykov, Zh., and Avramchev, L. Preliminary results of the complex geological and geophysical survey and exploration of Blind ore bodies in the "Gramatikovo" deposit, "Keremidoto" sector ----- 191-629

Abstract

- Turcan, A. N., Jr. Estimating water quality from electrical logs - 191-255
- Turchin, Yu. A. See Svetov, B. S.
- Turok, C. W. See Smith, R. F.
- Tuttle, C. R., Allen, W. B., and Hahn, G. W. A seismic record of Mesozoic rocks on Block Island, Rhode Island ----- 188-552
- Tuve, B. See Asada, Toshi.
- Tuyezov, I. K. Seismic exploration method for search and detailing of Meso-Cenozoic structures of the Tatar Irtysh River region --- 188-559
- Tvaltvadze, Guri. New data on the seismologic structure of Mukhrani-Tirifoni valley ----- 189-580
- Tweto, Ogden. See Pearson, R. C.
- Tyapkin, K. F. Application of formulas of the two-dimensional problem to interpretation of magnetic anomalies caused by geologic objects of finite dimensions along strike ----- 190-471
- Graphical calculation of v_x and v_{zz} from results of measurement of Δg for the case of linear anomalies that are finite along strike- 190-309
- Graphical methods of calculation of anomalies of Δg due to geologic objects of finite length ----- 191-350
- On accounting for lateral effects in the interpretation of plane gravity anomalies by the direct method ----- 191-346
- On the problem of determination of the vertical coordinate of the gravity center of two-dimensional bodies from magnetic observational data ----- 191-524
- On utilization of formulas of the plane problem for interpretation of gravity anomalies due to geological objects of finite length ----- 191-348
- Two methods of determining the direction of magnetization of rocks from the results of magnetic measurements ----- 190-470
- Tyler, S. A., and Bailey, S. W. Secondary glauconite in the Biwabic iron-formation of Minnesota ----- 188-44

U

- Udintsev, G. B. See Sysoyev, N. N., Zatonskiy, L. K., and Zhivago, A. V.
- Uffen, R. J. Some Canadian contributions to the International Upper Mantle Project ----- 191-407
- See also Tanner, J. G.
- Ujiiie, Akira. See Horikawa, Yoshio.
- Uklonskiy, A. S. Preliminary investigations of the isotopic composition surface and ground waters of Uzbekistan----- 191-419
- Ulomov, V. I. Statistical analysis of records of local earthquakes and crustal structure in central Asia ----- 190-356
- Umemoto, Shunji. Isotopic composition of barium and cerium in stone meteorites ----- 188-112
- See also Honda, Masatake.
- Umezu, Naganori, and Ando, Kiyomi. Electrical prospecting method by three phase alternating current (3). Potentials due to a buried conducting and insulating sphere ----- 191-228
- U. S. Army Map Service. Isostatically reduced topographic deflections of the vertical at selected stations in both eastern and western hemispheres ----- 190-274
- U. S. Coast and Geodetic Survey. Magnetograms and hourly values, Fredericksburg, Virginia, 1959 ----- 190-386
- Magnetograms and hourly values, Honolulu, T. H., 1958 ----- 189-377

	Abstract
U. S. Coast and Geodetic Survey. Magnetograms and hourly values, San Juan, P. R., 1958 -----	189-378
— Magnetograms and hourly values, Sitka, Alaska, 1959 -----	190-388
— Magnetograms and hourly values, Tucson, Arizona, 1958-----	190-387
Uno, Kaichi. See Kawachi, Yosuke.	
Unz, M. Linear approximation of apparent resistivity functions----	191-229
Urbach, W., Ackermann, W., Ewald, H., and Ludwig, R. The Sr-87/Sr-86 isotope ratio of strontium samples from calcareous rocks -----	189-365
Urey, H. C. Lunar physics and topography -----	189-65
— Origin of life-like forms in carbonaceous chondrites -----	189-47
Usami, Tatsuo, and Sato, Yasuo. Torsional oscillations of a homogeneous elastic spheroid -----	191-150
Usatov, E. P. See Cherdyntsev, V. V.	
Ushakov, S. A., and Lazarev, G. E. Some conclusions from seismic and gravimetric data for the profile from Little America to Byrd Station -----	189-584
Ushakova, A. M. On the radioactivity of the rocks of the Perzhan intrusive complex -----	191-578
Usher, M. J. See Donato, R. J.	
Utech, Karl. Frequency of meteorite falls throughout the ages ----	188-103
— On the occurrence of magnetic spherules in the Buntsandstein of North Germany, their stratigraphic value and probable origin -----	189-58
Utkin, V. I. See Voskoboinikov, G. M.	
Utsu, Tokuji. A statistical study on the occurrence of aftershocks -	189-97
— On the nature of three Alaskan aftershock sequences of 1957 and 1958-----	189-74
Utter, Stephen. Stress determinations around an underground mine opening -----	191-658
Uyeda, Seiya. An interpretation of the transient geomagnetic variations accompanying the volcanic activities at Volcano Mihara, Oshima Island, Japan -----	191-454
Uyeda, Seiya, Hôrai, Ki-Iti, Yasui, M., and Akamatsu, H. Heat-flow measurements over the Japan trench -----	189-326
Uyeda, Seiya, and Yabu, Takeo. Some experiments on thermal shock fracture of rocks -----	191-699
See also Miller, J. A.	
Uznadze, E. D. See Rubinshteyn, M. M.	

V

Vachnadze, Yu. A. On the problem of radiometric analysis of rocks -----	190-501
Vakhromeyev, G. S. The possibilities of geophysical methods in prospecting and exploration for rare metal carbonatites-----	190-265
Valiyev, A. A. Determination of the earth's poles positions during the Tertiary period on a basis of study of the remanent magnetization of rocks of several regions of north Fergana -----	191-489
Valle, P. E. On the behavior of the temperature in the earth's interior -----	191-385
Valliant, H. D. See Beck, A. E.	
Van, Guan'-Yuan'. On the new Chinese seismic scale -----	188-165
Van, Zi-Chan; Den, Sin-Khuey; Li, Chi-Kon; and Ye, Su-Tien. Initial results of study of the positions of ancient poles on a basis of analysis of natural remanent magnetism of rocks of China-----	190-465

Abstract

- Vandel'shteyn, B. Yu. Analysis of the results of an experimental study of diffusion-adsorption potentials ----- 190-227
- Van Dilla, M. A. See Rowe, M. W.
- Vanek, I., Klíma, Karel, and Pros, Zdeněk. Particulars of the method of measurement of absorption of elastic waves in rock samples ----- 191-197
- Vanek, I., Zátpek, Alois, Kárník, Vít, Kondorskaya, N. V., Riznichenko, Yu. V., Savarenskiy, Ye. F., Solov'yev, S. L., and Shebalin, N. V. Standardization of scales of magnitude ----- 191-97
- Vaněk, Jiří. See Kárník, Vít, and Klíma, Karel.
- Van Houten, F. B. Ferric oxides in red beds as paleomagnetic data ----- 189-447
- Vantsyan, G. M. On certain factors distorting the results of magnetic prospecting and electrical profiling of ore deposits in the Armenian SSR ----- 190-203
- On the method of geophysical investigations of ore deposits of the Armenian SSR ----- 188-258
- Van Voorhis, G. D. See Alldredge, L. R.
- Van'yan, L. L. Elements of the theory of building up of an electromagnetic field ----- 188-237
- Van'yan, L. L., Gasanenko, L. B., and Sholpo, G. P. An asymptotic representation of a low frequency dipole electromagnetic field ----- 188-231
- Varnes, D. J. Analysis of plastic deformation according to Von Mises' theory, with application to the South Silverton area, San Juan County, Colorado ----- 190-594
- Varshavskaya, E. S. See Gerling, E. K., and Yashchenko, M. L.
- Vasil'yev, N. V. See Plekhanov, G. F.
- Vasil'yev, Yu. I. Two sets of constants of attenuation of elastic oscillations in rocks ----- 191-196
- Vasil'yev, Yu. I., and Ivanova, T. G. On filtering properties of thin layers ----- 190-527
- Vasil'yev, Yu. I., and Shcherbo, M. N. On characteristic oscillations in the system, horizontal seismograph-ground ----- 190-572
- See also Molotova, L. V., and Pod'yapol'skiy, G. S.
- Vasil'yeva, T. L., Proskuryakova, T. A., Rykynov, L. N., and Savarenskiy, E. F. On the effect of the relief of the earth's surface on propagation of microseisms ----- 190-488
- Vavilova, T. I., and Gel'chinskiy, B. Ya. The theoretical model of an explosion at an interface ----- 189-146
- Vaysman, G. I. See Kuznetsov, V. P.
- Vdovykin, G. P. Bitumens of the carbonaceous chondrites Grosnaya and Mighei ----- 191-38
- Vecchia, Orlando. Density in gravimetry in mountains ----- 188-334
- Gravimetric exploration for natural steam in Tuscany ----- 189-312
- Vedrintsev, G. A. On the theory of electrical sounding of horizontally nonhomogeneous mediums ----- 189-175
- Vefalosh, Antall. See Annau, Edgar.
- Vekua, L. V. Some results of paleomagnetic investigations on volcanic rocks of Georgia ----- 190-463
- See also Nodia, M. Z.
- Vendel'shteyn, B. Yu. Some information on methods of determination of parameters of oil- and gas-bearing strata according to geophysical logging investigations used abroad ----- 189-205
- See also Dakhnov, V. N.

	Abstract
Vening Meinesz, F. A. Continental and ocean-floor topography; mantle convection currents -----	190-364
— Convection currents in the mantle of the earth -----	188-308
Verbyts'kyy, T. Z. Radiation of a loop antenna in electrically con- ductive medium -----	191-243
Verő, Josef. An attempt at separation of the individual frequency bands of earth current variations -----	188-144
Versey, H. R. See Robinson, E.	
Vershinin, V. I. See D'yachkov, N. P.	
Veshev, A. V. See Bulgakov, Yu. I.	
Vestine, E. H. Morphology of magnetic storms -----	190-422
Vestine, E. H., and Kern, J. W. Cause of the preliminary reverse impulse of storms -----	190-409
Vetchinkin, A. N., and Preobrazhenskiy, V. B. An automatic seis- mic recording device with magnetic memory -----	191-135
Vetshteyn, V. Ye. See Burkser, Ye. S.	
Vey, Tsin-yun'. See Metallova, V. V.	
Veytsman, P. S. See Aver'yanova, A. G.	
Vičánek, Jan. See Marušiák, Ivan.	
Vidović, Nada. See Krulc, Zvonimir.	
Vilczek, Else, and Wänke, H. Sodium-22 in the Breitscheid mete- orite -----	188-117
Vilenskaya, S. M. See Shan'gin, N. V.	
Vilesov, Ye. N., and Shabanov, P. F. Drilling experiments on high-mountain glaciers -----	189-279
Vilesova, L. A. See Borovinskiy, B. A.	
Villard, O. G., Jr. See Kanellakos, D. P.	
Vinogradov, A. P. Atomic abundances of the chemical elements of the sun and stony meteorites -----	191-39
— On the origin of the matter of the earth's crust. Part 1 -----	191-398
Vinogradov, A. P., and Tugarinov, A. I. The geologic age of pre- Cambrian rocks of the Ukrainian and Baltic shields -----	188-77
Vinogradov, A. P., Zadorozhnyy, I. K., and Knoppe, K. G. On ar- gon in meteorites -----	191-49
Vinogradov, P. A. Certain data on the morphology of the frequency of occurrence of variations of Ps and Pt of the electromagnetic field of the earth -----	191-73
— On the problem of the radius of action of stray currents on re- cords of variations of the electrotelluric field -----	191-72
Vinogradov, S. D. Experimental study of the distribution of the number of fractures according to energy during crushing of rocks -----	191-652
— On the distribution of energy from fractures during rock disrup- tion -----	190-598
Visarion, Marius. Contribution of gravity exploration to the deter- mination of salt structures and deposits of potassium salts in Neogene sediments of the eastern Carpathians -----	188-355
— Geophysical maps of the region of the eastern Carpathians to the east and west of the Ceahlau Massiv -----	188-356
Vistelius, A. B., and Krylov, A. Ya. On the absolute age of the clastic part of the sandy-silty deposits of southwest central Asia -	188-84
Vitanage, P. W. Geology of the country around Polonnaruwa -----	189-27
Vladimirov, N. P., and An, V. A. On the method of processing magnetotelluric oscillograms -----	190-110

Abstract

- Vlasov, A. Ya., and Kovalenko, G. V. The effect of compaction on the natural remanent magnetization of the bottom sediments of the Atlantic Ocean ----- 190-457
- Vlasov, A. Ya., Kovalenko, G. V., and Tropin, Yu. D. The effect of compaction of artificially deposited sediments on remanent magnetization ----- 189-433
- Vlasov, A. Ya., and Zvegintsev, A. G. On the stability of thermo-remanent magnetization of magnetite under the simultaneous effects of temperature and reversed magnetic field----- 190-455
- Vlodavets, V. I. Principles of the volcanic regionalization in the U. S. S. R ----- 190-624
- Vlodavets, V. I., and Piyp, B. I. Catalogue of the active volcanoes of the world including solfatara fields. Part VIII, Kamchatka and continental areas of Asia ----- 188-589
- Voegtli, K. The Devon Island expedition: Measurement of electrical resistivity of ice ----- 189-192
- Voelker, Hans. On the dependence of the period of geomagnetic pulsations on latitude ----- 189-379
- Volarovich, M. P. Investigation of physical-mechanical properties of rocks under high pressure ----- 191-199
- Volarovich, M. P., Sobolev, G. A., and Parkhomenko, E. I. Piezoelectric effect of pegmatite and quartz veins ----- 191-203
- Volobuyev, M. I. See Zhirov, K. K.
- Volodarskiy, R. F. Structural plan of the Amur-Zeya depression according to geophysical data ----- 191-270
- Vol'vovskiy, B. S., Vol'vovskiy, I. S., and Ryaboy, V. Z. Laboratory application of the RNP method for interpretation of data of deep seismic sounding----- 188-526
- Vol'vovskiy, B. S., Vol'vovskiy, I. S., and Tal'-Virskiy, B. B. Use of seismic surveying for exploration for oil and gas fields in the Fergana valley ----- 190-588
- Vol'vovskiy, B. S., Vol'vovskiy, I. S., and Tal'virskiy, D. B. Conditions of conducting seismic prospecting in the Fergana Valley ----- 188-514
- See also Godin, Yu. N.
- Vol'vovskiy, I. S., Ryaboy, V. Z., and Shraybman, V. I. On the nature of the regional gravity anomalies of the Bukhara-Khivin province and adjoining regions ----- 191-378
- Surface geology of the Fergana depression according to geophysical data ----- 190-587
- See also Godin, Yu. N., and Vol'vovskiy, B. S.
- Vorob'yev, G. G. A method of quantitative spectral analysis of tektites and the silicate phase of meteorites ----- 188-133
- Vorob'yev, G. G., and Namnandorzh, O. Spectrochemical investigation of the Mongolian meteorite ----- 191-62
- Vorob'yeva, K. I. On the geothermal characteristics of the Ozek-Suat oilfield and of other regions of the Tersko-Kuma Plain ----- 190-339
- Voskoboynikov, G. M. On some problems of the theory of radio-metric prospecting----- 190-512
- Voskoboynikov, G. M., Utkin, V. I., and Burdin, Yu. B. Spectral methods of determination of the nature of selective logging anomalies ----- 189-504
- Voskresenskiy, Yu. N. On the study of seismic reflections from nonspecular boundaries on three-dimensional models ----- 191-192

	Abstract
Voytkovskiy, K. F. Speed of plastic deformation of polycrystalline ice -----	189-609
Voytsik, L. P., and Yerozolimskiy, B. G. A laboratory neutron generator -----	189-531
See also Alekseyev, F. A., and Yerozolimskiy, B. G.	
Vozdvizhenskiy, B. I. On drilling super-deep boreholes -----	190-359
Vozoff, Keeva, Ellis, R. M., and Garland, G. D. Composition of "pearls" -----	191-442
Vronskiy, B. I. Elga meteorite -----	191-52
Vučić, V. M., and Pavlović, B. V. Radioactivity of travertine at Niška Banja -----	188-475
Vvedenskaya, A. V. See Balakina, L. M., and Ruprechtová, Libuše.	
Vvedenskaya, N. A. See Kondorskaya, N. V.	
Vyalov, S. S. Regularities of glacial shields movement and the theory of plastic viscous flow -----	189-273

W

Wagner, F. C. See Frölich, Friedrich, and Stiller, Heinz.	
Wahl, R. R. See Plouff, Donald, and Stuart, D. J.	
Wait, J. R. A note on the electromagnetic response of a stratified earth -----	190-185
— The electromagnetic fields of a dipole in the presence of a thin plasma sheet -----	191-427
Wakahama, Gorow. On the plastic deformation of ice. I. Plastic deformation and dislocation networks in a single crystal of ice. II. An interpretation of the plastic deformation of a single crystal of ice based upon the theory of dislocation. III. Stress relaxation of ice. IV. The length of the Frank-Read source, the layer structure and the work softening in ice -----	189-601
Walker, E. H. Comments on a paper by P. D. Grannis, "Electrostatic erosion mechanisms on the moon" -----	190-96
Walker, Terry. Fracture zones vary acoustic signal amplitude ----	189-563
Walton, Alan, Trautman, M. A., and Friend, J. P. Isotopes, Inc. radiocarbon measurements I -----	190-29
See also Trautman, M. A.	
Wambeke, L. van. See Cahen, Lucien.	
Wangersky, P. J. See Rosholt, J. N.	
Wani, Katsunosuke. See Momose, Hiroto.	
Wänke, H. Scandium-45 as a cosmic-ray reaction product in iron meteorites, pt. 2 -----	191-45
See also Bainbridge, A. E., and Hinterberger, H., Suess, H. E., and Vilczek, Else.	
Wanless, R. K., and Lowdon, J. A. Isotopic age measurements on coeval minerals and mineral pairs -----	188-29
See also Stockwell, C. H.	
Wantland, Dart. See McDonald, H. R.	
Ward, Fred. See Silverman, S. M.	
Ward, S. H., and Ruddock, K. A. A field experiment with a rubidium-vapor magnetometer -----	189-464
Ward, W. H. Surface markers for ice movement surveys -----	189-265
Warner, Brian, and Fielder, Gilbert. Stresses around lunar craters -----	188-137

Abstract

- Warrick, R. E., Hoover, D. B., Jackson, W. H., Pakiser, L. C., and Roller, J. C. The specification and testing of a seismic-refraction system for crustal studies ----- 189-568
- Warrick, R. E., and Jackson, W. H. Poisson's ratio of rock salt and potash ore ----- 188-213
- Warschawski, Ja. M. See Schattenstein, A. I.
- Washburn, A. L., and Stuiver, Minze. Radiocarbon-dated post-glacial deleveling in northeast Greenland and its implications---- 189-19
- Wasson, J. T., and Junge, C. E. Terrestrial accretion and the solar wind ----- 189-35
- Watanabe, Tomiya. Geomagnetic bays and storm sudden commencements in high latitudes----- 189-413
- On the origins of geomagnetic pulsations ----- 190-400
- Watkins, J. S. Precambrian basement structure and lithology inferred from aeromagnetic and gravity data in eastern Tennessee and southern Kentucky----- 191-541
- Watt, D. E., and Glover, R. N. A search for radioactivity among naturally occurring isobars pairs ----- 189-481
- Watts, W. A. See McAulay, I. R.
- Watznauer, A. Critical evaluation of model studies of bedrock mechanics and the limits of their practical applicability ----- 191-649
- Weber, J. R., Sandstrom, N., and Arnold, K. C. Geophysical surveys on Gilman Glacier, northern Ellesmere Island ----- 191-621
- Weber, Max. On the approximation of traveltimes functions from discrete measured values with discontinuous power series ----- 188-518
- The interpretation of seismic refraction measurements in the limiting case $c_0=0$ ----- 188-534
- Wedo, Helmuth. Thorium and rare earths in the Póços de Caldas zirconium district, Brazil ----- 188-486
- Weeks, L. G. Geologic architecture of circum-Pacific ----- 190-279
- Weertman, Johannes. Equilibrium profile of ice caps----- 189-260
- Mechanism for continental drift ----- 189-247
- Traveling waves on glaciers ----- 189-269
- Weihsaupt, J. G. Geophysical studies in Victoria Land, Antarctica 191-266
- Weinreb, Sander. A new upper limit to the galactic deuterium-to-hydrogen ratio----- 191-218
- Weiss, L. E. See Paterson, M. S.
- Wells, J. W. See Allen, J. R. L.
- Wendt, Immo; Schneekloth, Heinrich; and Budde, Enno. Hannover radiocarbon measurements I ----- 190-50
- See also Geyh, M. A.
- Wenk, Eduard. See Jäger, Emilie.
- Werth, G. C., Herbst, R. F., and Springer, D. L. Amplitudes of seismic arrivals from the M discontinuity ----- 189-158
- Wescott, E. M. Magnetic activity during periods of auroras at geomagnetically conjugate points ----- 189-393
- Westley, Harold. See Overstreet, W. C.
- Weston, D. E. Underwater explosions as acoustic sources ----- 188-530
- Westphal, K. O., and Jacobs, J. A. Oscillations of the earth's outer atmosphere and micropulsations -- 191-447
- Wetherill, G. W. Age measurements on the Cutler batholith, Ontario, Canada ----- 188-53
- Wetherill, G. W., Kouvo, Olavi, Tilton, G. R., and Gast, P. W. Age measurements on rocks from the Finnish Precambrian ----- 188-72
- See also Aldrich, L. T., and Davis, G. L.

	Abstract
Whipple, F. L. Oblateness of the earth by artificial satellites (Harvard College Observatory Announcement Card 1408)-----	188-302
— Perturbation in the eccentricity of 1958 β_2 (Harvard College Observatory Announcement Card 1420) -----	189-237
Whitaker, E. A. See Arthur, D. W. G.	
White, J. E. Elastic waves along a cylindrical bore ---	190-153
White, S. E. Preliminary studies of motion of an ice cliff, Nuna-tarssuaq, Northeast Greenland 1955 -----	189-264
Whitlock, D. W. See Eckelmann, W. R.	
Whitmore, J. D. See Nuttli, O. W.	
Wieduwilt, W. G. Interpretation techniques for a single frequency airborne electromagnetic device-----	191-231
Wiegel, R. L., and Camotim, Data. Model study of oscillations of Hebgen Lake -----	189-73
Wier, K. L. See James, H. L.	
Wiid, B. L. Gravity observations at Marion Island, Tristan da Cunha -----	189-305
Wiik, B. See Buttlar, H. von.	
Williams, E. T. Contribution to the discussion on paper entitled "Measurement of strains in mine rocks" (C. L. Emery) -----	191-656
Williams, J. B. See Robinson, E.	
Williamson, R. See Peacock, J. D.	
Willis, D. E., and Wilson, James T. Effects of decoupling on spectra of seismic waves -----	189-160
See also Bugajski, H. J., DeNoyer, John, and Frantti, G. E.	
Willis, E. H. See Godwin, Harry.	
Willis, I. See Bull, C.	
Wilson, A. F., Compston, W., and Jeffery, P. M. Radioactive ages from the Pre-Cambrian rocks of Australia -----	188-99
Wilson, A. H. A laboratory investigation of a high modulus bore-hole plug gage for the measurement of rock stress -----	188-578
Wilson, C. R. Sudden commencement hydromagnetic waves and the enhanced solar wind direction -----	189-409
Wilson, C. R., and Sugiura, Masahisa. Hydromagnetic interpretation of sudden commencements of magnetic storms -----	188-409
Wilson, H. W. See McNair, A.	
Wilson, J. Tuzo. Cabot fault, an Appalachian equivalent of the San Andreas and Great Glen faults and some implications for continental displacement -----	191-308
— Geophysics and continental growth -----	189-251
Wilson James T. See DeNoyer, John, Frantti, G. E., and Willis, D. E.	
Wilson, R. L. Palaeomagnetism in Northern Ireland. Pt. 2. On the reality of a reversal of the earth's magnetic field -----	190-460
— The palaeomagnetic history of a doubly-baked rock-----	191-473
Wilson, W. T. See Costello, J. T.	
Winckler, J. R., Bhavsar, P. D., and Anderson, K. A. A study of the precipitation of energetic electrons from the geomagnetic field during magnetic storms-----	191-455
See also Kellogg, P. J.	
Winkler, E. M. Radiocarbon ages of postglacial lake clays near Michigan City, Indiana -----	191-17
Winkler, H. A. Simplified gravity terrain corrections -----	190-306
Witkind, I. J. Deformation of the epicentral area, Hebgen Lake, Montana, earthquake of August 17, 1959—Dual-basin concept ----	188-148

Abstract

- Witkind, I. J., Myers, W. B., Hadley, J. B., Hamilton, Warren, and Fraser, G. D. Geologic features of the earthquake at Hebgen Lake, Montana, August 17, 1959 ----- 189-70
- Wittenberg, J. See McCallum, K. J.
- Wold, R. J. See Behrendt, J. C.
- Wolf, H. Possibilities for more accurate relative gravity measurements by means of a pendulum ----- 190-316
- Wolfgang, Richard. Origin of high tritium content of atmospheric methane, hydrogen and stratospheric water----- 190-373
- Wong, Wen-Po. The chemical genesis of the earth ----- 188-105
- Wood, H. O., Heck, N. H., and Eppley, R. A. Earthquake history of the United States, Part 2: Stronger earthquakes of California and western Nevada ----- 188-156
- Wood, J. A. Chondrules and the origin of the terrestrial planets--- 189-32
- Woodruff, Ray, and Goering, Marjory. Do the mountains of earth come from the moon ----- 189-253
- Woods, J. P. Exploration in a changing world ----- 191-275
- How can geophysicists meet the present situation ----- 191-287
- Woollard, G. P. The land of the Antarctic ----- 191-264
- World Oil. Gas-gun marine surveys run off U. S. west coast ----- 190-569
- Worst, B. G. The Great Dyke of Southern Rhodesia. Pt. 2—Geo-physical observations ----- 188-456
- Worzel, J. L. See Ewing, J. I.
- Wrage, E. G. Argon determination on potassium minerals—8. An approximate method of solving diffusion problems ----- 189-5
- Wright, C. S. See Duffus, H. J.
- Wright, J. K., and Carpenter, E. W. The generation of horizontally polarized shear waves by underground explosions----- 190-178
- Wright, J. K., Carpenter, E. W., and Savill, R. A. Some studies of the P waves from underground nuclear explosions----- 189-157
- See also Carpenter, E. W., and Savill, R. A.
- Wright, R. W. Effect of magnetic disturbances on the equatorial ionospheric jet current ----- 191-445
- Wuthrich, Hans. See Jäger, Emilie.
- Wyness, R. See Cress, P.

Y

- Yabu, Takeo. See Uyeda, Seiya.
- Yakovlev, V. N. See Berzon, I. S.
- Yakubovich, A. L. Scintillation radiometric apparatus and potentialities of its application to geological prospecting and exploration ----- 191-590
- Yakupov, V. S. The possibilities for electrical prospecting under permafrost conditions----- 190-204
- Yamaguchi, Masaru. Alpha-activity of granite and andesite zircons from southwest Japan measured with nuclear emission ----- 188-477
- Yamaguchi, Rinzo. Surface waves and layered structures. Part 1, Influence of low velocity layer and some study on Lg and Rg waves ----- 191-157
- Yamaguchi, Rinzo, and Kizawa, Takashi. Surface waves and layered structures. Part 2, Theoretical dispersion curves for suboceanic surface waves ----- 191-158
- Yamamoto, Mikio, and Miyasawa, Ryofu. Ferromagnetic behavior and its dependence on the crystal orientation and on the method of demagnetization in single crystals and a polycrystal of 0.5 percent aluminium iron----- 189-431

- Yamamoto, M. See Maeda, Hiroshi.
- Yamashita, Shiro. The electromotive force generated within the ore body by the temperature difference ----- 190-199
- Yanagihara, Chikataka. See Nakamura, Hisayoshi.
- Yanovskiy, B. M. Problems of paleomagnetism in the U. S. S. R. --- 191-488
- Yanovskiy, B. M., Sholpo, L. E., and Gorshkov, E. S. Some features of viscous magnetization ----- 191-469
- Yanovsky, V. M. See Alexandrov, V. A.
- Yanvel', A. A. Certain problems of the chemistry of meteorites--- 190-64
 --- On the dependence of the structure of iron meteorites on chemical composition and conditions of crystallization ----- 191-41
- Yarosh, A. Ya. Estimation of the depth of penetration of gravity exploration in the search for ore deposits ----- 190-311
- Yashchenko, M. L., Varshavskiy, E. S., and Gorokhov, I. M. On the anomalous isotopic composition of strontium in minerals from metamorphic rocks ----- 191-8
 See also Gerling, E. K.
- Yasinskaya, A. A. See Bobrovnik, D. P.
- Yaskawa, Katsumi. Paramagnetism of some kinds of crystalline schists ----- 191-478
- Yastrebova, T. A. See Alferov, B. A., and Kozlov, I. G.
- Yasui, M. See Uyeda, Seiya.
- Ye, Shi-Yan', Kirnos, D. P., and Solov'yev, V. N. A simplified recording device for instrumental observations in the epicentral zones of strong earthquakes ----- 191-128
- Ye, Su-Tien. See Van, Z. C.
- Yedinak, P. See Hemenway, C. L.
- Yegorov, Yu. M. On the problem of recording geomagnetic field variations in the frequency range of 0.0-10.0 cycles per second - 191-433
- Yeliseyeva, G. D. See Burkser, Ye. S.
- Yel'yanov, A. A., and Moralev, V. M. New data on the age of the ultrabasic and alkaline rocks of the Aldan shield ----- 188-94
- Yenikyeyev, R. Sh. See Isabayev, Ye. A.
- Yepinat'yeva, A. M. Present status of KMPV ----- 190-559
- Yepinat'yeva, A. M., Ivanova, L. A., Kun, V. V., and Shport, L. P. Some problems in the method of seismic exploration of the Paleozoic basement in western Siberia ----- 190-555
- Yepinat'yeva, A. M., and Kondrat'yev, O. K. Experience in the application of high-frequency apparatus in study of the Paleozoic basement in western Siberia ----- 190-556
- Yepinat'yeva, A. M., and Kosminskaya, I. P. Seismic surveying in China----- 188-560
- Yeremina, A. S. See Bedcher, A. Z.
- Yermakov, V. I., Laubenbakh, A. I., Ovanesov, M. G., Romanov, Yu. A., and Skosyeva, L. N. Results of investigation of the natural gamma field in oil-bearing regions by the methods of airborne and land radiometric surveys----- 189-493
- Yerozolimskiy, B. G., Bondarenko, L. N., Voytsik, L. R., Shimelevich, Yu. S., and Yudin, L. I. Small size sealed-off neutron tube ----- 189-535
- Yerozolimskiy, B. G., and Shkol'nikov, A. S. Method of separation of water and oil saturated layers ----- 189-515
 See also Alekseyev, F. A., and Voytsik, L. P.
- Yevseyeva, L. S. See Petrov, G. I.
- Yevsikova, L. G. See Bulakh, Ye. G.

	Abstract
Yokoyama, Hidekichi. Experimental studies on the spontaneous polarization method -----	189-184
Yokoyama, Hidekichi, and Ibe, Yukimi. Experimental studies for electromagnetic prospecting (pt. 3) -----	189-171
Yokoyama, Izumi. Relations between the short period changes in geomagnetism and in telluric currents -----	191-70
— The flow and upwelling of lava (pt. 1 and 2) -----	188-587
Yoshikawa, Keizo. On the crustal movement accompanying with the recent activity of the Volcano Sakurajima (pt. 1) -----	189-621
— On the crustal movement accompanying with the recent activity of the Volcano Sakurajima (pt. 2) -----	190-626
Yoshikawa, Soji. The ground motion near explosion -----	190-180
Yoshiyama, Ryoichi. Earthquake near the National Park Hakusan on August 19th, 1961 -----	191-79
— The ratio of the velocity of P and S waves -----	189-126
Yoshizumi, Eizaburo, and Irie, Tsuneji. A study of the resistivity method using a resistance network -----	190-207
Yoshizumi, Eizaburo, and Irie, Tsuneji. Resistance network analyzer of the electrical prospecting -----	189-189
Young, J. See Dobrowolski, T.	
Yudin, I. A. Mineralographic investigation of stone meteorite Nikol'skoye -----	188-122
— On the finding of meteoritic dust in the region of all of the Kunashak stone meteoritic shower -----	191-64
Yudin, I. A., and Obotnin, N. F. Mineralographic and X-ray study of the carbonaceous chondrites of Migei, Staroye Boriskino, and Groznaya -----	189-45
Yudin, L. I. See Alekseyev, F. A., and Yerozolimskiy, B. G.	
Yukutake, Takesi. The influence of the magnetic field on spectra of seismic core waves -----	189-356
Yungul, S. H. Magneto-telluric sounding three-layer interpretation curves -----	188-226
— The role of the surface electrical methods of geophysical prospecting in the petroleum industry -----	190-200
Yun'kov, A. A. Determination of the depth and dimensions of a three-dimensional body by the Δg anomaly -----	191-336
— Calculation of anomalies V_{zz} over three-dimensional bodies with the master-chart of two-dimensional bodies -----	191-345
— Calculations of Δg anomalies of three-dimensional bodies with a master chart of two-dimensional bodies -----	191-344
Yurchenko, B. I. Correlation of reflections in a zone of erosion and pinch out of strata -----	190-549

Z

Za, Su-Ho. Aeromagnetics (Status and evaluation methods) -----	190-472
Zabelin, M. V. See Borisevich, Ye. S.	
Zablocki, C. J. Electrical properties of sulfide-mineralized gabbro, St. Louis County, Minnesota -----	188-266
Zablocki, C. J., and Keller, G. V. Some observations of the seismic-electric effect -----	188-218
Zaborovskiy, A. I. Induced polarization -----	190-189
Zadorozhnyy, I. K. Mass-spectrometric determination of the content of inert gases in iron -----	188-111
See also Vinogradov, A. P.	

- Zaghloul, Z. M. The alpha-particle radioactivity of zircon. Zircon specific alpha-particle radioactivity and the grain-size effect---- 188-470
- Zähringer, J., and Gentner, W. On the Xe^{129} in the Abee meteorite ----- 188-114
- Zakharchenko, V. F. Certain problems of neutron logging theory using an impulse generator of neutrons----- 189-508
- See also Ponomarev, V. N.
- Zakharov, V. Kh. Dependence of an anomaly on the direction of intersection of a vertical thin stratum in connection with dipole electromagnetic profiling ----- 191-214
- Zakirova, F. S. See Harris, M. A.
- Zampieri, L. See Gantar, C.
- Zamyatin, N. I. See Ivanov, A. I.
- Zans, V. A. Bath Springs, St. Thomas - Their history and development ----- 191-388
- Zapol'skiy, K. K. Measurements of intensity and spectrum composition of short period microseisms ----- 190-489
- Zatonskiy, L. K., Kanayev, V. F., Tikhonov, V. I., and Udintsev, G. B. The submarine relief Kuriles-Kamchatka Arc and its volcanism ----- 189-615
- Zátopek, Alois. Microseisms at Prague in the course of the International Geophysical Year ----- 191-570
- New results of microseism research in Prague ----- 190-487
- On the nature and origin of European microseisms ----- 191-567
- The development of Czechoslovak geophysics from 1945 to 1960- See also Kárník, Vít, and Vanek, I. ----- 191-291
- Zavarzin, G. N. See Babayants, S. P.
- Zavoys'kiy, V. M., and Krutikhovskaya, Z. A. On remanent magnetization of ferruginous quartzites at the southern closure of the Krivoy Rog synclinorium ----- 189-439
- On the effect of anisotropy of magnetic susceptibility on the accuracy of residual magnetization measurements ----- 191-467
- Zav'yalov, V. D. Interpretation of seismograms in zones of interference ----- 190-530
- Zawicki, Ignacy. See Nalecz, Maciej.
- Zayonchkovskiy, M. A. See Aver'yanov, A. G.
- Zaytsev, L. P. On degenerated head waves in an elastic medium with an interface ----- 191-171
- Zbyszewski, G. The eruption of Capelinhos Volcano (Fayal Island, Azores)----- 190-618
- The eruption of Capelinhos Volcano in the island of Fayal (Azores)----- 189-618
- Zelenskaya, M. L. The utilization of plastics for preparation of radioactive suspensions ----- 189-534
- Zelenov, K. K., and Kanakina, M. A. Lake Biryuzovoye (Zavaritskiy caldera) and changes in the chemistry of its waters as a result of the 1957 eruption ----- 191-696
- Zenkova, V. A. See Cherkasov, P. A.
- Zhadin, V. V. On investigation of longitudinal and transverse wave absorption by the seismic logging method ----- 191-615
- Zharkov, V. N. Natural oscillations of the earth. Attenuation----- 191--64
- Zhavoronkov, V. Ya. See Polak, L. S.
- Zhilevich, I. I. See Borisevich, Ye. S.
- Zhilyayeva, V. A. See Petrova, G. N.

	Abstract
Zhirov, K. K., Artemov, Yu. M., Volobuyev, M. I., Zhirova, V. V., Knorre, K. G., Krizhansky, L. M., Mochalov, Yu. Z., and Tikhonov, V. Ye. The age of the Taraksky granite massif and other formations of the Yenisey Ridge-----	188-93
Zhirov, K. K., Shestakov, G. I., and Ivanov, I. B. On the problem of the interpretation of age figures according to the lead method -	191-3
Zhirova, V. V. See Zhirov, K. K.	
Zhivago, A. V., Lisitsyn, A. P., and Udintsev, G. B. Problems of marine geology and geomorphology-----	191-689
Zhogolev, L. P., and Mironov, V. S. Large-scale gravi-magnetometric work carried out during geologic mapping in the Rudnyy Altay-----	189-474
See also Barinov, Ye. A.	
Zhukov, V. S. Use of electronic-acoustical and radiometric methods in the study of sea-ice properties-----	189-567
Zhuravle, V. K. See Plekhanov, G. F.	
Zhuzgov, L. N. See Dolginov, S. Sh.	
Zietz, Isidore. See Andreasen, G. E., and King, E. R.	
Zolotov, A. V. Effective cross sections of chlorine for slow neutrons-----	189-527
— New data on the Tungus catastrophe of 1908-----	188-124
Zommer, I. E., and Gayanov, A. J. Methods and results of gravity measurements in the Antarctic-----	191-382
Zouunková, Milada, and Beránek, Břetislav. Velocity conditions in the inneralpine Vienna basin-----	188-537
Zudakina, Ye. A. See Anpilogov, A. P.	
Zumberge, J. H. A new shipboard coring technique-----	190-604
Zvegintsev, A. G. See Vlasov, A. Ya.	
Zverev, S. M. See Aver'yanov, A. G., and Gal'perin, Ye. I.	
Zybin, K. Yu. See Bol'shakova, O. V.	

SUBJECT INDEX

A

Acoustic logging, amplitude attenuation, fracture zones: Walker 189-563
 Chinese model: *Acta Geophysica Sinica* 188-542
 first arrivals, curved path: Geertsma 190-561; Tuman 188-541
 instrumentation: Khalevin 190-563; Rekunov 190-565
 interpretation: Geertsma 188-540
 porosity: Costello 189-564
 review: Karus 190-562
 short spacing, inverse filters: Nipper 190-560
 wave absorption: Zhadin 191-615
 Africa, seismicity, A. D. 628 to A. D. 1500: Ambraseys 189-87
 seismicity, West African Rift Valley: de Bremaecker 188-159
 volcanic activity, Viruga volcanoes: Berg 190-619
 Age, anorthosite, Quebec: Rose 188-51
 basalt, Kenya: Koenigswald 190-17
 New Jersey: Kulp 188-38
 Tanganyika: Curtis 191-22
 beaches, Greenland: Washburn 189-19
 Spitsbergen: Blake 188-74
 bentonite, Tennessee and Alabama: Adams 188-41; Faul 188-35
 biotite, British Columbia: Reesor 188-58
 Columbia: Pinson 191-21
 Egypt: Gheith 188-64
 England: Miller 191-24
 New Zealand: Hurley 188-27
 U. S. S. R., Caucasus: Rubinshteyn 188-82
 black shale, Sweden: Cobb 188-12
 Tennessee: Cobb 188-12; Faul 188-35
 bones, China: Isabayev 188-15
 Czechoslovakia: Isabayev 188-15
 U. S. S. R.: Isabayev 188-15
 clay (Precambrian), Ontario: Hurley 191-19
 conglomerates, Transvaal: Nicolay-sen 188-61

Age—Continued

crustal stages: Khain 189-250
 dolomite, Florida: Deffeyes 190-12
 earth: Baranov 191-30
 extrusive rocks, U. S. S. R., Urals: Ovchinnikov 188-83
 fluvial sediment, Mississippi and other rivers: Hurley 188-43
 gabbro, U. S. S. R.: Shirinyan 188-81
 galaxy, uranium decay: Dicke 190-61
 galena, Australia: Richards 190-374
 England: Moorbath 189-22
 Finland: Kouvo 188-73
 India: Aswathanarayana 189-28, 190-21; Russell 190-20
 Norway: Moorbath 189-22
 general listing, Antarctica: Starik 188-101
 Argentina: Lineras 189-21
 Canada: Lowdon 188-50
 U. S. S. R.: Rubinshteyn 188-9
 glauconite, general listing: Polevaya 188-28
 Hungary: Ovchinnikov 188-68
 Minnesota: Tyler 188-44
 U. S. S. R.: Klyarovskiy 188-91
 granite, British Isles: Lambert 188-2
 California: Bateman 188-49
 Colorado: Pearson 191-18
 England: Long 189-23; Miller 191-23
 Europe: Faul 188-35
 India: Desio 188-95
 Japan: Miller 189-30; Nagai 190-22
 New York: Doe 191-415
 New Zealand: Mason 188-100
 Ontario: Ginn 189-16; Wetherill 188-53
 Rhode Island: Pinson 188-36
 Seychelles Archipelago: Miller 189-26
 Switzerland: Chessex 189-25; Gr  nenfelder 188-66
 Union of South Africa: Hales 188-62

Age—Continued

granite—continued

U. S. S. R. : Ivanov 188-88; Sobotovich 188-92

Yukon Territory: Baadsgaard 188-59

granodiorite, Washington: Lipson 188-56

igneous rocks, Chile: Ruiz F. 188-60

Hungary: Ovchinnikov 188-68

Maine: Faul 188-35

Mongolian National Republic 188-96

Nevada: Houser 188-48

U. S. S. R. : Ivanov 188-86, -87; Yel'yanov 188-94

igneous and metamorphic rocks, Australia: Evernden 188-98

Canadian Cordillera: Muller 188-55

Ceylon: Vitanage 189-27

Greenland: Kulp 190-15

North Korea: Polevaya 188-97

U. S. S. R. : Chernov 188-85; Zhirov 188-93

kimberlite, U. S. S. R. : Mikheyenko 188-90

marine, invertebrates, South Carolina: Du Bar 190-11

marine sediments, ionium-thorium determinations: Goldberg 190-603

Mediterranean Sea: Olausson 188-65

metamorphic rocks, Canada: Burwash 189-17; Fahrigh 189-18

England: Miller 189-24

Japan: Miller 190-33

Nepal: Krummenacher 189-29

New York and New Jersey: Long 188-37

New Zealand: Mason 188-100

North Carolina: Bryant 189-12; Davis 190-9

Scotland: Giletti 188-69

Southern Appalachians: Kulp 188-40

Tennessee: Davis 190-9

U. S. S. R. : Komlev 191-25; Ravich 188-89

Venezuela: Bass 189-20

metamorphism, Germany: Davis 189-1

meteorites: Vinogradov 191-49

Na-22 cosmic-ray age: Vilczek 188-117

Age—Continued

meteorites—continued

primary isochron of zero age:

Murthy 189-53

radiation age of chondrites: Geiss 188-118

terrestrial age: Suess 190-86

thermoluminescence: Komovskiy 191-48

U-235/Pb-207 in Sikhote-Alin: Fireman 188-116

micas, British Columbia: Reesor 188-57

Canada: Stockwell 188-52

Norway: Gerling 188-71; Kulp 188-70

Ohio: McCormick 188-42

Sweden: Gerling 188-71

Switzerland: Jäger 188-67

U. S. S. R. : Filippov 188-78; Gerling 188-71, -76; Komlev 188-79; Senenenko 188-80

monazite, U. S. S. R. : Gol'denfel'd 191-26

moraines, Antarctica: Péwé 189-31

peat, Alaska: Fernald 190-13

pegmatites, Blue Ridge and Piedmont: Deuser 190-10

U. S. S. R. : Slepnev 191-27

Precambrian rocks, Australia:

Wilson 188-99

Baltic shield: Polkanov 188-3

Colorado Plateau: Damon 188-46

Finland: Wetherill 188-72

Red Sea area: Schürmann 190-19

U. S. S. R. : Vinogradov 188-77

Wyoming and Montana: Giletti 188-47

quartz monzonite, Maine: Pinson 188-36

radiocarbon dates, Belgium: Dossin 190-49

Canada: Dyck 190-40; McCallum 190-46; Trautman 190-42

Europe—North America correlation: Antevs 189-7

general listing: Barker 190-28;

Broecker 190-38; Engstrand

190-52; Fergusson 190-51;

Geyh 190-53; Gfeller 190-26;

Godwin 190-30, -45; Hubbs

190-57; Hyypä 190-47; Olson

190-37; Olsson 190-32; Ralph

190-25, -54; Rubin 190-33;

Stuiver 190-36, -59; Tauber

190-41, -60; Walton 190-29

Age—Continued

- radiocarbon dates—continued
 - Germany: Wendt 190-50
 - Iceland: Wendt 190-48
 - Indiana: Winkler 191-17
 - Ireland: McAulay 190-27
 - Italy: Ferrara 190-34
 - Japan: Kigoshi 190-48
 - Libya: McBurney 188-63
 - Norway: Trondheim 190-55
 - U. S. S. R.: Starik 188-75
 - United States: Crane 190-35, -56;
 - Damon 190-58; Dorn 190-39;
 - Stipp 190-43; Trautman 190-42
- Rio Grande entrenchment, New Mexico: Ruhe 189-13
- sedimentary rocks, U. S. S. R.:
 - Vistelius 188-84
- sediments, Bahamas: Ostlund 190-44
 - Caribbean Sea: Rosholt 191-20
- shales, Australia: Compston 191-29
- slates, Maine and Rhode Island:
 - Pinson 188-36
- tectonic provinces, Canada, Appalachians: Neale 189-15
- uraninite, South Africa: Burger 188-383
- uranium migration, Wyoming:
 - Robinson 188-14
- volcanic ash, Alaska: Fernald 190-13
 - Alberta: Folinsbee 188-54
 - Tanganyika: Straus 190-18
 - United States: Curtis 188-45
- volcanic glass, Utah: Schaeffer 188-25
- Zinjanthropus, Tanganyika: Straus 190-18
- zircon, Japan: Nagai 191-28
 - North Carolina and South Carolina: Overstreet 188-39, 191-16
- Age determinations, argon diffusion:
 - Amirkhanov 188-24; Baadsgaard 188-26; Fechtig 189-6; Gerling 188-23; Hurley 188-27; Reesor 188-57, -58; Wanless 188-29; Wrage 189-5
- Canadian research: Russell 189-14
- carbon-14 method, analysis of standards: Craig 190-6
- C-14/C-12 variation with time:
 - Jansen 190-24
- counter at University of Rome:
 - Alessio 189-8; Bella 189-9

Age determinations—Continued

- carbon-14 method—continued
 - nuclear weapons testing: Godwin 190-31
 - Pleistocene time scale: Serebryanny 189-10
- coeval minerals: Wanless 188-29
- fluorine method, bones: McConnell 190-8
- geologic history, interpretation:
 - Krylov 188-34
- glauconite, argon retention: Murina 191-14
- ionium-thorium method, sedimentary rate of Th-232: Koczy 188-31
- lead isotope method: Chernyshev 191-4, -5; Zhironov 191-3
- lead-alpha method: Hatuda 190-2, 191-6; Nagai 190-3
- metamorphic history: Nicolaysen 188-33
- metamorphism, effect of: Hart 188-32; Neuvonen 189-11
- methods reviewed: Tugarinov 191-2
- potassium-argon method: Pinson 188-21
 - argon retention: Gerling 191-12; Kuz'min 191-13; Ovchinnikov 191-15; Sardarov 191-11
 - description: Curtis 188-30
 - excess argon in pyroxene: Hart 191-9
 - low potassium minerals: Aldrich 189-2
 - oil exploration: Krueger 190-1
 - review: Cherdyntsev 191-10; Gerling 188-22
- protactinium-thorium method:
 - Rosholt 188-13
- rubidium decay constant: Glendenin 188-17
- rubidium-strontium method: Gast 188-18
 - anomalous strontium isotopic ratios: Yashchenko 191-8
 - chemical separation: Deuser 190-4
 - effect of inclusion: Gerling 191-7
 - laboratories compared: Herzog 188-20
 - metamorphic chronology: Compston 188-19
- thermoluminescence: Chessex 190-7

Age determinations—Continued

- time scales: Afanas'yev 188-4;
Harris 188-6, -7; Kommissiya
po Opredeleniya Absolyutnogo
Vozrasta Geologicheskikh
Formatsiy 188-11; Lambert
188-2; Ovchinnikov 188-8;
Polevaya 188-10; Polkanov 188-
3; Rubinshteyn 188-9; Semen-
enko 188-5; Shcherbakov 189-4;
Stockwell 188-1
true age, factors affecting: Afanas'-
yev 191-1
uranium deposits, age of migration:
Robinson 188-14; Rosholt 188-
13
uranium method: Burkser 188-16;
Cherdyntsev 189-3; Davis 189-1
X-ray fluorescence, Rb/Sr ratio:
Herzog 190-5
Alabama, age, bentonite: Adams 188-
41; Paul 188-35
Alaska, age, volcanic ash and peat:
Fernald 190-13
crust, structure: Shor 189-339
earthquake, 1959: Brune 191-104
geotectonics, recent deformation:
Ivanhoe 190-288
gravity surveys: Barnes 188-351;
Ostenso 191-370
magnetic surveys, Anchorage-
Nome profile: King 188-453
seismic surveys, marine: Shor
189-339
Alberta, age, volcanic ash: Folinsbee
188-54
electrical surveys, ice thickness:
Keller 189-191
magnetic surveys: Agarwal 190-479
Angola, radioactivity, nepheline sye-
nite: Morais 189-487
Antarctica, age, general listing:
Starik 188-101
age, moraines: Péwé 189-31
crust, structure: Bentley 191-405
geophysical surveys: Robin 191-267;
Shumskiy 190-252; Woollard
191-264
Mount Murphy to Hudson Moun-
tains: Behrendt 191-265
Victoria Land: Weihaupt 191-266
glaciers, Filchner ice shelf:
Behrendt 188-319
flow regimen: Crary 190-296
movement: Bogoslovskiy 189-275;
Haefeli 191-316; Swithinbank
191-319

Antarctica—Continued

- glaciers—continued
Ross ice shelf: Crary 188-320
thermal gradient: Gow 189-262
gravity surveys: Behrendt 191-369;
Grushinskiy 191-357; Lazarev
191-383; Ushakov 189-584;
Zommer 191-382
magnetic field, variations: Nagata
189-385
magnetic surveys, Halley Bay ice
shelf: MacDowall 189-476
New Zealand-Ross Sea traverse:
Adams 188-467
paleomagnetism, Mesozoic: Bull
191-492
seismic surveys, Antarctic Penin-
sula: Behrendt 191-638
discrepancy with gravity data:
Ushakov 189-584
ice shelves: Thiel 188-566
ice thickness: Dubrovin 189-585
Yamato Mountains: Ishida 188-565,
190-593
volcanoes: Berninghausen 188-591
Appalachians, age, pegmatites:
Deuser 190-10
Arctic, crust, structure: Oborina
189-340
geophysical research: Rigsby 188-
283
geophysical surveys, Chukchi cap:
Hunkins 188-284
T-3: Plouff 188-285
glaciers, movement: Haefeli 191-
316
Arctic Ocean, geophysical surveys,
U. S. S. R.: Gordienko 188-286
origin of basin: Eardley 188-583
seismic surveys: Hunkins 189-611
submarine geology, Chukchi Shelf:
Cromie 191-684; International
Geophysical Year Bulletin: 191-
685
Argentina, age, general listing:
Lineras 189-21
Arizona, age, Precambrian rocks:
Damon 188-46
electrical surveys, ore below fan-
glomerate: Frischknecht 188-
250
gravity surveys: Plouff 188-344
magnetic field, measurements:
U. S. Coast and Geodetic Sur-
vey: 190-387
Asia, crustal structure: Santo 191-
404

Asia--Continued

- earthquakes, mechanism: Ritsema 189-106
- seismicity, A. D. 628 to A. D. 1500: Ambraseys 189-87
- Asteroids, collisions: Hawkins 189-41
- Atlantic Ocean, Bermuda-New England Seamount Arc: Northrop 190-601
- crust, structure: Savit 190-581
- heat flow, bottom sediments: Gerard 189-324
- magnetic surveys, profiles from Bermuda: King 188-446
- Mid-Atlantic Ridge: Il'in 189-612
- seismic surveys: Savit 190-581
- Australia, age, galena: Richards 190-374
- age, igneous and metamorphic rocks: Evernden 188-98
- Precambrian rocks: Wilson 188-99
- shales: Compston 191-29
- earthquakes, 1961: Cleary 191-122
- gravity surveys, Blinman dome: Mumme 189-318
- fault zone: Mumme 191-380
- Willunga basin: Pegum 191-379
- isotopes, sulfur, Broken Hill: Lawrence 191-417
- magnetic field, observations: Parkinson 191-437
- magnetic surveys, Blinman dome: Mumme 189-318
- paleomagnetism, Cenozoic: Mumme 191-491
- Austria, electrical surveys, water: Fritsch 188-254
- heat flow, Alps: Clark 188-365
- Azores, volcanic eruptions Capelinhos: Ferreira 190-617; Machado 191-691; Zbyszewski 189-618, 190-618
- volcanic eruptions, secular variation: Machado 190-615

B

- Bahamas, age, sediments: Ostlund 190-44
- Baltic shield, age: Polkanov 188-3
- Beaufort Sea, submarine geology, bottom topography: Carsola 188-584
- Bechuanaland, seismic surveys: Overseas Geological Surveys 191-623

- Belgium, age, radiocarbon dates: Dossin 190-49
- magnetic surveys: Graulich 189-469
- Bering Sea, heat flow: Foster 190-333
- Black Sea, radioactivity, sediment: Starik 190-500
- Boundary value problems, method of integration: Shuleshko 188-292
- Brazil, radioactive surveys: Argentièrre 189-501; Wedo 188-486
- British Columbia, age, mica: Reesor 188-57, -58
- glaciers, thickness determination: Jacobs 189-263
- British Isles, paleomagnetism: Everitt 188-431
- Bulgaria, geophysical surveys, ore deposits: Tuparev 191-629
- meteorites, review: Nikolov 191-63
- seismic regionalization: Kirov 191-90
- seismic surveys: Akrabova 191-630
- seismicity: Kirov 189-78

C

- California, age, granites: Bateman 188-49
- earthquakes: Bateman 188-151; Wood 188-156
- geophysical surveys, Owens Valley: Pakiser 190-244
- geotectonics, recent deformation: Alexander 190-287
- gravity surveys: Jackson 188-350; Kovach 190-327; Mabey 188-452; Oliver 188-348; Pakiser 188-349
- magnetic surveys: Irwin 190-478; Kovach 190-327; Mabey 188-452
- radioactivity surveys: Books 191-592
- Canada, age, Athabasca formation: Fahrig 189-18
- age, Cordilleran rocks: Muller 188-55
- general listing: Lowdon 188-50
- metamorphic rocks: Burwash 189-17
- radiocarbon dates: Dyck 190-40; McMallum 190-46; Trautman 190-42
- shield age program: Stockwell 188-52
- tectonic processes, Appalachians: Neale 189-15

Canada—Continued

- earthquakes, 1955-59: Milne 188-157
- geophysical exploration, 1961: Oil in Canada 188-282
- heat flow: Garland 190-337
- magnetic surveys, Arctic Archipelago: Gregory 188-455, 189-468
- radioactivity surveys, Arctic Archipelago: Gregory 188-455
- seismic surveys, Arctic: Hobson 189-575
- Upper Mantle Project: Canadian Mining Journal 190-361; Hodgson 191-406; Uffen 191-407
- Cape Verde Islands, volcanic activity: Ferreira 190-617
- Caribbean Sea, age, sediment: Rosholt 191-20
- Ceylon, age, igneous and metamorphic rocks: Vitanage 189-27
- Chile, age, igneous rocks: Ruiz F. 188-60
- crust, structure: Lomnitz 189-341
- earthquakes, 1958: Lomnitz 188-154
- 1960: Borgel 190-119; Dobrovolny 188-177; Rothé 189-76; Ruiz F. 190-120; St. Amand 190-121
- seismicity, regionalization: Gajardo 188-158
- China, age, bones: Isabayev 188-15
- crust, structure: Annau 188-370
- earthquakes, 1920: Petrushevskiy 188-166
- electrical exploration: Ivanov 188-248
- electrical logging, laterolog: Laboratory of Logging of the Academy of Petroleum of the MNP 190-229
- magnetic surveys, Great Shingan Mountains: Hou 188-466
- paleomagnetism, Paleozoic and Mesozoic: Van 190-465
- radioactivity exploration, methods: Grumbkov 190-516
- seismic exploration, marine: Bo 190-552
- refraction: Yepinat'yeva 190-559
- seismic scales: Van 188-165
- seismic surveys: Tseng 188-561; Yepinat'yeva 188-560
- seismicity: Khan' 190-129; Petrushevskiy 189-92; Savarenskiy 188-164

- Colorado, age, granites: Pearson 191-18
- gravity surveys: Plouff 188-340; Cureshy 190-326
- Colorado Plateau, age, Precambrian rocks: Damon 188-46
- Columbia, age, biotite: Pinson 191-21
- Congo, volcanic earthquakes, Nyiragongo: Shimozuru 188-595
- Conrad discontinuity, nature of: Báth 190-352
- Continental drift, Cabot fault, correlation with Great Glen fault: Wilson 191-308
- evidence from paleomagnetism: Kropotkin 188-310
- flora correlation: Plumstead 189-249
- Continents, growth, India: Bose 190-286
- growth, nuclear theory: Popov 191-303
- seismic evidence: Popov 191-311
- Core, equations of state, metals: Trubitsyn 191-414
- expansion, cause of orogeny: Cagniard 189-355
- rigidity: Pekeris 191-412
- seismic waves, magnetic field effect: Yukutake 189-356
- static deformations: Takeuchi 189-354
- Cosmic dust, collecting techniques: Soberman 190-89
- density near earth: Dubin 188-127
- impacts at 700-2,500 km elevation: LaGow 188-126
- kinetic energy, ballistic pickup: Isakovich 188-125
- origin: Soberman 190-91
- rate of accretion: Safronov 191-65
- size and shape: Hemenway 190-90
- spherules: Crozier 190-88; Utech 188-103, 189-58
- well cuttings: Skolnick 188-128
- Cosmic rays, carbon, nitrogen, oxygen abundances: Orsini 188-108
- Cosmogony, deuteron synthesis: de Turville 189-35; Fowler 189-36, 190-63
- galactic deuterium-hydrogen ratio: Weinreb 191-218
- Craters, natural fractures, influence on shape: Dickey 188-129

Craters—Continued

- nuclear explosions, desert alluvium: Nordyke 190-266
 - shatter cones, laboratory produced: Shoemaker 188-130
- Creep, rocks, Lomnitz law: Jeffreys 189-587
- rocks, review: Murrell 191-639
- salt, mine openings: Reynolds 188-571
- Crust, absolute ages, metamorphic effect: Neuvonen 189-11
- composition, continental and oceanic due to physical differences: Afanas'yev 189-352
- metamorphic rocks entirely: Rez-anov 189-336
- Conrad discontinuity: Båth 190-352
- evolution, isotope tracers: Russell 189-338
- granitic, formation: Lyustikh 191-400
- oceanic, second layer: Ewing 190-351
- stages of development: Khain 189-250
- static deformations: Takeuchi 189-354
- strength, hydrostatic flattening: Henriksen 188-305
- structure, Alaska: Shor 189-339
- Antarctica: Bentley 191-405
- Arctic: Oborina 189-340
- Asia: Santo 191-404
- Asia-Pacific Ocean transition zone: Aver'yanova 190-357
- Atlantic Ocean: Savit 190-581
- basic features: Dement'skaya 189-337
- Chile: Lomnitz 189-341
- China: Annau 188-370
- Euro-Asia: Payo Subiza 190-139
- Europe: Choudhury 189-343
- Fennoscandia: Tryggvason 191-401
- Germany: Berckhemer 189-130
- Iceland: Tryggvason 189-342
- India: Chakravortty 189-345
- Japan: Research Group for Explosion Seismology 190-358
- Japan to Kamchatka: Suzuki 189-347
- New Zealand: Adams 189-351; Thompson 189-350
- ocean basins: Arkhangel'skaya 189-344

Crust—Continued

- structure—continued
- Pacific Ocean: Gaynanov 190-334; Santo 188-371, -372, 191-403 191-404; Shechikov 189-349; Suzuki 189-348
- Puerto Rico Trench: Bunce 191-619
- South America: Asada 191-88
- Texas: Cram 188-369
- U. S. S. R.: Bichevina 191-402; Deniskin 188-143; Gal'perin 189-346; Godin 190-354; Popov 191-304; Tatevosyan 190-355; Ulomov 190-356
- Czechoslovakia, age, bones: Isabayev 188-15
- geodesy, review: Rysavy 191-299
- geophysical research: Zátópek 191-291
- magnetic surveys, Kleine Donau Plain: Müller 188-458
- microseisms: Zátópek 190-487, 191-570
- noise level: Karnik 191-569
- paleomagnetism, Paleozoic: Bucha 191-487
- seismic velocity surveys, Vienna basin: Zouneková 188-537
- seismicity, maps: Karnik 189-86

D

- Deformation, fault pattern analysis, South Silverton, Colo.: Varnes 190-594
- ice crystals: Nakaya 189-604
- Denmark, seismic surveys: Hjelme 189-579
- Density, rocks, Germany: Kopf 190-329
- Drilling activity, United States, 1961: Carsey 190-245
- Dutch East Indies, volcanic activity: Neumann van Padang 190-629

E

- Earth, figure, astrogeodetic and gravimetric determination: Burša 191-295
- figure, flattening: Henriksen 188-305; Lecar 188-304
- formula for determining: Marych 190-271

Earth—Continued

- figure—continued
 integral equation: Bjerhammar 189-238
 satellite measurements: Buchar 188-301; Jacchia 188-303; Szabo 190-297; Whipple 188-302
 theory of: Brovar 190-269
 triaxial ellipsoid: Heiskanen 190-268
 free oscillations: Takeuchi 189-354
 interior, Bullen models: Bullen 191-399
 heat distribution: Valle 191-385
 origin of components: Vinogradov 191-398
 stress and strain: Lomnitz 191-397
 temperature: Shneiderov 188-363
 models, elastic globe: Sato 190-163
 origin: Potapov 191-32; Wong 188-105
 rotation, motion of the poles: Fedorov 190-150
 torsional oscillations: Takeuchi 188-210
 Earth currents, frequency bands, differentiation: Verö 188-144
 land and sea observations correlated: Hessler 190-106
 magnetotelluric sounding, U.S.S.R.: Rokityanskiy 191-74
 observations, Spain: Miguel y Gonzáles Miranda 190-392
 oceans, induction by Sq: Rikitake 190-105
 potential gradient, stray currents: Vinogradov 191-72
 power spectrum analysis, U.S.S.R.: Horton 191-75
 self-potential exploration, effects on: Kojiro 189-182
 short period changes: Kebuladze 191-71; Yokoyama 191-70
 solar flares, correlation of distribution: Lashkhi 190-114
 variations, morphology: Vinogradov 191-73
 Earth current exploration, China: Ivanov 188-248; Kavin 188-145
 direct current amplifier: Academia Sinica 188-146
 methods: Gorelov 190-112
 model experiments: Richter 190-108
 review of methods: Porstendorfer 190-107

- Earth current exploration—Continued
 tellurograms, processing: Shabanov 190-113
 Earth current surveys, U. S. S. R.: Deniskin 188-143; Shabanov 191-76
 Earthquakes, acceleration, systems with one degree of freedom: Medvedev 190-133
 aftershocks, magnitude-frequency-time relationship: Utsu 189-74
 statistical study: Utsu 189-97
 Alaska, 1959: Brune 191-104
 Australia, 1961: Cleary 191-122
 California, 1872: Bateman 188-151
 history: Wood 188-156
 Canada, 1955-59: Milne 188-157
 cause: Petrushevskiy 189-85
 Chile, 1958: Lomnitz 188-154
 1960: Borgel 190-119; Dobrovolny 188-177; Rothé 189-76; Ruiz F. 190-120; St. Amand 190-121
 China, 1920: Petrushevskiy 188-166
 data processing, punch cards: Bogert 188-190
 energy: Gayskiy 191-99; Hofmann 188-147; Keylis-Borok 189-95; Teissyre 188-174
 engineering: Dobrovolny 188-177; Merchant 189-120; Science Council of Japan 188-178
 epicenters: Cleary 191-122; Tarczy-Hornoch 188-168; Tre-skov 191-96
 Europe, 1901-55: Kárník 191-77
 fault plane solutions: Kuo 188-176; Ritsema 188-175
 Fiji, 1953: Houtz 189-81
 1961: Houtz 189-82
 focal depth determination, macroseisms: Sponheuer 190-130
 focal mechanism: Ben-Menahem 190-123; Enesku 190-132; Furumoto 191-102; Schaffner 189-113; Stauder 191-132
 focus, location by computer: Nordquist 189-94
 free oscillations of earth, gravity effects: Nakagawa 190-138
 geologic interpretation: Gorshkov 190-135
 ground motions, empirical formulas: Kanai 188-173
 intensity, irregular distribution at surface: Solonenko 191-100

Earthquakes—Continued

- intensity-frequency relationship, Japan: Ikegami 188-171
- Israel, catalog corrections: Ambraseys 189-77
- Jamaica, 1957: Robinson 190-117
- Japan, 1961: Hagiwara 191-82; Hoshina 190-124; Kanai 191-87; Kishinouye 191-80; Miyamura 191-84; Morimoto 191-86; Murai 191-85; Omote 191-83; Osawa 191-81; Yoshiyama 191-79
- magnitude distribution: Hirono 188-167
- magnitude, depth distribution: Matsushima 188-172
- equation for Potsdam: Stelzer 188-169
- macroseismic formulas: Galanopoulos 191-98
- scale: Vanek 191-97
- standardization of methods: Kárník 190-131
- surface wave determination: Savarenskiy 188-170
- mechanism, aftershocks: Duda 189-75
- analytical calculation: Knopoff 189-100
- couples without moment: Ingram 189-99
- dislocation theory: Balakina 189-102
- displacement of source: Keylis-Borok 189-104
- frequency: Gurevich 191-106
- generation of waves: Honda 189-103
- long-period surface waves: Aki 189-109
- principal horizontal stress: Lensen 189-112
- Rayleigh waves: Brune 189-110
- S-waves: Ferraes 191-103; Stauder 189-105
- statistical accuracy: Knopoff 189-101
- symposium: Byerly 189-98
- tectonics of Asia: Scheidegger 189-111
- Turkey: Öcal 189-108
- Mexico, 1959: Figueroa Abarca 188-152; Merino y Coronado 188-153
- microregionalization, deformation of seismic waves: Kats 190-125

Earthquakes—Continued

- Mongolia, 1957: Solonenko 191-78
- Montana, 1959: Bailey 188-150; Hofmann 188-147; Meyers 188-149; Ryall 189-72; Steinbrugge 189-71; Tocher 189-69; Wiegel 189-73; Witkind 188-148, 189-70
- Nevada, history: Wood 188-156
- prediction: Gzovskiy 191-107; Neret 188-179; Petruchevskiy 191-108
- response spectrum: Clough 191-109
- Rumania, catalog: Atanasiu 188-160
- Saskatchewan, 1909: Agarwal 190-116
- source function, Rayleigh waves: Aki 191-105
- stress state at focus, Carpathian Mountains: Ruprechtová 190-134
- strong-motion analysis, computer techniques: Hudson 189-114
- Syria, catalog corrections: Ambraseys 189-77
- textbook: Savarenskiy 188-155
- U. S. S. R., 1955: Kukhtikova 189-80
- 1958: Kondorskaya 190-122
- depth of focus in Caucasus: Tskhakaya 191-92
- Tadzhik S. S. R.: Nersesov 189-79
- volcanic, Congo: Shimozuru 188-595
- water-level fluctuations: Rexin 189-119
- world, 1958-60: Montandon 189-235
- Earth tides, deviation of vertical, ocean tide attraction: Lennon 188-195
- exploration tool for faults: Mandelbaum 190-149; Rigassi 188-192
- gravimeter measurement, earthquake effect: Balakrishna 188-193, -194
- horizontal pendulums, calibration: Schneider 190-151
- orogeny, cause: Stovas 189-242; Woodruff 189-253
- surface mass loads, Green's function: Longman 190-148
- tectonic processes: Belyankin 188-196
- tidal gravity corrections, 1962: Service Hydrographique de la Marine and Compagnie Générale de Géophysique 189-303
- Egypt, age, biotite: Gheith 188-64

- Elastic properties, coal, function of metamorphic rank: Toporetz 188-276
- cores, apparatus and methods: Shan'gin 188-214
- feldspar: Aleksandrov 191-202
- high pressure, ultrasonic interferometer: Ahrens 191-205
- ice: Langleben 188-216; Nakaya 190-600; Serikov 189-608; Zhukov 189-567
- micas: Aleksandrov 191-201
- rocks, determination in place: Nicholls 190-168, 191-195; Swain 189-565
- high pressure: Volarovich 191-199
- U. S. S. R.: Belikov 190-172
- Young's modulus: Köhsling 189-156
- sandstones, triaxial pressure: Horibe 188-215
- Elastic waves, absorption: Silayeva 189-155; Vanek 191-197
- acoustic field approximation: Gazaryan 191-179
- amplitude, from M-discontinuity: Werth 189-158
- layered medium: Lossovskiy 191-170
- size of underground explosion: Carpenter 191-208
- variation with frequency: DeNoyer 189-161
- analog model: Chauveau 190-159
- anisotropic half-space, reflection from: Bershteyn 190-162
- attenuation, longitudinal waves: Klíma 190-167
- method of measuring: Auberger 190-166
- rock samples: Vasil'yeva 191-196
- azimuthal asymmetry, low velocity cylinder: Meecham 189-142
- body, finite moving source: Ben-Menahem 188-204
- inequalities at great distance: Rocard 189-163
- coupling, shotpoint medium: Adams 188-220
- cylindrical function: Molotkov 191-187
- decoupling effect, spherical cavity explosion: Adams 188-221; Willis 189-160
- degenerated: Zaytsev 191-171
- Elastic waves—Continued
- dispersion, higher modes: Takahashi 191-160
- Love waves: Takahashi 191-159
- elastic globe: Sato 190-163
- energy transfer, anisotropic mediums: Osipov 191-165
- excitation, interface: Gilbert 189-143
- explosions, characteristic periods: Keylis-Borok 189-151
- effect of interface: Vavilova 189-146
- extension, behind caustic: Babich 191-182
- frequency, spectrum: Stewart 188-181
- spherical seismic origin: Aoki 190-179
- unilateral pressure: Konstantinova 191-200
- geologic bodies, shape of: Buldyrev 191-183
- geometric divergence: Gel'chinskiy 191-177
- ground motion, near explosion: Yoshikawa 190-180
- head waves, model studies: Davydova 191-191; Shamina 190-170
- ray method: Alekseyev 191-178
- horizontally polarized, underground explosions: Wright 190-178
- horizontal stress applied to elastic half space: Cherry 189-140
- impulses, distortion, by resonance analyzers: Gratsinskiy 190-160
- inhomogeneous sphere: Nomura 190-165
- interference zone, reflected and head waves superposed: Červený 190-156
- line source, directivity problem: Gilbert 188-197
- transversely isotropic elastic medium: Abubaker 191-154
- liquid-solid boundary: Osipov 191-169
- longitudinal, artificial earthquakes: Choudhury 189-343
- dynamic characteristics: Shamina 191-172
- Love, homogeneous medium: Deresiewicz 191-152; Hudson 190-152
- transition zones: Sato 189-152

Elastic waves—Continued

- low frequency oscillations, liquid halfspace: Molotkov 191-189
- low velocity zone, change in displacement direction: Galperin 191-166
- models, perforated: Gil'bershteyn 190-175; Ivakin 191-193
- pinch out layers: Kun 191-168
- two-dimensional: Shamina 190-171
- M-waves, two major branches: Tazime 188-209
- nonstationary, field near caustic: Babich 191-181
- normal mode, elastic plates: Nakamura 188-207, -208
- ocean bottom, pressure variations: Bradner 191-212
- oscillations, layered structure: Molotkov 191-190
- P-waves, nuclear explosions: Wright 189-157
- PL modes, single layer: Gilbert 189-141
- plane source: Peč 189-145, 190-157, 190-158
- propagation, cylindrical borehole: White 190-153
 - dissipative medium: Soluyan 191-173
 - effect of physical properties: Rinehart 189-153
 - exact transient solution: Flinn 189-139
 - interface: Gilbert 189-143
 - liquid layer over sloping bottom: Nagumo 188-201
 - nonhomogeneous medium: Gazaryan 191-180
 - thin layers: Molotkov 191-188
 - viscous-elastic halfspace: Borodachev 189-147
- Rayleigh, artificial explosion: Sherwood 191-151
 - dispersion: Tazime 191-161
 - free surface: Pod'yapol'skiy 188-206
 - liquid-filled porous solid: Deresiewicz 191-149
 - period equation: Dorman 189-150
 - reflection, liquid-filled porous solid: Deresiewicz 191-148
 - model study: Shamina 190-170
 - nonspecular boundaries: Voskresenskiy 191-192

Elastic waves—Continued

- reflection and refraction, coefficients: Tazime 188-199
- liquid-liquid and solid-solid interfaces: Bortfeld 190-154
- resonant oscillations, overburden: Gupta 189-162
- salt, behavior at CO₂-filled cracks: Neunhöfer 190-169
- scaling law: Carder 189-159
- scattering, rough surfaces: Abubakar 188-200
- seismic-electric effect: Zablocki 188-218
- SH-waves, semi-infinite elastic halfspace: Nag 188-202
 - total internal reflection: Hudson 191-156
- shear, transient torsional couple: Datta 189-144
- short period, semi-infinite isotropic medium: Sato 189-148
- sonic booms, generated by: Oliver 191-211
- spherical, reflection coefficients: Červený 191-162
- spherical and cylindrical interfaces: Buldyrev 191-186
- surface, dispersion: Harkrider 189-149
 - layered structure: Yamaguchi 191-157
 - two-layered structure including water layer: Yamaguchi 191-158
- torsional oscillations of earth, attenuation: Zharkov 191-164
 - split spectral peaks: Usami 191-150
- transformed, model study: Shamina 191-167
- transition layer: Tsepelev 191-184
- twisting impulse force, surface of spherical cavity: Dutta 188-203
- velocity, anisotropic medium: Osipov 191-163
 - field seismoscope: Gil'bershteyn 190-181
 - granites of India: Hayakawa 188-212
 - ice: Thiel 188-566
 - increase with depth: Kunz 190-155
 - metamorphic rocks: Kravets' 191-198
 - U. S. S. R., Turkmen S. S. R.: Bulin 191-602

- Elastic waves—Continued
 velocity—continued
 variation with clay content of rocks: Hurtig 190-173
 variation with temperature in volcanic rocks: Iida 189-154
 viscoelastic material, reflected and refracted: Lockett 188-198
 wave front, derived from slip front on cylinder: Molotkov 191-185
 ray method: Babich 191-176
- Elasticity, anisotropic mediums:
 Anderson 191-153
 determination, uniaxial compression: Hardy 189-592
 dynamics of elastic bodies, reciprocal theorems: Hu 190-164
 energy of rupture: Vinogradov 191-652
 equation of state, rocks: Lombard 188-217
 line source, transversely isotropic elastic medium: Abubakar 191-154
 Poisson's ratio, halite and potash ore: Warrick 188-213
 Rayleigh waves, transition to sound waves: Tazime 188-205
 rocks, absorption and dispersion of elastic energy: Donato 188-211
 high confining pressures: Fay 190-174
 in place measurements in India: Central Water and Power Research Station Poona 191-194
 laboratory measurements: Fairhurst 188-576
 sea-ice: Pounder 191-204; Tabata 189-603
 seismic modeling, automatic spectrum analyzer: Obukhov 190-161
 shearing-stress discontinuity: Nag 191-155
 twisting impulse force, surface of spherical cavity: Dutta 188-203
 wave fronts, ray method: Babich 191-175
- Electrical exploration, airborne, review: Mizyuk 191-242
 amplitude and phase oscillations, noninertial measurement: Ivanov 188-249
 apparent resistivity, physical nature: Polyakov 190-198
 apparent resistivity functions, linear approximation: Unz 191-229
- Electrical exploration—Continued
 archaeology: Hesse 189-187
 boundary problems: Glyuzman 191-222; Kolbenheyer 191-227
 buried cylinders: Plokhikh 191-221
 buried spheres: Umezu 191-228
 charge method, phase measurements: Kevorkov 189-174
 Ural Mountain: Rodionov 188-246
 conductivity of groundings, low frequency: Rokityanskiy 188-244
 dipole electromagnetic method, asymptotic expression: Praus 191-232
 depth to conducting basement: Molochnov 188-233
 depth to inclined layer: Molochnov 188-234
 direction of profile: Zakharov 191-214
 length of lines: Nazarenko 189-176
 direct current, dipole method: Ri 190-193
 vertical layers: Ștefănescu 188-242
 double rotating field: Khomenyuk 191-233
 electromagnetic frequency sounding: Kozulin 191-235
 glaciers, U. S. S. R.: Borovinsky 191-245
 ground water: Ogil'vi 190-202
 highway engineering: Moore 188-522
 historical review: Kunori 188-247
 horizontally nonhomogeneous medium: Vedrintsev 189-175
 induced polarization: Chzhan' 190-192; Zaborovskiy 190-189
 cylindrical conductors: Pris 190-188
 electrodes: Nazarenko 190-190
 ground water: Petrucci 191-239
 interpretation: Belash 191-224
 low frequency: Pris 191-216; Svetov 191-215
 sulfides: Seigel 190-187
 theoretical analysis: Komarov 189-167
 U. S. S. R.: Shapovalov 190-191
 interpretation, theoretical vs empirical: Orellana Silva 191-226
 loop antenna, radiation intensity: Verbyts'kyy 191-243
 low-frequency, direct current: Ryss 189-173
 earth-atmosphere interface: Kaufman 191-223

- Electrical exploration—Continued
 magnetic field of an input line:
 Ștefănescu 188-241
 magnetic moment, calculation: Po-
 lonskiy 191-218
 natural electrical field: Ryss 189-
 169
 non-horizontal interfaces: Terekhin
 188-245
 oil, suitability of method: Yungul
 190-200
 permafrost: Dobrovol'skiy 189-185;
 Yakupov 190-204
 point-source current, parabolic
 cylinder: Glyuzman 190-183
 point source underground, field at
 surface: Fokin 189-168
 resistivity, bauxite: Fritsch 190-
 201
 clay deposits: Arogyaswamy 190-
 205
 ellipsoidal sonde with shielding:
 Cheremenskiy 190-195
 ground water: Kelly 191-238
 network analyzer: Yoshizumi
 189-189, 190-207
 pegmatites: Ignat'yeva 189-170
 resistivity of probe: Rao 191-240
 self-potential: Kaku 189-177;
 Makino 189-179
 earth current effect: Kojiro 189-
 182
 Japan: Okabe 189-183
 model studies: Yokoyama 189-184
 ore deposits: Endo 189-180
 soil and topographic effects: Oha-
 shi 189-181
 sulfide ore deposits: Seya 189-178
 spherical inclusion, layered medi-
 um: Matveyev 191-213
 temperature difference in ore body:
 Yamashita 190-199
 topographic effect, model study:
 Vantsyan 190-203
 transient processes, anomalous ob-
 jects: Pris 191-220
 cylinder: Pris 191-219
 method: Kamenetskiy 191-237
 vertical contact, total longitudinal
 conductivity: Kalenov 190-196
 vertical electrical sounding, aqui-
 fers: Köhsling 188-240
 China: Ivanov 188-248
 multilayered section: Fomina 188-
 239
 point method: Kukuruza 188-238
- Electrical exploration—Continued
 vertical electrical sounding—con-
 tinued
 steep contacts: Pichugin 190-197
 three layers on basement:
 Levadnyy 191-225
 vertical magnetic dipole, radiation
 resistance: Negi 188-228
 Electrical logging, accuracy, reser-
 voir properties: Popov 190-225
 capacitance effect: Mirsalimov 188-
 261
 carbonate rocks: Per'kov 189-213
 coal deposits: Gryzlov 190-228;
 Plewa 190-233
 computer interpretation: Tuman
 189-201
 earth currents, effect of: Garland
 189-200
 electrode potential method: Meyer
 188-263
 fracturing: Goryunov 191-254
 gabbro: Zablocki 188-266
 induction: Aksel'rod 190-224;
 Bucheim 191-247; Dobrynin
 190-223; Duesterhoeft 191-248;
 Kaufman 191-251
 interpretation, digital computer:
 Hargrave 190-230
 Wyoming: Patchett 188-267
 laterolog, China: Laboratory of
 Logging of the Academy of Pe-
 troleum of the MNP 190-229
 instrumentation: Chukin 190-231
 methods, U. S. S. R.: Dakhnov 189-
 203
 mud resistivity, effect of additives:
 Johnson 188-264
 ore deposits: Meyer 189-202
 permeability: Ellanskiy 190-226;
 Pernikov 189-204
 resistivity, clayey sands: Kamenev
 188-274
 model experiment: Kulinkovich
 190-221
 oil saturation: Anpilogov 189-209
 permeability: Dolina 189-207
 porosity: Kozina 190-222; Logov-
 skaya 191-250
 reservoir properties: Boyarov
 188-273; Vendel'shteyn 189-205
 salt-water leakage: Moston 188-
 268
 water quality: Turcan 191-255
 water-oil contact: Sokhranov 188-
 262, 190-220

Electrical logging—Continued resistivity—continued

- water-saturated sands: Marušiak 189-212
- with drill pipe in hole: Oilweek 189-214
- review: Johnson 191-249
- self-potential, diffusion-adsorption potentials: Vandel'shteyn 190-227
- effect of shot in ore boreholes: Meyer 188-265
- Japan: Suyama 189-211
- porosity: Anpilogov 191-253; Fel'dman 189-208; Komarov 189-210; Krinari 189-206; Maletskaya 190-216; Potapov 190-219; Shakina 190-215; Shapiro 190-218
- reservoir properties: Chekhovskaya 190-217
- specific surface: Boyarov 191-252
- sulfides, Germany: Andreas 188-269
- surveys, Bulgaria, ore deposits: Tuparev 191-629
- Japan, uranium: Sano 188-511
- Majorca, lignite: Sell Cantalapiedra 190-232
- U. S. S. R. : Itenberg 190-234; Stankevich 191-258
- Azerbaijan A. S. S. R. : Kireyev 189-217
- Chulym research drill hole: Poyarkova 191-259
- cis-Caucasus: Nechay 189-215
- Emba region: Ayzenshtadt 191-260
- Khanty-Mansiysk research drill hole: Kozlov 191-256
- Kuban downwarp: Bedcher 189-216
- Kyanizadag area: Dadashev 188-272
- Maksimkin Yar research drill hole: Shumenkova 189-219
- Pokur research drill hole: Dryakhlova 189-220
- Rybin research drill hole: Gorbachev 190-236
- Uvat research drill hole: Alferov 191-257
- Volga-Ural district: Per'kov 189-218
- Zhigalov research drill hole: Sulimov 190-235

Electrical logging—Continued surveys—continued

- Yugoslavia, coal basins: Perić 188-270
- Electrical properties, basalts, Michigan: Keller 188-275
- coal, function of metamorphic rank: Toporets 188-276
- earth's interior, conductivity: Noritomi 190-241
- electromagnetic waves, attenuation in rocks: Dokouřil 190-240
- fayalite: Bradley 190-237
- gabbro, boreholes: Zablocki 188-266
- in place measurement: Rush 191-262
- natural electrical field, sulfide ores: Davydov 190-243
- resistivity, function of water content: Keller 190-238
- rocks: Ivanov 190-239; Mikhaylova 188-277
- saturated sand and clay sizes: Sarma 191-261
- self-potential, ore bodies: Bukhnikashvili 190-242
- ore samples: Bukhnikashvili 188-278
- sulfide ores: Sveshnikov: 188-279
- thermoelectricity, pyrite: Hill 191-263
- Electrical surveys, Alberta, ice thickness: Keller 189-191
- Arizona, ore below flanglomerate: Frischknecht 188-250
- Austria, water: Fritsch 188-254
- Canada, Athabasca Glacier: Keller 189-191
- France, salt springs: Horon 188-252
- Germany, Hammerunterwiesenthal phonolite: Jaeger 188-457
- sulfides: Andreas 188-269
- Illinois, glacial deposits: McGinnis 189-573
- Italy, geothermal energy: Alfano 188-253
- Jamaica, copper: Bergey 190-208
- Japan, gold: Kobayashi 188-260, 189-197
- Matsukawa hot spring district: Ono 190-212
- molybdenite: Shibato 190-213
- Oshima Island: Ono 190-214
- propylite: Kunori 189-199

Electrical surveys—Continued

- Japan—continued
 - sulfides: Otaki 189-198
 - uranium: Ono 189-196
 - Mongolia, East Gobi depression:
 - Fomina 190-211
 - Nevada, basalt thickness: Roller 188-251
 - Nigeria, tin placer deposits: Shaw 190-209
 - Northwest Territories, Devon
 - Island glaciers: Greenhouse 189-193; Voegtli 189-192
 - U. S. S. R., Armenian S. S. R.: Vantsyan 188-258
 - Caspian area: Nazarov 188-259
 - glaciers: Borovinskiy 189-194, 189-195, 190-210; Tokmagambetov 191-244
 - microisotropy: Levadnyy 191-246
 - Washington, lead-zinc deposits:
 - Crosby 189-190
 - Yugoslavia, bauxite: Krulc 188-256
 - coal basins: Mladenović 188-257
 - graphite: Ristić 188-255
- Electromagnetic exploration,
- AFMAG, western U. S. A.: Kellogg 189-172
 - airborne, dipole induction: Artamonov 189-164
 - dual-frequency phase shift method: Paterson 188-227
 - helicopter: Paterson 191-236
 - single frequency device: Wieduwilt 191-231
 - sonic frequencies: Shaub 189-165, 189-166
 - build-up of field: Kovtun 188-229; Van'yan 188-237
 - continuous frequency sounding:
 - Enenshteyn 190-194
 - diffraction, inhomogeneous sphere: Negi 191-230
 - dipole field, infinitely conducting disc: Douloff 188-225
 - dipole sounding: Molochnov 188-232, 188-235
 - glacier thickness: Rudakov 189-186
 - inhomogeneous cylindrical body, time-varying field: Negi 190-182
 - low frequency, amplitude-phase measurement: Svetov 190-206
 - model studies, single sheet and schistose conductors: Swanson 189-188

Electromagnetic exploration—Continued

- radiowave translucence, iron deposits: Grachev 190-184
 - uranium deposits: Bondarenko 191-241
 - resistivity of country rock, buried sphere: Shaub 191-217
 - rotating magnetic field experimental verification of method:
 - Shaub 188-243
 - secondary magnetic field: Yokoyama 189-171
 - stratified earth: Gasanenko 188-230; Wait 190-185
 - transmitter-receiver position, errors connected with: Suoninen 190-186
 - two-layered medium: Gasanenko 188-236; Van'yan 188-231
 - wave diffraction, conducting plate in conductive medium: Dmitriyev 191-234
- Ellesmere Island, seismic surveys, glacier thickness: Weber 191-621
- England, age, biotite: Miller 191-24
- age, galea: Moorbath 189-22
- granites: Lambert 188-2; Long 189-23; Miller 191-23
- metamorphic rocks: Miller 189-24
- gravity surveys, marine: Bott 189-309
- magnetic surveys: Bott 190-481
- paleomagnetism, Triassic remagnetization of Old Red Sandstone: Creer 189-453
- seismic surveys, coal fields:
 - Clarke 189-577
- Epirogenesis, source of tectonic movement: Legrand 188-309
- Ethiopia, magnetic field, measurements: Gouin 191-435; Mayaud 191-434
- Euro-Asia, crust, structure: Payo Subiza 190-139
- Europe, age, granites: Faul 188-35
- crust, structure: Choudhury 189-343
- earthquakes, 1901-55: Kárník 191-77
- gravity, Bad Harzburg-Etna calibration line: Morelli 191-366
- Rome-Barcelona tie: Morelli 191-368
- microseisms, nature and origin: Zátoupek 191-567

Explosion seismology, explosive energy, coupling to rock: Nicholls 190-177
 nuclear explosions, acoustic waves: Jones 188-131
 air to ground coupling: Tandon 190-176
 strain release: Press 188-219
 VELA UNIFORM: Bates 188-222
 scaling law: Carder 189-159
 transverse motion: Jones 191-206
 upper mantle, P-traveltimes: Lehmann 191-408

F

Fiji, earthquakes, 1953: Houtz 189-81
 earthquakes, 1961: Houtz 189-82
 Finland, age, galena: Kouvo 188-73
 age Precambrian rocks: Wetherill 188-72
 crust, thickness: Tryggvason 191-401
 Florida, age, dolomite: Deffeyes 190-12
 Folding, crustal shortening, not related to: Carey 190-281
 Fracturing, textbook: Thomas 188-567
 France, electrical surveys, salt springs: Horon 188-252
 radioactivity, granite: Prouvost 190-498
 seismic surveys, Limagne basin: Carron 189-578
 thermal springs, Haute-Auvergne: Roux 189-623
 French Antilles, volcanic activity, prediction: Jolivet 190-613
 Fusion curves, alkali metals, up to 50 kb: Newton 190-367

G

Galvanometers, compared with proton vector magnetometer: Bottom 188-394
 Geodesy, academic training, Ohio State University: Heiskanen 189-239
 altitude reduction: Jung 190-275
 Czechoslovakia, review: Rysavy 191-299
 deflection of the vertical, topography isostatically reduced: U. S. Army Map Service 190-274

Geodesy—Continued

hypsonetric curve of the earth: Tanner 190-273
 network, Scandinavia: Honkasalo 190-276
 reference ellipsoid, satellite observations: Burša 191-294
 satellite observations, mean earth ellipsoid: Burša 191-297
 triaxial ellipsoids, transformation: Pick 191-296
 trigonometric networks, transfer: Kašpar 190-278
 Geoid, computation, errors in geographic latitude: Pick 191-298
 computation, formula: Mikhaylov 190-270
 gravity values: Arnold 190-272
 pear-shaped component: O'Keefe 188-306
 Geologic thermometry, Rumania, sulfide ores: Savul 189-335
 Geomechanics, engineering and mining practice: Müller 191-647
 Geomechanics, general discussion: Clar 191-645
 time as a factor: Heitfeld 191-646
 Geophones, oscillations of instrument and ground: Vasil'yev 190-572
 Geophysical anomalies, potential, inverse problem: Nedyalkov 189-226
 Geophysical exploration, alternative employment of geophysicists: Jones 191-285
 apparatus, Poland: Izakowski 190-262
 Canada, 1961: Oil in Canada 188-282
 chromite, Yugoslavia: Šumi 188-299
 computers: Morrison 190-259; Stoian 190-260; Teskey 189-229
 cost analysis, U. S. S. R.: Karpushin 188-298
 current status (1962): Brundage 190-256; Dobrin 191-276; Link 191-281; Woods 191-275
 economic problems (1962): Lyons 191-279; McLarty 191-277; Moore 191-280
 employment statistics (1962): Campbell 191-284
 engineering applications: Drake 190-255
 engineering geology, Poland: Bażyński 190-263

- Geophysical exploration—Continued
 faults, determination from geophysical maps: Klushin 191-292
 geothermal energy: Klimentov 191-391
 ground water: McDonald 189-232
 interpretation, ambiguity in: Roy 191-274
 factors controlling limits: Bullerwell 188-293
 mining, trends (1962): Paterson 191-283
 North America, trends (1959): Newfarmer 191-278
 permafrost areas: Bulmasov 189-231
 personnel requirements (1960): Woods 191-287
 Poland: Skorupa 188-296, -297
 rare metals, carbonates and alkaline rocks: Vakhromeyev 190-265
 seasonal nature, U. S. S. R.: Tishchenko 190-250
 statistical methods: Kulinkovich 190-257
 student enrollment (1962): Hollister 191-286
 technical limitations: Born 191-282
 textbook: Bubleynikov 188-295; Ogil'vi 189-228
 U. S. S. R.: Semenov 190-264; Shirokov 190-247
- Geophysical research, American Geophysical Union: Smith 190-254
 Arctic regions: Rigsby 188-283
 changing character (1962): Brant 191-288
 Czechoslovakia: Zátpek 191-291
 Hawaii Institute of Geophysics: Ramage 189-233
 information, content of the mean: Matalas 191-273
 nature and limitations: Cailleux 190-258
 International Geophysical Calendar for 1962: Shapley 189-234
 mantle: Magnitskiy 188-374
 Peru: Giesecke 191-290
 review (1962): Berkner 190-253
 textbook: Toperczer 188-294
- Geophysical surveys, Antarctica:
 Behrendt 191-265; Robin 191-267; Shumskiy 190-252; Weihaupt 191-266
- Geophysical surveys—Continued
 Arctic, Chuchi cap: Hunkins 188-284
 T-3: Plouff 188-285
 Arctic Ocean, U. S. S. R.: Gordienko 188-286
 California, Owens Valley: Pakiser 190-244
 India: Indian Minerals 190-251; Kailasam 189-224
 dam sites: Central Water and Power Research Station Poona 191-272
 Karakorum glaciers: Desio 191-271
 Japan, lead-zinc deposits: Odani 189-225
 Maryland, Rockville quadrangle: Griscom 188-280
 Saskatchewan, Coronation mine: Rattew 190-246
 U. S. S. R., Amur-Zeya depression: Volodarskiy 191-270
 diamond deposits: Bondarenko 189-221
 Glavnny Bol'shealmatinskiy glacier: Borovinskiy 191-268
 Kazakh S. S. R.: Ayzenshtadt 190-249; Babayants 188-291
 Kirovabad area: Dzhaferov 189-223
 Kyzyl-Kum: Mel'kanovitskiy 189-222
 Lower Volga: Kozlenko 190-248
 reefs in Cis-Urals: Khat'yanov 188-290
 Tashkent: Mel'kanovitskiy 191-269
 Venezuela, Alturitas area: Stenson 188-287
 Yugoslavia, oil and gas: Aksin 188-289; Mužijević 188-288
- Geophysical well logging, Russian terminology: Dakhnov 188-300
- Georgia, age, metamorphic rocks: Kulp 188-40
 radioactivity surveys: Schmidt 189-499
 tektites, age of fall: Furcron 190-93
- Geosynclines, subsidence, phase change at M-discontinuity: McMath 189-243
- Geotectonics, continental drift:
 Girdler 191-305; Runcorn 189-248; Sougy 190-283; Weertman 189-247

Geotectonics—Continued

- continental growth: Weeks 190-279; Wilson 189-251
- cosmic factors: Eygenson 190-280
- crustal deformation: Caputo 189-240; Khain 189-250; Popov 189-245
- earth tides: Belyankin 188-196
- expanding earth: Barnett 191-300; Egyed 188-427; Shneiderov 189-252
- isostasy, tectonic factor: Lyustikh 191-302
- Mendocino fracture zone, North America continuation: Gilliland 191-309
- model studies: Hamilton 190-292
- physicochemical model, heat source: Shimazu 191-301
- recent movements, Alaska: Ivanhoe 190-288
 - California: Alexander 190-287
 - Greenland: Saxov 189-254
 - India: Kumar 189-256
 - Italy: Gantar 190-290
 - Japan: Miyamura 188-316
 - measurement of: Korhonen 188-313
 - U. S. S. R. : Kazanchan 189-255; Rudich 188-315; Shul'ts 191-310
- rift systems, Arabo-Ethiopian swell: Mohr 191-306
- sea level changes, glacial control: Gill 188-317
- Scotia Arc, origin: Hawkes 190-284
- secular movements: Meshcheryakov 190-291
- tilting: Bonchkovskiy 189-246
- vertical movements, cause of folding: Lovejoy 188-307
- gravity anomalies: Subbotin 189-241
- velocity gradients: Reysner 188-314
- volcanoes, tension in crust: Brouwer 190-605
- wrench faults, length-to-offset ratio: Menard 191-307
- Geothermal anomalies, U. S. S. R. , Apsheiron Peninsula: Sultanov 189-325
- Geothermal energy, exploration methods: Klimentov 191-391
- Iceland: Bødvarsson 190-343

Geothermal energy—Continued

- Indonesia: Neuman van Padang 190-347
- Italy: Alfano 188-253; Cassinis 188-555; Gennai 190-344; Vecchia 189-312
- Japan: Hayakawa 189-332; Nakamura 189-333
- New Zealand: Byron 189-329; Goguel 190-349; Studt 190-348
- review of literature: Penta 190-342
- United Nations Conference 1961: Smith 188-362
- U. S. S. R. , Dagestan A. S. S. R. : Dzhamalov 188-367
- Kamchatka: Syvatlovskiy 190-346
- Kurile-Kamchatka: Averyev 190-345
- Geothermal gradient, ground water circulation, effect of: Donaldson 191-384
- New South Wales, Cobar: LeMarne 191-393
- New Zealand, thermal areas: Hulston 189-327, -328
- oil pools: Rostomyan 189-322
- U. S. S. R. , Azerbaijan S. S. R. : Aliyev 188-366; Mekhtiyev 190-341; Tsaturyants 190-340
- Karadag gas field: Tsaturyants 191-390
- Tersko-Kuma Plain: Vorob'yeva 190-339
- Geothermometry, igneous and metamorphic rocks, U. S. S. R. : Krylova 190-350
- pyrrhotite-pyrite solvus: Arnold 191-395
- quartz, Rumania: Pomfrianu 189-334; Savul 188-368
- sphalerite, dolomite, and calcite; Miami-Picher district: Schmidt 191-394
- New Brunswick: Kalliokoski 191-396
- Germany, age, metamorphism: Davis 189-1
- age, radiocarbon dates: Wendt 190-50
- cosmic spherules, Bundsandstein: Utech 189-58
- crust, structure: Berckhemer 189-130
- density, rocks: Kopf 190-329
- electrical borehole surveys, sulfides: Andreas 188-269

Germany—Continued

- electrical surveys, Hammerunter-
wiesenthal phonolite: Jaeger
188-457
- gravity surveys, Erzgebirge:
Grosse 190-330
- Freiberg-Brand area: Berger 189-
313
- magnetic field, observations: Voel-
ker 189-379
- magnetic properties, basalts: Refai
189-437
- magnetic surveys: Franz 189-473;
Fröhlich 189-471; Jaeger 188-
457; Kopf 189-470; Lauterbach
189-472; Särchinger 191-550
- radioactivity surveys, faults: Lös-
er 189-502
- seismic surveys: Grosse 191-628;
Herrmann 191-626; Reinhardt
191-627; Rische 191-624;
Thomas 191-625
- Glaciation, cyclical variations of sea
level: Fairbridge 188-321
- Glaciers, Antarctica, Filchner ice
shelf: Behrendt 188-319
- Antarctica, flow regimen: Cray
190-296
- Ross ice shelf: Cray 188-320
- thermal gradient: Gow 189-262
- British Columbia: Jacobs 189-263
- drilling technique: Vilesov 189-279
- fabric studies, ablation zone: Rigs-
by 189-277
- flow mechanism, glacial shields:
Vyalov 189-273
- melting point: Steinemann 189-272
- Greenland, flow in ice cliffs: White
189-264
- visco-elastic properties: Nakaya
189-271
- historical review, U. S. S. R.: Cher-
kasov 189-285
- ice caps, equilibrium profiles:
Weertman 189-260
- ice cliffs, Greenland: Goldthwait
189-261
- ice formation, U. S. S. R.: Makare-
vich 189-281
- ice thickness, U. S. S. R.: Pal'gov
189-284, 191-636
- I. G. Y. research, U. S. program:
Cray 189-258
- Italy, Miage glacier: Carabelli
190-294
- markers and ice augers: Ward 189-
265

Glaciers—Continued

- movement, analysis: Agostinelli
189-274
- Antarctica: Bogoslovskiy 189-275;
Swihinbank 191-319
- Arctic and Antarctic: Haefeli 191-
316
- creep tests on ice: Butkovich 189-
605
- Devon Island: Cress 188-318
- Greenland: Mälzer 191-314
- measurement: Cherkasov 191-
322; Millecamps 190-293
- Norway: Glen 191-317
- Novaya Zemlya: Svatkov 191-323
- oxygen-isotope ratio: Sharp 189-
278
- photogrammetric measurements:
Millecamps 191-318
- plasticity of ice: Oulianoff 189-268
- rate in west Greenland: Hofmann
191-313
- theories reviewed: Scheidegger
189-259
- Washington, Blue Glacier: Shreve
191-315
- U. S. S. R.: Barvenko 189-280,
191-311; Makarevich 191-320
- vertical profiles: Meier 189-270
- Sweden, Operation Ice Tunnel:
Lundbergh 190-295
- temperature measurements,
Greenland Ice Cap: Hansen 189-
276
- thermal conductivity, U. S. S. R.:
Tokmagambetov 189-283
- thermal regime, Antarctica: Bog-
slovskiy 189-275
- viscosity and cohesion, U. S. S. R.:
Tokmagambetov 189-282
- waves, dynamics: Lliboutry 189-
266
- formation: Nye 189-267
- traveling: Weertman 189-269
- Gravimeters, calibration: Suda 189-
301
- co-oscillation of the support: Bul-
anzhe 191-362; Romanyuk 191-
363
- earthquakes, effect of: Balakrishna
188-194
- marine: Lange 190-315; Romanyuk
190-319, -320, -321; Tsuboi
190-322
- accuracy: Grushinskiy 191-381
- automation of Gss2: Schulze 191-
355

- Gravimeters, marine, equations of motion: Kuzivanov 191-364
 marine, photo-recording: Popov 191-360
 quartz pendulums: Aleksandrov 191-358
 Russian PNU: Sukhodol'skiy 191-361
 pendulum, cylindrical blade: Roman'yuk 190-317
 Dominion Observatory at Ottawa: Hamilton 189-299
 error due to thermal expansion: Beck 189-300
 Golitsyn vertical: Mironov 188-336
 Japanese GSI: Inoue 189-302
 quartz clock: Tulin 191-359
 scale factors, effect of internal pressure variations: Gantar 190-318
 stationary clock pendulums: Wolf 190-316
 U. S. S. R., GVP-1 gravimeter-altimeter: Krasnov 191-356
- Gravity, absolute value, Melbourne: Inoue 189-304
 absolute value, Tokyo: Inoue 189-304
 Union of South Africa: Wiid 189-305
 acceleration, Eötvös experiment repeated: Dicke 191-324
 measurement at sea: Popov 191-354
 accreting planet, nonhydrostatic stresses: Jobert 189-38
 Antarctica, base network: Behrendt 191-369
 cylinder, homogeneous circular: Kolbenheyer 191-334
 deflection of vertical, calculation: Kazinskiy 191-328
 earth tides, Green's function: Longman 190-148
 Europe, Bad Harzburg-Etna calibration line: Morelli 191-366
 gravimeter calibration system: Marzahn 190-304
 Rome-Barcelona tie: Morelli 191-368
 free oscillations of earth: Nakagawa 190-138; Nishimura 188-180
 geopotential heights, accuracy: Ramsayer 190-303
 Hungary, research in 1957-59: Renner 191-374
- Gravity—Continued
 infinite homogeneous rotating viscous medium: Stephenson 189-287
 Italy, base network: Gantar 191-367
 model study, axial stress: Caputo 191-327
 potential, surface and satellite observations compared: Cook 189-286
 upward continuation: Tsuboi 189-288
 prism, infinite homogeneous and nonhomogeneous: Kolbenheyer 191-333
 regional fields, approximation by higher order polynomials: Fajklewicz 190-298
 review of concept: Gamow 191-325
 Rumania, base network: Botezatu 188-337
 satellite measurements, asymmetric equatorial field: Smith 191-331
 screening effect, eclipses: Nakagawa 190-302
 tidal corrections, 1962: Service Hydrographique de la Marine and Compagnie Générale de Géophysique 189-303
 time variations, tide effect: Nakagawa 190-299, -300, -301, -302
 variation, surface of earth: Mikhaylov 190-270
- Gravity anomalies, analytical continuation in lower halfspace: Constantinescu 188-327, -328
 attitude of disturbing bodies: Raspopov 188-332
 classification: Kulikov 189-298
 computation, Fourier series: Kivioja 191-338
 irregularly shaped bodies: Roy 188-322
 density interfaces, variation in difference: Managadze 189-297
 depth to center of disturbing mass: Kononkov 189-293
 error correction, mean gradients method: Avdulov 190-312
 first and second derivatives: Shvank 191-343
 geotectonics, indicators of vertical movements: Subbotin 189-241
 interpretation: Andreyev 190-308
 criteria for verifying: Bulakh 191-347

- Gravity anomalies—Continued
 interpretation—continued
 cylinder equivalents: Tyapkin 191-346
 direct method: Afanas'yev 191-337
 integral grid: Bulakh 191-335
 master charts: Tyapkin 191-350; Yun'kov 191-344, -345
 structural relief: Danes 189-292
 linear combination method: Carroz-zo 191-342
 local separated from regional: Yun'kov 191-336
 location of disturbing mass: Bryusov 190-313
 plane problem, three-dimensional bodies: Tyapkin 191-348
 regional removed from local, calculators: Litvinenko 188-330
 vertical coordinate of disturbing mass: Afanas'yev 188-331
 vertical gradients, mountainous regions: Raspopov 188-333
- Gravity exploration, airborne, interpretation: Paterson 188-323
 airborne, terrain corrections: Chinnery 188-324
 density determination, superficial layer: Mende 188-335
 depth to basement: Klushin 190-467
 fractured sedimentary rocks: Andreyev 190-531
 free-air reduction, isostasy: Arnold 189-289
 gravimeter-altimeter, U. S. S. R.: Golomb 190-314
 instrument correction, nomograms: Berezin 191-365
 local relief effects: Berezkin 191-340, -341
 marine: Lange 190-315
 microgravimetric surveys: Thyssen-Bornemisza 189-291
 modeling fields: Blinstrupas 189-462
 mountainous areas, rock density: Vecchia 188-334
 moving gravimeter, Eötvös corrections Glicken 191-353
 ocean tide measurement: International Geophysical Year Bulletin 189-319
 ore bodies, depth of penetration: Yarosh 190-311
 plutons, mapping contacts: Kane 188-325
- Gravity exploration—Continued
 profile, index of irregularity: Crenn 190-307
 quadrature formulas: Strakhov 191-494, -495
 sand dune areas: Colley 188-326
 second vertical derivative, calculation: Sagitov 189-294
 separation of total fields, frequency filtering: Gladkiy 188-329
 sloping contacts, direction determined: Bott 190-305
 terrain corrections: Kane 191-339; Winkler 190-306
 two-dimensional bodies, nomograms for parameters: Pavlovskiy 190-310
 U. S. S. R., chalcopyrite: Mudretsova 190-332
 vertical derivative, graphical calculation: Tyapkin 190-309
 vertical gradient, calculation from known anomalies: Raspopov 189-295
 topographic effect: Raspopov 189-296
 zero-point correction, nonlinear: Ladynin 191-351
- Gravity field of the earth, calculation: Nedelkov 189-290
 coefficient J of second harmonic: Lecar 188-304
 distribution of continents: Lamar 191-326
 equatorial ellipticity: Sehnal 191-332
 satellite measurements: Cook 191-329; Jacchia 188-303; Smith 191-330; Szabo 190-297
 shape of earth: Bjerhammar 189-238
 third degree zonal harmonic: Whipple 189-237
- Gravity surveys, Alaska: Barnes 188-351; Ostenso 191-370
 Antarctica: Grushinskiy 191-357; Lazarev 191-383; Ushakov 189-584; Zommer 191-382
 Arizona: Plouff 188-344
 Australia: Mummie 189-318; 191-380; Pegum 191-379
 California: Jackson 188-350; Kovach 190-327; Mabey 188-452; Oliver 188-348; Pakiser 188-349
 Colorado: Plouff 188-340; Qureshy 190-326; Stuart 188-341

Gravity surveys—Continued

- England, marine: Bott 189-309
 Germany: Berger 189-313; Grosse 190-330
 Hawaii, Kilauea Volcano: Krivoy 188-352
 Hungary, research in 1957-59: Renner 191-374
 Idaho: Hill 188-346
 Italy, geothermal energy: Vecchia 189-312
 Ivory Coast, isostatic anomalies: Rechenmann 189-310
 Japan, Joban coalfields: Matsuda 189-317
 Kumamoto district: Chujo 189-316
 massive metal deposits: Momose 188-361
 Yamagata basin: Ogawa 190-335
 Manitoba: Innes 189-308
 Michigan, fracture zones: Pohly 189-306
 Nevada: Kane 188-345
 New Mexico: Andreasen 188-342, 190-477; Joesting 188-343
 North Carolina: Mann 190-323
 Northwest Territories, Ellesmere Island: Crowley 190-328
 Norway, Oslo area: Smithson 189-314
 Oklahoma: Lyons 190-324
 Ontario: Innes 189-308
 Pacific Ocean: Gaynanov 190-334
 Pantelleria: Gantar 191-373
 Paradox Basin: Joesting 190-325; Steenland 191-543
 Quebec, Gaspé Peninsula: Tanner 189-307
 Rumania, eastern Carpathians: Airinei 188-357; Visarion 188-355, -356
 iron deposits: Ștefănescu 188-463
 Scotland, rock density measurements: McLean 191-372
 Sanquhar coalfield: McLean 191-371
 Senegal: Blot 189-311
 Sierra Leone: Baker 188-353
 South Dakota: Black 188-338
 Southern Rhodesia, Great Dyke: Worst 188-456
 Tennessee and Kentucky: Watkins 191-541
 U. S. S. R., Altay and Kolba ranges: Mironov 188-360

Gravity surveys—Continued

- U. S. S. R. —continued
 Baltic region: Faytel'son 188-358
 Bukhara-Khivin: Vol'vovskiy 191-378
 Donets Basin: Lebedev 191-376
 Fedchenko glacier: Berzon 191-635
 Fergana: Vol'vovskiy 190-587
 Kazakh S. S. R.: Moiseyenko 189-315
 Krivoy Rog: Artem'yev 191-375
 Rudnyy Altay: Zhogolev 189-474
 Udmurtsk A. S. S. R.: Aue 190-331
 Uzbek S. S. R.: Geyman 190-333; Tal'-Virskiy 191-377
 Utah: Case 188-451
 Washington: Stuart 188-347
 Wyoming, Yellowstone National Park: Pakiser 188-339
 Yugoslavia, Tuzla basin: Roksandić 188-556
 Greenland, age, beach deposits: Washburn 189-19
 age, igneous and metamorphic rocks: Kulp 190-15
 geotectonics, recent movements: Saxov 189-254
 glaciers, ice cliffs: Goldthwait 189-261; White 189-264
 rate of movement: Hofmann 191-313; Mälzer 191-314
 temperature measurement: 189-276
 visco-elastic properties: Nakaya 189-271
 paleomagnetism, Paleozoic and Mesozoic: Bidgood 188-430
 radioactivity, Ilfmaussaq batholith: Buchwald 188-473
 seismic surveys: Roethlisberger 189-576
 Gulf of Mexico, seismic surveys: Ewing 190-582

H

- Hawaii, gravity surveys, Kilauea Volcano: Krivoy 188-352
 magnetic field, observations: U. S. Coast and Geodetic Survey 189-377
 microseisms, annual variation: Bernard 189-479
 volcanic activity, Halemaumau: Richter 190-608

Hawaii—Continued

- volcanic activity—continued
 - Kilauea Iki: Ault 190-609
 - prediction: Macdonald 190-610
- Heat flow, Atlantic Ocean, bottom
 - sediments: Gerard 189-324
- Austria, Alps: Clark 188-365
- Bering Sea: Foster 190-333
- Canada: Garland 190-337
- distribution in earth: Drummond
 - 189-321; Valle 191-385
- instrumentation, borehole thermometer: Doig 189-330
- Japan, Hokkaido hot springs: Fukutomi 191-392
- Manitoba, Flin Flon: Beck 191-389
- mantle, mechanism: Lyubimova
 - 191-387
- measurement at surface: Mongelli
 - 191-386
- meters, accuracy: Kaganov 189-331
- ocean sediments, dissipation of
 - tide energy: Stewart 189-320
- Pacific Ocean: Uyeda 189-326
- Quebec, Montreal area: Saul 189-323
- volcanic steam pressures: Nekhoroshev 190-336
- Helium, diffusion, sedimentary
 - rocks: Newton 189-236, 191-293
- Hot springs, Japan, geological study: Nakamura 191-698
- Hungary, age, general listing:
 - Ovchinnikov 188-68
- gravity surveys, research in 1957-59: Renner 191-374

I

- Iceland, age, radiocarbon dates:
 - Wendt 190-50
- crust, structure: Tryggvason 189-342
- geothermal energy: Bödvarsson
 - 190-343
- volcanic activity, prediction:
 - Thorarinsson 188-592, 190-614
- Idaho, gravity surveys: Hill 188-346
- Illinois, electrical surveys, glacial
 - deposits: McGinnis 189-573
- magnetic field, regional vertical
 - intensity: McGinnis 188-448
- seismic surveys, glacial deposits:
 - McGinnis 189-573
- India, age, galena: Aswathanarayana
 - 189-28, 190-21; Russell 190-20

India—Continued

- age—continued
 - granite: Desio 188-95
- crust, structure: Chakravortty
 - 189-345
- geophysical surveys: Central Water and Power Research Station
 - Poona 191-272; Desio 191-271;
 - Indian Minerals 190-251; Kailasam 189-224
- geotectonics, recent movements:
 - Kumar 189-256
- magnetic surveys, manganese: Rao
 - 189-443
- seismic surveys, Ukai dam site:
 - Central Water and Power Research Station Poona 191-637
- seismicity: Central Water and Power Research Station Poona 191-95
- Indian Ocean, radioactivity: Khitrov
 - 190-502
- Indiana, age, radiocarbon dates:
 - Winkler 191-17
- Indonesia, geothermal energy: Neuman van Padang 190-347
- Internal constitution, Upper Mantle Project, Canadian program:
 - Canadian Mining Journal 190-361
- Iowa, radioactivity surveys, Decorah fault: Lorenz 189-500
- Ireland, age, radiocarbon dates: McAulay 190-27
- Isostasy, glacial loading, North America: Farrand 190-289
- Isotopes, adsorption of gases, low temperature: Hoering 189-368
- argon, New Zealand thermal areas:
 - Hulston 189-327
- barium, meteorites: Umemoto 188-112
- Canadian research: Russell 189-14
- carbon, enzyme-catalyzed reaction
 - Hoering 188-379
- fractionation: Hoering 188-376, 188-378
- graphite and marble in Sweden:
 - Landergren 190-369
- micro-organisms: Hoering 189-367
- New Zealand thermal areas:
 - Hulston 189-328, 190-371
- recent sediments and ancient oils:
 - Eckelmann 190-368
- rural and marine air: Keeling 188-377

Isotopes—Continued

carbon—continued

stratosphere: Brown 190-370

cesium, meteorites: Umemoto 188-112

deuterium, New Zealand hydro-

thermal areas: Hulston 190-371

oil and bitumen: Mzhachikh 188-380

seasonal firn layers: Lorus 189-358

deuterium-hydrogen ratio, galactic: Weinreb 191-218

getter-ion pump: Ebert 189-366

hydrogen, water: Schattenstein 188-381; Uklonskiy 191-419

krypton, from uranium: Dobronravova 190-380

lead, carbonaceous chondrites: Marshall 190-79

galena from Australia: Richards 190-374

instrumentation: Richards 189-361

ore deposition in U. S. S. R.:

Tugarinov 190-375

ores and rocks at Balmat, N. Y.: Doe 191-415

origin of granite: Gorai 191-416

pelagic sediments: Chow 189-360

single galena crystal: Austin 188-384

South Africa: Burger 188-383

structure study in New Mexico:

Slawson 189-362

meteorites, primordial gas: Tilles 190-78

Yardmly 191-44

molybdenum, meteorites: Murthy 190-77

oxygen, coexisting carbonates, cherts, and diatomites: Degens 190-378

coexisting minerals in rocks:

Taylor 190-376

density comparison method of determination: McCarthy 188-386

fractionation: Hoering 188-378;

Taylor 190-377

glacial movement: Sharp 189-278

marine carbonates: Emiliani 188-385

water: Schattenstein 188-381;

Uklonskiy 191-419

oxygen-18, method of determination: Boyer 189-363

Isotopes—Continued

oxygen-18—continued

rural and marine air: Keeling 188-377

potassium-40, Aroos meteorite: Stauffer 190-76

rare gases, meteorites: Merrihue 190-80; Stauffer 190-81

selenium, geochemistry: Krouse 190-379

silver, abundance ratios: Shields 189-364

iron meteorites: Murthy 190-85

strontium, limestones: Urbach 189-365

variations: Gast 188-18

sulfur, Australia, Broken Hill:

Lawrence 191-417

chondrites, sulfur in chondrites: Shima 190-73

New Zealand hydrothermal areas: Hulston 190-371

S-32/S-34 ratios in nature: Thode 188-387

tritium, chondrites: Bainbridge 190-84

ground water at Nevada Test Site: Clebsch 188-382

Jungfraufirn: Oeschger 189-357

measuring method: Buttlar 189-359

stratosphere: Brown 190-370

thermonuclear explosions: Wolfgang 190-373

T/H ratio: Fireman 190-372

uranium, fractionation: Koshelev 188-390

ores of world distribution: Smith 188-388

uranium-235, enrichment in U. S. S. R. samples: Cherdyn-tsev 188-389

vanadium-50, Aroos meteorite: Stauffer 190-76

water, natural cycle: Jacobshagen 191-418

xenon, from uranium: Dobronravova 190-380

meteorites: Clarke 190-72; Jeffery 188-115; Krummenacher 190-83; Reynolds 188-113; Zähringer 188-114

Israel, radioactivity, water: Mazor 191-580

Italy, age, radiocarbon dates: Ferrara 190-34

Italy—Continued

- electrical surveys, geothermal energy: Alfano 188-253
 - geotectonics, recent movements: Gantar 190-290
 - geothermal energy: Gennai 190-344
 - glaciers, Miage glacier: Carabelli 190-294
 - gravity, base network: Gantar 191-367
 - gravity surveys, geothermal energy: Vecchia 189-312
 - magnetic surveys, Monte Nuovo: Gianfrani 191-549
 - Pulgia: Gantar 190-482
 - paleomagnetism, Permian: Hilten 189-455, 191-486
 - radioactivity, atmosphere: Mattana 191-579
 - seismic surveys, geothermal energy: Cassinis 188-555
 - volcanic activity, Vesuvius: Imbò 190-621
- Ivory Coast, gravity surveys, isostatic anomalies: Rechenmann 189-310

J

- Jamaica, earthquakes, 1957: Robinson 190-117
 - electrical surveys, copper: Bergey 190-208
 - thermal springs: Zans 191-388
- Japan, age, granite: Miller 189-30; Nagai 190-22
- age, metamorphic rocks: Miller 190-23
- radiocarbon dates: Kigoshi 190-48
- zircon: Nagai 191-28
- crustal structure: Research Group for Explosion Seismology 190-358; Suzuki 189-347
- earthquakes, 1961: Hagiwara 191-82; Hoshina 190-124; Kanai 191-87; Kishinouye 191-80; Miyamura 191-84; Morimoto 191-86; Murai 191-85; Omote 191-83; Osawa 191-81; Yoshiyama 191-79
- intensity-frequency relationship: Ikegami 188-171
- tsunami: Ohya 190-136
- electrical exploration, propylite: Kunori 189-199
- self potential method: Okabe 189-183

Japan—Continued

- electrical surveys, gold: Kobayashi 188-260, 189-197
- Matsukawa hot spring district: Ono 190-212
- molybdenite: Shibato 190-213
- Oshima Island: Ono 190-214
- sulfides: Otaki 189-198
- uranium: Ono 189-196; Sano 188-511
- geophysical surveys, lead-zinc deposits: Odani 189-225
- geotectonics, recent movements: Iijima 189-257; Miyamura 188-316
- geothermal energy: Hayakawa 189-332; Nakamura 189-333
- gravity surveys, Joban coalfields: Matsuda 189-317
- Kumamoto district: Chujo 189-316
- massive metal deposits: Momose 188-361
- Yamagata basin: Ogawa 190-335
- magnetic field, measurements: Geographical Survey Institute 189-380; Kakioka Magnetic Observatory 191-436
- magnetic properties, schists: Yaskawa 191-478
- shales and sandstones: Kawai 189-444
- magnetic surveys, Mt. Kabuto: Kang 189-475
- paleomagnetism, Neogene: Take-shita 191-490
- radioactivity exploration, procedure: Sano 188-483
- radioactivity surveys, Akita Prefecture: Sano 188-510
- Chugoku Mountains: Haruki 191-594
- Fukushima Prefecture: Iwasaki 188-494
- Hiroshima Prefecture: Nakai 188-492
- igneous contacts: Nishimura 190-513
- Iwate Prefecture: Horikawa 188-489, -493
- Jōban area: Horikawa 188-491; Iwasaki 188-495; Sano 188-512
- Miyagi Prefecture: Koizumi 188-487
- molybdenite: Shibato 190-213
- Mount Asahidake: Suyiyama 188-490, -496
- Niigata Prefecture: Kawachi 191-595

Japan—Continued

radioactivity surveys—continued

Okayama Prefecture: Iwasaki 188-497

ore deposits: Hatuda 188-499

Tsuyama basin: Nagahama 188-488

uranium: Sano 188-511

Yamaguchi Prefecture: Iwasaki 188-498

seismic surveys, ore deposits:

Kitsunozaki 188-564

sparker: Chujo 188-563

uranium: Furuya 188-562

seismicity, 1923-59: Hirono 188-167

depth distribution of hypocenters:

Matsushima 188-172

Hokkaido: Ono 189-93

submarine geology, Tsugaru

Straits: Sasa 191-687

thermal springs, Arima area: Nakamura 189-625

geological study: Nakamura 191-698

Hokkaido: Fukutomi 191-392

Mount Iwate: Nakamura 188-599

volcanic activity, Myojin Reef:

Morimoto 190-627

Sakurajima: Yoshikawa 190-626

volcanic earthquakes, microtremors: Kamo 190-635, -636

volcanoes, Aso: Taneda 188-594

Noboribetsu: Murozumi 189-619

Sakura: Taneda 189-620

Showashinzan: Matsuo 189-622

Jointing, parallel to surface, origin:

Muller 191-648

K

Katanga, age, uranium mineralization: Cahen 190-16

Kentucky, magnetic and gravity surveys: Watkins 191-541

radioactivity surveys: Bates 191-591

Kenya, age, basalt: Koenigswald 190-17

Korea, age, igneous and metamorphic rocks: Plevaya 188-97

seismicity: Rustanovich 190-129

L

Labrador, age strandlines: Løken 190-14

Lava, flow dynamics: Yokoyama 188-587

Leveling, astronomic, gravimetric correction: Arnold 190-277

Libya, age, radiocarbon dates: McBurney 188-63

M

Magma, origin: Shimazu 190-353

volatiles, behavior during cooling: Matsuo 189-626

Magnetic anomalies, analytical continuations: Constantinescu 188-327, -328

determination of ΔT : Gorodenskiy 188-436

extension to a given altitude: Nassonov 191-522

high intensity, correction term:

Gorodenskiy 188-435

interpretation: Logachev 191-530

complex variables: Shalayev 191-496

 ΔZ isolines in vertical plane:

Strakhov 190-468

Fourier integral transform: Solov'yev 191-519

integral grid: Bulakh 191-335

tangents method: Gel'fand 191-500

theory of: Nepomnyashchikh 191-523

two-dimensional problem: Tyapkin 190-471

 Z_x , H_x , and Z_z gradients: Gel'fand 191-501

master charts: Bugaylo 191-50;

Kuznetsov 191-511

remanent magnetization: Books 190-453

variable susceptibility of rocks:

Timofeyev 191-509

vertical and horizontal gradients:

Solov'yev 191-497

zero level, two dimensional cases:

Konstantinov 191-518

Magnetic exploration, airborne,

basement depth determination: Ramaswamy 191-529

airborne, correlation with ground surveys: Orlov 190-475

bodies of ordinary geometric shape: Mikov 191-503

center of gravity of body, vertical coordinate: Tyapkin 191-524

data correction, chording method: Jenny 188-444

- Magnetic exploration—Continued
 declination, rapid determination:
 Legar 190-474
 ΔT curves, pantograph for trans-
 formation: D'yachkov 190-476
 depth to basement: Klushin 190-467
 depth to disturbing bodies: Gusev
 191-514; Mikov 191-520; Pro-
 vodnikov 191-508; Pyatnitskiy
 191-499
 depth to sphere or cylinder: Pro-
 vodnikov 191-507
 direct and inverse problems: Kol-
 yubakin 188-438
 direction of total vector, determi-
 nation: Tyapkin 190-470
 helicopter: Paterson 191-236
 inclined line of observation: Mikov
 191-504
 iron ores: Belevtsev 191-531
 isogon maps, oil exploration: Jenny
 188-441
 magnetic vein, attitude: Hervás
 Burgos 191-528
 master charts: Carrozzo 191-525;
 Provodnikov 191-506
 methods reviewed: Z̄a 190-472
 micromagnetic method: Bareja 190-
 473; Ignat'yeva 189-170, -463;
 Jenny 188-442, -443; Lauter-
 bach 189-460
 micropulsations of earth's field,
 base station monitor: Hoyl-
 man 188-445
 modeling fields: Blinstrupas 189-
 462
 oblique magnetization: Orlov 190-
 466; Solov'yev 191-497, -498
 paraboloid of revolution, H and Z
 calculated: Fedorova 191-521
 potential derivatives, transforma-
 tion of curves: Solov'yev 191-
 516
 potential fields, analytical exten-
 sion: Strakhov 188-437
 "pseudogravitational" field: Simo-
 nenko 191-502
 quadrature formulas: Strakov 191-
 494, -495
 relief of terrain, iron deposits:
 Fermandzhiev 191-527
 secular variations of the geomag-
 netic field: Orlov 191-526
 similarity of anomalies, depth de-
 termination: Nassonov 190-469
- Magnetic exploration—Continued
 structure of magnetic field, spatial
 analysis: Pudovkin 188-439
 two-dimensional potential fields:
 Serbulenko 191-515, -517
 U. S. S. R., kimberlite dikes: Bary-
 gin 191-560
 vector direction, determination:
 Simonenko 191-513
 vein systems, micromagnetic
 measurements: Conrad 189-461
 vertical bodies of simple shape:
 Larionov 191-505
 vertical sounding: Larionov 191-512
 Magnetic field of the earth: asym-
 metric shape: Harrison 191-425
 aurora, nuclear explosion: Hoerlin
 189-371
 simultaneity at conjugate points:
 DeWitt 189-392
 bays, cause: Brown 189-406
 current system: Rikitake 190-406
 morphology: Fukushima 190-402
 Turkey: Özdoğan 190-405
 cosmic ray perturbations: Mariani
 191-451
 daily variation, reversal at Addis
 Ababa: Gouin 189-388
 deformation, quiet days: Smith 189-
 402
 dipole near thin plasma sheet: Wait
 191-427
 dipole representation, graphs:
 Mlodnosky 190-382
 distant field: Harrison 191-424
 distortions, proton belt: Akasofu
 191-452
 radar measurement: Leonard
 190-424
 disturbances, 1958: Davis 190-403;
 Ionosphere Research Commit-
 tee 189-381, -382, -383, -384
 Antarctica: MacDowall 190-408
 Arctic and Antarctic: Alexandrov
 189-395; Nikolsky 189-394
 low latitudes: Kotadia 189-396
 radio scintillations: Briggs 188-
 408
 Tungus meteorite: Ivanov 191-56;
 Obashev 191-57
 diurnal variations, Tamanrasset:
 Duclaux 190-404
 electrojet, effect of disturbances:
 Wright 191-445
 electromagnetic waves, long peri-
 od: Heirtzler 189-370

- Magnetic field of the earth, electron distribution near equator:
Goldberg 191-420
- fluctuations, observations: Haraldson 188-404
- geomagnetic tides: Rao 190-394
- Great Arctic anomaly: Alldredge 189-373
- horizontal perturbation vector: Lebeau 189-405
- hydromagnetic waves: Cole 190-429; Sugiura 189-369
- impulses, sun-earth relations: Paghis 190-416
- instrumentation, low frequency recorder: Yegorov 191-433
- vectograph: Jaeschke 191-432
- International Quiet Sun Year: International Geophysical Year Bulletin 190-447
- ionospheric currents, near geomagnetic equator: Cahill 188-393
- lunar tides, low latitude: Rao 190-407
- magnetosphere surface currents: Beard 191-421
- measurements: Alaska: U. S. Coast and Geodetic Survey 190-388
- Antarctica: Oguti 188-407
- Arizona: U. S. Coast and Geodetic Survey 190-387
- Australia: Parkinson 191-437
- Canada: Loomer 188-397, -398
- Ethiopia: Gouin 191-435; Mayaud 191-434
- Germany: Voelker 189-379
- Hawaii: U. S. Coast and Geodetic Survey 189-377
- Japan: Geographical Survey Institute 189-380; Kakioka Magnetic Observatory 191-436
- Puerto Rico: U. S. Coast and Geodetic Survey 189-378
- Spain: Cardús 190-389, -390, -391; Miguel y Gonzales Miranda 190-392
- Sq convergence: Molina 191-438
- Virginia: U. S. Coast and Geodetic Survey 190-386
- perturbations, difference between sunlit and dark auroral zones: Oguti 188-407
- plasma around earth: Kellogg 191-426
- Magnetic field of the earth—Continued
- micropulsations: Jacobs 190-437; Kato 190-401; Westphal 191-447
- 5 to 30 sec in auroral zone: Campbell 188-403
- equatorial regions: Hutton 190-430, 191-444
- magneto-hydrodynamic waves: Gintzburg 190-399
- motion of ocean waves: Crews 189-407
- pearls: Jacobs 191-443; Vozoff 191-442
- sharp cutoff: Scarf 189-399
- spatial coherence: Duffus 189-403
- model radiation belt: Akasofu 188-392
- nature, determination by alkali ions at high altitude: Harrison 188-391
- pulsations: Kato 190-439
- 3-7 min period: Bol'shakova 191-446
- Göttingen: Angenheister 188-405
- hydromagnetic waves in the exosphere: Kato 190-434
- morphology: Kato 190-433
- origin: Watanabe 190-400
- patterns: Bolshakova 189-397
- pt-type: Saito 189-404
- systematic variations: Bol'shakova 189-398
- unusual types: Konečný 191-449
- ring current, generation: Kern 191-456
- self-consistent calculation: Akasofu 191-429; Beard 191-428
- shape of field: Spreiter 190-381
- whistlers: Spreiter 191-430
- Rumania, 1954-59: Constantinescu 188-400
- satellite measurement: Dolginov 188-401; Fougere 190-383
- secular variations: Sirán 190-393
- displacements in core: Barta 189-386
- Rumania: Constantinescu 188-399
- short period pulsations, earth currents: Yokoyama 191-70
- solar corpuscular radiation: Obayashi 189-408
- solar wind, reaction with magnetosphere: Axford 191-422
- trapping by Van Allen belts: Chang 191-423

Magnetic field of the earth—Continued
 sudden enhancement of atmosphere flare maximum: Křivský 191-450
 sudden impulses: Matsushita 191-457
 textbook: Mauersberger 189-372
 Tungus meteorite effect: Plekhanov 191-58
 turbulence: Moffatt 190-396
 variations, 11 year cycle: Berishvili 191-453
 Antarctica: Nagata 189-385
 conjugate points compared: Westcott 189-393
 continuous and worldwide: Nishida 190-419
 Czechoslovakia and U. S. S. R. compared: Pěčová 191-448
 D-layer: Pedersen 190-397
 daily lunar: Onwumechilli 188-406
 during I. G. Y.: Bartels 189-390
 E-layer frequency: Mrazek 189-400
 f_oF_2 in central Africa: Rastogi 189-389
 night airglow intensity: Silverman 190-398
 ocean basin effects: Parkinson 191-440
 Palau Islands: Gettemy 189-401
 parallelism between H and Z: Simeon 191-439
 plasma theory: Lucke 189-387
 rapid: Romaña 190-436
 sea and land compared: Hill 191-441
 semiannual: Priestner 190-395
 space and on earth correlated: Ness 190-432
 volcanic activity in Japan: Uyeda 191-454
 worldwide: Nishida 188-402
 whistlers: Jiricek 190-448
 Magnetic properties, anisotropic susceptibility: Zvoys'kiy 191-467
 anomalous, effect of adjacent ferromagnetic bodies: Neumann 189-427
 anhysteretic remanent magnetization: Patton 189-421
 azimuth of magnetized sphere: Ponomarev 190-451
 basalt, Germany: Refai 189-437
 Mohole project: Cox 191-472

Magnetic properties—Continued
 basic quantities, measurement of: Sanford 191-464
 chemical magnetization: Howell 191-465
 crystal orientation: Yamamoto 189-431
 demagnetization, spore-pollen content of rocks: Ismail-Zade 189-441
 demagnetizing factors, discounting: Andreyev 191-471
 ferromagnetic domains, in alternating fields: Stacey 189-423
 gabbro-pyroxenites, U. S. S. R.: Mikhaylova 191-476
 general review: Parasnia 190-450
 hematite body: DuBois 190-459
 inclination of I_n , compaction: Vlasov 189-433
 induced directional order: Iwata 189-430
 laboratory shield, room-size: Patton 189-434
 magnetization, bodies of weak magnetic permeability: Nedyalkov 189-432
 single and double component systems: Brodskaya 189-426
 magnetostriction, effect on natural remanents: Metallova 188-422
 manganese minerals: Rao 189-443
 meteorites, origin: Green 188-106
 pyrrhotite: Kang 191-479
 quartzites, U. S. S. R.: Kopayev 188-464, 189-438
 remanent magnetization, apparatus: Barinov 189-435
 chemical: Kobayashi 188-420
 hematite: Gross 191-475
 high hydrostatic pressures: Kume 190-454
 quartzites: Zavoyskiy 189-439
 remanent to induced, ratio under field conditions: Larionov 191-481
 reversed polarity, titanomagnetite: Metallova 189-442
 rocks, U. S. S. R.: Dudarev 191-477
 schists, Japan: Yaskawa 191-478
 serpentine, thermomagnetic analysis: Stiller 188-419
 shales and sandstones, Japan: Kawai 189-444
 sills, direction and intensity: Everitt 189-454
 soils: Cook 189-436

Magnetic properties—Continued

- stability, artificial systems: Brodskaya 191-468
- criterion for: Petrova 188-421
- methods of determination: Petrova 190-456
- spore-pollen content: Chigurya-yeva: 189-440
- susceptibility, anisotropy in rocks: Khan 190-452
- Fe and Ni oxides: Lotgering 191-466
- glacial till: Fuller 191-480
- measurement of anisotropy: Girdler 188-417
- torque method of measurement: King 189-428
- variation with temperature: Petrova 189-425
- tectonic regionalization, U. S. S. R.: Khomenko 191-493
- textbook: Bates 190-449
- thermoremanence, baked laterite: Wilson 191-473
- thermoremanent magnetization, igneous rocks: Dickson 189-422
- separation from normal: Bol'shakov 191-470
- stability in magnetite: Vlasov 190-455
- titanomagnetite, exsolution effect on remanent magnetism: Bewersdorff 189-429
- subsolidus phase relations: Kawai 189-424
- viscous magnetization: Yanovskiy 191-469

Magnetic storms, 1961: International

- Geophysical Year Bulletin 189-417; Kanellakos 190-411
- absorption phenomena, cause: Ax-ford 189-418
- auroral events, current lines: Sobouti 190-414
- auroral zones, northern and southern: Nagata 190-418
- bay disturbance, same mechanism: Watanabe 189-413
- preceding: Ondoh 190-442
- commencement, types: Afanas'yeva 189-391
- corpuscular stream, interaction with earth's field: Antsilevich 190-444
- diurnal distribution: Nikolsky 189-415

Magnetic storms—Continued

- DS variation: Sugiura 190-441
- forecasting: Sinno 189-411
- general discussion: Chapman 191-460
- geomagnetic equator: Ondoh 188-410
- H and Z variations, preceding commencement: Chernosky 190-417
- initial phase, horizontal intensity: Fukushima 190-445; Kokouchi 189-420
- microstructure: Bouška 190-435
- separate from main phase: Kozlowski 190-446
- magnetic clouds: Hirono 189-412
- main phase, trapped particles: Singer 190-428
- measurements to 8 earth radii: Smith 190-415
- micropulsations, fine structure: Troitskaya 190-438
- microstructure: Troitskaya 189-416
- morphology: Fukushima 190-423; Sugiura 190-440, -443; Vestine 190-422
- periodic phenomena, electron precipitation: Winckler 191-455
- perturbations propagated to earth, variation with latitude: Wilson 188-409
- polar regions: Cole 189-410; Nagata 190-425
- preliminary reverse impulse: Vestine 190-409
- pulsations: Bouška 191-459, -462; Ohl 190-431
- related phenomena: Matsushita 191-457
- ring currents: Akasofu 190-426; Dessler 190-427; Kellogg 188-411
- rise time, magnitude of SC: Pisharoty 190-410
- solar control: Bednářová-Nováková 191-458; Halenka 191-463; Maeda 190-420; Saemundsson 189-414
- filament geometry: Bednářová-Nováková 191-461
- prestorm conditions: Haurwitz 190-412
- type IV-outbursts: Roosen 190-421
- solar corpuscular radiation: Obayashi 188-413

- Magnetic storms—Continued
solar flares, correlation: Sinno 189-419
latitude for causing storms: Jiang 188-414
solar radio bursts: Hughes 190-413
sudden commencement, hydromagnetic waves: Wilson 189-409
variation, Dst and Dm: Sugiura 188-412
- Magnetic surveys, Alaska, Anchorage-Nome profile: King 188-453
Antarctica, Halley Bay ice shelf: MacDowall 189-476
Atlantic Ocean, profiles from Bermuda: King 188-446
Australia, Blinman dome: Munne 189-318
Belgium: Graulich 189-469
California: Mabey 188-452
China, Great Shingan Mountains: Hou 188-466
Czechoslovakia, Kleine Donau Plain: Müller 188-458
England: Bott 190-481
Germany, Elbe Valley: Kopf 189-470
Frankenwald: Fröhlich 189-471
Hammerunterwiesenthal phonolite: Jaeger 188-457
iron deposits: Särchingen 191-550
Mecklenburg: Lauterbach 189-472
Thüringia: Franz 189-473
Illinois, regional vertical intensity: McGinnis 188-448
India, manganese: Rao 189-443
Italy, Monte Nuovo: Gianfrani 191-549
Pulgia: Gantar 190-482
Japan, Mt. Kabuto: Kang 189-475
Maine: Allingham 188-447; Balsley 191-533; Bromery 191-532, 191-535, -537; Dempsey 191-536; Henderson 191-534
Manitoba, maps: Canada Geological Survey 191-546
Michigan: Balsley 191-542; James 188-449
New Hampshire: Bromery 191-539; Meuschke 191-538, -540
New Mexico: Andreasen 190-477; Joesting 188-343
New Zealand-Ross Sea traverse: Adams 188-467
- Magnetic surveys—Continued
Northwest Territories: Canada Geological Survey 191-548
Arctic Archipelago: Gregory 188-455, 189-468, 190-480
Oklahoma: Lyons 190-324
Ontario: Canada Geological Survey 191-545
Oregon: Bromery 191-544
Pacific Ocean, Murray Fault: Raff 189-467
Paradox Basin: Joesting 190-325; Steenland 191-543
Quebec, iron deposits: Koulomzine 188-454
St. Urbain anorthosite massif: Rose 188-51
Rumania, eastern Carpathians: Airinei 188-357; Visarion 188-356
iron deposits: Ștefănescu 188-463
south Carpathians: Ionescu 188-462
Sarawak, bauxite: Overseas Geological Surveys 191-561
Saskatchewan: Canada Geological Survey 191-547
Southern Rhodesia, Great Dyke: Worst 188-456
Tennessee and Kentucky: Watkins 191-541
U. S. S. R., Armenian S. S. R.: Vantsyan 188-258
iron ores: Andreyev 191-555
Kazakh S. S. R.: Ivankin 191-554; Stroiteleva 191-553
Kursk magnetic anomaly: Kopayev 188-464
nickel ultrabasics: Stupak 191-552
Rudnyy Altay: Zhogolev 189-474
Sea of Azov area: Kravchenko 188-465
Siberia: Karatayev 191-557
Transcarpathians: Khomenko 191-551
Urals: Gernik 190-483
Uzbek S. S. R.: Tal'-Virskiy 191-377
volcanoes: Bernshteyn 190-622
West Siberian Lowland: Provodnikov 191-556
Yakutia diamond fields: Loshchakov 191-558, -559
Utah: Case 188-451
Vermont: Bromery 191-539; Meuschke 191-538, -540

- Magnetic surveys—Continued
 Wisconsin: Allingham 188-450
 Yugoslavia, iron deposits: Damjanović 188-459; Krulc 188-461; Perić 188-460
- Magnetic susceptibility, instrumentation, bridge device: Bulgakov 188-424
 loss during orogeny, U. S. S. R.: Malygin 188-426
 sedimentary rocks, Rumania: Costa-Foru 188-425
 stress effect, rocks: Kern 187-416
- Magnetic susceptibility logging, model study: Kal'var'skaya 188-440
- Magnetization, stress effect, rocks: Kern 188-416
 thermoremanent, stress effect: Kern 188-415
- Magnetometers, metastable helium: Keyser 189-374
 nuclear resonance: Bonnet 190-384, 191-431; Bottum 188-394
 marine: Tsirel' 189-466
 resolving power: Rotshteyn 189-465
 Russian model: Pogrebnykov 189-376; Rotshteyn 189-375
 rubidium vapor, field test: Ward 189-464
 Świder Observatory in Poland: Kalinowska-Widomska 190-385
- Magnetotelluric currents, stratified structures: Kovtun 190-111
 theory of, source field: Price 190-104
- Magnetotelluric exploration, anisotropic massifs: Rokityanskiy 190-109
 oscillograms, method of oscillograms: Vladimirov 190-110
 three-layer interpretation curves: Yungul 188-226
- Maine, age, igneous rocks: Faul 188-35
 age, quartz monzonite and slate: Pinson 188-36
- Maine, magnetic surveys: Allingham 188-447; Balsley 191-533; Bromery 191-532, -535, -537; Dempsey 191-536; Henderson 191-534
- Majorca, electrical logging surveys, lignite: Sell Cantalapiedra 190-232
- Manitoba, gravity surveys: Innes 189-308
 heat flow, Flin Flon: Beck 191-389
 mechanism: Lyubimova 191-387
 magnetic surveys: Canada Geological Survey 191-546
- Mantle, composition, high-pressure experiments: Ringwood 191-411
 convection currents: Vening Meinesz 188-308, 190-364
 effect on crust: Magnitskiy 190-365
 geophysical research: Magnitskiy 188-374
 low velocity layer: Anderson 191-410; Gutenberg 191-409
 olivine-spinel equilibrium: Ringwood 190-366
 shear velocity distribution: Takeuchi 190-363
 structure, oceans and continents: Aki 188-373
 upper part, model: Ringwood 190-362
 P-traveltimes: Lehmann 191-408
 Upper Mantle Project: Garland 190-360; Hodgson 191-406; Uffen 191-407
- Maryland, geophysical surveys, Rockville quadrangle: Griscom 188-280
- Mediterranean Sea, age, marine sediments: Olausson 188-65
 refraction profile: Leenhardt 190-602
- Meteorites, age: Vinogradov 191-49
 age, anomalous U-235/Pb-207 in Sikhote-Alin: Fireman 188-116
 Bruderheim: Baadsgaard 190-71
 cosmogenic C-14: Goel 190-87
 nucleogenesis: Baranov 191-30
 primary isochron of zero age: Murthy 189-53
 radiation age of chondrites: Geiss 188-118
 sodium-22, cosmic-ray age: Vilczek 188-117
 terrestrial: Suess 190-86
 thermoluminescence: Komovskiy 191-48
- atomic abundances: Vinogradov 191-39
 bitumen content, Grosnaya and Mighei: Vdoviykin 191-38
- Bulgaria, review: Nikolov 191-63
 carbonaceous chondrites, lead isotopes: Marshall 190-79

Meteorites—Continued

- carbonaceous chondrites—continued
- mineralogy: Yudin 189-45
- chondrites, structure: Kvasha 191-56
- collections, University of Illinois: Donati 188-119
- collision, statistical study: Öpik 188-107
- composition: Yanvel' 190-64
- Bruderheim: Baadsgaard 190-71
- cosmic-ray effect: Arnold 190-67
- Gumoshnik (Bulgaria): Penchev 188-121
- Nikol'skoye chondrite: Kolomenskiy 188-123
- U. S. S. R.: D'yakonova 191-61
- cosmic ray effects: Arnold 189-39
- Czechoslovakia, Příbram: Čepelčá 191-50, -51
- electronprobe analysis, schreibersite in Canyon Diablo: Adler 188-109
- frequency of fall, pre-Quaternary: Utech 188-103
- general review: Fesenkov 189-40; Levin 188-104
- iron, relation of structure to composition: Yanvel' 191-41
- isotopes, barium: Umemoto 188-112
- cesium: Umemoto 188-112
- inert gases in irons: Zadorozhnyy 188-111
- lead: Starik 191-46
- molybdenum: Murthy 190-77
- primordial gas: Tilles 190-78
- rare gases: Stauffer 190-81
- scandium-45: Wänke 191-45
- silver in irons: Murthy 190-85
- sulfur in chondrites: Shima 190-73
- tritium in chondrite: Bainbridge 190-84
- V-50 and K-40 in Aroos: Stauffer 190-76
- xenon: Clarke 190-72; Jeffery 188-115, 190-75; Krummenacher 190-83; Reynolds 188-113; Zähringer 188-114
- Yardmyly: Levskiy 191-44
- Kunshak, composition of fusion crust: Kolomenskiy 190-65
- magnetic properties, origin: Green 188-106
- mineralogy, Nikol'skoye chondrite: Yudin 188-122
- proposed catalog: Grigor'yev 188-110

Meteorites—Continued

- Mongolia, Noyan-Bogdo: Vorob'yev 191-62
- Nigeria, Akwanga chondritic aerolite: Macleod 189-54
- organic carbon: Gregory 191-36; Palik 191-37; Pearson 191-35
- Mokoia meteorite: Briggs 189-49
- nature of: Fitch 189-48
- Orgeuil and Ivuna: Nagy 189-51
- origin: Urey 189-47
- significance: Bernal 189-46, -50
- origin, asteroids: Hawkins 189-41
- chondrules as indicator: Wood 189-32
- grouping of types: Schilling 189-42
- petrography, Bruderheim 190-70
- Poland, Póltusk: Bobrovnik 190-66
- polar regions, collection: Krinov 188-120
- pre-Quaternary occurrence: Gallant 189-52
- radioactivity, Bruderheim chondrite: Rowe 190-69
- cosmic ray produced: Arnold 190-67; Honda 190-68
- rare gases, Breitscheid: Hinterberger 191-40
- Pantar: Merrihue 190-80
- recent advances (1962): Briggs 191-34
- Saudi Arabia, Rab' al Khali: Holm 189-56
- South-west Africa, Ehole: Fireman 190-82
- stone, dielectric constant: Alekseyeva 191-47
- sub-acoustic waves: Jones 188-131
- trace elements, Bruderheim: Ehmann 190-74
- U. S. S. R., dust from Kunashak: Yudin 191-64
- Elga: Vronskiy 191-52
- Lipovskiy Khutor: Shaposhnikov 189-57
- Tungus: Bronshten 191-59; Fesenkov 189-43, -44, 191-53; Idlis 191-54; Ivanov 191-55, -56; Obashev 191-57; Plekhanov 191-58; Tsikulin 191-60; Zolotov 188-124
- Yardmyly: Kashkay 191-43
- Meteorite craters, coesite, Saudi Arabia: Chao 189-55
- Mexico, earthquakes, 1959: Figueroa Abarca 188-152; Merino y Coronado 188-153

Mexico—Continued

- seismicity, Tehuantepec: Figueroa Abarca 188-152
- volcanic activity, Bárcena: Richards 190-612
- Tres Virgenes Volcano: Ives 190-611
- Michigan, gravity surveys, fracture zones: Pohly 189-306
- magnetic surveys: Balsley 191-542; James 188-449
- Microseisms, cause: Nanda 190-484
- Czechoslovakia: Karnik 191-569; Zátópek 190-487, 191-570
- direction of approach: Báth 191-565; Okano 190-492
- direction of source: Monakhov 191-572
- dual maximums, France: Bernard 190-485
- Europe, nature and origin: Zátópek 191-567
- frequency selection: Korchagina 191-571
- Hawaii, annual variation: Bernard 189-479
- India, Madras: Anjaneyulu 190-491
- mine subsidence, detection: Boyum 188-281
- origin, crustal stresses: Leet 191-562
- propagation, continental paths: Rykunov 189-480
- Europe: Schneider 190-486
- relief effect: Vasil'yeva 190-488
- seismographs: Haubrich 189-478
- short period, generation: Saha 190-490
- measurement of: Zapol'skiy 190-489
- spectrum: Frantti 189-477
- subsoil conditions: Kishinouye 190-493
- Switzerland: Decae 191-566
- U. S. S. R., noise spectrum: Moskvina 191-568
- worldwide activity recorded: Oliver 191-563
- worldwide study, proposal: Iyer 191-564
- Mine bumps, Czechoslovakia: Buben 191-670
- periodicity: Höfer 191-672
- prediction: Anzyferov 191-669
- Pribram A seismoacoustic station: Simane 191-671
- Minnesota, age, glauconite: Tyler 188-44
- Mohole project, basalts, magnetic properties: Cox 191-472
- Mohorovičić discontinuity, change in chemical composition: Bullard 189-353
- drilling to, U. S. S. R.: Vozdvizhenskiy 190-359
- Mongolia, age, igneous rocks: Bobrov 188-96
- earthquakes, 1957: Solonenko 191-78
- electrical surveys, East Gobi depression: Fomina 190-211
- meteorites, Noyan-Bogdo: Vorobyev 191-62
- Montana, age, Precambrian rocks: Giletti 188-47
- earthquakes, 1959: Bailey 188-150; Hofmann 188-147; Myers 188-149; Ryall 189-72; Steinbrugge 189-71; Tocher 189-69; Wiegel 189-73; Witkind 188-148, 189-70
- Moon, atlas, photographic: Miyamoto 188-140
- atmosphere: Green 190-98; Nakada 189-66
- craters, origin: Fielder 189-63; Miyamoto 188-136
- stresses around: Warner 188-137
- crustal rocks: Haynes 190-101
- electrostatic erosion: Grannis 188-135; Walker 190-96
- exploration: Shoemaker 189-67
- general review: Markov 190-103; Sadil 190-102; Salisbury 190-100
- geology of possible bases: Green 190-99
- hypographic curves: Hédervári 189-68
- Mare Imbrium, stress factor in origin: Fielder 188-138
- nonhydrostatic tensions, gravity induced: Jobert 189-37
- orthographic atlas, limb areas: Arthur 188-139
- surface, compared to sea floor of earth: Chenoweth 188-142
- structure: Fiedler 189-64
- thermal fracturing: Ryan 190-95
- surface features, origin: Urey 189-65

Moon—Continued
 surface features—continued
 Procellarian system: Marshall
 188-141
 structure and origin: Firsoff 191-
 69
 tortional oscillations: Takeuchi
 188-210
 volcanism, mechanism: Green 190-
 97

N

Nepal, age, metamorphic rocks:
 Krummenacher 189-29
 Nevada, age, igneous rocks: Houser
 188-48
 earthquakes, history: Wood 188-156
 electrical surveys, basalt thickness:
 Roller 188-251
 gravity surveys: Kane 188-345
 New Brunswick, geothermometry,
 sphalerite: Kalliokoski 191-396
 New Hampshire, magnetic surveys:
 Bromery 191-539; Meuschke
 191-538, -540
 New Hebrides, volcanic activity: Au-
 bert de la R  e 190-631
 volcanic earthquakes, 1959: Blot
 188-597
 New Jersey, age, basalt: Kulp 188-
 38
 age, metamorphic rocks: Long 188-
 37
 New Mexico, age, Rio Grande en-
 trenchment: Ruhe 189-13
 gravity surveys: Andreasen 188-
 342, 190-477; Joesting 188-343
 isotopes, lead: Slawson 189-362
 magnetic surveys: Andreasen 190-
 477; Joesting 188-343
 New South Wales, geothermal gradi-
 ent, Cobar: LeMarne 191-393
 seismic surveys, magnesite: Haw-
 kins 190-592
 New York, age, Balmat: Doe 191-
 415
 age, metamorphic rocks: Long 188-
 37
 New Zealand, age, biotite: Hurley
 188-27
 age, granites and metamorphic
 rocks: Mason 188-100
 crust, structure: Adams 189-351;
 Thompson 189-350

New Zealand—Continued
 geothermal energy: Byron 189-329;
 Goguel 190-349; Studt 190-348
 thermal areas, isotope studies:
 Hulston 189-327, -328
 volcanic activity: Healy 190-630
 Nigeria, electrical surveys, tin
 placer deposits: Shaw 190-209
 North Carolina, age, metamorphic
 rocks: Bryant 189-12; Davis
 190-9; Kulp 188-40
 age, zircon: Overstreet 188-39,
 191-16
 gravity surveys: Mann 190-323
 Northern Ireland, paleomagnetism,
 Tertiary: Wilson 190-460
 Northern Rhodesia, age, uranium
 mineralization: Cahen 190-16
 Northwest Territories, age, granite:
 Baadsgaard 188-59
 electrical surveys, Devon Island
 glaciers: Greenhouse 189-193;
 Voegtli 189-192
 glacial movement, Devon Island:
 Cress 188-318
 gravity surveys, Ellesmere Island:
 Crowley 190-328
 magnetic surveys: Canada Geologi-
 cal Survey 191-548
 Norway, age, galena: Moorbath 189-22
 age, micas: Gerling 188-71; Kulp
 188-70
 radiocarbon dates: Trondheim
 190-55
 Norway, glaciers, movement: Glen
 191-317
 gravity surveys, Oslo area: Smith-
 son 189-314
 paleomagnetism, Permian: Ever-
 dingen: 188-432
 seismicity: Kvale 190-126
 Novaya Zemlya, glaciers, rate of
 movement: Svatkov 191-323
 Nova Scotia, seismic surveys, Sco-
 tian Shelf: Macpherson 191-620
 Nuclear explosions, air, energy to
 ground: Tandon 190-176
 amplitudes of arrivals from M-
 discontinuity: Werth 189-158
 detection, acoustic waves: Jones
 188-131
 Rayleigh waves: Sherwood 191-151
 VELA UNIFORM: Bates 188-222
 wave picture: Leet 191-207
 earth deformations, detonation in
 salt: Hoy 191-289

Nuclear explosions—Continued
 earth tide effects: Balakrishna 188-193
 first arrival directions: Pasechnik 188-223
 ground motion, intermediate range: Swift 191-210
 initial phases: Brune 191-104
 P-waves: Wright 189-157
 seismic-electric effect: Zablocki 188-218
 seismic magnitude: Riznichenko 188-224
 shock studies, instrumentation: Lombard 191-209
 signal amplitude, explosion size: Carpenter 191-208
 strain release: Press 188-219
 Nucleogenesis, speed of combustion of elements: Grundland 188-102
 Null-amplifier: Frantz 190-261

O

Ohio, age, mica: McCormick 188-42
 Oklahoma, gravity surveys: Lyons 190-324
 magnetic surveys: Lyons 190-324
 Olivine-spinel equilibrium: Ringwood 190-366
 Ontario, age, clay (Precambrian): Hurley 191-19
 age, granite: Ginn 189-16; Wetherill 188-53
 gravity surveys: Innes 189-308
 Oregon, magnetic surveys: Bromery 191-544; Canada Geological Survey 191-545
 radioactivity surveys: Schmidt 191-593
 seismic surveys: Donath 190-580
 Orogeny, cause, earth tides: Stovas 189-242; Woodruff 189-253
 Japan and vicinity: Kawai 188-311
 polycyclic nature, Alpine in U. S. S. R.: Gamkrelidze 190-285
 stress during: Charlesworth 190-282

P

Pacific Ocean, crust, structure: Gaynanov 190-334; Santo 188-371, -372, 191-403, -404; Shechkov 189-349; Suzuki 189-347, 189-348

Pacific Ocean—Continued
 earthquakes, mechanism: Ritsema 189-106
 East Pacific Rise: Menard 188-586
 heat flow: Foster 190-333; Uyeda 189-326
 Kurile-Kamchatka arc, submarine relief: Zatonskiy 189-615
 magnetic surveys, Murray Fault: Raff 189-467
 seismic surveys, Java trench: Kovylin 189-613
 West Philippine Sea Basin, guyots: Sato 189-614
 Paleomagnetism, archeology, ceramic specimens: Burlatskaya 191-485
 Carboniferous, British Isles: Everitt: 188-431
 Cenozoic, Australia: Mumme 191-491
 U. S. S. R.: Akopyan 190-464
 continental drift, evidence for: Kropotkin 188-310
 Cretaceous, Quebec: Larochelle 189-452
 expanding earth hypothesis: Egyed 188-427
 inclination error, sediments: Griffiths 188-429
 isoclinal maps: Hilten 189-445
 laboratory methods: Frölich 189-449
 Lewis thrust plate: Evison 191-483
 lightning, effect of: Graham 189-448
 Mesozoic, Antarctica: Bull 191-492
 China: Van 190-465
 Neogene, Japan: Takeshita 191-490
 paleoclimates, correlation: Kropotkin 190-461
 paleosecular variations, calculation of: Creer 191-484
 Paleozoic, China: Van 190-465
 Czechoslovakia: Bucha 191-487
 U. S. S. R.: Rodionov 189-456
 Paleozoic and Mesozoic, Greenland: Bidgood 188-430
 Permian, Italy: Hilten 189-455, 191-486
 Norway: Everdingen 188-432
 pole positions, catalog: Irving 189-451
 secondary magnetization: Hibberd 189-450
 pre-Triassic, Japan: Kawai 189-458

Paleomagnetism—Continued
 red beds, ferric oxide minerals:
 Van Houten 189-447
 reference grid, areas of anomalies:
 Nodia 188-428
 remanent magnetometer: Anderson
 188-423
 review: Doell 189-446
 Silurian, Union of South Africa:
 Graham 188-433
 stability, baked and unbaked sedi-
 ments: Everitt 191-474
 statistical methods: Runcorn 188-
 418
 Tertiary, Northern Ireland: Wilson
 190-460
 U. S. S. R.: Valiyev 191-439; Vekua
 190-463
 thrust mechanics, analysis of: Nor-
 ris 188-434, 189-459
 Triassic, England: Creer 189-453
 U. S. S. R.: Yanovskiy 191-488
 geochronological scale: Kruglya-
 kova 190-462
 unreliability of thermoremanent di-
 rections: Kuzhelov 191-482
 Paleotemperature, CaCO_3 , propor-
 tionally between: Emiliani 188-
 385
 Pantelleria, gravity surveys: Gantar
 191-373; Gaynanov 190-334
 Paradox Basin, gravity surveys:
 Steenland 191-543
 magnetic surveys: Steenland 191-
 543
 Peru, geophysical research: Gie-
 secke 191-290
 Phase equilibria, olivine: Bradley
 191-413
 Philippines, volcanic activity: Alca-
 raz 190-628
 Physical properties, determination,
 uniaxial compression: Hardy
 189-592
 Physical properties, ice: Nakaya
 190-600
 ice, McGill ice research project:
 Harwood 189-230
 rocks, laboratory measurement:
 Fairhurst 188-576
 statistical correlation: Judd 191-
 641
 Piezoelectric effects, quartz veins
 and pegmatites, U. S. S. R.:
 Volarovich 191-203

Planets, accreting, nonhydrostatic
 stresses: Jobert 189-38
 carbon in primitive atmosphere:
 Suess 190-62
 internal constitution: MacDonald
 191-31
 Plasticity, ice: Tabata 189-603;
 Wakahama 189-601
 snow: Kinoshita 189-602
 textbook: Thomas 188-567
 Poland, geophysical apparatus: Iza-
 kowski 190-262
 radioactivity, pegmatites: Skrzat
 188-485
 shale: Kita-Badak 188-476
 Porosity, carbonate rocks, U.S.S.R.:
 Nechay 188-271
 Potential field, extension into upper
 half space: Tereshko 189-227
 Pressure, rock, instrumentation:
 Panek 189-595
 Puerto Rico, magnetic field, obser-
 vations: U. S. Coast and Geo-
 detic Survey 189-378
 Puerto Rico Trench, crust, struc-
 ture: Bunce 191-619
 seismic surveys: Bunce 191-619;
 Hersey 189-610

Q

Quebec, age, anorthosite: Rose 188-
 51
 gravity surveys, Gaspé Peninsula:
 Tanner 189-307
 heat flow, Montreal area: Saull
 189-323
 magnetic surveys, iron deposits:
 Koulomzine 188-454
 St. Urbain anorthosite massif:
 Rose 188-51
 paleomagnetism, Cretaceous: La-
 rochelle 189-452
 seismic surveys: Hobson 190-583

R

Radioactivity, air, France: Servant
 189-491
 air, Italy: De Santis 189-492; Mat-
 tana 191-579
 RaA concentration: Kapitanov 190-
 505
 alpha-active nuclides, half life:
 Taagepara 189-484

Radioactivity—Continued

- Angola, nepheline syenite: Morais 189-487
- Be-7, air: Shvedov 191-581
- beryllium, photoneutron determination: Mezhiborskaya 191-574
- Bi-212, branching ratio: Barkan 190-495
- bismuth, half life: Kauranen 189-485
- cosmic ray induced, dust in atmosphere: Rama 190-503
- terrestrial materials: Rama 190-497
- detectors: Kment 188-480
- disequilibrium conditions, sediments: Pavlović 188-471
- energy of atomic nuclei: Torio 191-576
- granite, France: Prouvost 190-498; Roubault 189-486
- Scotland: Spears 188-474
- U. S. S. R.: Balyasnyy 190-499
- ground water: Tokarev 189-490
- igneous contact: Nishimura 189-488, -489
- Indian Ocean: Khitrov 190-502
- indium: Watt 189-481
- instrumentation, airborne monitor: Jones 188-478
- deep-sea: Khitrov 190-502
- discriminator for weakly active ores: Husain 188-479
- lead, half life: Kauranen 189-485
- lead-212, decay scheme: Giannini 190-494
- minerals, flotation: Light 188-482
- pegmatites, Poland: Skrzat 188-485
- platinum, half life: Graeffe 189-483
- potassium, beta-decay constant: Fleyshman 191-573
- radon, atmosphere: Machta 190-504
- radiohydrogeology: Tokarev 189-490
- radium-C', half life: Ogilvie 190-496
- rhenium: Watt 189-481
- rocks, analysis: Vachnadze 190-501
- Greenland, Ilfmaussaq batholith: Buchwald 188-473
- U. S. S. R.: Ushakova 191-578
- uranium and thorium content: Bloxam 191-575
- variations at contacts: Nishimura 190-514

Radioactivity—Continued

- rubidium-87, half life: McNair 189-482
- samarium, half life: Graeffe 189-483
- sediment, Black Sea: Starik 190-500
- shale, Poland: Kita-Badak 188-476
- stratification of the earth, cause of: Shneiderov 191-577
- tellurium: Watt 189-481
- travertine, Yugoslavia: Vučić 188-475
- tungsten, half life: Graeffe 189-483
- vanadium-50, half life: McNair 188-468
- volcanic sediments, Texas: Russell 188-472
- water, Israel: Mazor 191-580
- zircon, alpha activity, Japan: Yamaguchi 188-477
- specific alpha activity: Zaghoul 188-470
- Radioactivity exploration, airborne, scintillator: Matveyev 189-497
- airborne, theory: Seya 191-586
- antimony deposits: Balashov 188-500
- boron, neutron analysis: Ostro-umov 188-504
- gamma methods, oil pools: Grumbkov 189-494
- gamma-gamma method, nonferrous metals: Polyakov 190-510
- gamma-ray spectrometer: Grumbkov 189-496
- geologic mapping: Bates 190-506
- instrument calibration, simulated source: Davis 191-587, -588
- instrumentation: Rothe 191-589; Yakubovich 191-590
- methods, China: Grumbkov 190-516
- oil, soft radiation: Langford 190-507
- oil and gas: Alekseyev 190-515; Merritt 190-508; Yermakov 189-493
- procedure, Japan: Sano 188-483
- radon determination: Peacock 191-585
- scintillators, fatigue: Flanagan 188-484
- uranium: Troitskiy 191-583
- U. S. S. R.: Petrov 189-498

- Radioactivity exploration—Continued uranium and thorium determined separately: Troitskiy 191-584 wooded areas: Matveyev 191-582
- Radioactivity logging, activation analysis: Alekseyev 189-521 chlorine, effective cross section for slow neutrons: Zolotov 189-527
- gamma method: Alekseyev 189-510; Voskoboynikov 190-512 calibration of instruments: Ak-sel'rod 191-598 density determination: Polak 191-597 depth of penetration: Filippov 191-596 isotope analysis: Guberman 189-511 porosity: Gulin 189-513 salt-water leakage: Moston 188-268 U. S. S. R.: Ismet 189-536 gamma-gamma method, coal deposits: Bilotserkovets' 188-506; Garkalenko 188-505 effect of cavities: Garkalenko 188-508 theory and methods: Filippov 189-529 heavy elements: Voskoboynikov 189-504 high temperature, sondes: Chelok'-yan 189-532 isotope preparation: Zelenskaya 189-534 Japan, Akita Prefecture: Sano 188-510 Jöban district: Sano 188-512 uranium: Sano 188-511 joints in casing, depth determination: Chelok'yan 189-533 neutron method: Alekseyev 189-516; Guberman 189-517 absorption: Kozachok 190-521 boron and manganese: Fel'dman 189-505 character of impulses: Zakhar-chenko 189-508 elements in rocks: Leypunskaya 189-526 elements of high absorption cross section: Filippov 188-503 generator: Bepalov 189-530; Voytsik 189-531; Yerozolim-skiy 189-535
- Radioactivity logging—Continued neutron method—continued impulse source: Yerozolimskiy 189-515 optimum conditions for: Bulashevich 188-502 sodium and chlorine content: Blankov 189-525 temporal change of space-energy distribution: Dyad'kin 188-501 water-oil contact: Odinkov 189-512; Tslav 189-514 neutron-gamma method: Shapiro 190-520 coal deposits: Makarov 188-507 porosity: Kukharenko 189-518; 190-518; Larionov 189-519, 190-519 velocity section: Ivankina 188-539 neutron-neutron method, distribution of thermal neutrons: Tal'-yanskiy 189-520 porosity: Burov 189-509 oilfield development: Alekseyev 189-507 scintillation counters, slow neutrons: Dvorkin 189-528 U. S. S. R.: Bepalov 188-481 similarity principles: Guberman 189-506 sodium activation: Aksel'rod 189-522; Blankova 189-524; Rezvanov 189-523 U. S. S. R., Azerbaijan S. S. R.: Aksel'rod 189-537 cis-Caucasus: Shnurman 189-540 Kuybyshev area: Meshcheryakov 189-538 Orenburg area: Tslav 189-541 reefs: Bayemitov 189-542 Tatar A. S. S. R.: Shapiro 189-539 Volga-Ural district: Per'kov 189-218 uranium deposits, model: Grammakov 190-517 water-oil contacts: Bryant 188-509
- Radioactivity surveys, averaging: Savinskiy 190-511 Brazil: Argentiére 189-501; Wedo 188-486 California: Books 191-592 Canada, Arctic Archipelago: Gregory 188-455 Germany, faults: Löser 189-502 Hanford Plant area, Washington and Oregon: Schmidt 191-593 Iowa, Decorah fault: Lorenz 189-500

Radioactivity surveys—Continued

- Japan, Chugoku Mountains: Haruki 191-594
 Fukushima Prefecture: Iwasaki 188-494
 Hiroshima Prefecture: Nakai 188-492
 igneous contacts: Nishimura 190-513
 Iwate Prefecture: Horikawa 188-489; Iwasaki 188-495
 Jōban area: Horikawa 188-491; Iwasaki 188-495
 Miyagi Prefecture: Koizumi 188-487
 Miigata Prefecture: Kawachi 191-595
 molybdenite: Shibato 190-213
 Mount Asahidake: Sugiyama 188-490, -496
 Okayama Prefecture: Iwasaki 188-497
 ore deposits: Hatuda 188-499
 Tsuyama basin: Nagahama 188-488
 Yamaguchi Prefecture: Iwasaki 188-498
 Kentucky: Bates 191-591
 Tennessee: Bates 191-591
 U. S. S. R., oil pools: Alekseyev 189-495; Dmitriyev 189-503
 Red Sea area, age, Precambrian rocks: Schürmann 190-19
 Remanent magnetization, magnetic anomalies: Books 190-453
 peridotites, U. S. S. R.: Mikhaylova 190-458
 sediment, compaction effect: Vlasov 190-457
 Reunion Island, volcanic activity: Ducrot 190-633
 Rhode Island, age, granite and slate: Pinson 188-36
 seismic surveys, Black Island: Tuttle 188-552
 Narragansett Bay: Birch 190-579
 Rock mechanics, arch formation: Livingston 188-579
 general discussion: Kahler 191-644
 model studies: Watznauer 191-649
 review of developments (1962): Reed 189-589
 Rumania, earthquakes, catalog: Atanasiu 188-160
 geothermometry, quartz: Pomîrleanu 189-334

Rumania—Continued

- geothermometry—continued
 quartz: Savul 188-368
 sulfide ores: Savul 189-335
 gravity network: Botezatu 188-337
 gravity surveys, eastern Carpathians: Airinei 188-357; Visarion 188-356
 iron deposits: Ștefănescu 188-463
 salt deposits: Visarion 188-355
 magnetic field, 1954-59: Constantinescu 188-400
 secular variations: Constantinescu 188-399
 magnetic surveys, eastern Carpathians: Airinei 188-357; Visarion 188-356
 iron deposits: Ștefănescu 188-463
 South Carpathians: Ionescu 188-462
 magnetic susceptibility, sedimentary rocks: Costa-Foru 188-425
 seismicity, 1957-59: Iosif 190-127
 seismic surveys, Apuseni Mountains: Paicu 188-558

S

- Sahara Desert, seismic surveys: Layat 188-532
 San Salvador, earthquakes, 1917: Arenales 190-118
 Sarawak, magnetic surveys, bauxite: Overseas Geological Surveys 191-561
 Saskatchewan, earthquakes, 1909: Agarwal 190-116
 geophysical surveys, Coronation mine: Rattew 190-246
 magnetic surveys: Agarwal 190-479; Canada Geological Survey 191-547
 Saudi Arabia, meteorites, Rab' al Khali: Holm 189-56
 meteorite craters, coesite: Chao 189-55
 Scintillators, threshold discriminators: Grumbkov 190-509
 Scotia Arc, origin: Hawkes 190-284
 Scotland, age, granites: Lambert 188-2
 gravity surveys, rock density measurements: McLean 191-372
 Sanquhar coalfield: McLean 191-371

- Seismic curves, Rayleigh, continental oceanic paths: Shechkov 189-349
- Seismic engineering, seismic force analysis: Nazarov 191-110
- Seismic exploration, absorption coefficient of waves: Oblogina 191-604
- advances reviewed (1962): Brundage 190-256
- air waves: Kiselev 190-548; Mooney 190-535
- amplifiers: Polshkov 190-573, -574, 190-575
- borehole geophones: Konovalov 188-538
- computer processing of data: Kántas 188-551
- controlled directional sensitivity: Trorey 189-547
- coordination with geological work: Faust 191-614
- current status (1962): Melle 191-613
- deconvolution of traces: D'Hoeraene 189-546
- delay shooting: Honsho 189-559
- dip control, computer program: Oksa 189-552
- elastic properties, measurements in place: Swain 189-565
- engineering: Azimi 190-576; Linehan 189-562; McGuinness 189-551; Moore 188-522
- filters, high frequency: Lozinskiy 188-545
- universal: Gol'tsman 188-547
- fractured sedimentary rocks: Andreyev 190-531
- gas exploder: Oilweek 190-570; World Oil 190-569
- geophone-to-ground coupling, noise: Rosemann 191-610
- grouping: Bespyatov 188-517, 190-547; Kaneko 188-529; Kats 190-522; Napalkov 190-526; Timoshin 190-525, 191-609
- head waves, layered mediums: 190-543
- instrumentation, amplifiers: Hefer 189-569; McManis 188-546
- recording system: Oilweek 188-549
- refraction system: Warrick 189-568
- transformers: Khomenyuk 190-577
- interference, analysis of: Gol'tsman 190-523
- interpretation: Zav'yalov 190-530
- Seismic exploration—Continued
- isonormals, converted to isoverticals: Kulikov 189-548
- conversion to isoverticals: Levi 188-513
- layer velocity, traveltime curves: Petkov 189-545
- Love waves: Okada 190-529
- magnetic recording: Kage 191-616
- marine, China: Bo 190-552
- engineering surveys: Officer 188-548
- offshore singing: Ghosh 188-519
- secondary pressure pulse eliminated: Knudsen 189-550
- pinch out layers, model experiment: Kün 191-168
- Poland, 1917-61: Banaś 188-521
- preliminary reconnaissance: Khramoy 190-567
- progressive seismic waves, reflection and refraction: Cagniard 191-603
- reflection, areal integration method: Kolmakov 190-545
- automatic seismic profiling: Klugman 190-538
- bubble effect: Pierau 191-608
- construction of sections: Śliwiński 189-558
- construction of reflecting horizons: Glotov 190-540
- cross sections: Nagumo 188-527
- directional reception: Vol'volskiy 188-526
- discrepancies caused by rivers and marshes: Bobrovnik 188-531
- effective velocity determination: Kozlov 190-541; Mu 190-553
- expanding spread: Opitz 189-556
- geophone spread: Nagumo 190-536
- ghost elimination: Hammond 191-606
- horizontal velocity: Krylov 190-542
- inverse convolution: Rice 191-599
- layered models: Bol'shikh 190-543
- layered refractor: Kaneko 188-528
- magnetic recording: Bespyatov 190-539
- multiple reflection: Hesche 189-555
- near-surface layer, effects: Goupillaud 188-524
- n-layer problem: Gassmann 188-523

Seismic exploration—Continued reflection—continued

- one-dimensional model: Bennett 191-605
- plane front method: Teplitskiy 190-550
- reference plane: Giorgio 190-537
- Seismoline computer technique: Sherwood 191-600
- shot grouping: Olszak 189-554; Vol'vovskiy 188-514
- smoothing of traveltimes curves: Glogovskiy 190-546
- synthetic seismograms: Dürschner 189-553
- $t_0/2$ line method: Kharaz 188-525
- transverse traveltimes curves: Koryagin 190-551
- traveltimes curve analysis: Marek 191-607
- vertical velocity variation: Gol'din 190-544
- vibrator systems: Finn 190-533
- zones of erosion and pinch out: Yurchenko 190-549
- refraction, China: Yepinat'yeva 190-559
- deep structures: Cassinis 190-554
- engineering: Stam 189-561
- envelope parabolas: Oliveira 190-532
- flat platform structures: Shneyerson 188-535
- head wave identification: Puzyrev 191-612
- high pressure: Yepinat'yeva 190-556
- methods used in Siberia: Yepinat'yeva 190-555
- n-layer problem: Gassmann 188-520
- nonstationary processes: Kravets' 190-558
- reciprocal method: Hagedoorn 191-611; Hawkins 188-533
- Sahara Desert: Layat 188-532
- statistical uncertainty of models: Steinhart 189-560
- three velocity layer structure: Kaneko 188-536
- traveltimes curves: Abdulayev 190-557
- traveltimes function: Weber 188-534
- rockbursts, location of: Tarczy-Hornoch 189-566

Seismic exploration—Continued

- shear waves, generation: Kaplan 188-516
- shot-time recorder: Fedin 190-578
- signal-to-noise, analyzer: Khomenyuk 190-571
- directional linear surface force: Emura 189-544
- reliability criterion: Gol'tsman 190-524
- visual quality of record: Junger 189-549
- stomper: Teupser 189-557
- surface shooting: Lyuke 190-528
- thin layers, filtering properties: Vasil'yev 190-527
- three-component arrangements: Knothe 188-543
- traveltimes curves, two-layer mediums: Markuze 188-515
- traveltimes functions: Weber 188-518
- U. S. S. R., Fergana: Vol'vovskiy 188-514
- v_p/v_s : Molotova 191-601
- velocity section, neutron-gamma logging: Ivankina 188-539
- velocity variation with depth: Bulin 191-602
- vibrator method: Holz 191-617; Militzer 188-550
- wave-front charts: Musgrave 189-543
- wave length computation, nomogram: Ginzburg 190-534
- Seismic logging, synthesis of data: Khramoy 190-564
- U. S. S. R., cis-Carpathian depression: Petkevich 190-566
- Seismic scales, China: Van 188-165
- Seismic surveys, Alaska, marine: Shor 189-339
- Antarctica, Antarctic Peninsula: Behrendt 191-638
- discrepancy with gravity data: Ushakov 189-584
- ice shelves: Thiel 188-566
- ice thickness: Dubrovin 189-585
- McMurdo to South Pole: Cray 189-583
- Yamato Mountains: Ishida 188-565, 190-593
- Arctic Ocean: Hunkins 189-611
- Atlantic Ocean: Savit 190-581
- Bulgaria: Akrabova 191-630; Tuparev 191-629

Seismic surveys—Continued

- California: Kovach 190-327
 Canada, Arctic: Hobson 189-575
 Gulf of St. Lawrence: Macpherson 189-574
 China: Yepinat'yeva 188-560
 Chai-Da-Mu basin: Tseng 188-561
 Czechoslovakia, Vienna basin: Zouunková 188-537
 Denmark: Hjelme 189-579
 Ellesmere Island, glacier thickness: Weber 191-621
 England, coal fields: Clarke 189-577
 France, Limagne basin: Carron 189-578
 Germany: Grosse 191-628; Hermann 191-626; Reinhardt 191-627; Rische 191-624; Thomas 191-625
 Greenland: Roethlisberger 189-576
 Gulf of Mexico: Ewing 190-582
 Illinois, glacial deposits: McGinnis 189-573
 India, Ukai damsite: Central Water and Power Research Station Poona 191-637
 Italy, geothermal energy: Cassinis 188-555
 Miage glacier: Carabelli 190-294
 Japan, ore deposits: Kitsunezaki 188-564
 Sparker: Chujo 188-563
 uranium: Furuya 188-562
 Java trench: Kovylin 189-613
 mine subsidence, detection: Boyum 188-281
 New South Wales, magnesite: Hawkins 190-592
 Nova Scotia, Scotian Shelf: Macpherson 191-620
 Oregon: Donath 190-580
 Puerto Rico Trench: Bunce 191-619; Hersey 189-610
 Quebec: Hobson 190-583
 Rhode Island: Tuttle 188-552
 Narragansett Bay: Birch 190-579
 Rumania, Apuseni Mountains: Paicu 188-558
 Sahara Desert: Layat 188-532
 Texas: Chang 188-553; Cram 188-369
 underwater acoustic sources: Weston 188-530

Seismic surveys—Continued

- U. S. S. R., Bashkir A. S. S. R.: Khat'yanov 190-585
 Caucasus: Abdullayev 189-581; Tvaltvadze 189-580
 cis-Carpathian downwarp: Petkevich 191-631
 coordinated with drilling: Chirvinskaya 190-586
 Fedchenko Glacier: Berzon 189-582, 191-635
 Fergana: Vol'vovskiy 190-587, 190-588
 ice thickness: Pal'gov 191-636
 Saratov: Bystritskaya 190-584
 Siberia: Dorman 190-591; Tal'virskiy 191-633
 Tatar A. S. S. R.: Tuyeov 188-559
 Terskol Glacier on Mt. El'brus: Bokanenko 191-634
 Turkmen S. S. R.: Mil'shteyn 190-590
 West Siberian Lowland: Telyakova 191-632
 Venezuela, Lake Maracaibo: Levin 191-622
 Wyoming: Earl 188-554; Sengbush 191-618
 Yugoslavia, Tuzla basin: Rok-sandić 188-556
 Ulcinj area: Dragašević 188-557
 Seismic waves, absorption, variation with distance: Kogan 191-112
 attenuation, energy at focus: Rautian 189-96
 formula for: Brune 189-122
 body, inequalities at great distance: Rocard 189-163
 destructiveness, variation with period: Figueroa Abarca 189-115
 dynamic response, mode superposition: Merchant 189-120
 energy, formulas for calculation: Kogan 188-184
 free oscillations of the earth, gravimeter recording of: Nishimura 188-180
 recorded at Trieste: Bolt 191-116
 frequency spectrum: Stewart 188-181
 G-waves, attenuation and dispersion: Báth 190-137
 initial phases, Alaska earthquake of 1959: Brune 191-104

- Seismic waves—Continued
 intersection with inclined surface:
 Kozlov 189-125
 leaking interface, propagation:
 Phinney 188-183
 Lg, granite layer: Saha 190-140
 Lg and Rg phases, observed at
 Prague: Pěč 191-117
 longitudinal, \bar{p}_1 : Maisuradze 191-118
 Love, Euro-Asian paths: Payo
 Subiza 190-139
 P- and S-wave velocities, differ-
 ences at short distances: Jef-
 freys 191-114
 period, most destructive: Figueroa
 Abarca 188-182
 piezoelectric effects: Kumazawa
 190-141
 Rayleigh, attenuation: Arkhangel'-
 skaya 189-133; Bose 188-187
 Chilean earthquake of 1960:
 Savarenskiy 189-134
 dispersion: Kuo 189-128
 group velocities: Ragimov 191-120
 mantle structure: Aki 188-373
 Pacific Ocean: Santo 188-371, -372
 phase velocity: Berckhemer 189-130
 radiation pattern: Brune 189-110
 short period: Arkhangel'skaya
 189-131
 refracted, mean velocity determi-
 nation: Kravtsov 191-115;
 Lossovskiy 189-123
 S-waves, polarization angle: Nuttli
 189-121
 surface, crustal studies: Tryggva-
 son 189-342
 dispersion: Oliver 189-127
 general characteristics: Koridalin
 189-132
 oceanic of 6-8 sec period: Oliver
 188-185
 velocity: Jeffreys 189-129
 T-phase, dispersion: Northrup 191-121
 velocity, a variation with period:
 Kuo 189-128
 Baykal area of U. S. S. R.:
 Golenetskiy 191-119
 ratio of P- and S-waves: Yoshi-
 yama 189-126
 variation with depth: Jeffreys 191-113
- Seismicity, Africa, A. D. 628 to A. D. 1500: Ambraseys 189-87
 Africa, West African Rift Valley:
 de Bremaecker 188-159
 Asia, A. D. 628 to A. D. 1500: Am-
 braseys 189-87
 Bulgaria: Kirov 189-78, 191-90
 Chile, regionalization: Gajardo 188-158
 China: Khan' 190-128; Petrushev-
 skiy 189-92; Savarenskiy 188-164
 Czechoslovakia, maps: Karnik 189-86
 India: Central Water and Power Re-
 search Station Poona 191-95
 Japan, 1923-59: Hirono 188-167
 depth distribution of hypocenters:
 Matsushima 188-172
 Hokkaido: Ono 189-93
 Korea: Rustanovich 190-129
 Mexico, Tehuantepec: Figueroa
 Abarca 188-152
 Norway: Kvale 190-126
 ocean areas, Sofar geophones:
 Shurbet 191-89
 recurrence distribution of earth-
 quakes: Gayskiy 189-88
 Rumania, 1957-59: Iosif 190-127
 South America: Asada 191-88
 U. S. S. R., Armenia: Tamrazyan
 191-91
 Baikal-Mongol region: Florensov
 191-94
 Caucasus: Bagdasarova 188-161,
 188-162
 central Asia: Makarova 191-93
 Kurile Islands: Fedotov 188-163
 Tadzhik S. S. R.: Nechayev 189-90;
 Shaginyan 189-89
 Turkmen S. S. R.: Rezanov 189-91
 world, 1958-59: Rothé 189-83
 1959: Lotze 189-84
 1960: Due Rojo 190-115
- Seismographs, accelerometers, gra-
 vimeter acting as: Balakrishna
 188-194
 amplification, frequency character-
 istic preserved: Arkhangel'skiy
 191-145
 Chinese type 581: Hsü 188-191
 constants, calculation: Kirnos 191-143; Moskvina 191-144
 direct digitizing: de Bremaecker
 191-123
 electrodynamic, parameters deter-
 mined: Shebalin 191-147

Seismographs—Continued

- electromagnetic, effect of amplifier circuit: Polshkov 188-544
- short period amplifier: Barr 189-136
- engineering geology: Shan'gin 189-572
- exhausted elements, warning signal: Kuznetsov 191-127
- galvanometers, pen-writing: Borisevich 191-141
- Russian GB: Borisevich 191-138
- Hall-effect type: Nałecz 189-135
- high speed scanning: Shteynberg 190-146
- illuminator: Skur'yat 191-126
- indicator equations: Savill 191-124
- large displacements, recording of: Rulev 190-145
- long-period, noise elimination: Sutton 190-142
- oscillating system: Rombert 188-188
- remote control: Maksimov 191-142
- magnetoelectric, recording control: Aronov 191-132
- microseisms: Haubrich 189-478
- optical recorders: Kirnos 191-131
- method: Kolesnikov 191-137
- oscillographs, Russian SEO-I: Borisevich 191-134
- parameters, transformation formulas: Aronovich 191-146
- pen-writing device: Gol'dfarb 191-140
- portable: Oilweek 190-143
- Russian OSB-IV: Borisevich 191-129
- Russian OSB-V: Borisevich 191-130
- recorders: Ye 191-128
- automatic control: Solov'yev 191-133
- luminescent memory: Borisevich 191-136
- magnetic memory: Vetchinkin 191-135
- pen type: Borisevich 191-139
- Russian VEGIK, engineering: Kirnos 190-144
- seismic level recorder: Bugajski 189-137
- short period vertical, transfer function: Bogert 188-189
- strong motion, piezoelectric pick-up: Fremd 191-125

Seismographs—Continued

- Syowa Base (Antarctica): Eto 190-147
- testing apparatus: Gurevich 189-570
- water-well fluctuations: Rexin 189-119
- Seismology, textbook: Savarenskiy 188-155
- Seismoscope, model experiments: Shan'gin 189-571
- Seismometers, electrodynamics, thermal noise: Jackson 189-138
- Senegal, gravity surveys: Blot 189-311
- Seychelles Archipelago, age, granite: Miller 189-26
- Shear strength, clays: Bjerrum 189-598
- sand: Bjerrum 189-597
- Shorelines, Pacific islands, eustatic: Stearns 190-267
- Stress waves, attenuation, logarithmic creep waves: Lomnitz 189-124
- transient, torsional couple: Datta 189-144
- Sierra Leone, gravity surveys: Baker 188-353
- Solar system, origin: Hoyle 189-33; Lyttleton 189-34
- Solar wind, source of terrestrial hydrogen: de Turville 189-35
- Solid transitions, pressures of: Kennedy 188-375
- South America, crustal structure: Asada 191-88
- seismicity: Asada 191-88
- South Carolina, age, metamorphic rocks: Kulp 188-40
- age, Pamlico formation: Du Bar 190-11
- zircon: Overstreet 188-39, 191-16
- radioactivity surveys: Schmidt 189-499
- South Dakota, gravity surveys: Black 188-338
- Southern Rhodesia, gravity surveys, Great Dyke: Worst 188-456
- magnetic surveys, Great Dyke: Worst 188-456
- South-west Africa, Ehole meteorite: Fireman 190-82
- Spain, electrical logging, lignite: Sell Cantalapiedra 190-232
- magnetic field, measurements: Cardús 190-389, -390, -391

- Specific gravity, gravity surveys in mountains: Vecchia 188-334
 rocks, U. S. S. R.: Karpins'ka 188-359
 Yugoslavia: Simin 188-354
 Spitsbergen, age, beaches: Blake 188-74
 Strain, measuring apparatus, high temperatures: Fisher 189-588
 measurement, seismic fields method: Kundorf 190-568
 mine rocks, birefringence measurement: Emery 191-655; Williams 191-656
 photoelastic measurement: Emery 191-657
 Strength, arch formation: Livingston 188-579
 basalt, thermal shock fracture: Uyeda 191-699
 case-hardening, effect of: Arnold 191-664
 confining-pressure effect, instrumentation: Jaeger 189-586
 determination, uniaxial compression: Hardy 189-592
 distribution, coal mine workings: Osterwald 189-591
 elastic-plastic transition, triaxial compression: Serata 188-573
 fracture, effect of grain size: Brace 188-575
 glacier ice, deformation mechanism: Shumskiy 189-606
 ground, formerly loaded: Breth 191-663
 ground movement due to mining: Berry 189-590
 ice: Wakahama 189-601
 closure of sub-ice excavations: Abel 191-681
 creep tests: Butkovich 189-605
 function of structure: Serikov 189-608
 rate of deformation: Voytkovskiy 189-609
 modulus of elasticity, methods of determination: Link 191-643
 Mohr's theory, vertical tectonics: Kanizay 188-569
 permafrost and ice, mechanical failure: Gorazdovskiy 189-607
 plasticity, and other physical properties: Newton 189-236
 relative shear strength, conversion formula: Moore 189-599
 Strength—Continued
 relaxation phenomena, dam excavations: Reuter 191-677
 rocks, anisotropy determination in jointed rock: Hereth 191-665
 damsites: Huggenberger 191-673
 device for tunnel and shaft measurements: Lauffer 191-662
 energy distribution during fracturing: Vinogradov 190-598
 energy of rupture: Vinogradov 191-652
 experimental crinkling of schists: Paterson 191-642
 experimental deformation: Khlobustov 191-653
 experimental study: Oberti 191-675
 high confining pressure: Tomashevskaya 190-599
 high temperature and pressure: Lozano Calvo 191-651
 measurement: Fairhurst 188-576; Malina 191-674; Protodyakonov 191-668; Talobre 191-667
 microseismic study in mines: Bollo 191-661
 model of dam abutment: Pancini 191-678
 radiation effects: Kvapil 191-650
 tunnels: Rabcewicz 191-679
 rock mechanics: Hill 189-596
 rock movement, suppression by bolts: Belin 189-593
 salt, gallery design: Serata 189-600
 sea ice, Antarctica: Serikov 191-683
 stress concentration index: Sala 191-682
 strain rate and temperature effects, triaxial compression: Serdengeci 188-574
 tensile, rocks at minimum loading: Bacon 191-654
 Stress, boreholes, determined from hydraulic fracturing: Scheidegger 191-666
 changes, effect on rock properties: Obert 191-640
 distribution, coal mine workings: Osterwald 188-570
 instrumentation, borehole plug gage: Wilson 188-578
 manifestations underground: Scheidegger 188-312

Stress—Continued

- measurement: Panek 190-595
 - in place: Obert 191-659; Terzaghi 190-596; Utter 191-658
- mine rocks, borehole gage: Obert 190-597

Germany: Kostelka 191-660

- propagation, jointed rock: Tremmel 191-680

rocks, damsites: Takano 191-676

rock mechanics: Kahler 191-644; Poncelet 188-572

- shaft or level, three-dimensional stress state: Hiramatsu 189-594

Stress waves, rock failure: Isaacson 188-577

Submarine geology, 10th Pacific Science Congress: Zhivago 191-689

Arctic Ocean, Chukchi Shelf:

- Cromie 191-684; International Geophysical Year Bulletin: 191-685

mid-oceanic ridge: Heezen 188-582

origin of basin: Eardley 188-583

seismic studies: Hunkins 189-611

Beaufort Sea, bottom topography: Carsola 188-584

Bermuda-New England Seamount

Arc: Northrop 190-601

bottom sample collection: Bezrukov 191-686

coring, soft material: Zumberge 190-604

Gulf of Mexico: Ewing 190-582

Japan, Tsugaru Straits: Sasa 191-687

Mediterranean Sea, refraction profile: Leenhardt 190-602

Pacific Ocean, East Pacific Rise: Menard 188-586

Java trench: Kovylin 189-613

Kurile-Kamchatka arc: Zatonskiy 189-615

West Philippine Sea Basin: Sato 189-614

Puerto Rico Trench: Hersey 188-581, 189-610

rate of sedimentation, ionium-thorium method: Goldberg 190-603

relation to other sciences: Bezrukov 191-688

Submarine geology—Continued

ripple marks, seismic origin: Oulianoff 188-580

sea floor, compared with surface of moon: Chenoweth 188-142

seismoacoustical studies: Sysoyev 189-616

Tasman Sea: Standard 188-585

Surface waves, dispersion curves, computer analysis: Press 188-186

Sweden, age, black shale: Cobb 188-12

age, micas: Gerling 188-71

crust, thickness: Tryggvason 191-401

glaciers, Operation Ice Tunnel: Lundbergh 190-295

isotopes, carbon of graphite and marble: Landergren 190-369

Switzerland, age, granite: Chessex 189-25; Grönenfelder 188-66

age, micas: Jäger 188-67

microseisms: Decae 191-566

T

Tanganyika, age, basalt: Curtis 191-22

age, Zinjanthropus: Straus 190-18

Tasman Sea, submarine geology: Standard 188-585

Tektites, australites, Western Australia: Baker 190-94

australites, etched: Baker 189-62

gas bubbles, composition: O'Keefe 191-68

Georgia: Clarke 189-61; Furcron 190-93

origin: Schilling 189-60

meteorite impact: Barnes 188-132

parent-body hypothesis: Adams 191-67

terrestrial soil: Schwarcz 189-59; Taylor 191-66

volcanic processes on celestial body: Vorob'yev 188-133

spectral analysis: Vorob'yev 188-133

supposed sedimentary matrices, rubidium-strontium correlation: Pinson 190-92

uranium and lead content: Starik 188-134

- Tennessee, age, black shale: Cobb 188-12; Faul 188-35
 age, bentonite: Adams 188-41
 metamorphic rocks: Davis 190-9
 magnetic and gravity surveys: Watkins 191-541
 radioactivity surveys: Bates 191-591
 Tension cracks, depth and spacing: Lachenbruch 188-568
 Texas, crust, structure: Cram 188-369
 radioactivity, volcanic sediments: Russell 188-472
 seismic surveys: Chang 188-553; Cram 188-369
 Theodolites, magnetic, bar correction: Lepître 188-395
 Thermal properties, expansion, sandstone: Somerton 188-364
 Thermal springs, France, Haute-Auvergne: Roux 189-623
 Jamaica: Zans 191-388
 Japan, Arima area: Nakamura 189-625
 Hokkaido: Fukutomi 191-392
 Mount Iwate: Nakamura 188-599
 varieties of water: Sato 189-624
 magnetic origin, heat regimen: Fukutomi 188-600
 Wyoming, Yellowstone National Park: Howard 188-598
 Thermoluminescence, meteorites, age: Komovskiy 191-48
 Thermometers, borehole: Doig 189-330
 Transvaal, age, conglomerates: Nicolaysen 188-61
 Tristan de Cunha, volcanic activity: Harris 189-617; Nature 190-616
 Tsunami, Japan: Kato 189-117; Ohya 190-136
 spectrum, Acapulco: Munk 189-116
 velocity: Nakamura 191-111
 water height in bays: Nakamura 189-118
 Turkey, earthquakes, mechanism: Öcal 189-108
 magnetic field, bays: Özdoğan 190-405
- U
- Union of South Africa, age, conglomerates: Nicolaysen 188-61
 age, granite: Hales 188-62
 Union of South Africa—Continued
 age—continued
 uraninite: Burger 188-383
 paleomagnetism, Silurian: Graham 188-433
 United Arab Republic, age, biotite: Gheith 188-64
 United States, age, radiocarbon dates: Crane 190-35, -56; Damon 190-58; Dorn 190-39; Stipp 190-43; Trautman 190-42
 age, volcanic tuffs: Curtis 188-45
 drilling activity, 1961: Carsey 190-245
 volcanoes, catalog of active volcanoes: Coombs 188-588
 U. S. S. R., age, biotite, Caucasus: Rubinshteyn 188-82
 age, bones: Isabayev 188-15
 extrusive rocks, Urals: Ovchinnikov 188-83
 gabbro: Shirinyan 188-81
 general listing: Rubinshteyn 188-9
 glauconite, west Siberia: Klyarovskiy 188-91
 granites: Ivanov 188-88; Sobotovich 188-92
 igneous rocks: Ivanov 188-86, -87, Yel'yanov 188-94
 igneous and metamorphic rocks: Chernov 188-85; Zhironov 188-93
 kimberlite, Yakutsk A. S. S. R.: Mikheyenko 188-90
 metamorphic rocks: Komlev 191-25; Ravich 188-89
 micas: Filippov 188-78; Gerling 188-71, -76; Komlev 188-79; Semenenko 188-80
 monazite: Gol'denfel'd 191-26
 pegmatites: Slepnev 191-27
 Precambrian rocks, Ukraine and Baltic shields: Vinogradov 188-77
 radiocarbon dates: Starik 188-75
 sedimentary rocks: Vistelius 188-84
 time scales: Afanas'yev 188-4; Harris 188-6, -7; Ovchinnikov 188-8
 crust, structure: Bichevina 191-402; Deniskin 188-143; Gal'perin 189-346; Godin 190-354; Popov 191-304; Tatevosyan 190-355; Ulomov 190-356
 earth current surveys: Deniskin 188-143; Shabanov 191-76

U. S. S. R. —Continued

- earthquakes, 1955: Kukhtikova 189-80
- 1958: Kondorskaya 190-122
- depth of focus in Caucasus: Tskhakaya 191-92
- mechanism: Kukhtikova 189-107; Stauder 191-132
- Tadzhik S. S. R.: Nersesov 189-79
- elastic properties, rocks: Belikov 190-172
- electrical exploration, glaciers: Borovinskiy 191-245
- electrical logging, Azerbaijan A. S. S. R.: Kireyev 189-217
- cis-Caucasus: Nechay 189-215
- Chulym research drill hole: Poyarkova 191-259
- Emba region: Ayzenshtadt 191-260
- Khanty-Mansiysk research drill hole: Kozlov 191-256
- Kuban downwarp: Bedcher 189-216
- Kyanizadag area: Dadashev 188-272
- Maksimkin Yar research drill hole: Shumenkova 189-219
- Pokur research drill hole: Dryakhlova 189-220
- Rybin research drill hole: Gorbachev 190-236
- surveys: Itenberg 190-234
- Uvat research drill hole: Alferov 191-257
- Volga-Ural district: Per'kov 189-218
- Zhigalov research drill hole: Sulimov 190-235
- electrical surveys, Armenian S. S. R.: Vantsyan 188-258
- glaciers: Borovinskiy 189-194, 189-195, 190-210; Tokmagambetov 191-244
- microisotropy: Levadnyy 191-246
- geophysical exploration: Shirokov 190-247
- geophysical surveys, Amur-Zeya depression: Volodarskiy 191-270
- diamond deposits: Bondarenko 189-221
- Fedchenko glacier: Berzon 191-635
- Glavnyy Bol'shealmatinskiy glacier: Borovinskiy 191-268
- Kazakh S. S. R.: Ayzenshtadt 190-249; Babayants 188-291

U. S. S. R. —Continued

- geophysical surveys—continued
- Kirovabad area: Dzhafarov 189-223
- Kyzyl-Kum: Mel'kanovitskiy 189-222
- Lower Volga: Kozlenko 190-248
- reefs in Cis-Urals: Khat'yanov 188-290
- Tashkent: Mel'kanovitskiy 191-269
- geotectonics, recent movement: Kazanchan 189-255; Rudich 188-315; Shul'ts 191-310
- geothermal anomalies, Apsheron Peninsula: Sultanov 189-325
- geothermal energy, Dagestan A. S. S. R.: Dzhamalov 188-367
- Kamchatka: Svyatlovskiy 190-346
- Kurile-Kamchatka: Averyev 190-345
- geothermal gradient, Azerbaijan S. S. R.: Aliyev 188-366; Mekhtiyev 190-341; Tsaturyants 190-340
- Karadag gas field: Tsaturyants 191-390
- Tersko-Kuma Plain: Vorob'yeva 190-339
- geothermometry, igneous and metamorphic rocks: Krylova 190-350
- glaciers, historical review: Cherkasov 189-285
- ice formation: Makarevich 189-281
- ice thickness: Pal'gov 189-284, 191-636
- movement: Barvenko 189-280, 191-321; Makarevich 191-320
- thermal conductivity: Tokmagambetov 189-283
- viscosity and cohesion: Tokmagambetov 189-282
- gravity exploration, chalcopyrite: Mudretsova 190-332
- gravity surveys: Artem'yev 191-375
- Altay and Kolba ranges: Mironov 188-360
- Baltic region: Faytel'son 188-358
- Bukhara-Khiva: Vol'vovskiy 191-378
- Donets Basin: Lebedev 191-376
- Fergana: Vol'vovskiy 190-587
- Kazakh S. S. R.: Moiseyenko 189-315
- Rudnyy Altay: Zhogolev 189-474
- Udmurth A. S. S. R.: Aue 190-331
- Uzbek S. S. R.: Geyman 190-333; Tal'Virskiy 191-377

U. S. S. R. —Continued

- isotopes, lead in ores and intrusions: Tugarinov 190-375
 magnetic properties, change during orogeny: Malygin 188-426
 quartzites: Kopayev 188-464
 peridotites: Mikhaylova 190-458
 magnetic surveys, Armenian
 S. S. R.: Vantsyan 188-258
 iron ores: Andreyev 191-555
 Kazakh S. S. R.: Ivankin 191-554;
 Stroiteleva 191-553
 kimberlite dikes: Barygin 191-560
 nickel ultrabasics: Stupak 191-552
 Rudnyy Altay: Zhogolev 189-474
 Sea of Azov area: Kravchenko
 188-465
 Siberia: Karatayev 191-557
 Transcarpathians: Khomenko 191-551
 Urals: Gernik 190-483
 Uzbek S. S. R.: Tal'Virskiy 191-377
 volcanoes: Bernshteyn 190-622
 West Siberian Lowland: Provodnikov 191-556
 Yakutia diamond fields: Loshchakov 191-558, -559
 magnetotelluric sounding: Rokityanskiy 191-74
 meteorites, dust from Kunashak: Yudin 191-64
 Elga: Vronskiy 191-52
 Tungus: Fesenkov 189-43, -44, 191-53; Idlis 191-54; Ivanov 191-55, -56; Obashev 191-57; Tsikulin 191-60
 Yardmly: Kashkay 191-43
 microseisms, noise spectrum: Moskvina 191-568
 paleomagnetism: Yanovskiy 191-488
 Cenozoic: Akopyan 190-464
 early Paleozoic: Rodionov 189-456
 geochronological scale: Kruglyakova 190-462
 Ordovician: Komissarova 189-457
 Tertiary: Valiyev 191-489; Vekua 190-463
 radioactivity, granite: Balyasnyy 190-499
 rocks: Ushakova 191-578
 radioactivity logging, cis-Caucasus
 Shnurman 189-540
 gamma anomalies: Ismet 189-536
 Kuybyshev area: Meshcheryakov 189-538

U. S. S. R. —Continued

- radioactivity logging—continued
 Orenburg area: Tslav 189-541
 reefs: Bayembitov 189-542
 Tatar A. S. S. R.: Shapiro 189-539
 Volga-Ural district: Per'kov 189-218
 radioactivity surveys, oil pools:
 Alekseyev 189-495; Dmitriyev 189-503
 seismic surveys: Dorman 190-591
 Bashkir A. S. S. R.: Khat'yanov 190-585
 Caucasus: Tvaltvadze 189-580
 cis-Caucasus: Abdullayev 189-581
 cis-Carpathian downwarp: Petkevich 191-631
 coordinated with drilling: Chirvin-skaya 190-586
 Fedchenko Glaciers: Berzon 189-582
 Fergana: Vol'vovskiy 190-587, -588
 Saratov: Bystritskaya 190-584
 Siberia: Tal'virskiy 191-633
 Tatar A. S. S. R.: Tuyeov 188-559
 Terskol Glacier on Mt. El'brus: Bokanenko 191-634
 Turkmen S. S. R.: Ayzberg 190-589; Mil'shteyn 190-590
 West Siberian Lowland: Telyakova 191-632
 seismic wave velocity, Baykal area: Golenetskiy 191-119
 seismicity, Armenia: Tamrazyan 191-91
 Baykal-Mongol region: Florensov 191-94
 Caucasus: Bagdasarova 188-161, 188-162
 central Asia: Makarova 191-93
 Kurile Islands: Fedotov 188-163
 Tadzhik S. S. R.: Nechayev 189-90; Shaginyan 189-89
 Turkmen S. S. R.: Rezanov 189-91
 cis-Carpathian depression: Petkevich 190-566
 specific gravity, rocks: Karpins'ka 188-359
 volcanic activity, Bezmyanniy: Borisova 191-693
 Ichinskaya Sopka in Kamchatka: Ogorodov 188-593
 Kamchatka: Naboko 190-625; Vlodavets 188-589
 Kamchatka-Kuriles: Tomkeieff 188-590

U. S. S. R. —Continued

- volcanic activity—continued
 - Karymskiy: Gorshkov 191-695
 - Klyuchevskaya: Naboko 190-623
 - Klyuchevskaya group and Sheveluch: Markhinin 191-692
 - Ploskiy Tolbachik: Rudich 191-694
 - regionalization: Markhinin 191-697; Vlodavets 190-624
 - Zavaritskiy: Zelenov 191-696
- volcanic earthquakes, Klyuchevskaya: Gorshkov 190-634
- Utah, age, volcanic glass: Schaeffer 188-25
- gravity surveys: Case 188-451
- magnetic surveys: Case 188-451

V

- Variometers, field type, Russian MVS: Pelyushenko 188-396
- Venezuela, age, metamorphic rocks: Bass 189-20
- geophysical surveys, Alturitas area: Stenson 188-287
- seismic surveys, Lake Maracaibo: Levin 191-622
- Vermont, magnetic surveys, maps: Bromery 191-539; Meuschke 191-539, -540
- Virginia, magnetic field, measurements: U. S. Coast and Geodetic Survey 190-386
- Volcanic activity, Africa, Virunga volcanoes: Berg 190-619
- Antarctica: Berninghausen 188-591
- Australia: Sprigg 181-500
- Azores: Ferreira 190-617; Machado 190-615, 191-691; Zbyszewski 189-618, 190-618
- Cape Verde Islands: Ferreira 190-617
- Congo, energy release at Nyiragongo: Delsemme 188-596
- Dutch East Indies: Neumann van Padang 190-629
- explosive energy, barogram calculation: Gorshkov 190-607
- French Antilles, prediction: Jolivet 190-613
- Hawaii, Halemaumau: Richter 190-608
- Kilauea Iki: Ault 190-609
- prediction: Macdonald 190-610
- Iceland, prediction: Thorarinsson 188-592, 190-614
- Italy, Vesuvius: Imbò 190-621
- Japan, Aso: Taneda 188-594
- Myojin Reef: Morimoto 190-627

Volcanic activity—Continued

- Japan—continued
 - Noboribetsu: Murozumi 189-619
 - Sakura: Taneda 189-620; Yoshikawa 189-621, 190-626
 - Showashinzan: Matsuo 189-622
 - lunar eclipses, dust in atmosphere: Link 191-700
- Mexico, Bárcena: Richards 190-612
- Tres Virgenes Volcano: Ives 190-611
- New Hebrides: Aubert de la Rüe 190-631; Blot 190-632
- New Zealand: Healy 190-630
- Philippines: Alcaraz 190-628
- prediction, chemical indexes: Murozumi 189-619
- Reunion Island: Ducrot 190-633
- Sahara, use for increasing rainfall: Gèze 190-620
- temperature variations: Taneda 188-594
- tension in crust: Bouwer 190-605
- Tristan de Cunha: Harris 189-617; Nature 190-616
- U. S. S. R., Bezymyanniy: Borisova 191-693
- Kamchatka: Naboko 190-625; Ogorodov 188-593
- Kamchatka-Kuriles: Tomkeieff 188-590; Zatonskiy 189-615
- Karymskiy: Gorshkov 191-695
- Klyuchevskaya: Naboko 190-623
- Klyuchevskaya group and Sheveluch: Markhinin 191-692
- magnetic surveys: Bernshteyn 190-622
- Ploskiy Tolbachik: Rudich 191-694
- regionalization in the Kurile-Kamchatka area: Markhinin 191-697
- Zavaritskiy: Zelenov 191-696
- United States, catalog of active volcanoes: Coombs 188-588
- world review, 1959: Lotze 189-84
- Volcanic earthquakes, Congo, Nyiragongo: Shimozuru 188-595
- Japan, microtremors: Kamo 190-635, -636
- New Hebrides: Blot 188-597
- U. S. S. R., Klyuchevskaya: Gorshkov 190-634
- Volcanology, Gegam-type volcano: Karapetyan 191-690
- lava, flow dynamics: Yokoyama 188-587

Volcanology—Continued

- magma chambers, behavior of volatiles: Matsuo 189-626
- regionalization, U.S.S.R.: Vloda-vets 190-624
- review: Bullard 190-606
- steam pressures: Nekhoroshev 190-336
- thermal shock fracture of basalt: Uyeda 191-699

W

- Washington, age, granodiorite: Lipson 188-56
- electrical surveys, lead-zinc deposits: Crosby 189-190
- glaciers, movement, Blue Glacier: Shreve 191-315
- gravity surveys: Stuart 188-347
- radioactivity surveys: Schmidt 191-593
- Wisconsin, magnetic surveys: Allingham 188-450
- Wyoming, age, Precambrian rocks: Giletti 188-47
- age, uranium migration: Robinson 188-14
- electric logging, interpretation: Patchett 188-267
- gravity surveys, Yellowstone National Park: Pakiser 188-339
- seismic surveys: Earl 188-554; Sengbush 191-618
- thermal springs, Yellowstone National Park: Howard 188-598

Y

- Yugoslavia, electrical logging, coal basins: Perić 188-270
- electrical surveys, bauxite: Krulc 188-256
- coal basins: Mladenović 188-257
- graphite: Ristić 188-255
- geophysical surveys, chromite: Šumi 188-299
- oil and gas: Aksin 188-289; Mužije-
jević 188-288
- gravity surveys, Tuzla basin: Rok-
sandić 188-556
- magnetic surveys, iron deposits: Dam-njanović 188-459; Perić 188-460
- radioactivity, travertine: Vučić 188-475
- seismic surveys, Tuzla basin: Rok-
sandić 188-556
- Ulcinj area: Dragašević 188-557
- specific gravity, rocks: Simin 188-354

ERRATA IN BULLETIN 1166

- 190-42, p. 326 (Bull. 1166-C)
First line should read
"Trautman, Milton A., and
Walton, Alan"
- 190-63, p. 329 (Bull. 1166-C)
First line should read
"Fowler, William A., Green-
stein, Jesse L., and Hoyle,
Fred"
- 190-420, p. 414 (Bull. 1166-C)
First line should read
"Maeda, Hiroshi, Sakurai, K.,
Ondoh, T., and Yamamoto, M."