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ABSTRACTS OF ARTICLES FROM UNAVAILABLE
 SOVIET SCIENTIFIC AND TECHNICAL PERIODICALS (6)

[Comment: This report presents abstracts taken from issues of the Soviet periodical Referativnyy Zhurnal published July-October 1954. These abstracts are of articles originally published in Soviet scientific and technical serial publications which are not known to be available outside the Soviet Orbit.

The following form is used for each abstract in this report:

- General subject, specific subject (Soviet abstract number)
- Name of unavailable periodical, volume and/or issue number, date, pages
- Author of article
- Title of article (Language, if other than Russian)
- Abridgment of abstract (Source)

The sources, indicated in parentheses at the end of each abstract, are abbreviated as follows:

- RZhAstr Moscow, Referativnyy Zhurnal -- Astronomiya i Geodeziya
- RZhFiz Moscow, Referativnyy Zhurnal -- Fizika
- RZhKhim Moscow, Referativnyy Zhurnal -- Khimiya
- RZhMat Moscow, Referativnyy Zhurnal -- Matematika
- RZhMekh Moscow, Referativnyy Zhurnal -- Mekhanika]

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I. ASTRONOMY

Geodesy, Instruments (5056)
Sbornik Statey po Geodezii, No 5, 1953, 45-52
 Skavronskiy, V. N.
 Results of Study of Short-Period Errors in the Marking of the Horizontal
 Circle of the Optical Theodolites of the Plant "Aerogeopribor" OT-02
 No 9184, 9195

Test methods of short-period marks on the limb of the specified
 theodolites and the processing of measurements are described. Results
 are tabulated and plotted. Actual errors are expected to exceed the
 computed ones. (RZhAstr, No 9, 1954)

Geodesy, Theory of Errors (5052)
Sbornik Statey po Geodezii, No 4, 1953, 69-83
 Uspenskiy, A. K.
 Solution of Equation of Errors by Means of the Least Maximum Deviation

Author derives his formula under assumption that the maximum deviation
 of the function of errors in absolute value does not exceed the maximum deviation
 in absolute value. The abstractor is critical of this method. (RZhAstr,
 No 9, 1954)

Geodesy, Aerial Survey (5019)
Sbornik Statey po Geodezii, No 5, 1953, 3-16
 Konshin, M. D.; Orlov, V. K.
 Determination of Elements of Mutual Orientation From Pictures of a Mountainous
 Territory

A determination method of elements of mutual orientation of pictures is
 outlined. The corrective terms for the formulas of mutual orientation elements
 do not contain products of differences of longitudinal parallaxes and hence
 the accuracy of determination is independent of the relief. (RZhAstr, No 9,
 1954)

The Sun, Spectroscopic Study (4900)
Byull. AN Georgia SSR, No 15, 1953, 170-260
 Georgobiani, Sh. M.
 Spectroheliographic Observations on the Mount Kanobili in the Years 1941-1944

Results of systematic observations of bright flocculi, filaments, and
 prominences in H alpha light are published. These observations were carried
 out by Sh. Chkhaidze, N. Georgobiani, T. Kochlashvili, K. Chuvayev, D. Khita-
 rishvili. (RZhAstr, No 9, 1954)

The Sun, Spectroscopic Study (4899)
Izv. Krymskoy Astrofiz. Observ., 11, 1954, 102-128
 Mustel, E. R.
 The Mechanism of Glow of Hydrogen Flocculi

From continuations of previous investigations (ibid. 9 (1952)) author con-
 cludes that the H lines delta, epsilon and zeta are not formed in the chromo-
 sphere, but in more deeply located layers. The H alpha line is due to exci-
 tation of H by electron impact in the chromosphere and to recombination of
 protons with electrons. The decrement of Balmer lines in flocculi spectra
 and the whirls around spots are analyzed. (RZhAstr, No 9, 1954)

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Stellar Astronomy, Dynamics of Stellar Systems (4892)
Publikatsii Tartuskoj Astron. Observ., No 5, 1953, 332-368
 Kuzmin, G. G.

Third Integral of Stellar Motion and Dynamics of the Stationary Galaxy

The introduction of a third integral, besides the familiar ones of energy and areas, is suggested. In the expression of this quadratic integral the first two terms represent the sum of squares of angular momenta around two mutually perpendicular axes in the plane of the galaxy, and the third term is of the type of the energy integral along the z-axis. The author intends to continue his theory. (RZhAstr, No 9, 1954)

Theoretical Astrophysics, New Stars (4868)
Izv. Glav. Astron. Observ AN Ukrainian SSR, I, 1953, 67-84
 Gerdeladze, Sh. G.

Dissipation of Mass During the Surge of Novae

The amount of matter ejected during the surge of a Nova is analyzed. Suggests new methods consisting in determination of density of the stellar shell by the study of forbidden lines. Another method consists in the determination of density from the absolute intensities of the Balmer Lines. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4848)
Peremennyye Zvezdy, No 5, 1953, 344-345
 Semakin, N. K.
 MX Cygni

Analysis of photographs of the Moscow collection did not reveal a star of $11^m - 12^m$ on the spot marked by Ross. Therefore the existence of this star is dubious. (RZhAstr, No 9, 1954)

Astrophysics, Star Observations (4847)
Peremennyye Zvezdy, No 5, 1953, 342-344
 Martynov, D. Ya.
 RS Vulpeculae

A reiterated analysis of minima of RS Vul is performed for a possibility of rotation of its line of apsides, evidenced by the shifting of the secondary minima. No definite conclusions could be made. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4846)
Peremennyye Zvezdy, No 5, 1953, 341-342
 Tsesevich, V. P.
 Y 548 Cygni

The brightness of Y 548 Cygni was established from 141 plates of Odessa Observatory. The star was found to belong to the Algol type. (RZhAstr, No 5, 1954)

Astrophysics, Star Observation (4845)
Peremennyye Zvezdy, No 5, 1953, 339-340
 Eelsalu, Kh. T.
 IX Cassiopei

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The brightness of the variable was estimated from 64 plates obtained in the period 1940-1953 and 7 maxima were established. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4844)
Peremennyye Zvezdy, No 5, 1953, 336-338
 Batyrev, A. A.
 BN Vulpeculae

Evaluations of brightness were made from 116 visual observations in 1952 and two maxima were established. A jump-like variation of period between 1917-1935 is possible or a long-period inequality with a 70-year long period. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4843)
Peremennyye Zvezdy, No 5, 1953, 334-336
 Kholopov, P. N.

SPZ 918 Persei - a Variable of U Gemini Type With Large Amplitude or a Nova

Previous studies and 59 photoplates of Moscow Observatory were analyzed. The magnitude of the star could be established only on two negatives and it was not found on the other plates. Therefore it seems to be either a Nova or a variable with very large amplitude. (RZhAstr, No 9, 1954)

Astrophysics, Star Observations (4842)
Peremennyye Zvezdy, No 5, 1953, 332-334
 Solov'yev, A. V.
 The Semiregular Variable RW Sct

Ten maxima of brightness of the star were established from 210 negatives of Stalinabad Observatory of 1940-1952. Elements were corrected and oscillations in brightness were noticed during the maxima and minima. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4841)
Peremennyye Zvezdy, No 5, 1953, 330-332
 Batyrev, A. A.
 SZ Gemini

A total of 142 visual observations of the variable were processed in 1951-1952. The elements were corrected and the maxima established. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4840)
Peremennyye Zvezdy, No 5, 1953, 328-330
 Solov'yev, A. V.
 The Cepheid RY Canis Majoris

The brightness of the variable was estimated from 116 photoplates of Stalinabad Observatory obtained in the period 1938-1950. The normal maximum of brightness was established. (RZhAstr, No 9, 1954)

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Astrophysics, Star Observation (4839)
Peremennyye Zvezdy, No 5, 1953, 326-328
 Yefremov, Yu. I.
 A New Cepheid AB Camelopardis

This star was found to have a long period. The computed elements are presented. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4838)
Peremennyye Zvezdy, No 5, 1953, 324-326
 Lozinskiy, A. M.
 Proper Motions of Five Short-Period Cepheids

The proper motions of these stars were established from comparison of photoplates made with the big Moscow astrograph at a 15-year interval. Reduction from relative to absolute motion was processed by using tables by P. P. Parenago. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4837)
Peremennyye Zvezdy, No 5, 1953, 314-323
 Yudkina, V. P.
 Five Short-Period Cepheids

Reference stars, maps of surroundings, and luminosity curves are presented for the following stars: RS, TV, TW Tauri, RV Ursae Majoris. (RZhAstr, No 9, 1954)

Astrophysics, Star Observations (4836)
Peremennyye Zvezdy, No 5, 1953, 303-313
 Zakharov, G. P.

Results of observation of the following visual variables are presented: T and beta Lyrae; RY and TT Unicorni; SY, TW, TY Serpentis; RY Orionis; ST, SX, TW, UY Pegasi; RS Persei. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4835)
Byull. AN Georgia SSR, No 15, 1953, 3-15
 Magalashvili, N. L.
 Electrophotometry of Eclipsing Variable RX Her and RS Vul

The elements of RX Her were computed from observations under assumptions of a circular orbit using the method of Piotrowski. The luminosity curve of RS Vul was solved under assumption of elliptic orbit. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4834)
Izv. Krymskoy Astrofiz. Observ., 11, 1954, 91-101
 Nekrasova, S. V.
 Photoelectric Observations of Delta Sct

The establishment of temperature variation of delta Sct was attempted by observation of its irregular variation of brightness. A total of 160 observations are presented. The luminosity curve indicates nonstationary processes in the star's atmosphere. The thermal oscillations were estimated within the limits of 200 to 500°. (RZhAstr, No 9, 1954)

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Astrophysics, Star Observation (4829)
Izv. Krymskoy Astrofiz. Observ., 11, 1954, 74-80
 Nikonova, Ye. K.

Photoelectric Magnitudes of Bright Reference Stars for Photometry of Planets

An accurate establishment of stellar magnitudes outside the atmosphere under consideration of light absorption by the terrestrial atmosphere was processed. Stellar magnitudes defined by O. Eggen (Astrophys. J. 112, 141 (1950)) were used as reference points for observation. (RZhAstr, No 9, 1954)

Astrophysics, Star Observation (4828)
Izv. Glav. Astron. Observ. v Pulkove, No 5, 1954, 31-86
 Dadayev, A. N.

Study of Hot Supergiants in Systems of Eclipsing Binaries

Photometry of continuous spectra of AO Cassiopei and beta Lyrae is studied. Curves of brightness and of color are plotted using photoplates of Stebbins and Gutnick. Elements of orbits are computed and hypotheses of gaseous streams are discussed. (RZhAstr, No 9, 1954)

Astrophysics, Astrospectroscopy (4821)
Izv. Glav. Astron. Observ. v Pulkove, No 4, 1953, 45-48
 Mitrofanova, L. A.

Determination of Relative Numbers of Fe II

The transition probabilities of Fe II were computed in the wave band 350-460 millimicrons for 91 lines. The excitation method of the spectrum by an electric spark is described. The spark temperature was found from Fe I data to be $T = 5800 \pm 380^\circ$. (RZhAstr, No 9, 1954)

II. CHEMISTRY

Hydrochemistry (21513)
Gidrokhim. Materialy, No 21, 1953, 121-134
 Vorob'yev, N. I.

The Determination of the Total Mineral and Sulfate Ion Content in Natural Water by Conductivity

Worked out a method for determining the above by the conductivity method. Accuracy is said to be good enough for practical purposes. (RZhKhim, 7, 1954)

Hydrochemistry (21515)
Gidrokhim. Materialy, No 20, 1953, 98-100
 Shidlovskaya-Ovchinnikova, Yu. S.
 The Preparation of Deoxygenated Water

Describes method of preparing deoxygenated water by boiling with subsequent cooling under carbon dioxide. (RZhKhim, 7, 1954)

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Hydrochemistry (21517)
Gidrokhim. Materialy, No 21, 1953, 24-29
 Bogusevich, L. N.
 Fluorine in Kazakhstan Natural Waters

Measured the fluorine content in 183 sources of natural water in the Kazakhstan region. (RZhKhim, No 7, 1954)

Hydrochemistry (21518)
Gidrokhim. Materialy, No 21, 1953, 19-23
 Cherkinskiy, S. N.; Zaslavskaya Ye. M.; Mikhaylovskaya, L. A.; Khovanskaya, M. G.
 Fluorine Contents of Water Sources in the RSFSR

Investigated the fluorine content of 916 water supply sources throughout various places in the RSFSR. (RZhKhim, No 7, 1954)

Hydrochemistry (21520)
Gidrokhim. Materialy, No 20, 1953, 18-21
 Zenin, A. A.; Konovalov, G. S.
 The Content of Arsenic, Boron, Bromine, Iodine, and Fluorine in the Waters of the Kuban River

Measured the amount of the above substances in the Kuban River during the period 1949-1950. (RZhKhim, No 7, 1954)

Hydrochemistry (21523)
Gidrokhim. Materialy, No 21, 1953, 3-9
 Gololobov, Ya. K.
 The Thickness of the Oxygen-Hydrogen Sulfide Layer in the Black Sea

Measured the thickness of the above layer and prepared relief maps. (RZhKhim, No 7, 1954)

Hydrochemistry (21525)
Gidrokhim. Materialy, No 21, 1953, 10-18
 Pirogova, M. V.
 The Chemical Exchange Between the Bottom and the Water Layer of the Black Sea

Studied the chemical and biological composition of the bottom and of the layer of water adjacent to it in order to investigate the exchange of materials. (RZhKhim, No 7, 1954)

Hydrochemistry (21526)
Gidrokhim. Materialy, No 21, 1953, 144-151
 Bakhman, V. I.; Prokof'yeva, Ye. F.
 Dissolved Gases in Silt Deposits (Muds)

Worked out methods for determining the amounts of CO₂, H₂S, CH₄, and N₂ in silt deposits. (RZhKhim, No 7, 1954)

Medical (22013)
Za Sots. Zdravookhr. Yzbekistana, No 2, 1953, 29-33
 Alt'man, B. M.
 Vitamin C Level in the Blood and Its Extraction From the Urine of Generally Healthy People Living Under Conditions Prevalent in Tashkent

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Determined the above and concluded that the average annual vitamin C deficiency in the Tashkent area is 1770 milligrams. (RZhKhim, No 7, 1954)

Nutrition (22044)

Izv. AN Latv. SSR, No 3, 1953, 67-75

Shmidt, A. A.

Protein-Vitamin Concentrates, Their Preparation and Place in the Nutrition of Man

Presents data on the above new nutritional product and its sources of preparation. Addition of the protein-vitamin concentrate to bread increases its nutritional value and taste. (RZhKhim, No 7, 1954)

III. GEOLOGY

Deposits of Useful Minerals (Nonmetallic), Bleaching Clays (570)

Izv. AN Turkm. SSR, No 4, 1953, 75-79

Murav'yeva, M. Ya.

Dispersion of Clays and Clayey Soils in Turkmenistan

The clays and clayey soils of Turkmenistan, according to the data of 20 analyses of 13 exploited deposits, are characterized by the considerable content of a clayey-muddy fraction with dimensions of the particles less than 10 microns, and by the predominance of fine dust-like and sandy-dusty particles. (RZhGeol, 1, 1954)

Deposits of Useful Minerals (Nonmetallic), Clay, Ceramic and Glass Materials (574)

Izv. AN USSR, No 4, 1953, 114-127

Bezborodov, M. A., Mazo, E. E., and Zuyev, N. I.

Nature of Finely-Dispersed Part of Clays of Certain Deposits in Belorussian SSR

The authors investigated the clays of the Vidibor deposits in Pinsk oblast, the Levaya Ruba deposits in Vitebsk oblast, and the Malinovka deposits in Brest oblast. The chemical composition of the clays are given in a table. (RZhGeol, 1, 1954)

Deposits of Combustible Minerals, Coal and Combustible Shales (594)

Izv. AN Uzb. SSR, No 3, 1953, 43-49

Chikryzov, G. S.

Problem of Forecasting the Coal-Bearing Character of a Covered Region on the Basis of a Structural-Phasal Analysis (resume in Uzbekistani)

In order to forecast the coal-bearing nature of a covered area one must study the peculiarities of the geological structure and the coal-bearing quality of the productive strata in bordering well-uncovered regions, where the zonality of its structure can be established. The author gives five prospecting criteria (indices) determining the position of the zones. Employing these indices one can determine the expected thickness of the coal layers and their expanse. (RZhGeol, 1, 1954)

Deposits of Combustible Minerals, Geology of Coal Deposits (600)

Izv. AN Kaz. SSR, Ser. geol., 121 No 16, 1953, 3-19

Lyuber, A. A.

Main Types of Coal Formation in the Karaganda Coal Basin

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Spore analysis of the rocks and coals indicate the presence in the main coal-bearing layers (Karaganda, sub-Karaganda, and Dola) of spores of lepidodendrons, ferns, pteridosperms, and somewhat rarer calamites. The author notes the main groups of plants existing during the period of formation of the Karaganda coal-bearing strata. (RZhGeol, No 1, 1954)

Deposits of Useful Minerals, Formation of Deposits and Genetic Connection with Mineral Rocks (503)
Geologichnyi zh., 13, No 2, 1953, 19-31
 Nikol'skiy, O. P.

Certain Problems of the Genesis of Hydrothermal Deposits (Ukrainian, with resume in Russian)

The chemical composition of the containing rocks influences the composition and determines the metal-bearing quality of granitic magma. Ore-bearing zones and belts are connected with definite types of the containing rocks. Individual intrusive complexes are characterized by multiphasal (environmental) formation according to six schemes listed. (RZhGeol, No 1, 1954)

Deposits of Useful Minerals, Ores of Ferrous Metals (510)
Geologichnyi Zh., 13, No 3, 1953, 3-14 (Ukrainian)
 Belevtsev, Ya. M.
 Genesis of Iron Ores of the Saksagan Region of Krivoy Rog

The formation of the Saksagan iron ores was due to the action of three successive genetically different processes: 1) sedimentary accumulation of iron with silicates; 2) enrichment of the rocks with iron under the influence of plutonic thermal solutions; 3) separation of the silicates and iron ore minerals with the formation of hydrohematite. (RZhGeol, No 1, 1954)

Engineering Geology, Engineering-Geological Study of Natural Processes (666)
Materialy po Inzh. Geologii, No 4, 1953, 60-69
 Neyshtadt, L. I.
 Problem of the Study of Fracturing in Connection with the Evaluation of Engineering-Geological Conditions in Regions where Hydrotechnical Structures are Planned

A brief survey is given of works devoted to the fracturing of rocks. It is pointed out that the literature contains very little on the problem of fracturing as connected with engineering-geological and hydrotechnical matters. Examples of the successful investigation of fractures are presented, going beyond the usual formal description. (RZhGeol, No 1, 1954)

Engineering Geology, Engineering-Geological Study of Natural Processes (668)
Materialy po Inzh. Geologii, No 4, 1953, 133-135
 Vasin, N. A.
 Some Data on Flood-Erosion Phenomena in the Southern Regions of the USSR

The author describes one of the floods that occurred in the southern regions of the USSR in July 1951, in which the width reached 500 meters and tremendous quantities of clayey earth were washed away; the duration of the flood was only 1.5 hours. The author notes that the floods are a factor in the development of the relief of high mountains. (RZhGeol, No 1, 1954)

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Engineering Geology, Engineering-Geological Investigation for Construction (672)
Materialy po inzh. geologii, No 4, 1953 (Moscow), 148-154
 Makeyev, Z. A.
 Engineering-Geological Investigations of Bridge Crossings With Application of
 Electrical Prospecting

Vertical electrical sounding along the axis of bridge crossings over a big river showed, without any drilling operations, that almost the entire bottom of the river valley is built up of sandstones, but the slopes are gabbrodiabasic. It is concluded that the use of electrical prospecting methods in bridge building can decrease the amount of drilling. (RZhGeol, No 1, 1954)

Engineering Geology, Engineering-Geological Investigations for Construction (673)
Materialy po inzh. geologii, No 4, 1953, 7-15
 Karpenko, F. A.
 Problems in the Study of Engineering-Geological and Hydrogeological Conditions for the Construction of Nonferrous Metallurgical Enterprises

Most of the nonferrous metallurgical enterprises are located in the southern mountainous regions of the USSR, regions with sharply-cut relief and dry climate. Procedures for engineering-geological investigations in these regions have been weakly developed; the most important objects for study are the following six: properties of mountain loess, saline foundations, excavations, mud flows, fracturing of rocks, charts. (RZhGeol, No 1, 1954)

Engineering Geology, General Problems (658)
Materialy po inzh. geologii, No 3, 1953, 7-9
 Karpenko, F. A.
 Certain Results of the Engineering-Geological and Hydrogeological Operations of the Affiliate to the State Planning Institute for Nonferrous Metallurgical Enterprises During 1951-1952

Methods of mathematical statistics were used to study the laws governing the various properties of loess rocks and to investigate the settling and sagging properties of loess rocks steeped by waters of various compositions. Complex field and laboratory studies on loess rocks were conducted in Central Asia to establish the dependence of sagging and settling of loess rocks upon their genesis. (RZhGeol, No 1, 1954)

Engineering Geology, Ground Science (Foundations) (662)
Materialy po inzh. geologii, No 3, 1953, 108-120
 Kriger, N. I., and Moskalev, M. R.
 Loess Rocks on Steep Slopes

The study of the deformations of loess rocks on steep slopes of mountains is necessary for industrial, civil and hydraulic engineering constructions. An important variety of loess rock deformation is "oplyvina," characterized by the flowing consistency of the rock. Such "flows" in the T'ien Shan comprise only the soil cover or small layers (2-3 meters) on the slope. Hillside channels, drainage ditches, and sealing of cracks in the soil are recommended in the struggle against loess-rock flows. (RZhGeol, No 1, 1954)

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General Geology, Personalia (14)
Geologichnyi zh., 13, No 4, 1953, 3-7
 Rodionov, S. P.
 Vladimir Afanas'yevich Obruchev (Ukrainian)

Biography, occasioned by 90th birthday. (RZhGeol, No 1, 1954)

General Geology, Personalia (15)
Izv. AN Turkm. SSR, No 3, 1953, 69-72
 Babayev, A. G.
 Academician Vladimir Afanas'yevich Obruchev

Biography, occasioned by 90th birthday. (RZhGeol, No 1, 1954)

General Geology, Personalia (16)
Vest An Kaz. SSR, No 10, 1953, 59-62
 Satpayev, K. I.
 Oldest of Soviet Geologists

Commemoration of the 90th birthday of Academician V. A. Obruchev.
 (RZhGeol, No 1, 1954)

General Geology, Sessions and Conferences (28)
Izv. AN Uzb. SSR, No 3, 1953, 103-111
 Popov, V. I.
 Novosibirsk Conference on the Science of Geological Formations
 (RZhGeol, No 1, 1954)

Geochemistry, Geochemistry of Natural Processes (Hypergene Processes) (471)
Geologichnyi zh., 13, No 3, 1953, 24-28
 Bankovskiy, V. O.
 Conditions Governing the Mineralogical and Chemical Concentration in the
 Sediment-Forming Process of the Donets Productive Carboniferous (Ukrainian,
 with Russian resume)

The author considers the displacement in mineralogical and chemical concentrations during variations in environmental conditions on the example of one of the repeating lithological complexes in the Donets productive layer. Variation in tectonic conditions leads to increase in concentration of some elements and to decrease in concentration of others. Specific cases are given concerning Ca and Mg in C and carbonates. (RZhGeol, No 1, 1954)

Geochemistry, Distribution of Isotopes (465)
Dokl. AN Uzb. SSR, No 2, 1953, 12-16
 Uklonskiy, A. S.
 Preliminary Data on the Study of the Isotopic Composition of the Surface
 and Subterranean Waters of Central Asia

A study was conducted on the isotopic composition of a great many waters of Central Asia by the densimetric method, carried out in the Institute of Geochemistry and Analytical Chemistry, Academy of Sciences USSR. The total density of the water, without separation into the isotopes H² and O¹⁸, was determined relative to a standard, which was water taken from the Moscow water supply. For the first time comparative data has been obtained on the isotopic composition of Central Asian waters, which permits one to decide

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the following: the constancy of the isotopic composition of river water along the river course; the closeness of the isotopic composition of river waters of Central Asia (Syr-Darya, Amu-Darya) to that of European Waters (Volga, Dnepr); geological conditions governing the course of certain rivers and their origin (mountain, glacier, underground). These data will be utilized to clarify the genesis of the waters. Also studied was the isotopic composition of rain and snow water. The relative density of the latter was less than the density of the standard, as was the density of waters of rivers which are fed by melting snow and ice glaciers. (RZhGeol, No 1, 1954)

Geography of the USSR, Central Asian Republics and Kazakhstan (1042)
Izv. AN Kaz. SSR, No 8, 1953, 105-106
Zenkova, V.

Ten Years Since the Discovery of Peak Pobeda [Victory] in T'ien Shan Mountains

[No abstract given.] (RZhGeol, No 1, 1954)

Geography of the USSR, Central Asian Republics and Kazakhstan (1039)
Izv. AN Uzbek. SSR, No 3, 1953. 31-35
Kimberg, N. V.

Direction of Development of the Soil Cover of the Amu-Darya Delta (resume in Uzbekistani)

The author gives the reasons why the general scheme of evolution of the bottom land-delta soils in Central Asia (V. A. Kovda, Problemy sov. pochvovedeniya, No 14, 1946) cannot completely be applied to the development of soils in the Amu-Darya delta. He considers that the flooding must be taken into account, which is of significance in the exploitation of the Amu-Darya delta. (RZhGeol, No 1, 1954)

Geography of the USSR, Central Asian Republics and Kazakhstan (1037)
Les. Kh-vo, No 11, 1953, 41-43
Bereznyuk, I. Ye.

System of Forest Zones of Kazakhstan

The forests planted with seedlings from the state forest stock in Kazakhstan (more than 26 million hectares), sown over a territory of 2.7 million km², can be systematized according to the plant composition and general medium (soils, relief, climate and other criteria) into ten zones: north stab-leaf birches; steppe forests of Kustanay and Aktyuba oblasts; forests of Kazakhstan melko-sopochnik; ribbon pines of Irtysh; Altay forest; T'ien Shan forest; tugay; haloxylon; forests of Bostandyk region; fruit-tree forests of south Kazakhstan. (RZhGeol, No 1, 1954)

Geology of Asia (Outside the USSR), Peoples' Republic of China (1115)
Narodnyy Kitay, No 1, 1954, 14-16
Syue I-yuan' [Hsueh I-yuan]

Administrative Stability of the Peoples' Republic of China

[No abstract given.] (RZhGeol, No 1, 1954)

Geography of the USSR, Siberia and the Far East (1017)
Nauka i zhittya, No 11, 1953, 21-22
Andreyev, O. A.

Soviet Siberia (Ukrainian)

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Brief survey of the natural conditions and economy of Siberia.
(RZhGeol, No 1, 1954)

Geology of the Quaternary Deposits, Loess and Loess Rocks (156)
Materialy po inzh. geologii, No 3, 1953, 56-68
Fyaskovskiy, B. V.
What Is Loess?

The author analyzes the ideas of L. S. Berg, who explained the origin of loess from the viewpoint of soil-formation processes and refuted the aeolian theory. In the formation of loess two stages are distinguished: accumulation of fine earth (the matrix of loess), and its process of loess forming. The author's opinion is that loess is formed under the humus layer of steppe soils and is a component part of their profile and that loess is a lime melkozem [fine earth] of dust-like mechanical composition possessing a number of characteristic signs. (RZhGeol, 1, 1954)

Geology of Quaternary Deposits, Loess and Loess Rocks (160)
Materialy po inzh. geologii, No 4, 1953, 154-158
Terebinskiy, V. G.
Mountain Loess of Southeast Kazakhstan

The loesses are distributed 400 to 500 meters in the foothills and along the slopes of the mountainous massifs at a height of as much as 2400 meters. The thickness of the loess covering is from a fraction of a meter to several dozen meters. With increasing altitudes of the occurrence of loesses the clayey content increases and the sandy content decreases. The zonality of the loesses according to granulometric composition convinced the author of their aeolian origin. (RZhGeol, 1, 1954)

Geology of Quaternary Deposits, Loess and Loess Rocks (161)
Materialy po inzh. geologii, No 3, 1953, 10-42
Kriger, N. I.; Moskalev, M. R.
Loesses of Northern and Western T'ien Shan Ranges

The author discusses the loesses and loess-like rocks of the following ranges: Kirgiz Ala-Tau, Talas Ala-Tau, Chatkal, Kurama, Fskem, Ugam, and Kara-Tau; also the loesses of the intermontane valley of the following rivers: Chu, Arys, Chirchik, Angren, and Syr-Darya. The loesses are extensively distributed in the intermontane valleys and on the slopes of the mountains of the west and north T'ien Shan ranges. Loess formation took place during the entire quaternary period. (RZhGeol, No 1, 1954)

Geology of Quaternary Deposits, Loess and Loess Rocks (162)
Materialy po inzh. geologii, No 3, 1953, 125-126
Konanykhin, S. I.
Compressed Loess-type Rocks from Rudnyy Altay

The physical properties of the loess are: specific weight 2.73, volumetric weight 1.85, porosity 32-38%. Sharp predominance of a powdery fraction and absence of a sandy fraction distinguish the described loess-type rocks from the stony loess of Central Asia. (RZhGeol, No 1, 1954)

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Geology of Quaternary Deposits, Loess and Loess Rocks (163)
 Izv. AN Kaz. SSR, ser. geol., 121, No 16, 1953, 34-39
 Koletilin, N. F.
 Problem of the Genesis of Loess Rocks in the Foothills of Zaili Ala-Tau

The loess rocks in the northern foothills of Zaili Ala-Tau possess various origins: fluvial-glacial, alluvial, proluvial, deluvial, or aeolian. The fluvial-glacial and aeolian loesses cover great areas in comparison with the others. (RZhGeol, No 1, 1954)

Hydrogeology, General Problems and Methods of Investigations (144)
 Izv. AN Azerb. SSR, No 8, 1953, 63-69
 Davydov, I. Ya.

Method for Studying the Regime of Underground Waters (resume in Azerbaydzhani)

The author considers that the investigation of the regime of underground waters should be conducted with consideration for the entire complex of complicated natural processes, which would lead to a more rational explanation of the regime and correct methodical setup of the observational network. The author analyzes the main deficiencies in the works of parties not employing such considerations. (RZhGeol, No 1, 1954)

Hydrogeology, Caspian Petroleum (154)
 Dokl. AN Azerb. SSR, 9, No 9, 1951, 513-515
 Tamrazyan, G. P., and Agalarov, M. S.
 Problem of the Nature of the Waters of the Maikop Strata in the Caspian Oil-Bearing Region (resume in Azerbaydzhani)

Brief hydrogeological and hydrochemical characteristics are given of the Caspian petroleum-bearing region in northeast Azerbaydzhani. The waters of the third horizon of the Maikop strata are sulfateless and alkaline with a salinity of 2.5-4.0^o Be. Mineralization of the waters increases during the process of exploitation. The movement of the water profiles is directed upward along the rise of the layers; the front of the moving waters is very tortuous. It has been established that the general mineralization of the waters increases in the southeast direction and Cl⁻, SO₄²⁻ ions increase and HCO₃⁻ decrease. (RZhGeol, No 1, 1954)

Hydrogeology, Caspian Petroleum (151)
 Dokl. AN Azerb. SSR, 9, No 10, 1951, 587-596
 Agalarov, M. S., and Tamrazyan, G. P.
 Layer Waters of the Maikop Strata in the Caspian Petroleum-Bearing Region (resume in Azerbaydzhani)

The authors confirm the large role played by subterranean waters in the formation of petroleum deposits. The region is composed of a complex of mesozoic and tertiary deposits. The sandy-clayey layers of the Maikop strata are oil-bearing. The northeast wing of anticlinal fold is complicated by the presence of large-scale disjunctive transgressions. (RZhGeol, No 1, 1954)

Mineralogy, General Problems (359)
 Izv. AN Arm. SSR, fiz-mat., yestestv. i tekhn. nauki, 6, No 4, 1953, 41-46
 Vardanyants, L. A.
 Anomalous Optical Biaxial Character of Minerals

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The author concludes that accessory minerals are 'an invariant', i. e., their physical properties almost never coincide with the theoretical norms. He claims that one of the problems of modern mineralogy is to replace the antiquated characteristics of minerals with new ones corresponding more to actuality. (RZhGeol, No 1, 1954)

Mineralogy, Minerals and Groups of Minerals (Miscellaneous) (324)
Geologicheskii zh., 13, No 3, 1953, 82-84 (Ukrainian)
 Dyadchenko, M. G.
 Findings of Accessory Barite in Krivonozh

The discovery of accessory barite in the Ukrainian crystalline massifs is of great interest for mineralogists. One of the first to note the appearance of barite in this region was I. D. Tsarov (Iy (Mineralogicheskii sbornik L'vovskogo geologicheskogo obshchestva, No 3, 1942). The new finds are described in detail. (RZhGeol, No 1, 1954)

Mineralogy, Minerals and Groups of Minerals (Miscellaneous) (424)
 Dokl. AN Azerb. SSR, 9, No 9, 1953, 517-524
 Khalifazade, Ch. M.
 Monothermite and Illite in the Jurassic Clays of Northeastern Azerbaydzhan (resume in Azerbaydzhani)

Information on the mineralogical composition of the Jurassic clays of northeastern Azerbaydzhan is presented. The fraction less than 0.001 mm of four samples of clay taken from various stratigraphic horizons were subjected to thorough investigation (optical, X-ray structural, thermal, chemical, spectrophotometric, physicochemical), establishing that the clays in the Jurassic deposits of northeastern Azerbaydzhan are monothermites and quantitatively inferior illites. (RZhGeol, No 1, 1954)

Petrography of Magmatic and Metamorphic Rocks. General Problems (304)
Izv. Tomskogo politekh. in-ta, 74, No 1, 1953, 13-46
 Kuznetsov, Yu. A.
 Origin of Magmatic Rocks

The author connects the formation of magma of hyperbasite complex with the selective melting of peridotite simatic shell. He asserts that magmatic rocks according to appearance can be derived granitic, basaltic and hyperbasitic magmata, and also products of granitization and basification. (RZhGeol, No 1, 1954)

Petrography of Magmatic and Metamorphic Rocks, Metamorphism (General Problems) (324)
Zap. Uzbekistanskogo otd. Vses. mineralog. ob-va, No 3, 1953, 92-100
 Salov, P. I.
 Albitization in the Oygaing Granite Massif

The Oygaing granite massif in the Pskema river basin (Chatkai Mountains) is observed to cover an area of 10-12 km² and conforms with the metamorphic block of Devonian and Carboniferous rocks, forming an interformational body coeval with the large-scale anticlinal fold. (RZhGeol, No 1, 1954)

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Petrography of Magmatic and Metamorphic Rocks, Metamorphism (Contact Processes)
(327)

Izv. Tomskogo politekhn. in-ta, 74, No 1, 1953, 123-128

Korel', V. G.

Contact Metamorphism of the Sheregeshev Iron Ore Deposits in Gornaya Shoriya

The Sheregeshev iron ore deposits are all territorially connected with the intrusion of syenites breaking the Cambrian effusive-sedimentary stratum, in the composition of which are albitophyres, their tufas, tufogenic sedimentary rocks, and limestones. (RZhGeol, No 1, 1954)

Petrography of Magmatic and Metamorphic Rocks, Metamorphic Rocks (331)

Izv. Tomskogo politekhn. in-ta, 74, No 1, 1953, 129-133

Ivankin, G. A.

Cockade Ore Textures of Pyroxenic-Feldspathic Metasomatic Formations

The pyroxene-feldspar metasomatic formations encountered in the region near the Sartygaya mine in Khakassiya are, according to texture, very much like the cockade (cockscorn pyrite) structures of the ores, and represent one of the earliest products of metasomatism in comparison with the pyroxenic-scapolitic skarns. (RZhGeol, No 1, 1954)

Petrography of Magmatic and Metamorphic Rocks, Metamorphic Rocks (332)

Zap. Uzbekistanskogo otd. Vses. mineralog. ob-va, No 3, 1953, 43-69

Arustamov, A. A.

Metamorphism of the Flyschoid Formation of the Upper Silurian on the North Slope of the Nurata Mountain Range

The basic types of rocks of the flyschoid strata are shales, siltstone, and carbonate rocks. The shales predominate over all the other rocks. The most interesting rocks turned out to be andalusite (rose-colored), staurolite (gold-yellow), iolite in chlorite-micaceous schists, and vesuvian (anomalous). (RZhGeol, No 1, 1954)

Petrography of Magmatic and Metamorphic Rocks, Regional Petrography (USSR)
(337)

Izv. Tomskogo politekhn. in-ta, 74, No 1, 1953, 140-143

Bakirov, A. G.

Certain Peculiarities in the Structure of Portions of the Weathering Crust of Serpentinities on the Kimpersay Massif

In the Kimpersay hyperbasite massif constituting part of the Or-Ilek water-divide, portions of the deep crust of weathering are composed of ochres, nontronites and lixiviated serpentinites enjoy the greatest expanse in the contact zone of the hyperbasites with the gabbroides. (RZhGeol, No 1, 1954)

Petrography of Magmatic and Metamorphic Rocks, Regional Petrography (USSR)
(338)

Izv. Tomskogo politekhn. in-ta, 74, No 1, 1953, 134-139

Bikirov, A. G.

Genesis of the Micro-Relief of the Weathering Crust of the Ultrabasic Rocks of the Kimpersay Massif

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In the structure of the Kimpersay crust of weathering (from above downward) three zones have distinguished: ochres, nontronites, lixiviated serpentinites; here the last has two subzones of mineralization -- silicified (upper) and carbonate (lower). (RZhGeol, No 1, 1954)

Petrography of Magmatic and Metamorphic Rocks, Regional Petrography (USSR) (343)

Izv. Tomskogo politekhn. in-ta, 74, No 1, 1953, 108-114

Kuznetsov, V. A.

Stratigraphic Position of the Hyperbasites of Tuva and West Sayan

Associates of the West Siberian affiliate of the Academy of Sciences USSR have established that all the hyperbasitic massifs in the limits of the single thick Altay-Sayan zone are contemporaneous (same geologic age). The overwhelming majority of the hyperbasitic zones of the Altay-Sayan mountain system is Cambrian. (RZhGeol, No 1, 1954)

Physical Geography and Geomorphology, Exogenic Processes and Relief Forms (764)
Izv. AN Turkm. SSR, No 4, 1953, 28-36

Babayev, A. G.

Cumulative Sands on the Ancient Delta Lowlands of Amu-Darya

The formation of sand accumulations in the given region occurs on saliniferous soils (solonchak) with ground waters lying shallowly below and is accompanied by sandy weathered places and perennial halophytes that hold the sand. The author gives the characteristics of three types of cumulative sands and notes their poor adaptability to forests in consequence of the strong salinity of the soils. (RZhGeol, No 1, 1954)

Physical Geography, Glaciology, and Permafrost Studies (934)
Gidrokhim. materialy, 20, 1953, 46-48

Golovkov, M. P.

Hydrochemistry of Natural Ices

The author proposes a scheme of classification of natural ices by proceeding from the principal structural types according to genetic categories of rocks and distribution of main kinds of natural ices corresponding to the microstructure due to the geochemical and thermodynamic conditions of their formation. The classification is given in the form of a diagram of petrographic structures of natural ices of diverse genesis. The author believes that his investigations can clarify the causes of periodically repeating glacial epochs on the earth. (RZhGeol, No 1, 1954)

Physical Geography and Geomorphology, Regional Geomorphology (771)
Izv. AN Kaz. SSR, ser. geol., 121, No 16, 1953, 40-46

Vladimirov, N. M.

Problem of the Origin of Baer Mounds in the Middle Region Between the Volga and Ural (resume in Kazakhstani)

Critical survey of the literature on the origin of Baer mounds. The author considers that these relief forms, which are distributed over a territory adjoining the delta of the Ural River from the northwest, were formed as a result of the cumulative action of erosion by water currents (in their peripheral part of the deltas) and by positive tectonic movements. (RZhGeol, No 1, 1954)

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Physical Geography and Hydrology of the Land, Applied Meteorology and
Climatology (890)

Sobshch. in-ta lesa AN SSSR, No 1, 1953, 77-81

Popov, V. V., and Medvedev, D. V.

Measures Taken to Increase the Hydrometeorological Effectiveness of Field-
Protective Forest Belts

Field-protective forest belts, created in a number of regions of the
steppe zone of the European part of the USSR in 1931-1941, were of the openwork
(skeleton) and blow-through types, but at the present time have been mostly
converted to the nonblow-through type in consequence of the absence of necessary
caretaking measures and unfortunate selection of tree varieties. The author
concludes that it is necessary to introduce rapidly growing plants in place of
dense shrubs and bushes. (RZhGeol, No 1, 1954)

Sedimentary Formations and Lithology, Contemporary Sediments (216)

Gidrokhim. materialy, 21, 1953, 97-113

Golovkov, M. P.

Crystallo-Petrographic Investigation of the Bottom Deposits of Lake Manychsko-
Gruzinskoye

In the fraction less than 0.001 mm the author observed montmorillonite,
galloisite, sericite, hematite minerals, and glinozem [clayey earth] minerals.
Predominant were montmorillonite and minerals of free glinozem. In the fraction
0.005-0.001 mm the content of montmorillonite, hematite minerals, and glinozem
decreased and galloisite and sericite increased. This composition changed with
increasing size of the fractions. (RZhGeol, No 1, 1954)

Sedimentary Formations and Lithology, Sedimentary Rocks (Silt-Clay Rocks) (235)

Dokl. AN Azerb. SSR, 9, No 8, 1953, 445-450

Khalifazade, Ch. M.

Petrography of the Jurassic Clays of Northeast Azerbaydzhan

The sandy and siltstone fractions of the samples investigated contained
quartz, feldspar, and detritus of minerals. The clayey fraction is represented
by thinly dispersed minerals having an aggregate structure. Under optical tests
these minerals approximate hydromica and chlorite appearing in a metamorphized
zone. (RZhGeol, No 1, 1954)

Sedimentary Formations and Lithology, Regional Lithology (244)

Geologichny zh., 13, No 3, 1953, 65-77 (Ukrainian, resume in Russian)

Kozhich-Zelenko, M. P.

Lithology of Carboniferous Deposits of the North Sector of Bol'shoy Donbass

An exposition of the results of study of Voronezh Carboniferous in the
Kursk and Voronezh Oblasts. According to rock type and mineralogical compo-
sition, the Middle Carboniferous is divided into two strata: sandy clay
(above the Middle Carboniferous), and lower -- limestone (below the Middle
Carboniferous or above the Lower Carboniferous). The author gives the miner-
alogical characteristics of each stratum, and notes the appearance of glass
(5-8% in the light fraction) in Novo-oskol' and Belaya Gorka regions. (RZhGeol,
No 1, 1954)

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Stratigraphy and Paleontology, Carboniferous (86)
 Dokl. AN Uzb. SSR, No 8, 1953, 28-29
 Chekhovich, V. D., and Solov'yev, M. N.
 Age of the Metamorphic Rocks in the North Nura-Tau Range (resume in Uzbekistani)

The metamorphic rocks, considered early paleozoic and familiar from the many pits dug in the north slope of the Nura-Tau, are represented by quartz-mica, chlorite-epidote, silicified and encrusted rocks, quartz-actinolite hornstones (charts), paragneiss, etc. They are observed in a definite zone of action of small intrusives and hydrothermal processes. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Carboniferous (85)
 Geologichnyi zh., 13, No 3, 1953, 51-64
 Ischenko, T. A.

New Data on the Middle Carboniferous Flora of the Anthracite Regions of the Central Part of the Donets Basin (Ukrainian, with Russian resume)

The flora studied by the author occurs in the Dolzhan and Rovenet regions of the Donbass and is characterized by representatives of pteridophytes, i.e., ferns, sphenophils, horsetails, club mosses, etc. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Cenozoic Paleogenic Marine Deposits (117)
 Geologichnyi zh., 13, No 3, 1953, 15-24
 Kaptarenko-Chernousova, O. K.

Stratigraphy of the Paleogenic Deposits of Black Sea Depression According to the Foraminiferal Fauna (Ukrainian, with resume in Russian)

On the basis of a study of the extensive micropaleontological material available, the general characteristics of the paleogenic deposits of the Black Sea depression are given and a comparison is made with the deposits of the Dnepr-Donets depression and North Caucasus. The paleogenic deposits are studied in the following three regions; Odessa, Melitopol', and Voznesensk. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Cenozoic Neogenic Marine Deposits (128)
 Izv. AN Turkm. SSR, No 4, 1953, 16-21
 Ali-Zade, A. A.

Possibility of the Presence of Pontic Deposits in the Caspian Lowlands

Until recently, complete cross-sectional profiles of the krasnotsvet ["red-colored"] rock series were unknown in the Caspian lowlands; only its upper parts and contact with the Akchagyl had been observed. The author established that the continental series in the krasnovod Plateau lies on a strongly eroded middle Sarmatian stage. More drillings are necessary to determine fully the stratigraphic profile of the Caspian lowlands. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Cenozoic Neogenic Marine Deposits (129)
 Dokl. AN Azerb. SSR, 9, No 1, 1953, 325-329
 Vellilov, B. G.

Problems of the Character of the Pontic Fauna of East Azerbaydzhan

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At the end of the Pontic time (Lower Pliocene) the Azerbaydzhan Sea in the east fell into a number of separate or weakly interconnected shallow basins, in which specific ecological conditions arose leading to the occurrence of endemic species, one of these being *Cardium sundicum*. A description of this species and others is given. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Cenozoic Neogenic Marine Deposits (130)
Dokl. AN Azerb. SSR, 9, No 6, 1953, 337-341
Tamrazyan, G. N.
Stratigraphic Extent of the Productive Stratum of Apsheron Oblast

The author introduces a proposition concerning the presence of a long (80,000-100,000 years) discontinuity in the sedimentary accumulation between the sub-Kirmaka strata and the "discontinuity" strata of the Middle Pliocene productive series. The author proposes the possibility of the presence of petroleum in the rocks of the "Nargenskiy" horizon on the analogy with the deposits of the sub-Kirmaka clay stratum. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Devonian (73)
Dokl. AN Uzb. SSR, No 9, 1953, 17
Chekhovich, V. D.
New Data on the Presence of Middle Devonian Deposits in the Nura-Tau Range (resume in Uzbekistani)

Up to the present the Devonian in the Nura-Tau was known only on its southern slope. In 1951 the author found fauna of amphipores and other stramatoporidae in gray limestones in the Kiskan-Saya estuary on the north slope of the Nura-Tau. Then V. N. Ryabinin determined *Amphipora ramosa* Phill. and others characteristic of the Givetian formation. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Ordovician and Silurian (67)
Dokl. AN Uzb. SSR, No 10, 1953, 17-19
Khaletskaya, O. N.
Stratigraphy of the Lower Silurian Deposits of Central Asia

A report on the new findings of graptolites in Central Asia. A list is presented of 7 types of arenite formations in the Turkestan Range and 25 types in southeast Kara-Tau. At the latter place, the arenite forms are together with leading forms of younger deposits all the way up to the Caradocian (*Diplograptus calcaratus* Lapw.). All the gradual subdivisions of the Ordovician are established on the basis of the discovery of various groups of fossil organisms in these and neighboring regions. (RZhGeol, No 1, 1954)

Stratigraphy and Paleontology, Paleogenic and Neogenic Continental Deposits (134)
Vestn. AN Kaz. SSR, No 6, 1953, 71-83
Lavrov, V. V.
Brief Survey of the Continental Tertiary Formations of Turgay and Southwest Siberia

According to the rhythmostratigraphic and lithochemical criteria the author subdivides the series of the continental tertiary sediments into the following four formations: 1. carbonaceous-leptochlorite (middle oligocene), down to 120 meters deep; 2. kaolinite (upper oligocene), down to 40 meters deep; 3. carbonate-sulfite (lower miocene), down to 100 meters deep;

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4. carbonate (middle miocene), down to 100 meters deep. Synoptic tables are presented of the continental tertiary formations of Aralo-Turgay plains and of North Kazakhstan. (RZhGeol, No 1, 1954)

Tectonics, Regional Tectonics (197)
Dokl. AN Azerb. SSR, 9, No 8, 1953, 439-444 (Azerbaijdzhani resume)
 Shardanov, A. N.

Problem of the Phenomena of Tegumental Tectonics in Southeastern Caucasus

Earlier unknown tectonic coverings have been observed in the upper reaches of the Pirsagat and Kozluchay Rivers. The studied region enters the zone of the southern slopes and is disposed between the anticlinoria of the Glavvyy and Vandam ranges. The dimensions of the covering, called Sardykhana, are 4 km wide, 6.5 km long, and 300-400 meters thick. (RZhGeol, No 1, 1954)

Tectonics, Structural Geology (192)
Dokl. AN Uzb. SSR, No 10, 1953, 20-23
 Nikiforov, N. A.

Significance of the Orders of Folding and Discontinuity Transgressions

In the genetic classification of the structures of paleozoic complexes of Fergana N. M. Sinitsyn isolated foldings of three orders distinguished by their dimensions. Foldings of the first order have been referred to anticlinoria and depressions of equal magnitude to them. Folds of the second order belong to large-scale anticlinals and synclinals and complicated anticlinoria and folds. Through a detailed investigation of these two orders the author was able to isolate further four independent orders. (RZhGeol, No 1, 1954)

IV. MECHANICS

Mechanics, Theory of Mechanisms and Machines (5093)
Izvestiya Akademii Nauk, Azerbaydzhani SSR, No 3, 1954, pp 11-21
 Daidbekov, S. G. and Yes'man, V. I.

Kinematics of a Freely Moving Point of the Ring of an Oblique Washer in a Piston Mechanism

Discusses some question of the kinematics of a cam spatial mechanism, employed in transforming forward motion into rotatory motion, and consisting of a concentric washer fixed on a rotating shaft or perpendicular to its axis and located inside the ring. (RZhMekh, No 10, 1954)

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