BEZRUKOV, G.N.

Basic characteristics of the distribution of talcite deposits in the Miass talc-bearing region. Zakonom. razm. polezn. iskop. 6:568-585 '62. (MIRA 16:6)

1. Institut geologii rudnykh mestorozhdeniy petrografii, mineralogii i geokhimii AN SSSR.
(Miass region--Talc)

BEZRUKOV, G.S.

Leather and footwear industries during the sixth five-year plan. Leg.prom. 16 no.5:1-5 My '56. (MLRA 9:8)

1. Zamestitel' Ministra legkoy promyshlennosti SSSR.
(Shoe industry) (Leather industry)

BEZRUKOV, Grigoriy Semenovich; LYUBICH, Mikhail Galileyevich; VARSHAVSKAYA, L.S., red.; KNAKNIN, M.T., tekhn.red.

[New developments in the technology of molding footwear uppers] Novoe v tekhnologii formovaniia verkha obuvi. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1958. 150 p. (MIRA 12:10)

(Shoe manufacture)

BEZRUKOV, G.S.

Clothing industry in Moscow Province after the reorganization of management. Shvein. prom. no.2:18-19 Mr-Ap '59.
(MIRA 12:6)

1. Nachal'nik Upravleniya shveynoy promyshlennosti Mosoblispolkoma.
(Moscow Province--Clothing industry--Management)

BEZRUKOV, G.S. (Moskva)

Clothing factories of Moscow Provinces in the first year of the seven-year plan. Shvein.prom. no.4:8-11 Jl-Ag '60. (MIRA 14:3)
(Moscow Province—Clothing industry)

BEZRUKOV, G.S. (Moskva)

Double level conveyer with vertical enclosure. Shvein.prom. no.4:25-27 Jl-Ag '60. (MIRA 14:3)
(Clothing industry—Equipment and supplies)

S/121/63/000/001/004/014
A004/A126

AUTHORS: Baranov, V.N., Zakharov, Yu.Ye., Moiseyev, V.Ye., Bezrukov, I.M.

TITLE: Chip-breaking in turning ductile metals

PERIODICAL: Stanki i instrument, no. 1, 1963, 14 - 16

TEXT: Scientific workers of the MVTU im. Bauman have carried out investigations under production conditions to study the efficiency of various methods of chip-breaking and of removing chips from the cutting zone in turning highly ductile metals. These tests proved the possibility of obtaining a reliable breaking of chips over a wide range of cutting conditions, the required finish of the machined surface and an appropriate tool life by using the hydraulic ВГ-2 (VG-2) vibrating saddle. Moreover, the tests showed that vibrating saddles with electromagnetic and electrodynamic valve drives are suited best for operation in a frequency range of 25 - 100 cps, while ЭГВС -1 (EGVS-1) vibrating saddles whose control valves are driven by an electric motor are most expediently used in a lower frequency range of 0.5 - 25 cps. The authors present a detailed description of the design features, technological parameters and opera-

Chip-breaking in turning ductile metals

S/121/63/000/001/004/014
A004/A126

tional behavior of vibrating saddles, taking into account different turning conditions. The operational tests with vibrating saddles proved that the reduction in power required for cutting is fully compensated by the power required by the hydraulic system. The use of low-frequency vibrating saddles in turning highly ductile metals ensures a reliable breaking of chips, a surface finish of at least class 6, an increase in tool life by a factor of 1.5 and a reduction in cutting power of up to 65%, while the vibrations have no negative effect on the lathe. There are 4 figures and 1 table.

Card 2/2

ZOLOTAVIN, V.L.; BUKREYEV, Yu.F.; TOLSTOV, L.K.; BEZRUKOV, I.Ya.

Photometric determination of sodium in pure vanadium pentoxide.
Zhur. prikl. spektr. 2 no.5:461-462 My '65. (MIRA 18:7)

ZOLOTAVIN, V.L.; BEZRUKOV, I. Ya.; SANNIKOV, Yu. I.

State of hexavalent uranium and pentavalent vanadium in water-ammonia solutions. Zhur.neorg. khim. 6 no.3:581-586 Mr '61. (MIRA 14:3)

1. Ural'skiy politekhnicheskiy institut imeni S. M. Kirova.
(Uranium compounds)
(Vanadium compounds)

SANNIKOV, Yu.I.; ZOLOTAVIN, V.L.; BEZRUKOV, I.Ya.

Hydrolysis of pentavalent vanadium compounds. Zhur.neorg.khim. 8 no.4:923-933 Ap '63. (MIRA 16:3)
(Vanadium compounds) (Hydrolysis)

BEZRUKOV, L.S.

USSR/Nuclear Physics C-5

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 11239

Author : Bezrukov, L.S., Panov, D.A., Timoshuk, D.V.

Inst : Not Given

Title : Dependence of the Transverse Cross Section of the Reaction Li^7 (d, p) Li^8 on the Deuteron Energy in the Interval 1.1 -- 4 Mev.

Orig Pub : Atom. energiya, 1956, No 4, 149-150

Abstract : A measurement was made of the excitation function of the reaction Li^7 (d, p) Li^8 for 4.0 ± 0.05 Mev deuterons from the 70 cm cyclotron of the Academy of Sciences, USSR. The yield of the reaction was determined from the β activity of the Li^8. The multiply-repeating cycle of measurements consisted of exposing the target during one second, interruption (one second), and counting the β

Card 1/2

USSR/Nuclear Physics C-5

Abs Jour : Ref Zhur - Fizika, No 5, 1957, 11239

activity of the Li^8 for three seconds.

The excitation curve obtained has maxima at deuteron energies of 2.0, 2.5 and 3.7 Mev, corresponding to the levels of the internediate Be^9 nucleus with energies 18.3, 18.7 and 19.6 Mev. Data on the existence of the Be^9 level with an energy 18.3 Mev coincide with the results of investigations of the Li^7 (d, n) Be^8 reaction.
(Referat Zhur Fizika, 1955, 24063)

Card 2/2

BEZRUKOV, L. S.

5628

THE CROSS SECTION FOR THE REACTION $Li^7(d,p)Li^8$ AS A FUNCTION OF DEUTERON ENERGY IN THE RANGE 1.1–4 MEV L. S. Bezrukov, D. A. Panov, and D. Y. Timoshuk. Soviet J. Atomic Energy 4, 609–10(1956).

Deuterons from a 70-cm cyclotron were used to study the reaction $Li^7(d,p)Li^8$. The cross section for the reaction shows resonances at deuteron energies of 2.0, 2.5, and 3.7 Mev. (B.J.H.)

BEZRUKOV, M.N., inzh.

Investigating the wharf wall in the river port at Gorkiy. Mech. transp. 17 no. 7:39-41 Jl '58. (MIRA 11:8)
(Gorkiy--Wharves--Testing)

BEZRUKOV, N.; NIKOLAYEV, L.

Overhauling engines. Avt. transp. 36 no.10:21 O '58.
(MIRA 13:1)
(Motortrucks--Engines--Maintenance and repair)

PROSHIN, A.S., inzhener; BEZRUKOV, N.G., inzhener.

Increasing the load lifting capacity of gantry cranes. Elek.sta. 28 no.8:59-60 Ag '57. (MIRA 10:10)
(Cranes, derricks, etc.)

BEZRUKOV, M. I.

"The effect of various factors on the follicular content and fertility of Kazakh fine-wooled sheep." Min Higher Education USSR. Kazakh State U imeni S. M. Kirov. Alma-Ata, 1956. (DISSERTATION For the Degree of Candidate in BIOLOGICAL SCIENCE)

Knizhnaya letopis'
No 33, 1956, Moscow

BESRUKOV, N.I.

USSR/Human and Animal Physiology - Reproduction. R-9

Abs Jour : Referat Zhur - Biol., No 16, 1957, 71051 D.

Author : Besrukov, N.I.
Inst :
Title : The Influence of Different Factors on the Follicle Maturation and Fertility of Kazakh Fine Wooled Sheep

Orig Pub : Avtoref. diss. kand. biol. n. Kazakhsk. Alma-Ata, 1956

Abstract : No abstract.

Card 1/1

- 60 -

BEZRUKOV, Nikolay Vasil'yevich; KUZNETSOV, P.V., red.; GERASIMOVA, [illegible] tekhn.red.

[Analysis of the economic operations of building organizations] Analiz khoziaistvennoi deiatel'nosti stroitel'noi organizatsii. Moskva, Gosplanizdat, 1959. 155 p. (MIRA 13:1)
(Construction industry)

BEZRUKOV, O.F.; NERONOV, Yu.I.

Pulse generator for spin echo observation. Prib. i tekh. eksp. 8 no.3:100-103 My-Je '63. (MIRA 16:9)

1. Leningradskiy gosudarstvennyy universitet.
(Oscillators, Electric)

YEFIMOV, A.S., kand.med.nauk; BEZRUKOV, O.V., ordinator; PRUS, L.Ye., ordinator; YEFIMOVA, Ye.K. (Krasnoyarsk)

Condition of the higher nervous activity in endemic goiter. Probl.endok. i gorm. 5 no.3:43-50 My-Je '59. (MIRA 12:9)

1. Iz kafedry Krasnoyarskogo meditsinskogo instituta (zav. - prof.A.T.Pshonik).

(GOITER, physiol.
endemic, higher nerv. activity (Rus))
(CENTRAL NERVOUS SYSTEM, physiol.
higher nerv. activity in endemic goiter (Rus))

L 10100-63 EWT(1)/BDS--AFFTC/ASD

ACCESSION NR: AP3002729 S/0120/63/000/003/0100/0103

AUTHOR: Bezrukov, O. F.; Neronov, Yu. I. 53

TITLE: Pulse generator for observation of spin echo 52

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1963, 100-103

TOPIC TAGS: spin-echo observations, pulse generator, rectangular pulse combinations, relaxation time

ABSTRACT: The pulse generator generates five different rectangular pulse sequences corresponding to five basic methods of observation of spin echo. The generator provides output pulses with an amplitude up to 40 v, rise and decay times of approximately 0.1 microsec, and smoothly variable pulse duration of 2--200 microsec. Relaxation time can be varied within 0.03 and 15 sec. Selection of a desired pulse combination is accomplished by means of a five-position function switch. The following pulse combinations can be obtained from the generator: 1) sequence of two pulses of 90 and 180 degrees, 2) two 90-degree pulses, 3) three pulses of 180, 90, and 180 degrees, 4) a pulse sequence where the first pulse is 90 degrees and the other two are 180-degree pulses, and 5) three 90-degree pulses. By varying the parameters of the circuit the generator could be used for a broader range of relaxation time.

Card 1/2

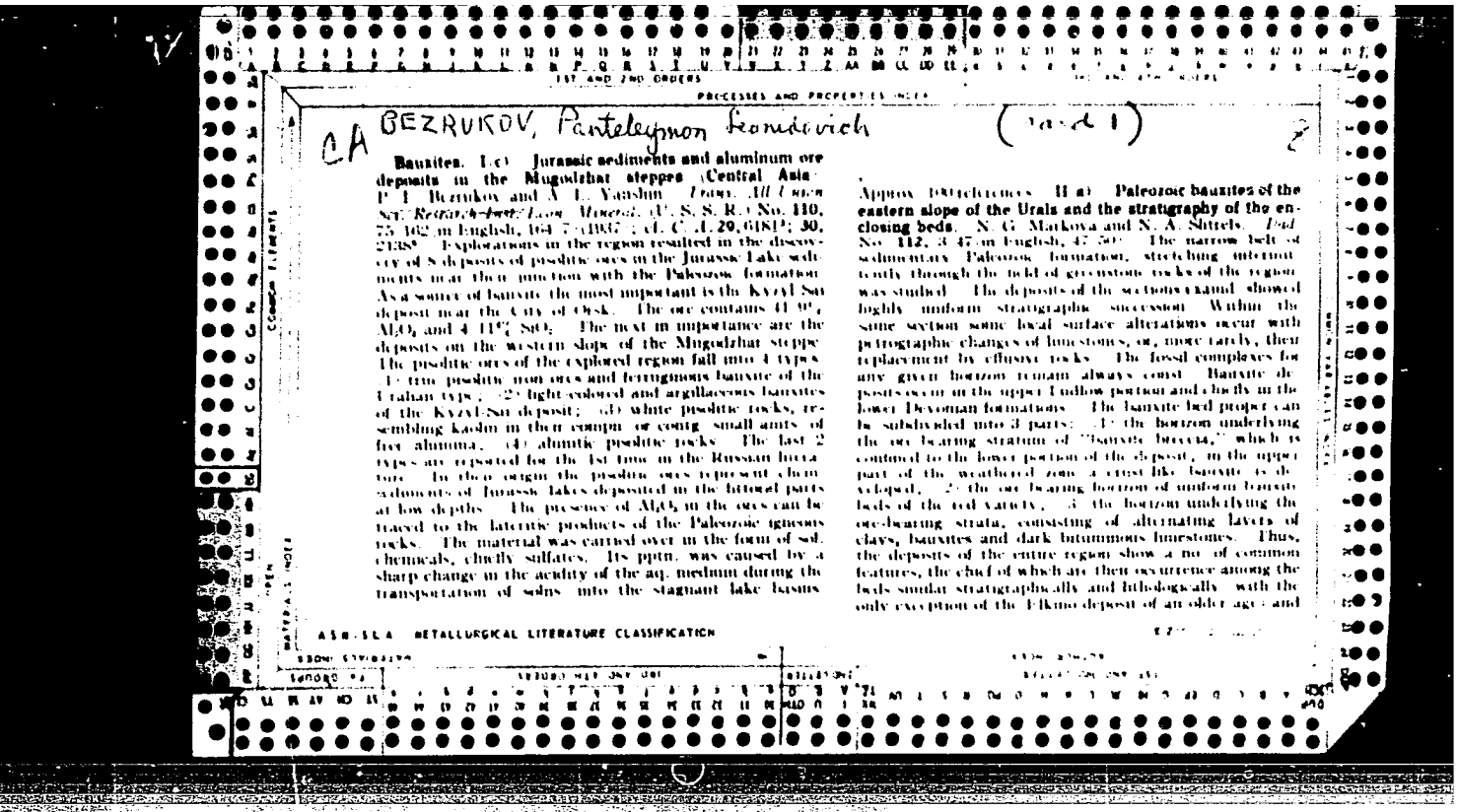
BEZRUKOV, O.F.; VUKS, M.F.; NERONOV, Yu.I.

Proton relaxation in solutions of ternary butyl alcohol - water.
Ukr. fiz. zhur. 9 no.4:457-458 Ap '64. (MIRA 17:8)

1. Leningradskiy gosudarstvennyy universitet.

SAPOZHNIKOV, Dmitriy Gavrilovich; VISELKINA, MARIYA ALEKSANDROVNA; BEZRUKOV, P.A., otv.red.; BELYAKOVA, Ye.V., red.izd-va; VOLKOVA, V.V., tekhn.red.

[Recent sediments of Lake Issyk-Kul' and its bays] Sovremennye osadki ozera Issyk-Kul' i ego zalivov. Moskva, Izd-vo Akad. nauk SSSR, 1960. 159 p. (Akademiia nauk SSSR. Institut geologii rudnykh mestorozhdenii, petrografii, mineralogii i geokhimii. Trudy, no.36).
(Issyk-Kul', Lake--Sediments(Geology))



CA BEZRUKOV, Panteleymon Kondrovich (card 1)

Bauxites. I. **Jurassic sediments and aluminum ore deposits in the Mugodzhar steppes (Central Asia).** P. I. Bezrukov and A. L. Yanshin. *Trans. All Union Sci. Research Inst. Econ. Mineral.* (U. S. S. R.) No. 110, 75-102 (in English, 104-7) (1937); cf. C. A. 29, 6181[9]; 30, 2138[8]. Explorations in the region resulted in the discovery of 8 deposits of pisolitic ores in the Jurassic lake sediments near their junction with the Paleozoic formation. As a source of bauxite the most important is the Kyzyl Sai deposit near the City of Orsk. The ore contains 41.9% Al_2O_3 and 4.11% SiO. The next in importance are the deposits on the western slope of the Mugodzhar steppe. The pisolitic ores of the explored region fall into 4 types. 1. true pisolitic iron ores and ferruginous bauxite of the Uralian type; 2. light-colored and argillaceous bauxites of the Kyzyl-Sai deposit; 3. white pisolitic rocks, resembling kaolin in their compn. or containing small admix. of free alumina; 4. alunitic pisolitic rocks. The last 2 types are reported for the 1st time in the Russian literature. In their origin the pisolitic ores represent chem. sediments of Jurassic lakes deposited in the littoral parts at low depths. The presence of Al_2O_3 in the ores can be traced to the lateritic products of the Paleozoic igneous rocks. The material was carried over in the form of sol. chemicals, chiefly sulfates. Its pptn. was caused by a sharp change in the acidity of the aq. medium during the transportation of solns. into the stagnant lake basins. Approx. 100 references. II. **Paleozoic bauxites of the eastern slope of the Urals and the stratigraphy of the enclosing beds.** N. G. Markova and N. A. Shtreis. *Ibid.* No. 112, 3-47 (in English, 47-50). The narrow belt of sedimentary Paleozoic formation, stretching intermittently through the belt of gneissose rocks of the region was studied. The deposits of the sections examd. showed highly uniform stratigraphic succession. Within the same section some local surface alterations occur with petrographic changes of limestones, or, more rarely, their replacement by effusive rocks. The fossil complexes for any given horizon remain always const. Bauxite deposits occur in the upper Ludlow portion and chiefly in the lower Devonian formations. The bauxite bed proper can be subdivided into 3 parts: 1. the horizon underlying the ore bearing stratum of "bauxite breccia," which is confined to the lower portion of the deposit, in the upper part of the weathered zone a crust-like bauxite is developed, 2. the ore bearing horizon of uniform bauxite beds of the red variety, 3. the horizon underlying the ore-bearing strata, consisting of alternating layers of clays, bauxites and dark bituminous limestones. Thus, the deposits of the entire region show a no. of common features, the chief of which are their occurrence among the beds similar stratigraphically and lithologically with the only exception of the Elkino deposit of an older age and

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

the similarity of the ore structure, which is of the sheeted and oolitic nature contg coral fauna. The data obtained again confirm the Arkhangelskii theory of the sedimentary formation of bauxites in the region as the result of normal marine deposition (C. A. 29, 6181[1]). II(b). **Nizhne-Serginsky bauxite deposit.** B. M. Fedorov. *Ibid.* 51-58 (in English, 60). The deposit, located on the western slope of the Central Ural, because of the insignificant size, is considered of no com. value. II(c). **Bauxites and diaspore-chamosite ores of the western slope of the Southern Urals.** A. K. Bolotnov. *Ibid.* 70-105 (in English, 105-6). Between the Upper Silurian and Upper Devonian formation of the region the sedimentary depositions were periodically interrupted by the epeirogenetic movements. The interruptions of the greatest duration had evidently occurred before the deposition of limestones of the Givetian period, while those of short duration took place between the Middle and Upper Devonian and in the lower portion of the Frasnian formations. Every new sedimentary cycle was begun with the deposition of sandstones and clayey shales with the upward replacement by normal limestones. At the base of the Middle and Upper Devonian formations the Pashiya-River series show local deposits of bauxites or red oolitic limestones on the eroded surface of the underlying limestones contg. *Cordiola Stschurowskia* (Vern.). The series (10-12 m. thick) is overlaid by limestones contg. *Hypothyridina cuboides* (Sow.). The sandy shales of the "Oslovka series" on the Katav River are superimposed on the eroded surface of these limestones. The bauxites and diaspore-chamosite ores are found at its base. The Oslovka series is covered by limestone beds (300-400 m. in thickness, contg. *Spirifer katavensis* (Nal.) (the Frasnian) in the lower part and *Spirifer archiaci* (Vern.) in the upper part (the Famennian). The oolitic diaspore-chamosite ores of this series present lenses of varying sizes and thickness (up to 2-2 m.). The chief rock-forming minerals of the ores are diaspore, minerals of the chamosite group with characteristic optical and phys. properties, low hydrate Fe oxides, hematite and kaolin. The bauxite beds of the Pashiya lower series (1-8 m. in thickness) contain 2 varieties, the green-gray and the red-brown hard, jasper-like bauxites. The chief rock forming minerals are diaspore, Fe hydroxides and chamosite. The sedimentary formation of bauxites and diaspore-chamosite ores is the result of normal marine deposition. II(d). **The action of carbonated waters on the aluminum silicate rocks.** N. V. Solov'ev. *Ibid.* 107-11 (in English, 111). Equal wts. of powd. South Ural granite, porphyrite and serpentine and Glukhov kaolin were placed in sep. connecting bottles contg. 5 l. water and treated at 12-20° with CO_2 current for 1.5-2 hrs. at intervals of 48 hrs. The treatment was continued for 6-18 months with occasional shaking every 8-10 days and removal of 3 l. of the supernatant bicarbonate for qual. analysis. The minerals were analyzed before and after the leaching process. The tabulated results show that Al compds. are more sol. than Fe compds. The relative sol'y. is sufficiently high to indicate the possibility of the formation of some Al ore deposits (bauxites) by the natural process of disintegration of rocks by the surface and subsoil waters and ppn. of the alumina from the true or colloidal solns. The possible effect of the bacterial process was not considered in this study. Ap

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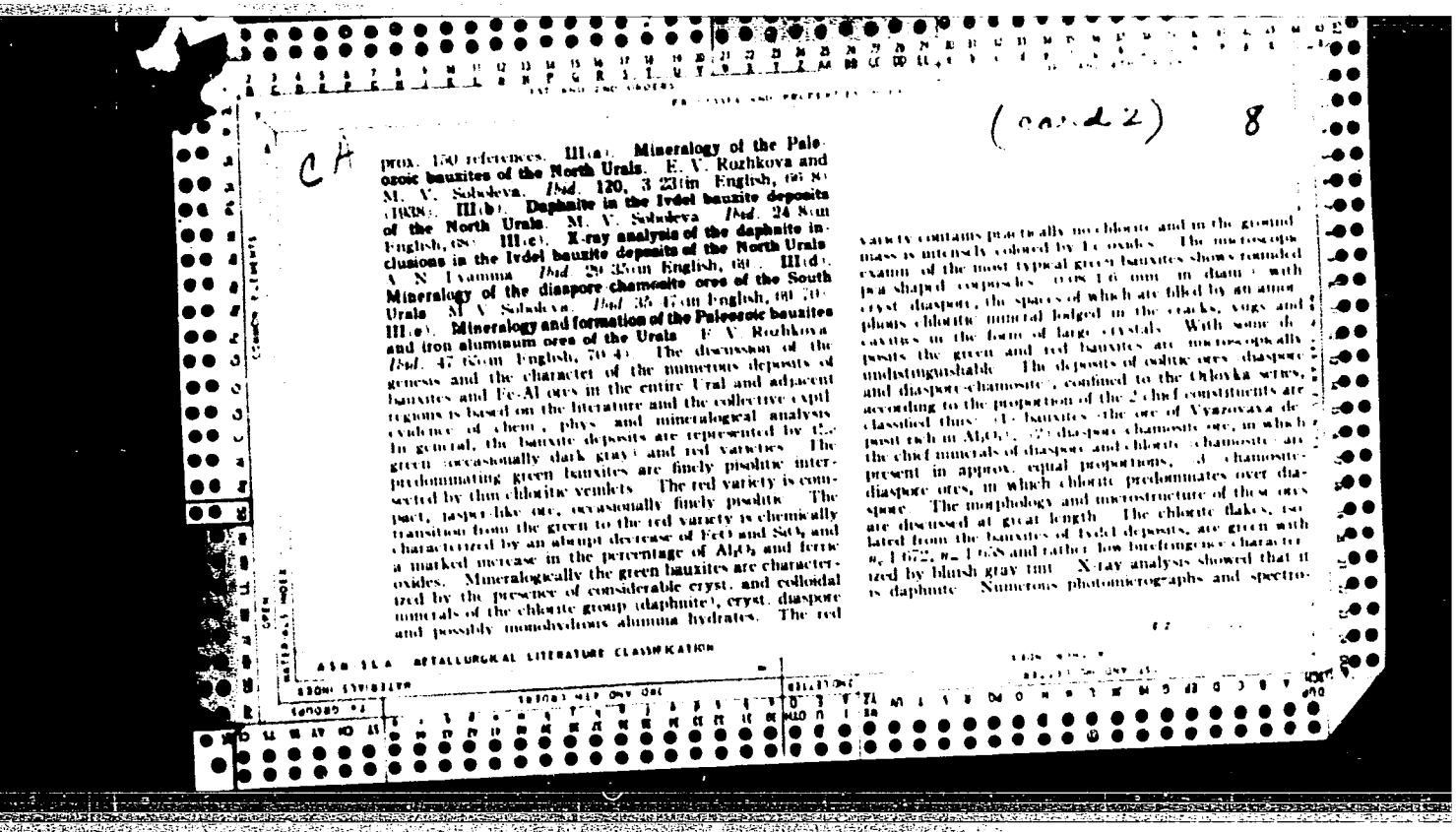
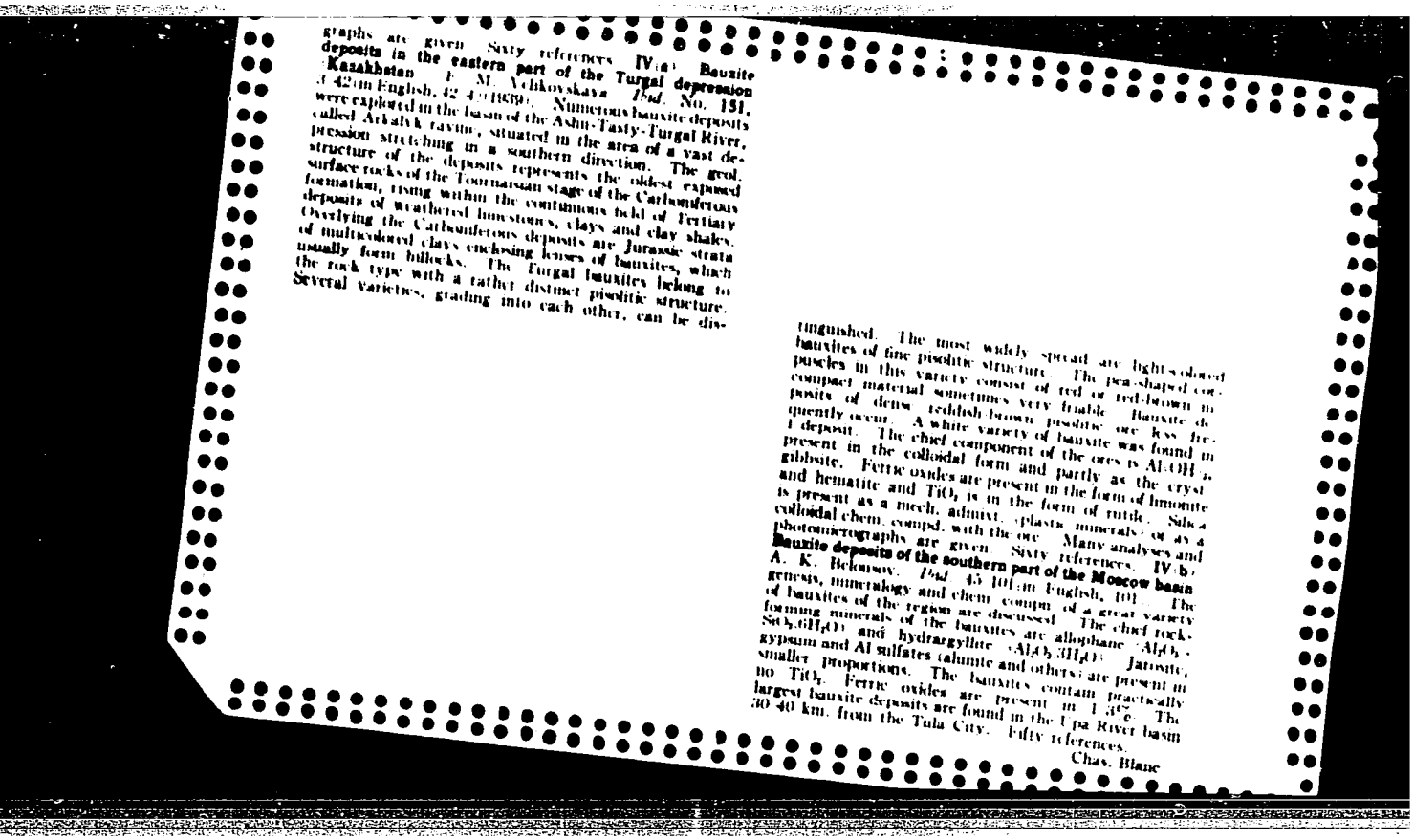


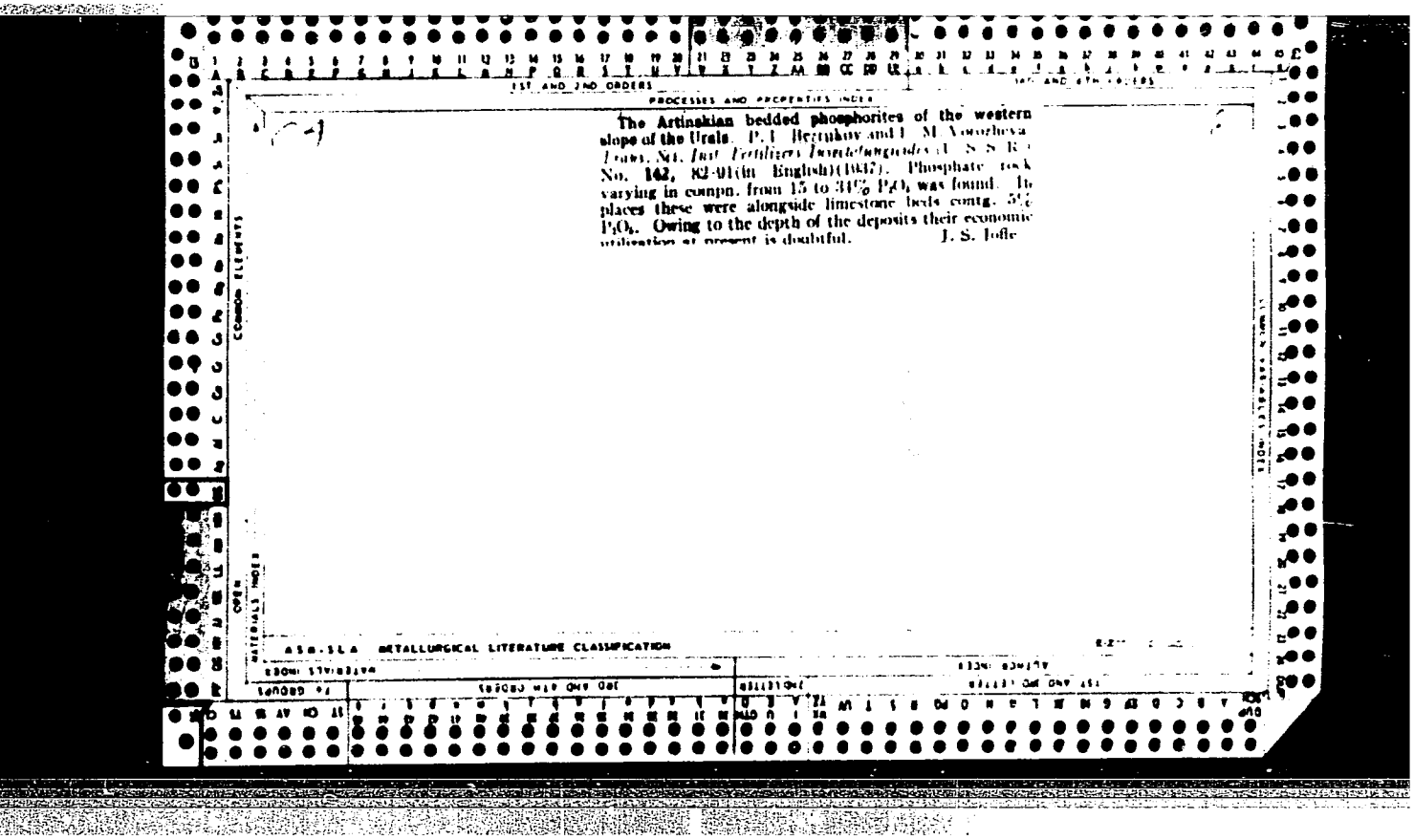
(card 2) 8

prox. 150 references. III(a). **Mineralogy of the Paleozoic bauxites of the North Urals.** E. V. Rozhkova and M. V. Soboleva. *Ibid.* 120, 3 23(in English, 0 80 (1938). III(b). **Daphnite in the Ivdel bauxite deposits of the North Urals.** M. V. Soboleva. *Ibid.* 24 8(in English, 0 8 . III(c). **X-ray analysis of the daphnite inclusions in the Ivdel bauxite deposits of the North Urals.** A. N. Ivanova. *Ibid.* 29 35(in English, 0 . III(d). **Mineralogy of the diaspore chamosite ores of the South Urals.** M. V. Soboleva. *Ibid.* 35 47(in English, 0 70 . III(e). **Mineralogy and formation of the Paleozoic bauxites and iron aluminum ores of the Urals.** E. V. Rozhkova. *Ibid.* 47 65(in English, 70 4 . The discussion of the genesis and the character of the numerous deposits of bauxites and Fe-Al ores in the entire Ural and adjacent regions is based on the literature and the collective experimental evidence of chem., phys. and mineralogical analysis. In general, the bauxite deposits are represented by the green (occasionally dark gray) and red varieties. The predominating green bauxites are finely psolitic interspersed by thin chlorite veinlets. The red variety is compact, jasper-like ore, occasionally finely psolitic. The transition from the green to the red variety is chemically characterized by an abrupt decrease of FeO and SiO$_2$ and a marked increase in the percentage of Al$_2$O$_3$ and ferric oxides. Mineralogically the green bauxites are characterized by the presence of considerable cryst. and colloidal minerals of the chlorite group (daphnite), cryst. diaspore and possibly monohydrous alumina hydrates. The red variety contains practically no chlorite and in the ground mass is intensely colored by Fe oxides. The microscopic examn. of the most typical green bauxites shows rounded psa shaped corpuscles (0.05 to 1.6 mm. in diam.) with cryst. diaspore, the spaces of which are filled by an amor phous chlorite mineral lodged in the cracks, vugs and cavities in the form of large crystals. With some de posits the green and red bauxites are microscopically undistinguishable. The deposits of oolitic ores diaspore and diaspore-chamosite, confined to the Oolovka series, according to the proportion of the 2 chief constituents are classified thus: (1) bauxites-the ore of Vyazovaya de just such in Al$_2$O$_3$; (2) diaspore chamosite ore, in which the chief minerals of diaspore and chlorite chamosite are present in approx. equal proportions, (3) chamosite diaspore ores, in which chlorite predominates over diaspore. The morphology and microstructure of these ores are discussed at great length. The chlorite flakes, isolated from the bauxites of Ivdel deposits, are green with n_g 1.672, n_m 1.658 and rather low birefringence characterized by bluish gray tint. X-ray analysis showed that it is daphnite. Numerous photomicrographs and spectro-

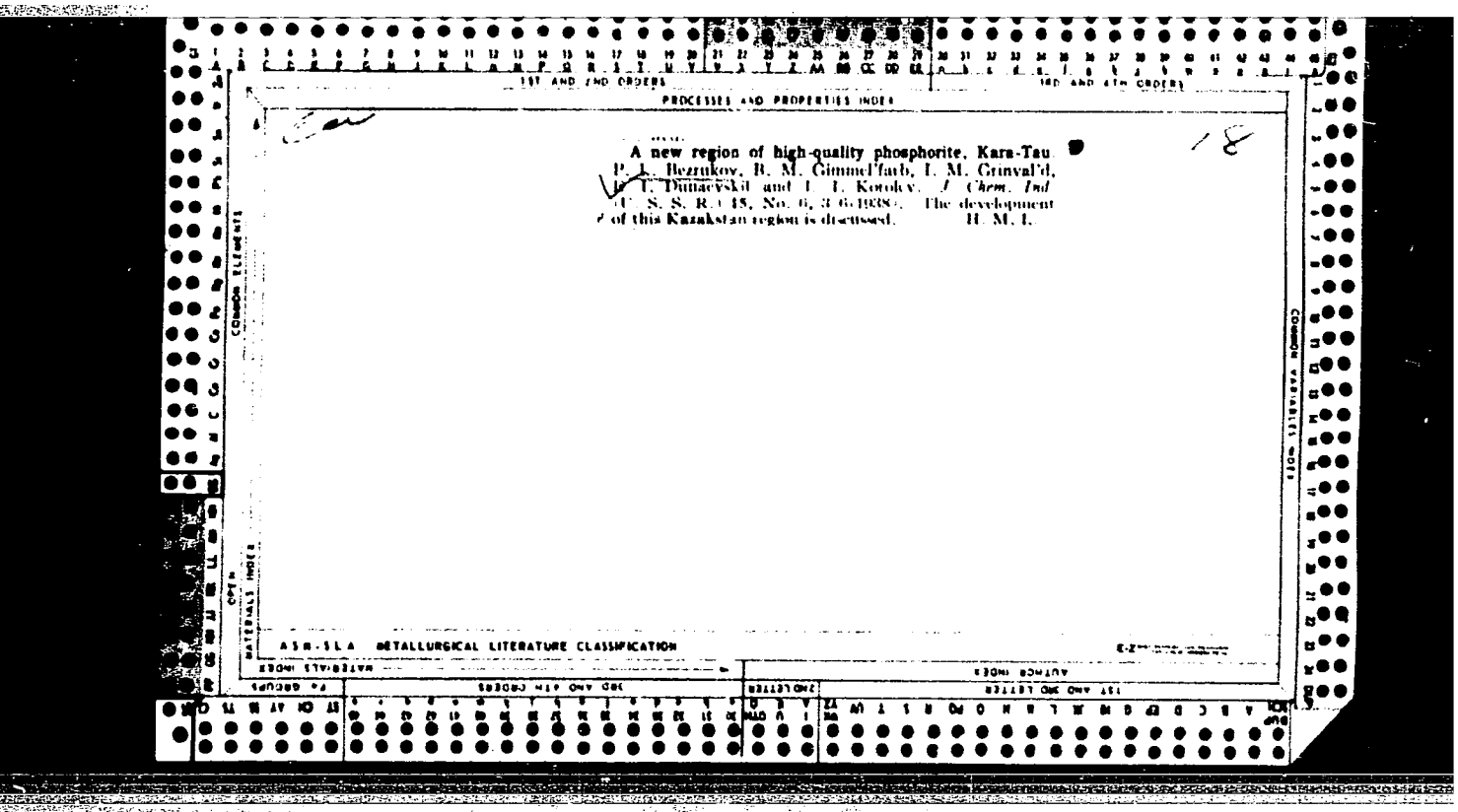


graphs are given. Sixty references. IV(a) **Bauxite deposits in the eastern part of the Turgai depression Kazakhstan.** I. M. Volkovskaya. *Ibid.* No. 151, 3-42 (in English, 42-4) (1959). Numerous bauxite deposits were explored in the basin of the Ashu-Tasty-Turgai River, called Arkalyk raylon, situated in the area of a vast depression stretching in a southern direction. The geol. structure of the deposits represents the oldest exposed surface rocks of the Toarcian stage of the Carboniferous formation, rising within the continuous belt of Tertiary deposits of weathered limestones, clays and clay shales. Overlying the Carboniferous deposits are Jurassic strata of multicolored clays enclosing lenses of bauxites, which usually form hillocks. The Turgai bauxites belong to the rock type with a rather distinct pisolitic structure. Several varieties, grading into each other, can be distinguished. The most widely spread are light-colored bauxites of fine pisolitic structure. The pea-shaped concretions in this variety consist of red or red-brown to compact material sometimes very friable. Bauxite deposits of dense reddish-brown pisolitic ore less frequently occur. A white variety of bauxite was found in 1 deposit. The chief component of the ores is $Al(OH)_3$ is present in the colloidal form and partly as the crystal gibbsite. Ferric oxides are present in the form of limonite and hematite and TiO_2 is in the form of rutile. Silica is present as a mech. admixt., plastic minerals or as a colloidal chem. compd. with the ore. Many analyses and photomicrographs are given. Sixty references. IV(b) **Bauxite deposits of the southern part of the Moscow basin** A. K. Bekasov. *Ibid.* 45-101 (in English, 101). The genesis, mineralogy and chem. compn. of a great variety of bauxites of the region are discussed. The chief rock-forming minerals of the bauxites are allophane $Al_2O_3 \cdot SiO_2 \cdot 6H_2O$ and hydrargyllite $Al_2O_3 \cdot 3H_2O$. Jarosite, gypsum and Al sulfates (alunite and others) are present in smaller proportions. The bauxites contain practically no TiO_2. Ferric oxides are present in 1.4%. The largest bauxite deposits are found in the Upa River basin 30-40 km. from the Tula City. Fifty references.

Chas. Blanc



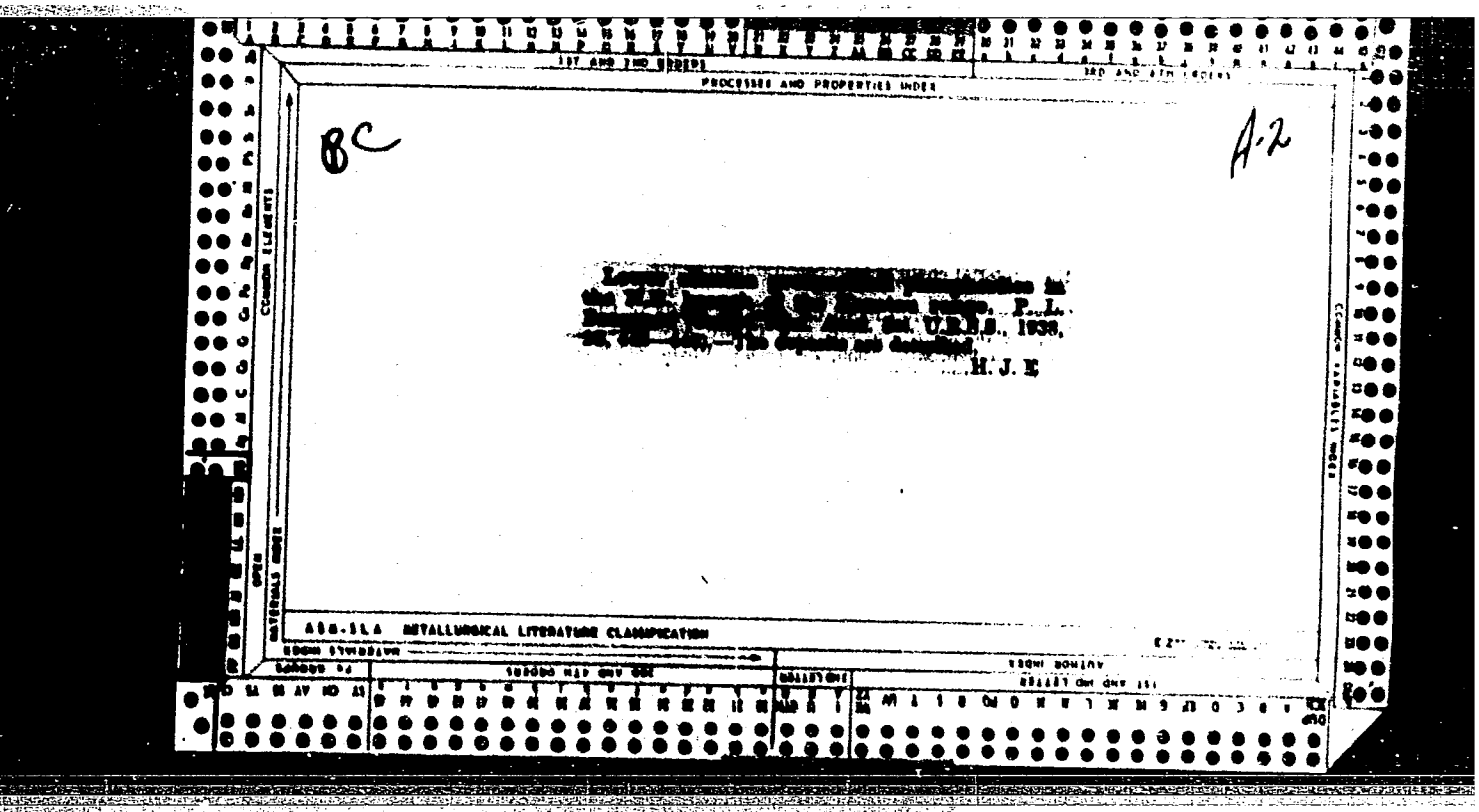
The Artinskian bedded phosphorites of the western slope of the Urals. P. I. Bezrukov and I. M. Vasorbeva. *Trans. Sci. Inst. Fertilizers Insecto-fungicides* (U. S. S. R.) No. **142**, 82-91 (in English) (1947). Phosphatic rock varying in compn. from 15 to 31% P_2O_5 was found. In places these were alongside limestone beds contg. 5% P_2O_5. Owing to the depth of the deposits their economic utilization at present is doubtful. J. S. Joffe

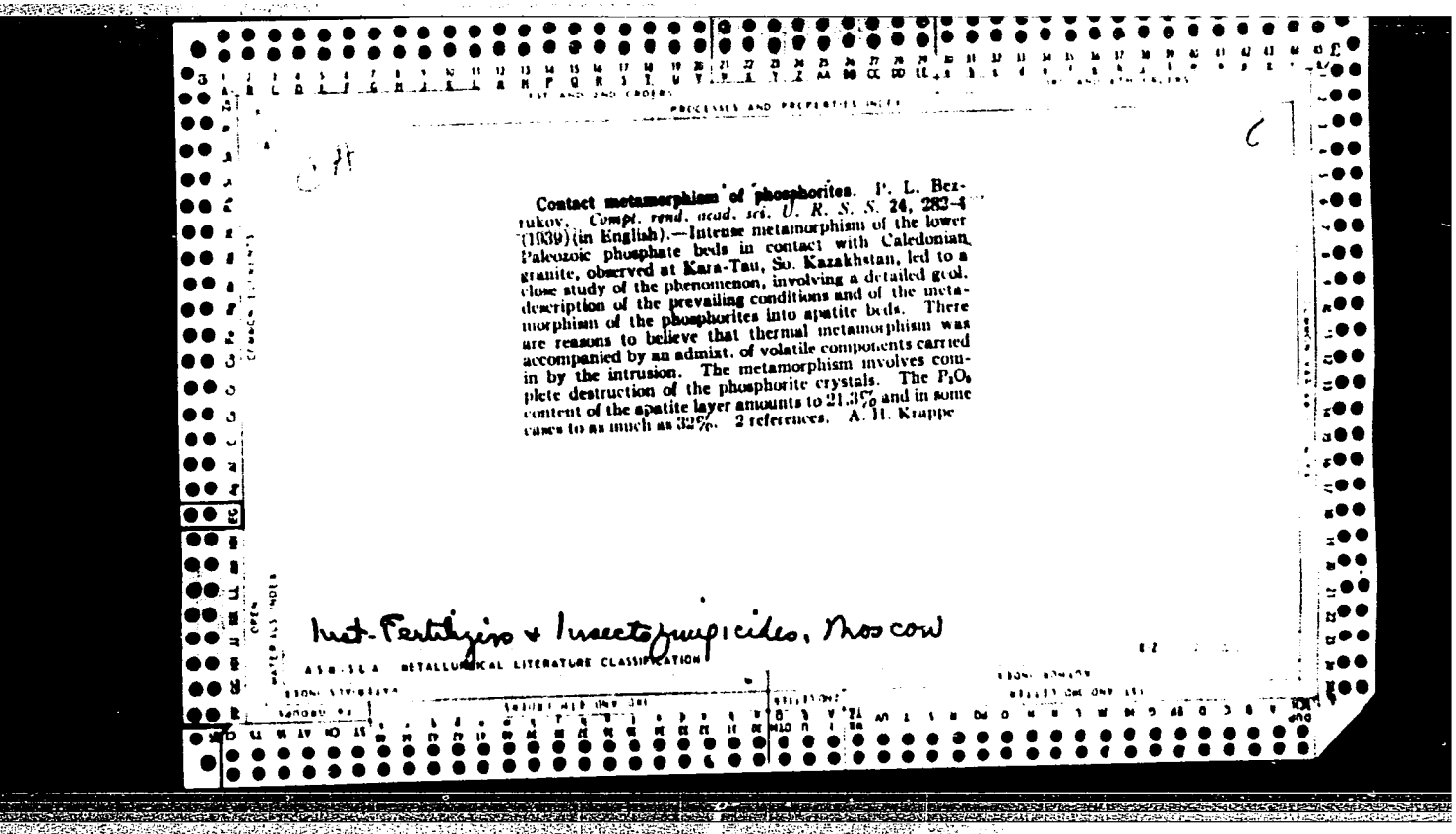


PROCESSES AND PROPERTIES INDEX

A new region of high-quality phosphorite, Kara-Tau.
P. L. Bezrukov, B. M. Gimmel'farb, I. M. Grinval'd, [illegible] Dmitrevskii and I. I. Kovalev. *J. Chem. Ind. (U. S. S. R.)* 15, No. 6, 3-6 (1938). The development of this Kazakstan region is discussed. H. M. I.

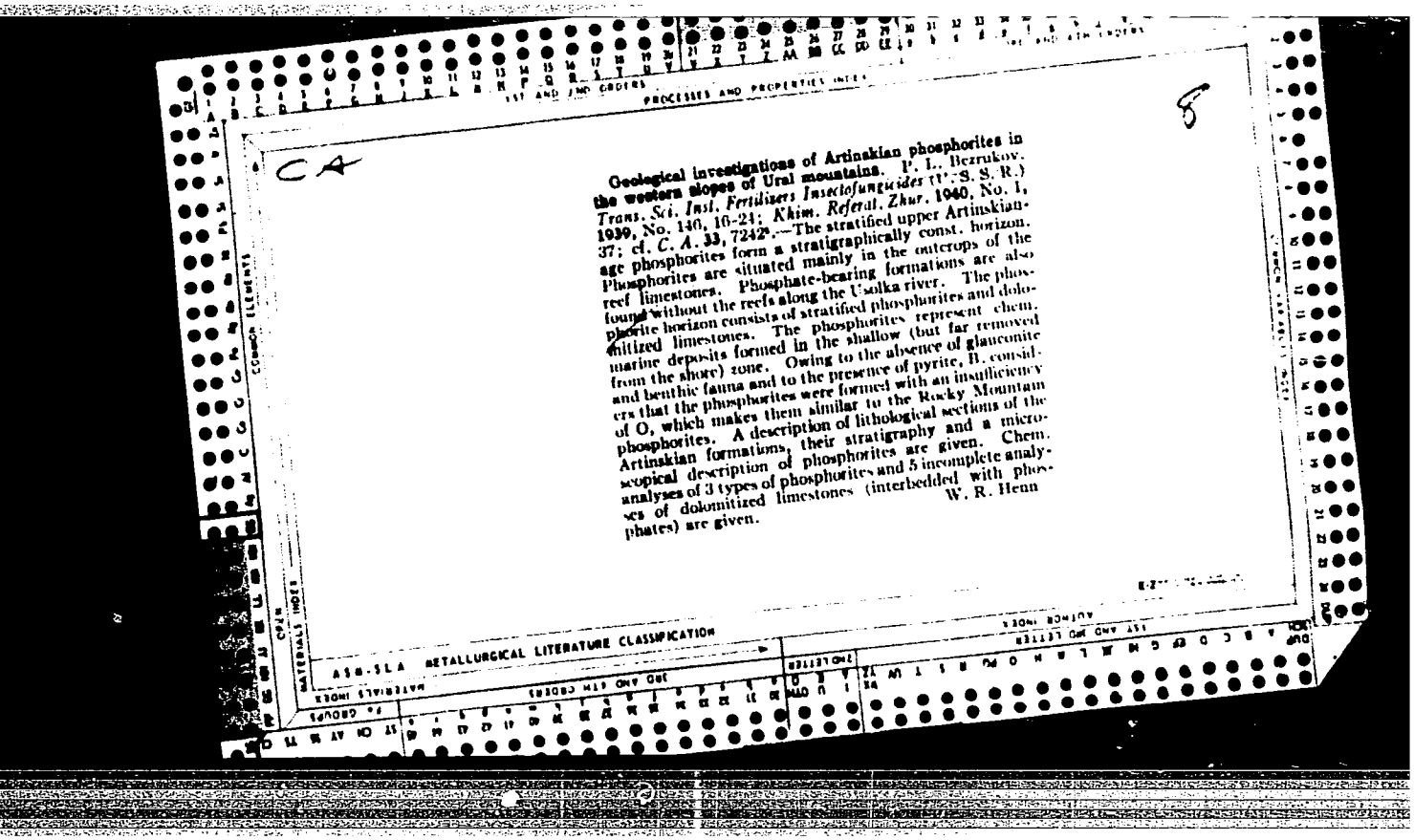
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





Contact metamorphism of phosphorites. P. L. Bezrukov. *Compt. rend. acad. sci. U. R. S. S.* 24, 283–4 (1939) (in English).—Intense metamorphism of the lower Paleozoic phosphate beds in contact with Caledonian granite, observed at Kara-Tau, So. Kazakhstan, led to a close study of the phenomenon, involving a detailed geol. description of the prevailing conditions and of the metamorphism of the phosphorites into apatite beds. There are reasons to believe that thermal metamorphism was accompanied by an admixt. of volatile components carried in by the intrusion. The metamorphism involves complete destruction of the phosphorite crystals. The P_2O_5 content of the apatite layer amounts to 21.3% and in some cases to as much as 32%. 2 references. A. M. Krappe

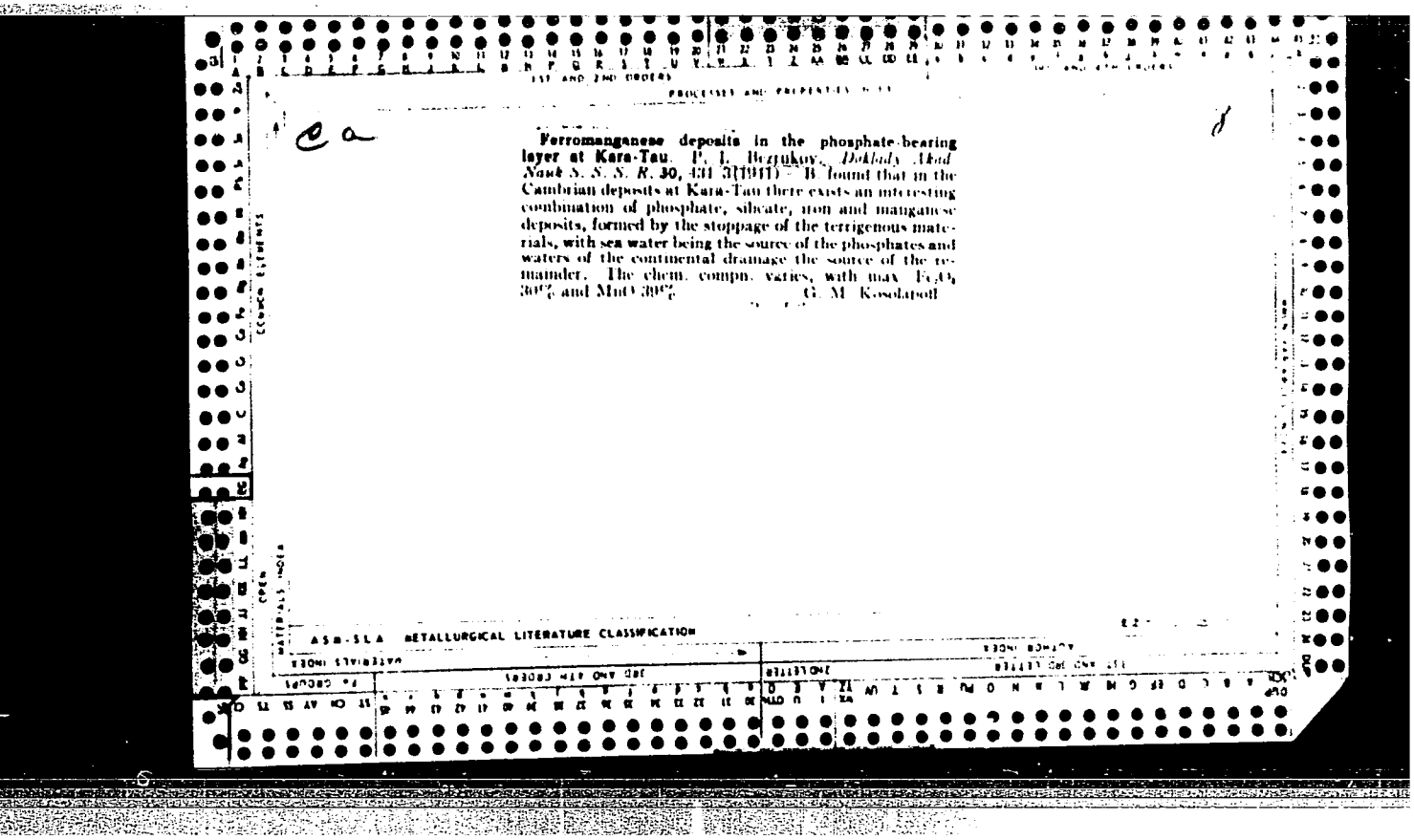
Inst. Fertilizers & Insectofungicides, Moscow



CA

Geological investigations of Artinskian phosphorites in the western slopes of Ural mountains. P. L. Bezrukov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U. S. S. R.) **1939**, No. 140, 16-24; *Khim. Referat. Zhur.* **1940**, No. 1, 37; cf. *C. A.* **33**, 7242⁸.—The stratified upper Artinskian-age phosphorites form a stratigraphically const. horizon. Phosphorites are situated mainly in the outcrops of the reef limestones. Phosphate-bearing formations are also found without the reefs along the Usolka river. The phosphorite horizon consists of stratified phosphorites and dolomitized limestones. The phosphorites represent chem. marine deposits formed in the shallow (but far removed from the shore) zone. Owing to the absence of glauconite and benthic fauna and to the presence of pyrite, B. considers that the phosphorites were formed with an insufficiency of O, which makes them similar to the Rocky Mountain phosphorites. A description of lithological sections of the Artinskian formations, their stratigraphy and a microscopical description of phosphorites are given. Chem. analyses of 3 types of phosphorites and 5 incomplete analyses of dolomitized limestones (interbedded with phosphates) are given.

W. R. Henn



Ferromanganese deposits in the phosphate-bearing layer at Kara-Tau. P. L. Bezrukov, *Doklady Akad Nauk S. S. S. R.* **30**, 431-3(1941).—It found that in the Cambrian deposits at Kara-Tau there exists an interesting combination of phosphate, silicate, iron and manganese deposits, formed by the stoppage of the terrigenous materials, with sea water being the source of the phosphates and waters of the continental drainage the source of the remainder. The chem. compn. varies, with max. Fe_2O_3 30% and MnO 30%. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

[redacted], L. ... Dr. Geolog-Mineralog. Sci.

Dissertation: "Vyatka Tan Phosphorite-Bearing Basin." Presented Order of Lenin St to G. imeni M. V. Lomonosov, 30 Jun 47.

SO: Vechernyaya Moskva, Jan, 1947 (Project #17836)

BEZRYKOV, P. L.

USSR/Geophysics - Seas 11 Jul 53

"New Data on the Geological Structure of Far Eastern Seas," P. L. Bezrykov and G. B. Udintsev, Inst of Oceanology, Acad Sci USSR

DAN SSSR, Vol 91, No 2, pp 359-362

State that new data obtained from investigation conducted by the Inst of Oceanology in the far eastern seas permits one to look deeper into the history of their development and gives interesting material for studying the formation of island arc groups in the Pacific Ocean. Presented by Acad D. S. Belyankin 11 May 53.

276T57

Bottom deposits of the Kurile-Kamchatka trench. P. L. Bezrukov. *Trudy Inst. Okeanol., Akad. Nauk S.S.S.R.* 17, 97–129(1955).—Among the sources of the bottom deposits are the rivers that are numerous in Kamchatka and less so in the Kuriles. The terrigenous material delivered by the rivers is mostly insol. Another source are the products of volcanic eruptions that are swept into the ocean following the abrasion of the coast by the waves. Melting ice and sea weeds (*Laminaria* and *Fucus*) which have inorg. matter attached to their holdfasts and are carried far into the sea by currents are another contributing factor. The most important source are the volcanoes, both surface and subocean, including those of Japan and the Aleutian islands. Fumaroles, solfataras, and hot springs are probably responsible for the presence of SiO_2 and sulfates. Organisms that utilize the minerals present in the ocean for skeletal structure also contribute to the formation of deposits. Temp. and chem. conditions prevent the accumulation of $CaCO_3$ but favor the formation of diatoms. The types of deposits present at the bottom can be roughly classified as: (1) gravel, (2) sand, plain or contg. small amts. of Fe, CaO, or SiO_2, (3) shellfish remains, (4) silts, (5) mud. Gravel in the Kuriles consists in the main of andesites, basalts, porphyrites, dacites, and various tufagenic strata, much less frequently of granites, granodiorites, and aegilites. The compn. of gravel in Kamchatka is more varied. Along with effusive and pyroclastic formations intrusive and metamorphosic shales are found also. A characteristic feature is the presence of many lime-absorbing organisms: hydrocorallines, balanids, serpulidas, and crinoids. The sands in the Kuriles consist of plagioclasts, augite, hypersthene, in some places of pumice, magnetite, titanium-magnetite, and other rare minerals. The SiO_2 is very low, iron 5–10%, V_2O_5 0.03%. Shellfish are found in the Kurile area around the island Kharumkotan (*Pecten beringianus*, *Mytilus*, balanids and gastropods). The chem. compn. of the aleurites varies with their distance from the surface, from 10.89 to 6.42% SiO_2, 4.07 to 2.53% Fe, and 0.17 to 0.13% Mn. Chem. examn. of the clay deposits yielded the following data depending on their distance from the surface: 15.54–3.26% SiO_2, 4.8–3.52% Fe, and 1.05–0.0% Mn. Fe and Mn make the deposits appear dark brown when wet and pale brown when dry. Ostroumov (*C.A.* 47, 1937h) discovered the presence of hydrotroilite and H_2S, the latter at the very bottom of the trench. The presence of H_2S is probably due to reduction of sulfates as a result of microbiologic processes taking place at the bottom. A. S. M.

BEZRUKOV, P.L.

USSR/ Geology

Card 1/1 Pub. 22 - 31/45

Authors : Bezrukov, P. L.

Title : Distribution of organic substances in Okhotsk Sea sedimentations

Periodical : Dok. AN SSSR 103/2, 287-290, Jul 11, 1955

Abstract : Geological data are presented on the origin and distribution of organic substances in the sedimentations of the Okhotsk Sea. Twelve references: 10 USSR, 1 USA and 1 Germ. (1934-1955). Table; diagram.

Institution : Acad. of Sc., USSR, Inst. of Oceanology

Presented by: Academician S. I. Mironov, April 11, 1955

BEZRUKOV, P. L.

Distribution and rate of sedimentation of silica silts in the Sea of Okhotsk. P. L. Bezrukov. *Doklady Akad. Nauk S.S.S.R.* 103, 473-[illegible] (1955). Diatomaceous silts are widespread over the bottom of the Bering Sea, and the Sea of Okhotsk; the sediments of the Japanese Sea are much lower in authigenic SiO_2. The SiO_2 contents are conventionally detd. by leaching with a 5% Na_2CO_3 soln. With wide variations in the single samples, the av. content in authigenic SiO_2 was detd. in 70 clayey silts to be 32%, in small-granular silts 14.3%, in coarse aleurites 10.5%, in sands 4.1%. Clayey silts may contain up to 40% and even 50% authigenic SiO_2, but those of the deep-sea sediments in the western parts of the Sea of Okhotsk are lower in SiO_2 (15-22%). The low content in sol. SiO_2 observed in sands is caused by accessory spiculae of sponges. Authigenic SiO_2 is typical of the pelitic-colloidal fractions of the sea sediments. The diatomaceous aggregates in the silts are highly porous (vol. weight in the dry state below 1.0, even down to 0.4); their outside is colored deep brown by MnO_2 hydrates (cf. A. P. Zhuze, *Doklady Akad. Nauk S.S.S.R.* 98, 127-30(1954)). A map gives the regional distribution of the SiO_2 sediments, showing them particularly enriched in the central parts (deep-sea waters) of the Sea of Okhotsk. The highest production of phytoplankton with Diatomaceae, however, is observed in the litoral regions. The diatomaceous silts form only the upper layers of the sea-bottom sediments; the content of authigenic SiO_2 rapidly decreases with increasing depths. In the litoral parts they have a thickness of 2-3 m., in the central regions only of 20 cm. to 1 m. The sediments of the Tinro depression (east of Kamchatka), however, show much higher accumulations of SiO_2 sediments, and higher concns. in sol. SiO_2, than in the northern parts of the West Pacific Ocean. The rate of sedimentation of the authigenic SiO_2 is calcd. in the order of magnitude of 10 to 25 and 1 to 2.5 m. per 1000 years, as the lower and upper limits; evidently, volcanic facies tends to increase the rates. W. Eitel

BEZRUKOV, P.L.; UDINTSEV, G.B.

The northern end of the Hawaiian submarine ridge. Dokl.AN SSSR 103 no.6:1077-1080 Ag '55. (MLRA 9:1)

1. Institut okeanologii Akademii nauk SSSR. Predstavleno akademikom D.I.Shcherbakovym.
(Hawaiian Islands--Geology)

DOLGOPOLOV, N.N.; BEZRUKOV, P.L., redaktor; BUSHINSKIY, G.I., redaktor; GIMMEL'FARB, B.M., redaktor; IVANOV, A.A., redaktor; STRAKHOV, N.M., akademik, otvetstvennyy redaktor; FESENKO, I.A., redaktor; ASTROV, A.V., redaktor izdatel'stva; AUZAN, N.P., tekhnicheskiy redaktor

[Problems in the geology of agronomic minerals] Voprosy geologii agronomicheskikh rud. Moskva, 1956. 239 p. (MLRA 9:11)

1. Akademiya nauk SSSR.Otdeleniye geologo-geograficheskikh nauk
(Geology, Economic) (Fertilizers and manures)

BEZRUKOV, P.L.

AUTHOR BEZRUKOV p.L., OSTROUKHOV, E.A., PA - 2922

TITLE On Phosphorus Distribution in the sediments of the Okhotsk Sea.
(O raspredelenii fosfora v osadkakh Okhotskogo moraya -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 1, pp 142-145, (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT Inorder to explain some questions concerning the origin of phosphorites it is necessary to know the rules governing phosphorus distribution in the sediments of recent seas. In contrast to other seas the Pacific has scarcely been investigated in this respect. Considerable quantities of material of soil sediments was investigated which had been collected by the ship "Vityaz" in the North Western Pacific. The close connection of the Okhotsk Sea with the Pacific, the penetration of phosphorus-rich abyssal-waters from this ocean, the high productivity of its plankton, the variety of geological structure and of the petrographic composition of the surrounding continent, aswellas the existence of upper-teriary phosphorites on Sakhalin render this investigation important. 15o stationson the ground were investigated with respect to surface-samples, (2-5 cm) and a chart (illustration 1) was made. This chart shows that there are two teritories with a relatively high phosphorus-content. 1) A continental shoal in the nothern part of the sea and 2) the Kamchatka- and Kuril Isles shoal. In the former region the coastal zone has less phosphorus(o,o7-o,o4°/o) than the middle parts of the shoal (o,12-o,15°/o). In the latter region the highest phosphorus-content is

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PA - 2922

On Phosphous Distribution in the Sediments of the Okhotsk Sea.

found in the sand of the shore (o,o9-o,135°/o) and it becomes less nearer the sea. In East of Sakhalin the phosphorus-content increases again, not on the shore itself,(o,o2-o,o4°/o) but somewhat more to the East in the Deryugin depression (o,o6-o,o7°/o). Summary. Phosphorus-distribution in the sediments of the Okhotska Sea is on the whole governed by the same rules that Strakhov, N.M.,found to exist for a number of other waters. The phosphorus-compounds come into the Okhotsk Sea as solid phase with denudation- and abrasion products of the continent and partly perhaps with products of volcanic activity.
(1 ill.,13 citations from published works).

ASSOCIATION Oceanographical Institute of the Academy of Science of the U.S.S.R. (Institut okeanologii Akademii Nauk SSSR)
PRESENTED BY STRAKHOV, N.M., Member of the Academy.
SUBMITTED 12.11.1956.
AVAILABLE Library of Congress.
Card 2/2

20-2-42/60

AUTHOR: Bezrukov, P. L.

TITLE: On Deepwater Deposits of the Idzu-Bonin, Marianas, and Ryukyu Ocean Depressions (Ob osadkakh glubokovodnykh okeanicheskikh vpadin Idzu-Boninskoy, Marianskoy i Ryukyu)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp.387-390 (USSR)

ABSTRACT: So far, the deposits of the above oceanic depressions have been studied very little. In connection with the beginning of the investigations of the oceanic depression in the Northern Pacific, the necessity was felt to examine also some depressions in the Northwestern Pacific. The sharp oceanic depression East of the island chains of Idzu and Bonin was now given the name of these islands. This depression has a meridional course and its greatest depth is 9764. m. In 1955, its southern part was explored by a team using the ship "Vityaz". The Idzu-Bonin depression ends at the latitude of the southernmost Bonin island. Further south, opposite of the Volcano Islands, after a ford of a depth of

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On Deepwater Deposits of the Idzu-Bonin, Marianas, and Ryukyu Ocean Depressions

only 100 m, this depression is continued by another, which in its northern part may be called the Mariana depression. Its almost flat bottom reaches a depth of 7800 m, and it has steep slopes. The Ryukyu depression runs east of the Ryukyu Islands. Its greatest depths: 7300 - 7500 m, south of the Okinawa Islands. In the distribution of the sediments of all three depressions, some characteristic features were discerned: In the upper part of their slopes, different carbonate sediments are deposited. Below 4500 - 5000 m there is virtually no carbonate in the sediments. In the lower parts of the slopes and at the bottom brown (oxidized) clayey clays of the type of the "red clay" are deposited. Among them, also grey clays of the reducing zone are found on the Idzu--Bonin and of the Ryukyu depressions. Everywhere on the bottom of the depressions there can be found scattered lumps of an older clay which have probably come here as result of landslides. The formation by landslides, probably accompanied by turbidity currents, as also confirmed by the distribution of water turbidity. For their examination, a new method was devised at the "Vityaz" and used. In the upper water layers, the turbidity everywhere had a pale-brown

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205210013-7"

On Deepwater Deposits of the Idzu-Bonin, Marianas, and Ryukyu Ocean Depressions

color, whereas in the Idzu-Bonin and in the Mariana depressions it was green. (3 samples, depth between 6000 and 7000 m). The turbidity of the water was strongly increased. As those layers of the water which are close to the bottom are well aired, it can not be assumed that the change in color is connected with secondary processes of the oxide compounds of iron in the sediment material sinking to the bottom. It is more probable that "green" turbidity is supplied from the slopes. As result of the above-mentioned processes, furthermore as result of the complicated nature of the structure of the depressions and of the water dynamics at steep slopes, the sedimentation in the deep-water depressions is irregular. There exist many places at the bottom of the depressions where no recent sediments are found. Pyroclastic material is found here very frequently. Also submarine volcanic activity was observed. Examination of the material collected made it possible to distinguish between at least three different types of layer structure of bottom sediments:

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On Deepwater Deposits of the Idzu-Bonin, Marianas, and Ryukyu Ocean Depressions

1) Microstructure of layers of the solid clays (lumps at the bottom of the depressions) - up to twenty layers in 1 cm.
2) Macrostructure of the layers - widely observed - caused by alternation of clayey clays and pyroclastic material: aleurites, and less frequently sand and rubble. Sometimes the thickness of the layers is rhythmical, and it fluctuates between several millimeters and several centimeters. It is possibly caused by the periodicity of submarine quakes and of eruptions.
3) Structure characterized by alternation in vertical direction, sometimes by alternating layers of clays, colored by ferric and ferrous oxide, and by manganese and manganous oxide. This structure is connected with diagenetic processes, and as far as material is concerned it is controlled by the tempi of sedimentation as well as by the supply of organic material. There are 12 references, 7 of which are Slavic.

Card 4/5

On Deepwater Deposits of the Idzu-Bonin, Marianas, and Ryukyu Ocean Depressions 20-2-42/60

ASSOCIATION: Institute of Oceanology, AS USSR (Institut okeanologii Akademii nauk SSSR)

PRESENTED: November 24, 1956, by N. M. Strakhov, Member of the Academy

SUBMITTED: September 29, 1956

AVAILABLE: Library of Congress

Card 5/5

AUTHORS: Bezrukov, P. L., Boychenko, I. G., Zhivago, A. V., Zenkevich, N. L., Kanayev, V. F. and Udintsev, G. B. 20-5-34/48

TITLE: New Data on the Rules Governing the Morphology of Submarine Relief (Novyye dannyye o zakonomernostyakh stroyeniya podvodnogo relyefa)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 5, pp. 841 - 844 (USSR)

ABSTRACT:

The cooperation of the two institutes given under "association" facilitated the obtaining of the characteristic of some outlines of the morphology of the submarine relief, together with the results of foreign expeditions. These outlines were formerly either not to a great extent known or subestimated. Conceptions of the borders of greatest morphological areas or of the forms of first order like the submarine margins of the continents, the zone of the continental slope, and of the ocean gulf ("lozhe okeana") could be defined exactly; furthermore the rules governing the order of the great relief forms (forms of second order), as well as the character of the connections in the order of smaller forms could be explained. In the coastal zone and in the shallow water zone the bottom of the sea is nearly everywhere levelled and slopes towards the sea extremely softly. This bottom area is bordered by a bend of the bottom, towards the sea. Behind it the bottom changes into a

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more articulated area. This threshold does not lie deeper than 300 m, on an average of 130 m. The levelled area is towards the sea replaced by either the area of the submarine margin of the continent or by the zone of the continental slope. The latter has considerable inclinations as well as a very complicated relief. The origin of the levelled area of the bottom in shallow water is to be assumed to be in connection with the abrasion-accumulative levelling processes. The surfaces of the submarine margins of the continents often cover larg areas in comparatively shallow places of the ocean. As a rule they continue the coastal plains of the continent. Their breadth and depth vary in vast borders; single sections lie in a depth of from 1000 to 1500 m. Up to now the technical terms: continental abyss and continental shelf were not used precisely enough. The expression continental slope does not reflect precisely the fundamental traits of the transition zone from the continental area to the ocean "sprout" ("lozho okeanov"). It would be more precise to call it "zone of the continental slope". Examples for a very complicated and a more simple structure are given. The upper margin of the zone of the continental slope corresponds either to the exterior margin of the levelled area of the coast-near shallow water or to the exterior margin of the submarine marginal zone of the continent. Sometimes there are also compara-

tively steept steps. In such cases one can speak of a taking part of the continental marginal zone in the development of the zone of the continental slope. The lower margin of the zone of the continental slope is rather clearly characterized by a bend of the bottom area in the transition to the ocean sprout or by a still sharper bend in the transition to the flat bottom area of the oceanic deep sea channels which in many regions are bound to the lower part of the continental slope. The ocean sprout is characterized by a great variety of forms and relief types: elevations, mountain ridges, and single mountains occur frequently. The great relief forms (of second order) are distributed in all parts of the oceanic bottom. It is difficult to observe the continuations of the great relief forms of the continent in the levelled part of the coast, they are, however, better marked in the zone of the continental slope. In several cases a connection between the relief forms of the zone of the continental slope and those of the ocean sprout becomes visible. Towards the land they are only seldom continued on the continental margin. The great variety of the small ground relief forms can be comprised in 3 groups: 1.) a relief in which the traits of the original relief are long time conserved which is covered by a

New Data on the Rules Governing the Morphology of Submarine Relief

sedimentary cover of the same thickness. 2.) the levelling relief the original unevenness of which is filled in ; the thickness of the sediments increases here in the depressions, and 3.) a levelled relief in which the sediments cover all unevenness of the original relief; in the depressions the layers are much thicker and broken at the elevations. There are 7 references, 4 of which are Slavic.

ASSOCIATION: Institute for Oceanology, Institute for Geography AN USSR (Institut okeanologii, Institut geografii Akademii nauk SSSR)

PRESENTED: May 13, 1957, by I. P. Gerasimov, Academician

SUBMITTED: June 11, 1957

AVAILABLE: Library of Congress

Card 4/4

BEZRUKOV, P. L.

Recent Exploration of Bottom Deposits in Far Eatern Seas and the Northwestern Part of the Pacific. The Article Reports on the character and the main mineralogical constituents of botton deposits. and on the use of echo meters. The distribution of carbonate deposits and the availablelity of certain elements, such as phosphorus, vanadium, titanium, etc., is discussed.

Oceanographic Research of the Northwestern Part of the Pacific Ocean Moscow, Izd-vo AN SSSR, 1958, 148 p. Its: Trudy, t.2.

This collection of articles reports the results of observations made in the Pacific by the Institute of Oceanology of the Academy of Sciences, USSR. In 1949, the Institute launched a systematic five-year program of scientific exploration of certain hydrographic peculiarities of the Soviet Pacific Area. The operations were carried out as a "Complex Oceanographic Expedition," using the Motorboat Vityaz' as its bas. The Expedition worked in collaboration with the Hydrographic Institute of the Soviet Navy (VMS), the Pacific Institute of Piscatology and Oceanography, ans dome 40 other instittutes of the Academy of Sciences. Between 1949 and 1954, 18 trips were made, covering about 130,000 miles. Among the subjects of direct concern were: Meteorology, hydrology, oceanography, hydrochemistry, sedimentation, geography of the littoral, geology and contours of the sea bottom, fauna, plankton, microbiology, and gravimetry. Twenty-eight authors contributed to the collection which consists of 27 articles. There are: 6 gables, 23 diagrams, 3 illustrations (Photographs of the littoral), 4 maps. There are no references.

BEZRUKOV, P.L.; ZENKEVICH, N.L.; KANAYEV, V.F.; UDINTSEV, G.B.

Submarine mountains of the Kurille Islands. Trudy Lab.vulk. no.13:71-88 '58. (MIRA 12:3)

(Kurille Islands--Ocean bottom)

BEZRUKOV, P. L.

"Some Zonation Problems of Sedimentation in the World Ocean," report to be submitted for the Intl. Oceanographic Cong. New York City. 31 Aug - 11 Sep 1959.

(Inst. of Oceanology, Moscow)

[redacted], V. L. and PETTIT, V. P.

"Sediments of the Western Pacific Trenches."
report to be submitted for the Intl. Oceanographic Cong. New York City,
31 Aug - 11 Sep 1959.

(Inst. of Oceanology, Moscow)

BEZRUKOV, P.L.

Oceanographic investigations in the northwestern part of the Pacific Ocean, August-October 1954. Trudy Inst.okean. 16:70-97 '59. (MIRA 13:3)
(Pacific Ocean--Oceanographic research)

BEZRUKOV, P.L.

Oceanographic investigations in the northwestern part of the Pacific Ocean, September-November 1955. Trudy Inst. okean. 16:133-157 '59. (MIRA 13:3)
(Pacific Ocean--Oceanographic research)

BEZRUKOV, P.L.; MURDMAA, I.O.

Bottom sediments in the northern Kurile area. Trudy Inst.okean. 36:169-190 '59. (MIRA 15:4)
(Kurile Islands region--Deep-sea deposits)

BEZRUKOV, P. L.

PHASE I BOOK EXPLOITATION SOV/5331

International Geological Congress. 21st, Copenhagen, 1960.

Morskaya geologiya (Marine Geology) Moscow, Izd-vo AN SSSR, 1960. 205 p. 2,500 copies printed. (Series: Doklady sovetskikh geologov, problema 10)

Editorial Board: P. L. Bezrukov, Resp. Ed.; A. V. Zhivago, V. P. Zenkovich and G. B. Udintsev; Ed. of Publishing House: V. S. Sheynman; Tech. Ed.: V. Karpov.

PURPOSE: This book is intended for geologists and oceanographers.

COVERAGE: The book contains 18 articles representing the reports given by Soviet geologists at the 21st. International Geological Congress. Individual articles deal with the bottom topography, sedimentation, and tectonics of oceans (Western Pacific and Southern Indian), as well as the geomorphology and tectonics of the Black and Caspian Seas and Soviet sectors of the Baltic. An English résumé accompanies each article. No personalities

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BEZRUKOV, P.L.; LISITSYN, A.P.

Classification of bottom sediments in recent seas. Trudy Inst.okean. 32:3-14 '60. (MIRA 13:6)

(Deep-sea deposits)

BEZRUKOV, P.L.

Bottom sediments of the Sea of Okhotsk. Trudy Inst.okean. 32:15-95 '60. (MIRA 13:6)

(Okhotsk, Sea of--Deep-sea deposits)

BEZRUKOV, P.L.; PETELIN, V.P.

Manual for the collection and preliminary processing of marine sediment samples. Trudy Inst. okean. 44:81-111 '60.
(MIRA 14:2)

(Deep-sea deposits)

STEPANOV, V.N., doktor geogr.nauk, otv.red.; BEZRUKOV, P.L., doktor geol.-mineral.nauk, red.; LONGINOV, V.V., kand.geograf.nauk, red.; RADZIKHOVSKAYA, M.A., kand.geograf.nauk, red.; PANFILOVA, S.G., kand.geograf.nauk, red.; KOZLYANINOV, M.I., kand.geograf.nauk, red.; PELEVIN, V.I., red.; TUGARINOV, D.N., red.izd-va; NOVICHKOVA, D.N., tekhn.red.

[Basic geological and hydrological features of the Sea of Japan] Osnovnye cherty geologii i gidrologii IAponskogo moria. Moskva, 1961. 223 p. (MIRA 14:3)

1. Akademiya nauk SSSR. Institut okeanologii.
(Japan, Sea of--Submarine geology)
(Japan, Sea of--Hydrology)

ANDRUSOV, Nikolay Ivanovich, akademik [deceased]; SHATSKIY, N.S., akademik, glav. red. [deceased]; SHCHERBAKOV, D.I., akademik, glav. red.; MERKLIN, R.L., otv. red.; BEZRUKOV, P.L., red.; DAVITASHVILI, L.Sh., red.; DOLGOPOLOV, N.N., red.; ZENKEVICH, L.A., red.; MENNER, V.V., red.; NEVESSKAYA, L.A., red.; EBERZIN, A.G., red.; YANSHIN, A.L., akademik, red.; POLENOVA, T.P., tekhn. red.

[Selected works] Izbrannye trudy. Moskva, Izd-vo Akad. nauk SSSR. Vol.1. 1961. 710 p. (MIRA 14:8)
(Paleontology)

BEZSRUKOV, P.L.

Papers submitted for the 10th Pacfic Science Congress, Honolulu, Hawaii 21 Aug-6 Sep 1961.

AGAPOVA, G. V., BUDANOVA, L. Y., ZATONSKIY, L. K., ZENKEVICH, N. L., IVANOV, A. G., LARINA, N. I., MARKOV, Yu. A., and UDINTSEV, G. B.. All from the Institute of Oceanology, Academy of Sciences USSR - "The bottom relief of the Pacific Ocean and its cartographic representation" (Section VI.A)

ANDRIYASHEV, A. P., Institute of Zoology, Academy of Sciences USSR - "Myctophid fishes of the Antarctic and the problem of their bipolar distribution in the Pacific Ocean" (Section III.C)

ANDRUSHCHENKO, P. F., and SKORNYAKOVA, N. S., Institute of Oceanology - "The manganese concretions of the Pacific Ocean" (Section VII.C.1)

APH----YEV, G. D. (Name blurred, but may be AFANAS'YEV, G. D.), Institute of Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry - (Title of paper is blurred; following is approximate title) - "Makhoyevisnich's discontinuty [sic] layer and petrographic data" (Section VII.C)

BALAKINA, L. M., Institute of Earth Physics imeni O. Yu. Schmidt - "The character of stresses and ruptures in the earthquake foci of the Pacific seismic zone" (Section VII.C.2)

BARSUKOV, V. V., Institute of Zoology, "On the Pacific origin of the Anarhichadidae family" (Section III.C)

BATALIN, A. M., Yakutsk State University - "On the heat processes in the waters of the Far East (Section VII.B)

BEKLEMISHEV, K. V., Institute of Oceanology - "On the transformation of the plankton of the Pacific drift and in the adjacent waters" (Section III.C)

BELOUSOV, V. V., and RUDICH, Ye. N., Institute of Earth Physics imeni O. Yu. Schmidt - "Genesis and age of the abyssal depression of the sea of Japan" (Section VII.C.2)

BELYAYEV, G. M., Institute of Oceanology - "Accumulations of squid beaks and shark teeth at the ocean floor" (Section III.C)

BEZRUKOV, P. L., Institute of Oceanology - "Recent sedimentation and the geological history of the Okhotsk sea" (Section VII.C.1)

BEZRUKOV, P. L., LISITSYN, A. P., PETELIN, V. P., and SKORNYAKOVA, N. S., Institute of Oceanology - "Recent sediments of the Pacific" (Section VII.C.1)

BIRSHTEYN, Ya. A., and VINOGRADOV, M. Ye., Institute of Oceanology - "Some specific features in the geographical distribution of abyssal pelagic animals (Amphipoda)" (Section III.C)

BOGDANOV, S. T., Institute of Oceanology - "New charts of cotidal lines and the character of tidal phenomena in the Pacific Ocean" (Section VII.B) ✓

BOGOROV, V. G., BEKLEMISHEV, K. V., and VINOGRADOV, M. Ye., Institute of Oceanology - "The distribution of the zooplankton biomass in the Pacific Ocean" (Section III.C)

BORDOVSKIY, O. K., Institute of Geology Exploitation of Combustible Materials - "The diagenetic changes in bottom sediments from the central part of the Pacific"(Section VII.C.1)

BRODSKAYA, N. G., Institute of Geology - "Sedimentation and the regularities in the distribution of mineral resources in the geosynclinal basins of the Tertiary period in the area of Kamchatka and the Sakhalin Island" (Section VII.C)

BRUYEVICH, S. V., and ZAYTSEVA, Ye. D., Institute of Oceanology - "Some chemical features of sediments and ground solutions permeating the latter in the Pacific (materials of the northwestern part)" (Section VII.C.1)

BURKOV, V. A., Institute of Oceanology - "A study of equatorial currents in the western Pacific" (Section VII.B)

BURLUTSKAYA, V. M., and SAMOYLENKO, V. S., Institute of Oceanology - "The formation of air masses in the northern part of the Pacific Ocean" (Section VII.A)

BURMISTROVA, V. D., Institute of Oceanology - "The regions of formation and transition courses of anti-cyclons in the northern part of the Pacific Ocean (Section VII.A)

STRAKHOV, N.M., akademik, red.; BEZRUKOV, P.L., red.; YABLOKOV, V.S., red.; NOSOV, G.I., red. izd-va; BRUZGULS, V.V., tekhn. red.; TIKHOMIROVA, S.G., tekhn. red.

[Recent sediments of seas and oceans; transactions of a conference held on May 24-27, 1960] Sovremennye osadki morei i okeanov; trudy soveshchaniia 24-27 maia 1960. Moskva, Izd-vo Akad.nauk SSSR, 1961. 644 p. (MIRA 15:1)

1. Akademiya nauk SSSR. Komissiya po osadochnym porodam. 2. Geologicheskiy institut AN SSSR (for Strakhov). 3. Institut okeanologii AN SSSR (for Bezrukov).
(Submarine geology)

BEZRUKOV, P.L.

Exploration of the Indian Ocean during the 33rd cruise of the research ship "Vitiaz." Okeanologiia 1 no.4:745-753 '61. (MIRA 14:11)

(Indian Ocean--Oceanographic research)

BOGOROV, V.G.; BEZRUKOV, P.L., prof.

"Vitiaz'" in the Indian Ocean. Priroda 50 no.10:88-100 O '61.
(MIRA 14:9)

1. Institut okeanologii AN SSSR (Moskva). 2. Chlen-korrespondent AN SSSR (for Bogorov).
(Indian Ocean--Oceanographic research)

S/020/61/139/001/018/018
B103/B229

AUTHORS: Bezrukov, P. L., Zatonskiy, L. K., and Sergeyev, I. V.

TITLE: Afanasiy Nikitin - Mountain in the Indian Ocean

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 139, no. 1, 1961, 199 - 202

TEXT: The 31st expedition on board the vessel "Vityaz" discovered an undersea mountain range, extending in a depth of 4500 - 4700 m for about 150 miles south of Ceylon, in the north-western part of the Indian-Australian ocean basin, in December, 1959. Above, there is a high seamount. The 33rd expedition of the "Vityaz" carried out an echo sounding of the seamount on January 9, 1961. It was suggested to name the mountain after the first Russian who traveled to India, Afanasiy Nikitin. In the course of echo sounding the area of the seamount was traversed in different directions, and two new minimum depth of 1668 and 1549 m, respectively were found (Fig. 1). The position of the ship during echo sounding was determined by the usual navigation methods: by astronomical observations and calculations. The astronomical determination was carried out at station no. 4909, 3 miles south-west of the summit of the mountain. This determination served as end

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point of the calculation based on the observation from station no. 4908, and as initial point of the calculation of station no. 4910. The coordination of measurements and the transcription of the recordings on a scale of 1 : 125,000 were carried out by L. P. Nasyr'. The echo sounding was carried out in the deep-sea range echo sounder MC-26H (MS-26N). The frequency of the measurement amounted to 10 pulses/min. The depths were transcribed on the map immediately from the echo-sounder record. The coordination of the measurements was satisfactory. The data of echo sounding served as a basis for a bathymetric chart (Fig. 1). Data obtained during the 31st voyage were also used. As can be seen from Figs. 2 and 3, the mountain, according to the morphology of its slopes, constitutes a volcanic cone. Apart from the Afanasiy Nikitin mountain there are many other summits in this mountain range with minimum depths of: 2500, 2892, 3050, and 3230 m. At the southern slope of the range there is a deep gully which, at a depth of 4880 m has a flat bottom 7 - 8 miles wide. South of it there is an elevation of an average depth of 4300 m. The width of the mountain range is not yet known. As a result of the bathymetric chart and the analysis of the depth distribution outside the map limits, the authors consider the mountain range to extend from west-north-west to east-south-east for at least 300 miles. Future

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investigations are to show whether this assumption is correct. A sampling of the soil at the slope of the Afanasiy Nikitin Mountain, at a depth of 2380 m, showed a fine-grained globigerina ooze. A series of pictures showed a changing, spotlike distribution of ooze and hard rocks. The composition of the rocks could not be determined. As a result of the analogy with other undersea volcanoes of the central part of the ocean they are thought to be basalt rocks. There are 3 figures.

ASSOCIATION: Institut okeanologii Akademii nauk SSSR (Institute of Oceanology of the Academy of Sciences USSR)

PRESENTED: March 30, 1961 by A. L. Yanshin, Academician

SUBMITTED: March 26, 1961

BEZRUKOV, P.L.

Irregular distribution of oceanic deep-sea sediments. Okeanologiia 2 no.1:9-25 '62. (MIRA 15:2)

1. Institut okeanologii AN SSSR.
(Deep-sea deposits)

BEZRUKOV, P.L.

Some problems concerning the zonality of sediment formation in the world ocean. Trudy Okean.kom. 10 no.3:3-8 '62. (MIRA 15:3)
(Ocean) (Sedimentation and deposition)

[redacted]KOV, P.L.; PETELIN, V.P.

Bottom sediments of deep-sea trenches in the western part of the Pacific Ocean. Trudy Okean kom. 10 no.3:66-69 '62.
(MIRA 15:3)

(Pacific Ocean—Deep-sea deposits)

BEZRUKOV, P.L.; LISITSYN, A.P.; PETELIN, V.P.; SKORNYAKOVA, N.S.; ROMANKEVICH, E.A.

Map of the Pacific Ocean Sediments

Report submitted for the 13th General Assembly, IUGG, (Oceanography) Berkeley, California, 19-31 Aug 63

YABLOKOV, V.S., otv. red.; BEZRUKOV, P.L., red.; SHVETSOV, M.S., red.; SHEVCHENKO, G.N., tekhn. red.

[Deltaic and shallow-water marine sediments] Del'tovye i melkovodno-morskie otlozheniia. Moskva, Izd-vo AN SSSR, 1963. 262 p. (MIRA 16:12)

1. Akademiya nauk SSSR. Komissiya po osadochnym porodam pri otdelenii geologo-geograficheskikh nauk.
(Sediments (Geology))

BEZRUKOV, P.L.

Study of the Indian Ocean on the 35th trip of the research ship "Vitiaz'." Okeanologiia 3 no.3:540-549 '63. (MIRA 16:8)

(Indian Ocean--Oceanographic research)

BEZRUKOV, P.L., doktor geol.-mineral.nauk

Research conducted by the ship "Vitiaz'" on the program of the International Indian Ocean Expedition. Vest. AN SSSR 33 no.8: 96-104 Ag '63. (MIRA 16:8)

(Indian Ocean--Oceanography)

BEZRUKOV, P.L.

Distribution of ferromanganese nodules on the Indian Ocean bottom. Okeanologiia 2 no.6:1014-1019 '62. (MIRA 17:2)

1. Institut okeanologii AN SSSR.

BEZRUKOV, P.L.; KANAYEV, V.F.

Basic characteristics of the bottom structure of the northeastern part of the Indian Ocean. Dokl. AN SSSR 153 no.4:926-929 D '63. (MIRA 17:1)

1. Institut okeanologii AN SSSR. Predstavleno akademikom A.L. Yanshinym.

[redacted], I.I., otv. red.

[Geology of the bottom of oceans and seas] Geologiia dna okeanov i morei. Moskva, Izd-vo Nauka, 1964. 139 p. (Its: Doklady sovetskikh geologov, problema 16) (MIRA 17:8)

1. International Geological Congress. 22d, 1964. Sovetskaya delegatsiya.

BEZRUKOV, P.L.

Sediments in the northern and central parts of the Indian Ocean. Trudy Inst. okean. 64:182-201 '64. (MIRA 17:7)

L 33164-66 EWT(1) GW

ACC NR: AP6014282 (N) SOURCE CODE: UR/0213/66/006/002/0261/0266

AUTHOR: Bezrukov, P. L.; Krylov, A. Ya.; Chernysheva, V. I.

ORG: Institute of Oceanology, AN SSSR (Institut okeanologii AN SSSR); Radium Institute (Radiyevyy institut)

TITLE: Petrography and the absolute age of the basalts on Indian Ocean floor

SOURCE: Okeanologiya, v. 6, no. 2, 1966, 261-266

TOPIC TAGS: ocean property, oceanographic expedition, oceanographic ship, basalt, ~~ocean floor, geologic age~~, petrography

ABSTRACT: Volcanic rock from the bottom of the Indian Ocean was sampled during the 1959—1962 cruise of the research vessel "Vityaz'". Petrographic study of the samples has shown that in the most cases the rocks were olivine and nonolivine basalts and basalt glass (hyalobasalts). Chemical analysis indicated that the part of the samples is low-potassium tholeitic basalt, and the other part is alkaline basalt. The K-argon method was used to determine the absolute age of four rock samples from two stations in the southern part of the Ocean. Their age appeared to be about 60 million yr, corresponding to Lower Paleogene (Eocene). Orig. art. has: 1 figure and 2 tables. [NT]
[Based on authors' abstract.]

SUB CODE: 08/ SUBM DATE: 12Jan66/ ORIG REF: 007/ OTH REF: 006/

Card 1/1 UDC: 552.2/333.5(267)

L 32201-66 EWT(1) GW

ACC NR: AP6008057 SOURCE CODE: UR/0020/66/166/004/0961/0964

AUTHOR: Chernysheva, V. I.; Bezrukov, P. L.

ORG: Institute of Oceanology, AN SSSR (Institut okeanologii AN SSSR) 38 B

TITLE: Serpentinites from the ridges of the Arabian-Indian Ridge

SOURCE: AN SSSR. Doklady, v. 166, no. 4, 1966, 961-964

TOPIC TAGS: underwater photography, oceanographic expedition, petrology, geochemistry, oceanographic ship/Vityaz oceanographic ship

ABSTRACT: Further substantiation has been found for the belief that the 12 underwater mountain ranges in the various oceans of the world quite universally consist of ultrabasic rocks. On the 33rd voyage of the Soviet research ship "Vityaz" in 1960—1961, 27 bedrock samples were dredged from the sea bottom close to the central Arabian—Indian Ridge (Carlsberg Ridge) (5° 24'8" N and 62°08'5" E). These specimens varied in size from 2 to 6 cm, were thinly coated with iron and magnesium oxides, and had angular facets. This latter fact, in conjunction with underwater photographs, has been accepted as evidence that they represent fragments of bedrock which had fallen from the steep slopes of the underwater ridge to form talus deposits on the ocean bottom (at a depth of 1920 m). Chemical and petrographic analyses of these specimens made by the Institute of the

Card 1/3 UDC: 552.311

Geology of Ore Deposits, Petrography, Mineralogy, and Geochemistry of the Academy of Sciences USSR showed that four of the samples were dark-gray basalts and twenty-three were green-gray serpentinites.

Thin-section examination revealed that the basalts consisted of plagioclase phenocrysts, monoclinic pyroxene, individual grains of olivine, and an ore mineral in an intersertal mass. The olivine had been almost completely replaced by green-gray chlorite-type minerals. One specimen yielded the following chemical analysis:

SiO_2	49,10	FeO	6,05	N_2O	2,63
TiO_2	1,51	MnO	0,25	K_2O	0,20
Al_2O_3	16,80	MgO	7,19	H_2O^+	0,60
Fe_2O_3	2,85	CaO	11,35	H_2O^-	0,54

99,97%

The content of K_2O, N_2O, and TiO_2 was relatively low and generally resembled that of specimens described by Wiseman, which were also collected in the Indian Ocean, and by Engel, obtained from the Mid-Atlantic Ridge area.

L 32201-66

ACC NR: AP6008057

The serpentinites consisted mostly of several different types of serpentine with small grains of talc, individual grains of chrome spinels, and very small particles of magnetite, replaced in places by iron hydroxide. These rocks were classified as chrysotile-antigorite apoharzburgites. Chemical analyses yielded the following results:

SiO_2	40,52	FeO	1,43	Na_2O	0,38
TiO_2	0,20	MnO	0,48	K_2O	0,12
Al_2O_3	3,64	MgO	33,68	H_2O^-	1,49
Fe_2O_3	8,83	CaO	0,45	H_2O^+	11,41

100,13%

Serpentinites similar to these and the peridotites from the rift zones of the Mid-Atlantic Ridge, have been dated as being older than the basalts of these regions, and Hess suggested that they represent rises on the mantle's surface. This paper was presented by D.S. Korzhinskiy, Academician, 13 October 1965. Orig. art. has: 2 figures. [FSB: v. 2, no. 5]

SUB CODE: 08 / SUBM DATE: 08Oct65 / ORIG REF: 008 / OTH REF: 005

Card 3/3

ANDRUSOV, Nikolay Ivanovich, akademik (1861-1924); SHCHERBAKOV, D.I., akademik, glav. red.; YANSHIN, A.L., akademik, glav. red.; ZENKEVICH, L.A., otv. red.; BEZRUKOV, P.L., otv. red.

[Selected works] Izbrannye trudy. Moskva, Nauka. Vol.4 1965. 402 p. (MIRA 18:12)

1. Bezrukov, P.P.

2. USSR (600)

4. ARMENIA - PHOSPHATES

7. Paleozoic phosphorities of Armenia and the Nakhichevan' A.S.S.R. (Abstract.) Izv. Glav. upr. geol. fon. no. 2, 1947.

9. Monthly List of Russian Accessions. Library of Congress, March 1953 Unclassified

BABUSHKIN, N.F.; MIN'KOVA, V.S.; BEZRUKOV, V.A.; STRELTSOV, V.V.

Removal of sulfur compounds from fuel gases in a fluidized bed of cinder at high temperatures. Izv. vys. ucheb. zav.; khim. i khim. tekh. 7 no.3:445-449 '64.
(MIRA 17:10)

1. Ivanovskiy khimiko-tekhnologicheskiy institut, kafedra khimicheskogo mashinostroyeniya.

BEZRUKOV, V.I., starshiy prepodavatel'

Determining the hollow champfer of a helical gear-wheel tooth shaped with a rack. Izv.vys.ucheb.zav.; mashinostr. no.7:169-176 '61. (MIRA 14:9)

1. Chelyabinskiy politekhnicheskiy institut.
(Gearing, Spiral)

BEZRUKOV, V.I., aspirant

Involute gear transmission composed of bevel gear wheels having arbitrary axis positions. Izv.vys.ucheb.zav.; mashinostr. no.6: 40-50 '63. (MIRA 16:10)

1. Chelybinskiy politekhnicheskiy institut.

BEZRUKOV, V.I. (Chelyabinsk)

Some problems of the geometry of bevel gears composed of involute straight bevel gear wheels. Mashinovedenie no.4:55-63 '65.
(MIRA 18:8)

L 17091-63 EWP(q)/EWT(m)/BDS AFFTC/ESD-3 RM/JD

ACCESSION NR: AP3004694 S/0189/63/000/004/0065/0066

64
57

AUTHORS: Bezrukov, V. I.; Lapitskiy, A. V.; Vlasov, L. G.

TITLE: Reaction of potassium metaniobate with the salts of some metals

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 4, 1963, 65-66

TOPIC TAGS: potassium metaniobate, sodium hydroxide, solubility, complex formation, salts of metals

ABSTRACT: The reaction between potassium metaniobate and the salts of heavy metals, as well as the solubility of the resulting product in excess of $KNbO_3$, were studied by the nephelometric, potentiometric, and conductivity techniques. In view of the high pH of KNO_3 solutions, parallel tests were conducted with KOH. The concentration of $KNbO_3$ solutions were 0.1-0.001 normal, that of the heavy metal salts 0.05-0.0005 normal. In all tests the $KNbO_3$ solutions were added to those of the heavy metals. Salts of dibasic Cu and Pb formed compounds which were soluble in excess $KNbO_3$ and KOH. The color of the $KNbO_3$ cupric compound differed from that of the original cupric salt, and the solution remained clear after a 32-time dilution. Ferric and ceric salts, as well as those of Mg and Cd, formed flocculent compounds insoluble in excess $KNbO_3$ or KOH. The salts

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L 17091-63
ACCESSION NR: AP3004694

of Zn, Al, and trivalent Cr produced compounds insoluble in excess $KNbO_3$ but soluble in excess KOH. The Zn and Al precipitates were white, and the one with Cr was green. The latter dissolved in excess $KNbO_3$, but further addition of it resulted in reprecipitation. Ferrous, cereous, and manganous salts, as well as of Co and Ni, formed compounds that were soluble only in excess $KNbO_3$. The solutions were all colored. The formation of complexes is suggested. Orig. art. has: 1 table.

ASSOCIATION: Moskovskiy universitet, Kafedra radiokhimii (Moscow University, Department of Radiochemistry)

SUBMITTED: 15Feb62 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: CH NO REF SOV: 002 OTHER: 002

Card 2/2

LAPITSKIY, A.V.; BEZRUKOV, V.I.; VLASOV, L.G.

Interaction of potassium tantalate with salts of certain metals. Vest. Mosk. un. Ser. 2: Khim. 18 no.5:32-33 S-O '63. (MIRA 16:11)

1. Kafedra radiokhimii Moskovskogo universiteta.

LAPITSKIY, A.V.; BEZRUKOV, V.I.; VLASOV, L.G.

Soluble niobates of some transition metals. Izv.vys.ucheb.zav.; khim. i khim.tekh. 7 no.2:175-179 '64.

(MIRA 18:4)

1. Kafedra radiokhimii Moskovskogo gosudarstvennogo universiteta.

ACCESSION NR: AP4012971 S/0020/64/154/004/0868/0870

AUTHORS: Lapitskiy, A.V.; Vlasov, L.G.; Bezrukov, V.I.

TITLE: Production of heteroniobates of certain transition metals

SOURCE: AN SSSR. Doklady*, v. 154, no. 4, 1964, 868-870

TOPIC TAGS: heteroniobate, potassium cerous niobate, potassium cuprous niobate, potassium ferrous niobate, potassium nickelous niobate, potassium cobaltous niobate, nephelometry, optical spectra, electrophoresis, molecular electroconductivity, anion mobility, anion diameter

ABSTRACT: The reactions of aqueous solutions of potassium metaniobate with transition metals salts (Cu(II), Pb (II), Cr (III) salts which are soluble in excess potassium niobate and KOH; Mn (II), Fe (II), Co, Ni and Ce (III) salts which are soluble in excess potassium metaniobate but insoluble in KOH) and the chemical and physical properties of the products were studied. Nephelometric observations indicated that precipitates were formed with equivalent amounts

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ACCESSION NR: AP4012971

of reactants: at 1:2 metal:niobium ratio for divalent and 1:3 ratio for trivalent metals. These precipitates dissolve with excess precipitant to form clear colored solutions (except for Pb, which is colorless). The formation of heteroniobates was further confirmed from their optical spectra and from electrophoresis studies in which the metal ions migrated to the anode indicating they became part of the negatively charged particle. The following compounds were obtained:

$K_4[Fe(NbO_3)_4(OH)_2] \cdot 11H_2O$
$K_4[Co(NbO_3)_4(OH)_2] \cdot 10H_2O$
$K_4[Ni(NbO_3)(OH)_5]$
$K_4[Co(NbO_3)_2(OH)_2] \cdot 5H_2O$
$K_4[Cu(NbO_3)_4(OH)_2] \cdot 10H_2O$
$K_3[Ce(NbO_3)_2(OH)_4] \cdot 5H_2O$

The maximum molecular electric conductivity of solutions of the last three compounds, and the mobility and the effective anion diameters were determined. Orig. art. has: 2 tables.

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