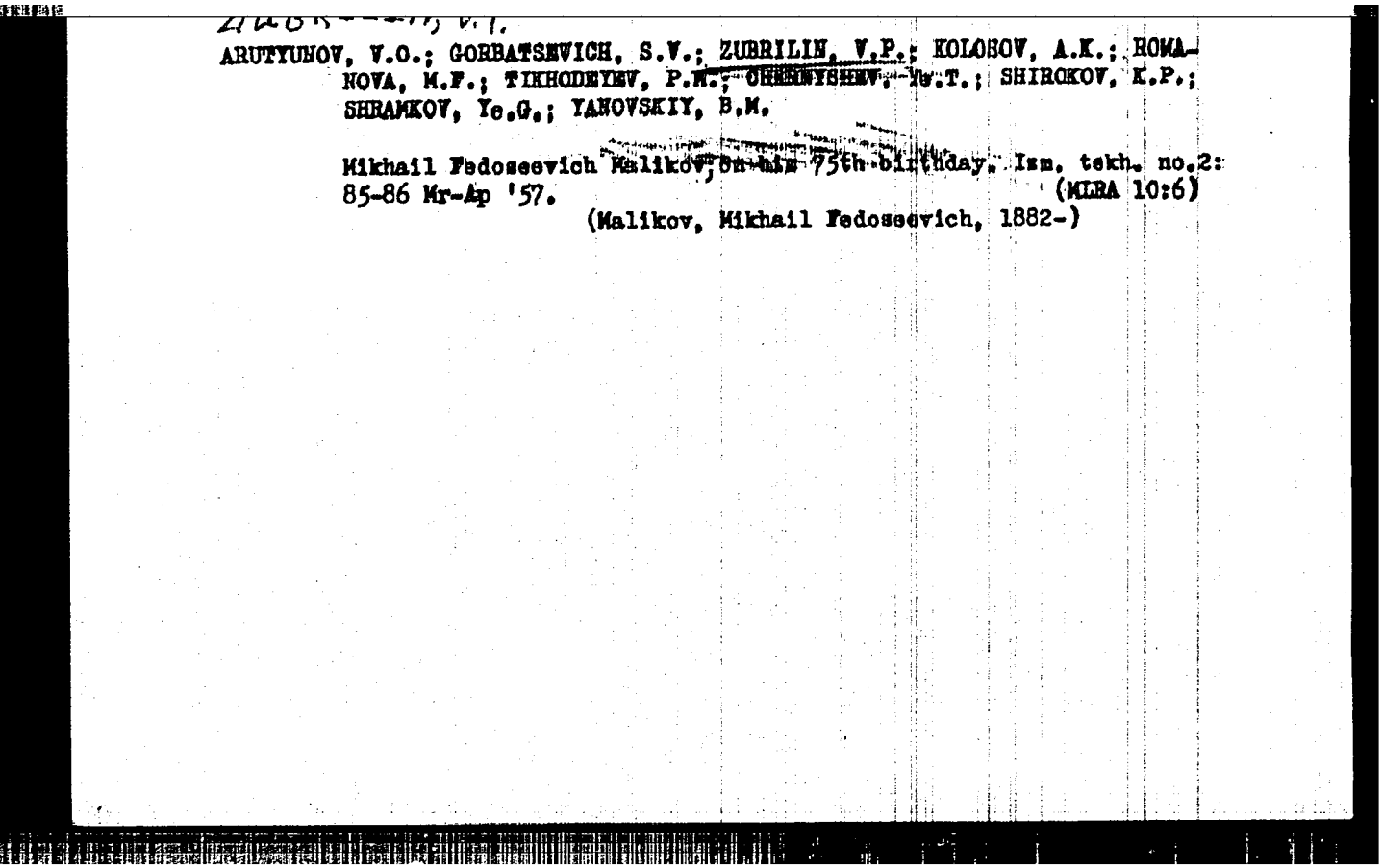
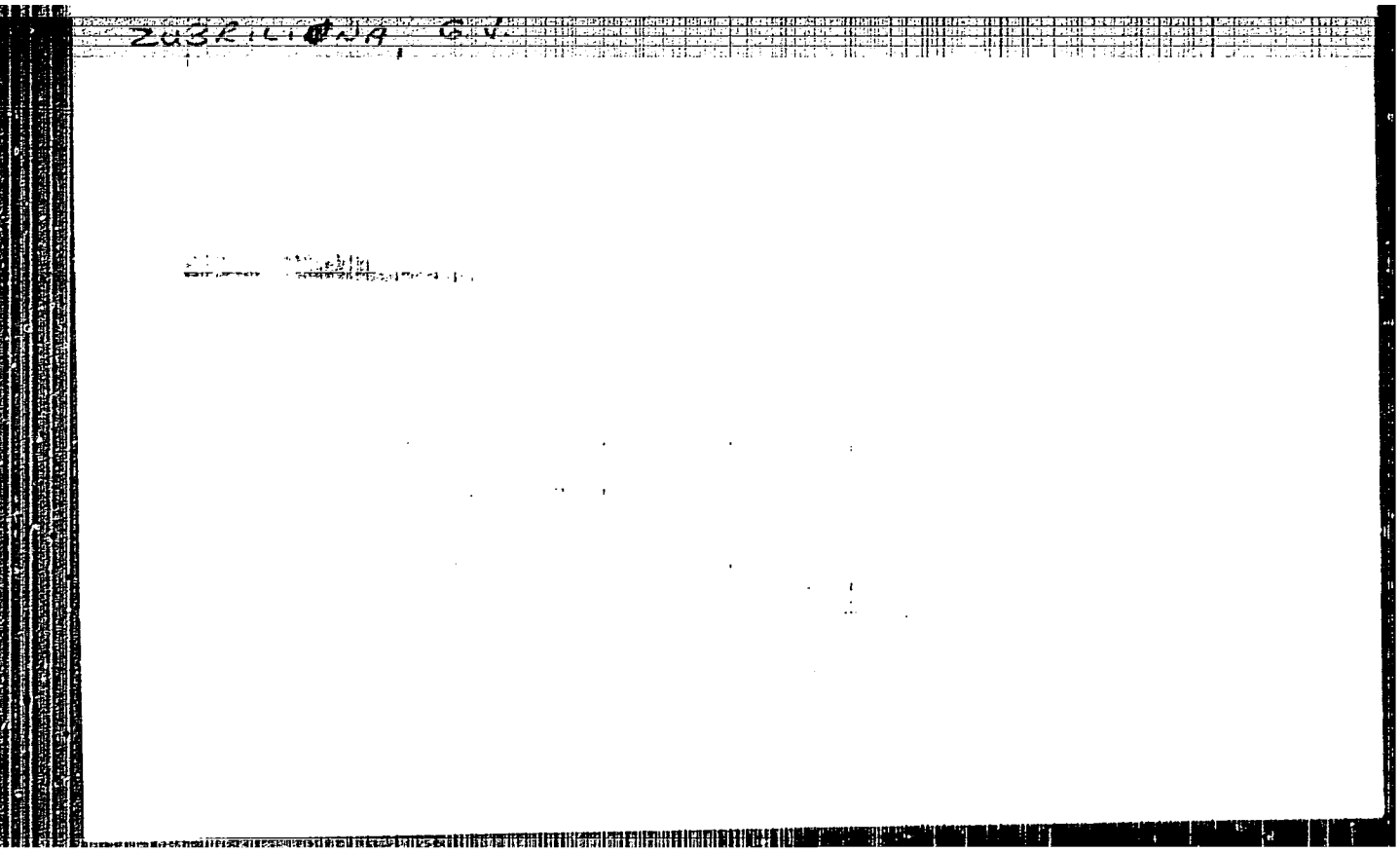


ARUTYUNOV, V.O.; GORBATSEVICH, S.V.; ZUBRILIN, V.P.; KOLOSOV, A.K.; NOVA-NOVA, M.F.; TIKHODEYEV, P.M.; [illegible], Ye.T.; SHIROKOV, K.P.; SHRAMKOV, Ye.G.; YANOVSKIY, B.M.

Mikhail Fedoseevich Malikov, on his 75th birthday. Izm. tekh. no.2: 85-86 Mr-Ap '57. (MLRA 10:6)

(Malikov, Mikhail Fedoseevich, 1882-)



NEVSKAYA, T.S.; ZUBRILINA, G.V. (Moskva)

Uropepsin content in urine of healthy and sick children receiving high-quality food. Vop.pit. 24 no.4:55-58 Jl-Ag '65. (MIRA 18:12)

1. Otdel detskogo pitaniya (zav. - dotsent F.V.Simakov) Instituta pitaniya AMN SSSR, Moskva. Submitted November 11, 1964.

ZUBRILINA, G.V.

SEPANENKO, B.N.; KHAYUROVA, L.P.; ZUBRILINA, G.V.

Study of the biological role of the chemical structure of glycogen and features of glycogen metabolism in alloxan diabetes. Biokhimiia, 20 no.4:479-484 Jl-Ag '55 (MLRA 8:12)

1. Laboratoriya fiziologicheskoy khimii Akademii nauk SSSR, Moskva.

(EPINEPHRINE, effects,
on glycogen metab. in alloxan diabetes)
(GLYCOGEN, metabolism,
eff. on epinephrine, in alloxan diabetes)
(DIABETES MELLITUS, experimental,
eff. on epinephrine on glycogen metab. in)

ZUBRILINA, G. V.

USSR/Chemistry - Biochemistry

Card 1/1 Pub. 22 - 32/54

Authors : Stepanenko, B. N.; Zubrilina, G. V.; and Khayurova, L. P.

Title : Glycogen metabolism in normal state and during alloxan diabetes investigated by means of radioactive carbon

Periodical : Dok. AN SSSR 100/3, 521-524, Jan 21, 1955

Abstract : Glycogen metabolism was investigated in healthy adult rats and in rodents inflicted with alloxan diabetes. The experiments were conducted by means of radioactive C^{14} and the results obtained are described. One USSR reference (1953). Tables.

Institution : Academy of Sciences USSR, Laboratory of Physiological Chemistry

Presented by: Academician A. I. Oparin, September 2, 1954

BRONNER, V.V.; KOCHEGINA, V.V.; ZUBRILINA, G.V.

Protein, and vitamin C and B_2 requirements of children in boarding schools. Pediatriia no.6:21-25 '61. (MIRA 14:9)

1. Iz otdela detskogo pitaniya (zav. Yu.K. Poltava) Instituta pitaniya AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. O.P. Molchanova).
(PROTEINS) (ASCORBIC ACID) (RIBOFLAVIN)

ZUBRILINA, K.S.

Origin of red alaskite granites in the Aktash intrusive. Nauch. trudy TashGU no.249. Geol. nauki no.21:82-99 '64. (MIRA 18:5)

CHIBISOV, A.K.; KARYAKIN, A.V.; ZUBRILINA, M.Ye.

Photoreduction of pigments under impulse illumination. Dokl. AN SSSR 161 no.2:483-486 Mr '65. (MIRA 18:4)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR. Submitted June 11, 1964.

L 11444-66 EWT(m)/EPF(c)/EWP(j)/T/ETC(m) DS/WW/RM

ACCESSION NR: AP5023693 UR/0078/65/039/009/2291/2293

541.14 + 547.979.4

AUTHOR: Chibisov, A. K.; Karyakin, A. V.; Zubrilina, M. Ye.

TITLE: Photooxidation of chlorophyll under pulsed illumination

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 9, 1965, 2291-2293

TOPIC TAGS: photolysis, chlorophyll, pulsed illumination

ABSTRACT: Reactions of reversible photooxidation of chlorophylls *a*, *a* + *b*, and *b* in ethanol solution (concentration 2×10^{-5} mol/l) were studied at 20°C by means of pulsed photolysis. Some measurements were made at -40°C. Tetrachlorobenzoquinone (5×10^{-5}-1×10^{-3} mol/l) was used as the oxidant. The solutions were exposed to pulsed photoexcitation in the "red" absorption band of the pigments. The complex character of the oscillograms obtained is due to the different stabilities of the intermediate states of components *a* and *b* of the pigment during the photooxidation. The fact that spectral changes during the pulsed photoexcitation of the pigment - tetrachlorobenzoquinone system take place in an oxygen-containing solution shows that a photochemical reaction occurs between the singlet-excited pigment

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L 11144-66

ACCESSION NR: AP5023693

molecules and the tetrachlorobenzoquinone (electron acceptor) molecules. It is postulated that the spectral changes observed in the chlorophylls consist in the difference in the light transmission of unexcited pigment molecules and probably of the cation radical of the pigment. Orig. art. has: 2 figures, 1 formula.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii, Akademiya nauk SSSR (Institute of Geochemistry and Analytical Chemistry, Academy of Sciences SSSR)

SUBMITTED: 24Jun64 ENCL: 00 SUB CODE: LS,OP

NO REF SOV: 008 OTHER: 004

Card 2/2

SERYAKOVA, I.V.; ZOLOTOV, Yu.A.; KARYAKIN, A.V.; GRIBOV, L.A.; ZUBRILINA, M.Ye.

Possibility of the solvation of a tetrachloroferrate ion in the extraction of iron from chloride solutions. Zhur. neorg. khim. 7 no.8:2013-2018 Ag '62. (MIRA 16:6)

1. Institut geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo AN SSSR.
(Ferrates) (Solvation) (Chlorides)

RYABCHIKOV, D.I.; GERLIT, Yu.B.; KARYAKIN, A.V.; ZARINSKIY, V.A.; ZUBRILINA, M.Ye.

Extraction of perrhenates by ketones. Dokl.AN SSSR 144 no.3:585-587 My '62. (MIRA 15:5)

1. Institut geokhimii i analiticheskoy khimii im. M.I. Vernadskogo AN SSSR. Predstavleno akademikom A.P.Vinogradovym.
(Perrhenates) (Ketones)

ZOLOTOV, Yu.A.; SERYAKOVA, I.V.; KARYAKIN, A.V.; GRIBOV, L.A.; ZUBRILINA, M.Ye.

Hydrate-solvate mechanism of extraction. Dokl.AN SSSR 145 no.1:100-103 Jl '62. (MIRA 15:7)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo AN SSSR. Predstavleno akademikom A.P.Vinogradovym.
(Extraction (Chemistry))

ZUBRILINA, M. YE.

S/020/62/144/003/024/030
B124/B101

AUTHORS: Ryabchikov, D. I., Gerlit, Yu. B., Karyakin, A. V., Zarinskiy, V. A., and Zubrilina, M. Ye.

TITLE: Extraction recovery of perrhenates with ketones

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 144, no. 3, 1962, 585-587

TEXT: Data on the influence exerted by the properties of the ketone on the distribution coefficient α in the extraction of perrhenates are presented, and the mechanism of extraction recovery of perrhenates is studied by means of some thermodynamic parameters and the infrared spectra. The relation between the ratio 28 : MW (28 being the molecular weight of the CO group and MW the molecular weight of the ketone) of the extraction solvent and the distribution coefficient was found to be linear for the methyl ketone series, while, with ketones of the same molecular weight and structures different from those of the methyl ketones, deviations from linearity were established. A constant value of ΔH of 9.2 ± 0.3 kcal was established for the methyl ketones. The value for other types of ketones is somewhat lower. Generally, lower values of the "thermodynamic" distribution coefficient α'

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Extraction recovery of ...

and ΔH as well as a shift of the stretching vibration frequency of the C-O group were found in the presence of sodium perrhenate. Since obviously no fundamental difference is to be expected in one series of solvents concerning the mechanism of extraction recovery of sodium perrhenate, the respective deviations are probably due to the difference in the composition of the solvates formed. The infrared spectrum of water in several solvated associates of the perrhenate ion with hydrogen, sodium, potassium, calcium, and aluminum ions remained practically unchanged. When the solvating cations are replaced by a hydrophilic group such as $(C_6H_5)_4As^+$ or $(C_6H_5NH)_3C^+$, some changes of the intensity distribution in the spectrum of water are observed, with the main portion of water remaining more firmly bound than in the ketone-water system. Thus, it can be concluded that the perrhenate ion is hydrated, which agrees with data in literature. The shift of the absorption band frequency of the OH group is somewhat greater in the presence of salts than in the presence of water. It can be stated that there is a direct bond between the ketone and the rhenium ion in the solvate. There are 3 figures and 1 table. The most important English-language reference is: R. D. Waldron, J. Chem. Phys., 26, 809 (1960).

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S/020/62/144/003/024/030
B124/B101

Extraction recovery of ...

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences USSR)

PRESENTED: November 13, 1961, by A. P. Vinogradov, Academician

SUBMITTED: November 4, 1961

Card 3/3

[illegible], A. K.; [illegible], A.; [illegible], M. Z.

Photooxidation of chlorophyll in pulsed illumination. Zhur. fiz. khim. 39 no.9:2291-2293 S '65. (MIRA 18:10)

1. Institut geokhimii i analiticheskoy khimii AN SSSR.

ACC NR: AP6031062 SOURCE CODE: UR/0007/66/000/009/1106/1109

AUTHOR: Vinogradov, A. P.; Vdovykin, G. P.; Karyakin, A. V.; Zukrilina, M. Ye.

ORG: Institute of Geochemistry and Analytical Chemistry im. V. I. Vernadskiy, AN SSSR, Moscow (Institut geokhimii i analiticheskoy khimii AN SSSR)

TITLE: Investigation of the organic compounds and diamonds of the Novyy Urey meteorite by infrared absorption spectroscopy

SOURCE: Geokhimiya, no. 9, 1966, 1106-1109

TOPIC TAGS: meteoritics, diamond, ~~infrared~~ IR absorption spectroscopy, organic compound, meteorite, IR spectroscopy, absorption band

ABSTRACT: The organic compounds and diamonds of the Novyy Urey meteorite, which ... fell in the Gor'kiy oblast' in 1886, are investigated by means of infrared absorption spectroscopy. The Novyy Urey meteorite, like the Goalpara meteorite with which it is compared, is an ureilite. Specimens were examined with the UR-10 quartz spectrograph. The organic compounds were extracted with chloroform, while the diamonds were extracted by fusing the meteorite powder with Na_2O_2. The presence of the CH_3 and CH_2 groups was positively confirmed, while the presence of C-N-H groups was thought possible. The organic matter was represented by paraffin hydrocarbons. In the infrared spectrum of the diamond fraction, absorption bands appeared at 500 cm^{-1} and especially at 900—1300 cm^{-1}. These absorption bands are characteristic of type-I

Card 1/2 UDC: 550.4+552.6

ACC NR: AP6031062

diamonds containing and admixture of nitrogen in their crystal lattice. The presence of nitrogen in the diamonds of the Novyy Urey meteorite is thought to suggest a genetic raltionship between ureilite diamonds and the carbonaceous matter in chondrites. The nitrogen, most probably, was captured by the diamonds during crystallization resulting from a collosion with asteroids. Orig. art. has: 3 figures. [DM]

SUB CODE: 03/ SUBM DATE: 21Apr66/ OTH REF: 002

Card 2/2

BEREZOVSKIY, A.A., kand. sel'skokhozyaystvennykh nauk; ZUBRILINA, Z.A., mladshiy nauchnyy sotrudnik; FEDOROV, V.I., mladshiy nauchnyy sotrudnik

Sugar beets in rations for swine. Zhivotnovodstvo 23 no.3: 25-27 Mr '61. (MIRA 17:1)

1. Vsesoyuznyy institut zhivotnovodstva.

COUNTRY : USSR
CATEGORY : Farm Animals.
General Problems.
ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11957

AUTHOR : Berezovskiy, A. A.; Zubrilina, Z. I.
INST. : All-Union Scientific Research Institute of
TITLE : The Problem of Siloing and Chemical Preservation of Green Feeds.

ORIG. PUB. : -

ABSTRACT : By siloing corn and adding 20 percent of leguminous grasses to it its actual acidity was reduced by 0.2-0.3 pH, there was no negative effect on the ratio of organic acids contained in silage, the nutritive value of siloed mass was increased as a result of its increased protein, calcium, and carotene contents. When the All-Union Scientific Research Institute of Agricultural Microbiology and the All-Union

CARD: 1/2

*Animal Husbandry.

7

COUNTRY : USSR
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No.

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : the All-Union Institute of Horse Breeding, showed that all preservatives possess the same preserving action; they decrease the loss of dry substance, reduce the decomposition of protein, and do not prevent the development of microbiological processes in silage at a pH of 3.5-4.0. When preserved green mass was fed to cattle (4-5 months), the reserve alkalinity of blood as well as the physiologo-clinical indicators and the animals' productivity were not

CARD: 3/4

COUNTRY : USSR
CATEGORY : Farm Animals.
General Problems.
ABS. JOUR. : RZhBiol., No. 6, 1959, No. 25773

AUTHOR : Rayetskaya, Yu. I.; Zubrilina, Z. I.
INST. : All-Union Scientific Research Institute of*
TITLE : The Content of Vitamin B_{12} in Silage.

ORIG. PUB. : Byul. nauchno-tekhn. inform. Vses. n.-i. in-t zhivotnovodstva, 1958, No 1 (5), 21-24
ABSTRACT : No abstract.

Card: 1/1

*Animal Husbandry.

ZUBRILIN, A. A., ZUBRILINA, Z. I., GOL'DBERG, S. G.

Feeding and Feeding Stuffs

New method of preparing protein vitamin paste. Sov. zootekh. 7 no. 7, 1952. Vsesoyuznyy Nauchno-Issledovatel'skiy Institut Kormleniya Sel'skokhozyaystvennykh Zhivotnykh

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

ZUBRILIN, ALEKSEI ARSENEVICH

"Kak triabva da se silazhirat furazhite. (Prevela ot ruski: Vela Karadincheva) Sofiya, Zemizdat, 1951. 73. (How to prepare ensilage. Tr. from the Russian)

SO: East European, L. C. Vol. 2, No. 12, Dec. 1953

ZUBRILINA, Z.A.

SURNAME (in caps); Given Names

Country: Rumania

Academic Degrees:

Affiliation:

Source: Bucharest, Probleme Zootehnice si Veterinare, Vol.XI, No 10, Oct 1961, pp 69-71.

Data: "Sugar Beets in the Fodder Rations for Pigs."

BEREZOVSCHI, A.A., Candidate in Agricultural Sciences (Candidat in Stiinte Agricole).

ZUBRILINA, Z.A., -Scientific Collaborator-, Union Institute for Zootechnical Research (Institutul Unional de Cercetari Zootehnice).

ZUBRILIN, A. A., ZUBRILINA, Z. I., GOL'DBERG, S. G.

Feeding and Feeding Stuffs

New method of preparing protein vitamin paste. Sov. zootekh. 7 no. 7, 1952. Prof. Laureat Stalinskoy Premii Vsesoyuznyy Nauchno-Issledovatel'skiy Institut Kormleniya Sel'skokhozyaystvennykh Zhivotnykh

SO: Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

BANNIKOV, N.A.; ZUBRILINA, Z.P.

[The economics and organization of corn production; the practice of collective farms, machine-tractor stations and state farms] Ekonomika i organizatsiia proizvodstva kukuruzy; opyt kolkhozov, MTS i sovkhozov. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 361 p. (MLRA 9:12)
(Corn (Maize))

Cold dredging. Sverdlovsk, Metallurgizdat, 1944. 115 p. (49-34446)

TN422.Z8

ZUBRILOV, L.Ye. kandidat tekhnicheskikh nauk

Minimum extraction capacity in mining thin steep seams. Gor. zhur. 122 no.2:5-7 F '48. (MLRA 8:9)
(Mining engineering)

Cand., Technical Sci., Mbr., Mining Geological Trust, Ural Affie., Acad. Sci., -1947-.

"Conservation of Industrial Power in the Polynochnyy Mine," Gor. Zhur., 121, No. 5, 1947; "Width of the Separation Area for a System of Split Extraction of Thin Veins," ibid., No. 9, 1948.

Zubrilov, L. Ye, "On the interdependence of speed and number of cycles in cutting horizontal mine faces", under: A. [sic] Ye. Zubrilov, in the collection entitled: Voprosy gornogo dela, Moscow, 1946, p. 457-65.

SO: U-2888, 12 Feb. 53, (Letopis' Zhurnal 'nykh Statey, No. 2, 1949).

ZUBRILOV, L. Ye.: DUBYNIN, N. G.: ~~DUBYNIN, N. G.~~ : MESHCHERYAKOV, A. I.

Mining Engineering

Application of the analytical method in mining (continued). Gor. zhur. no. 2, 1952.

MICHKOV, V. A., SIDOROV, I. N., ZUBRILOV, L. YE., KAPUSTIN, M. G., DOVBA, A. S.

Shevy, Lev Dmitriyevich, 1889-

Concerning the review by Prof. D. A. Strel'nikov, Docents B. S. Lokshin, Ya. Ye. Nekrasovskiy and Eng. V. A. Florov on Acad. L. D. Shevyakov's book "Fundamental theory of planning coal mines." Ugletkhizdat, 1950(Ugol' No. 3, 1952) Ugol' 27 No. 7, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952 1953, Uncl.

ZUBRILOV, L.Ye.

Use of main ore chutes. Trudy Gor.-geol.inst. no.27:88-95 '55.
(MLRA 9:9)

(Mining engineering)

ZUBRILOV, L.Ye.

Methods of determining open-cut depth limits. Trudy Gor.-geol. inst. UFAN SSSR no.31:211-224 '58. (MIRA 12:9)
(Strip mining)

ZUBRILOV, L.Ye.

Methods of determining level intervals and their economic significance in ore mining. Trudy Gor.-geol. inst. UFAN SSSR no.31:143-158 '58. (MIRA 12:9)
(Mining engineering--Costs)

ZUBRILOV, L.Ye.

Determining the range limit of burden removal in mining low-grade complex ore deposits. Trudy Gor.-geol.inst.UFAN SSSR no.41:149-152 '59. (MIRA 13:5)
(Strip mining) (Nonferrous metals)

ZUBRILOV, L. Ye.

Relation between the cost of one ton of ore mined and the gross output in strip mining. Trudy Gor.-geol.inst.UFAN SSSR no.41: 161-164 '59. (MIRA 13:5)

(Strip mining--Costs)

ZUBRILOV, L. Ye. Doc Tech Sci -- (diss) "Basic problems of the ~~development work~~ universal of ore deposits in subterranean mining." Mos, 1959. 34 pp (Acad Sci USSR. Inst of Mining), 150 copies (KL, 43-59, 123)

ZUBRILOV, L.Ye.; SHURYGIN, A.I.

Selective and total mining of copper and sulfur ores in the Degtyarsk deposit. Trudy Gor.-geol.inst.UFAN SSSR no.54:85-89 '60. (MIRA 14:6)

(Degtyarsk--Copper mines and mining)

ZUBRILOV, L.Ye.; ILIVITSKIY, A.A.; UTKIN, L.A.; SHUL'MIN, B.M.

Main directions in improving the technology of underground mining of thick ore deposits in the Urals. Trudy Gor.-geol.inst.UFAN SSSR no.54:5-12 '60. (MIRA 14:6)
(Ural Mountains—Mines and mineral resources)

ZUBRILOV, L.Ye.; SHUL'MIN, B.M.

Analysis of the amount of laborious operations involved in the induced sublevel caving system at the Vysokaya Gora Mine. Trudy Gor.-geol.inst.UFAN SSSR no.54:91-101 '60. (MIRA 14:6)
(Vysokaya, Gora (Sverdlovsk Province)--Mining engineering)

ZUBRILOV, L.Ye.

Contouring lean complex ore deposits. Trudy Gor.-geol.inst.UFAN SSSR no.54:13-18 '60. (MIRA 14:6)
(Mining geology)

ZUBRILOV, L. Ye.

PHASE I BOOK EXPLOITATION SOV/5298

Akademiya nauk SSSR. Ural'skiy filial. Gorno-geologicheskiy institut.

Podzemnaya razrabotka rudnykh mestorozhdeniy (Underground Exploitation of Ore Deposits) Sverdlovsk [1960] 165 p. (Series: Its: Trudy, vyp. 54) 1,000 copies printed.

Editorial Board: K. V. Kochnev, Professor, Doctor of Technical Sciences; L. Ye. Zubrilov, Candidate of Technical Sciences; A. A. Ilivitskiy, Candidate of Technical Sciences. Ed. of Publishing House: M. S. Ebergardt; Tech. Ed.: N. F. Seredkina.

PURPOSE: This publication is intended for engineering and technical personnel in the mining industry.

COVERAGE: This is a collection of 22 articles by different authors on problems of underground exploitation of large massive ore deposits in the Urals. The articles are based on studies carried out in the Laboratory for the Exploitation of Ore Deposits of the Gorno-geologicheskiy institut UFAN SSSR (Institute of Mining

Card 1/6

Geology, Ural Branch AS USSR), between 1958-1959. No personalities are mentioned. Most of the articles are accompanied by references.

TABLE OF CONTENTS:

ZUBRILOV, L.Ye., kand.tekhn.nauk; SHILIN, A.N.; ZELINSKIY, V.V., gornyy inzhener

"Annual output of mining and ore-dressing combines of the iron ore industry" by L.A.Mizernitskii. Reviewed by L.E.Zubrilov, A.N. Shilin, V.V.Zelinskii. Gor.zhur. no.5:13-17 My '61. (MIRA 14:6)

1. Gorno-geologicheskiy institut Ural'skogo filiala Akademii nauk, Sverdlovsk (for Zubrilov). 2. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti, Sverdlovsk (for Shilin). 3. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov USSR (for Zelinskiy).

(Iron mines and mining) (Ore dressing)

ALEKSEYEVSKIY, I.G., gornyy inzh.; ZUBRILOV, L.Ye., kand.tekhn.nauk

Reduce capital expenditures by 5 to 10 million rubles in the construction of each mine. Gor. zhur. no.10:15-18 O '61. (MIRA 15:2)

1. Ural'skiy filial AN SSSR.
(Mining industry and finance)

NIKOLAYEV, S.I.; IL'IN, A.M.; ZUBRILOV, L.Ye.; SHUL'MIN, B.M., mladshiy nauchnyy sotrudnik

Possibilities for increasing labor productivity in the "Magnetitovaya" Mine. Gor. zhur. no.11:10-13 N '61. (MIRA 15:2)

1. Direktor Vysokogorskogo rudoupravleniya (for Nikolayev).
2. Glavnyy inzh. Vysokogorskogo rudoupravleniya (for Il'in).
3. Zaveduyushchiy laboratoriyey razrabotki rudnykh mestorozhdeniy Gorno-geologicheskogo instituta Ural'skogo filiala AN SSSR (for Zubrilov).

(Sverdlovsk Province--Iron mines and mining)

ZUBRILOV, L.Ya.

Economic limits of changes in the depth of ore pits. Trudy Gor.-geol. inst. UFAN SSSR no.57:51-57 '61. (MIRA 15:3)
(Strip mining)

ZUBRILOV, L.Ye.; PARFENOV, G.V.; BOSHNYAKOV, Ye.N.; GORONOVICH, N.V.

Discussion of A.B.Patkovskii's article "Basic trends in improving technical methods and equipment for ore dressing and planning ore-dressing plants." Gor.zhur. no.1:25-27 Ja '63. (MIRA 16:1)

1. Institut gornogo dela Ural'skogo filiala AN SSSR (for Zubrilov, Parfenov). 2. Krivorozhskiy filial Instituta gornogo dela AN UkrSSR (for Boshnyakov). 3. Nachal'nik planovogo otdela Goroblagodatskogo rudoupravleniya (for Goronovich).

(Ore dressing)

ZUBRILOV, L.Ye., kand. tekhn.nauk; FYAZOK, R.A., kand tekhn. nauk; SHUL'MIN, B.M., kand tekhn. nauk

Determining the economically advantageous limit of drawing from caved blocks at the "Magnetitovaia" Mine of the Vysokogorskiy Mining Administration. Izv.vys.ucheb.zav.;gor.zhur. 7 no.6:19-22 '64. (MIRA 17:12)

1. Institut gornogo dela Gosmetallurgkomiteta SSSR. Rekomendovana kafedroy razrabotki rudnykh mestorozhdeniy.

ALEKSEYEVSKIY, I.G., kand.tekhn.nauk; ZUBRILOV, L.Ya., kand.tekhn.nauk

Ways of reducing the extent of major mining operations in opening and developing thick iron ore deposits. Izv.vys.ucheb.zav.;gor.zhur. 7 no.7:28-31 '64. (MIRA 17:10)

1. Institut gornogo dela Gosmetallurgkomiteta pri Gosplane SSSR.

VASIL'YEV, M.V.; V'YUKHINA, A.S.; DORONENKO, Ye.P.; ZEDZIYKV, K.V., kand. tekhn. nauk; LATS, V.M.; PARFENOV, G.V.; POPOV, V.Ye.; TROITSKIY, D.P.; FADDEYEV, B.V.; TSVETAYEVA, Z.N.; ZUBRILOV, L.Ye., kand. tekhn. nauk, otv. red.; MAKAROVA, N.U., red.; PAL'MIN, M.Z., tekhn. red.

[Evaluation and the prospects of the development of the mineral resources for ferrous metallurgy in Chelyabinsk area] Otsenka i perspektivy razvitiia syr'evoi bazy chernoi metallurgii Cheliabinskogo raiona. Sverdlovsk, AN SSSR, 1964. 67 p. (MIRA 17:4)

KORNIYEVSKIY, D.N.; RAFAL', Ya.G.; VASIL'YEV, M.V., prof., doktor tekhn. nauk; ZUBRILOV, L.Ye., kand. tekhn. nauk

Problems of education in mining engineering. Ugol' 40 no.11:6-9 '65. (MIRA 18:11)

1. Kombinat Donbassantratsitshakhtostroy (for Korniyevskiy, Rafal'). 2. Institut gornogo dela, g. Sverdlovsk (for Vasil'yev, Zubrilov).

ZUBRILOV, M.

Droughts and their prevention. Rostov na Donu, 3-ia gostip. Donpoligrafbuma, 1925. 21 p.

ZUBRILOV, S.P., inzh.; GEFTMROV, M.A., inzh.

Manufacturing wall panels for large-panel construction in construction yards. Biul. tekh. inform. 4 no.1:4-6 Ja '58. (MIRA 11:2)
(Leningrad--Concrete blocks) (Concrete construction--Formwork)

L 09387-67 EWT(m)

ACC NR: AR6032312 SOURCE CODE: UR/0081/66/000/010/M027/M027

AUTHOR: Zubrilov, S. P.; Krupenina, N. V.

26
B

TITLE: Study of the effect of ultrasonic treatment of cement mortar on the strength of concrete

SOURCE: Ref. zh. Khimiya, Part II, Abs. 10M225

REF SOURCE: Tr. Leningr. in-ta vodn. transp., vyp. 83, 1965, 117-123

TOPIC TAGS: cement, concrete, ultrasonics, concrete strength, mortar, cement strength, ultrasonic vibration

ABSTRACT: Concrete made with cement, subjected to ultrasonic treatment at a frequency of 20 kc, increases in strength by 71% in two days, by 93% in three days, and by 53% in seven days compared to the strength of control samples. After ultrasonic treatment, ordinary cement acquires the property of quick hardening. The greatest increase in strength is observed after a three-min ultrasonic treatment and a water cement ration of 0.5. The increase in strength is proportional to the increase in intensity of the ultrasonic vibrations within the 4.8 to 8.9 kw range. A decrease in W/C ratio below 0.5 sharply reduces the cavitation zone and a treatment of cement below that ratio is undesirable due to the strong absorption of ultrasound. The direction of the ultrasonic

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L 08387-67
ACC NR: AR6032312 O

vibrations does not substantially influence the cavitation effect, nor does the presence of ethyl ether, calcium chloride, or potassium carbonate substantially increase the size of the cavitation zone. The addition of a 5% solution of $CaCl_2$ in combination with ultrasonic treatment increases the strength of cement by 20%. [Translation of abstract]

SUB CODE: 07/

Card 2/2 LS

BAKAKIN, V.P.; BUBOK, K.G.; BUGAREV, L.A.; BUNIN, A.I.; VOROB'YEV, K.V.
DROZDOV, V.V.; DOROKHOV, M.S.; ZUBRILOV, S.V.; IGNAT'YEV, L.A.
KARGOPOLOV, I.G.; KLUSHIN, D.N.; KOMAROV, A.M.; KURILOV, M.S.;
LOMAKO, P.F.; MIKULENKO, A.S.; MIKHAYLOV, N.M.; NIKITINOV, B.A.;
OL'KHOV, N.P.; OSIPOVA, T.V.; PAKHOMOV, Ya.D.; PLAKSIN, I.N.;
PODCHAYNOV, S.F.; PUSTYL'NIK, I.I.; ROZHKOV, I.S.; SAVARI, Ye.A.;
SEMYNIN, A.P.; SPIVAKOV, Ya.N.; STRIGIN, I.A.; SUSHCHINTSOV, S.N.;
SYCHEV, P.S.; TROITSKIY, A.V.; USHAKOV, K.I.; KHARLAMOV, A.Ye.;
SHEMYAKIN, N.I.

Nikolai Konstantinovich Chaplygin. TSvet. met. 28 no.2:57-58
Mr-Ap '55. (MIRA 10:10)
(Chaplygin, Nikolai Konstantinovich, 1911-1955)

ZUBRILOV, V.P.

Group of communist labor. Med.sestra 21 no.8:59-60 Ag '62.
(MIRA 15:9)
(SURGICAL NURSING)

ZUBRILOV, V.P., podpolkovnik

They work in the communist manner. Voen.-med.zhur. no.10:19-20 O '61. (MIRA 15:5)

(HOSPITALS, MILITARY)

KOVANOV, Vladimir Vasil'yevich;prof.;BOMASH,Yuliy Maksimovich,dots.; BOGUSLOVSKAYA,T.B.,kand.med.nauk; GEYMAN,D.V.,kand.med.nauk; ZUBRILOVA,A.V.,kand.med.nauk; LEONOV,S.V.,kand.med.nauk; NIKOLAYEV,F.D.,dots.[deceased]; VAVILOV,G.S.,kand.med.nauk,nauchn.red.

[Practical manual on topographical anatomy] Prakticheskoe rukovodstvo po topograficheskoi anatomii; dlia studentov i vrachei. Moskva, Izd-vo "Meditsina," 1964. 388 p. (MIRA 17:3)

1. Prepodavateli kafedry operativnoy khirurgii i topograficheskoy anatomii Pervogo Moskovskogo meditsinskogo instituta imeni I.M.Sechenova (for Boguslavskaya, Geyman, Zubrilova, Leonov). 2. Deystvitel'nyy chlen AMN SSSR (for Kovanov).

ANIKINA, T.I., dots.; BOGUSLAVSKAYA, T.B., ass.; BOMASH, Yu.M., dots.; GEYMAN, D.V., ass.; GRENADEROV, Yu.V., ass.; DOBROVA, N.B., ass.; KLEPIKOV, V.A., ass.; ZUBRILOVA, A.V., ass.; KULIK, V.P., mlad. nauchn. sotr.; NIKOLAYEV, F.D., dots. [deceased]; SYCHENIKOV, I.A., dots.; TRAVIN, A.A., ispoln. obyazannosti prof.; RYBALKIN, P.Ye., ass.; KOVANOV, V.V., prof., red.; PROKOF'YEV, V.P., red.; ZAGOREL'SKIY, Ya.I., tekhn. red.

[Special methodology for practical work in topographic anatomy and operative surgery] Chastnaia metodika prakticheskikh zaniatii po topograficheskoi anatomii i operativnoi khirurgii. Izd.2., perer. i dop. Pod red. V.V.Kovanova. Moskva, 1963. 224 p. (MIRA 16:12)

1. Moscow. Pervyy meditsinskiy institut. 2. Kollektiv prepodavateley kafedry operativnoy khirurgii i topograficheskoy anatomii 1-go Moskovskogo instituta imeni I.M.Sechenova (for all except Prokof'yev, Zagorel'skiy). 3. Zaveduyushchiy kafedroy operativnoy khirurgii i topograficheskoy anatomii 1-go Moskovskogo instituta imeni I.M.Sechenova, chlena-korrespondent AMN SSSR (for Kovanov).

(ANATOMY, SURGICAL AND TOPOGRAPHICAL)
(SURGERY, OPERATIVE)

SOV/137-58-9-19033

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 127 (USSR)

AUTHORS: Vinograd, M.I., Zubrilova, V.A.

TITLE: Prevention of Coarse-Granular Fracture in Silchrome Steels (Preduprezhdeniye poyavleniya krupnozernistogo izloma v sil'khromovykh stalyakh)

PERIODICAL: V sb.: Metallovedeniye i termich. obrabotka. Moscow, Metallurgizdat, 1958, pp 31-38

ABSTRACT: A study is made of the effect of degree of reduction, temperature of recrystallization, and the temperature interval during forging upon grain growth in Kh9S2 and Kh10S2M steels. The experiments were run with ground rods. Rods 10 mm in diameter of Kh9S2 steel were sized with reductions of 4 to 22.9% and subsequent recrystallizing anneal at 700, 750, 800, and 850°C. Anneal at 850° was chosen, since at that temperature the degree of pre-deformation is most clearly revealed. It is established that in order to prevent formation of coarse and non-uniform grain in these steels, a high temperature has to be maintained at the end of rolling ($\geq$ 900°) and small reductions should be applied in drawing, namely, up to 9% for Kh9S2

Card 1/2

Prevention of Coarse Granular Fracture in Silchrome Steels

steel and ≤12% for Kh10S2M steel. Reductions exceeding 20% result in fine granular structure but produce a considerable amount of rejects due to cracks. Performance of a special sizing operation with changed tolerances made it possible to draw grades Kh9S2 and Kh10S2M steels at less critical reductions.

F.U.

1. Steel--Fracture 2. Grains (Metallurgy)--Control 3. Heat treatment--Applications
4. Rolling mills--Performance

Card 2/2

LASHKAREV, V.Ye. [Lashkar'ov, V.IE]; BONDARENKO, R.N. [Bondarenko, R.M.]; DOBROVOL'SKIY, V.N. [Dobrovol's'kyi, V.M.]; ZUBRIN, G.P. [Zubrin, H.P.]; LITOVCHENKO, V.G. [Lytovchenko, V.H.]; STRIKHA, V.I.

Properties of germanium containing beryllium admixtures. Ukr. fiz. zhur. 4 no.3:372-375 My-Je '59. (MIRA 13:2)

1.Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko.
(Germanium) (Beryllium)

Zubris, E.

7731 Opredelitel' Bolezney I Vrediteley Sel'skokhozyaystvennykh Rasteniy, Vil' nyus, Gospolitnauchizdat, 1954. 112 S. S Ill. 22 Sm. 3,000 Ekz. I R. 70k.-Bibliogr: S. 96 Na Litov Yaz.- (55-3245)

632.2/7(012)+(016.3)

SO. Knizhnaya Letopis', Vol. 7,1955

VASIL'YEV, P.I., dotsent, kandidat tekhnicheskikh nauk; ZUBRITSKAYA, M.A., inzhener.

Thermal stress from exothermic processes in the cement of slab-type blocks. Izv. VNIIG 56:60-70 '56. (MLRA 10:8)
(Concrete blocks)

SIGAL, L.A.: Prinimali uchastiye: ZUBRITSKAYA, T.P.; KNYSHEVA, G.I.; SOKOL'SKAYA, I.N.; TISLENKO, O.A.; GREKOVA, V.I.; KRYUCHKOVA, L.A.

Analyzing the method of isolating permeable horizons in a cross section of wells drilled in the central and southern parts of the West Siberian Plain and determining the nature of their saturation. Trudy SNIIGGIMS no.18:5-45 '61. (MIRA 16:7)

(West Siberian Plain--Oil well logging)

BLAZHEVSKIY, Ye.V., dvazhdy Geroy Sotsialisticheskogo Truda; VOVCHENKO, I.V., kand. sel'khoz. nauk, zasl. agronom Ukr.SSR; VOROB'YEV, N.Ye., st. nauchn. sotr.; GESHELE, E.E., doktor biol. nauk, prof.; ZUBRITSKIY, A.A., agronom; KISEL'GOF, Z.S., inzh., zasl. mekhanizator sel'skogo khoz. Ukr.SSR; KLYUCHKO, P.F., kand. sel'khoz. nauk; KORCHAGIN, A.Ye.; LEBEDEV, Ye.M., st. nauchn. sotr.; NASYPAYKO, V.M., kand. sel'khoz.nauk; PIKUS, G.P., kand. sel'khoz.nauk; REKACH, V.N., doktor sel'khoz. nauk, prof.; SPIVAK, I.I., zootekhnik; TEMCHENKO, L.V., kand. sel'khoz. nauk; FEDULAYEV, A.A., agronom; YAKOVENKO, V.A., kand. tekhn.nauk; KITAYEV, I.A., kand. sel'khoz. nauk, red.; MUSIYKO, A.S., akademik, red.; VINNITSKIY, S.P., red.; MOLCHANOVA, T.N., tekhn. red.

[For high corn yields] Za bol'shuiu kukuruzu. [By] E.V. Blazhevskii i dr. Odessa, Odesskoe knizhnoe izd-vo, 1962. 173 p. (MIRA 16:7)

1. Zven'yevoy kolkhoza im. Gor'kogo Kotovskogo rayona na Odesshchine (for Blazhevskiy). 2. Glavnyy agronom sovkhoza "Bessarabskiy" (for Korchagin). 3. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Musiyko).

(Ukraine--Corn (Maize))

ZUBRITSKIY, A.K.; DANIL'CHIK, N.V.

Manufacture of partly upholstered glued bent chairs. Der.prom. 9 no.10:19-21 O '60. (MIRA 13:10)

(Chairs)

ZUBRITSKIY, A.P., aspirant

Myopia and its prevention in schoolchildren. Zdrav.Bel. no.3: 50-52 '62. (MIRA 15:5)

1. Klinika glaznykh bolezney Minskogo meditsinskogo instituta (zaveduyushchiy kafedroy - professor T.V. Virich).
(MYOPIA) (SCHOOL HYGIENE)

ZUBRITSKIY, A.V.

Changing production procedures for pipes with a diameter of 26-32 × 1 mm. Sbor.rats.predl.vnedr.v proizv. no.5:31 '60. (MIRA 14:8)

1. Pervoural'skiy Novotrubnyy zavod.
(Pipe mills)

ZHDANOVSKIY, N.S., doktor tekhn. nauk, prof.; FAYNLEYB, B.N., kand. tekhn. nauk; ZUBRITSKIY, B.N., inzh.

Effect of the intensity of the process of combustion on the wearing rate of piston rings. Trakt. i sel'khozmash. no.9:3-5 S '64. (MIRA 17:11)

1. TSentral'nyy nauchno-issledovatel'skiy i konstruktorskiy institut toplivnoy apparatury avtotraktornykh i statsionarnykh dvigateley i Leningradskiy sel'skokhozyaystvennyy institut.

1. ZUBRITSKIY, P. S. Eng.

2. USSR (600)

4. Electric Circuit Breakers

7. Operating experience of new quick acting circuit breakers on traction substations. Elektrichestvo No. 2, 1953.

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

USSR/Electricity - Circuit Breakers Feb 53
Traction

"Operating Experience with New Fast-Acting Circuit-Breakers at Traction Substations," Engr B. S. Zubritskiy, Sverdlovsk

Elek-vo, No 2, pp 68-70

Cites results of more than a year's exptl operation of new type VAB-20 fast-acting circuit-breakers designed by A. I. Golubev at traction substations. States that comparison with equipments BAOD, BDA, and VAB-2 revealed superiority of VAB-20.

248T26

Recommends its use at municipal traction substations and rectifier installations, and application of its design principles to protection of powerful rolling-mill motors. Submitted 26 Sep 52.

FX 248T26

248T26

ZUBRITSKIY, B. S. (Eng.)

Street Railroads

Operating experience of new quick acting circuit breakers on traction substations. Elektrichestvo no. 2, 1953.

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

ZUBRITSKIY, B. S., Eng.

Street Railroads

Operating experience of new quick acting circuit breakers on traction substations. Elektrichestvo. No. 2, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. UNCLASSIFIED.

ZUBRITSKIY, Boris Semenovich; SHAPOSHNIKOV, V.G., red.; OTOCHEVA, M.A., red. izd-va; KHENOKH, E.M., tekhn. red.

[From practices of the operation of traction substations in Sverdlovsk] Iz opyta ekspluatatsii tiagovykh podstantsii g. Sverdlovska. Moskva, Izd-vo M-va kommun. khoz. RSFSR, 1961. 42 p. (MIRA 15:4)

(Sverdlovsk--Electric substations)
(Sverdlovsk--Local transit)

L 37638-66 EWT(d)/FSS-2 RB SOURCE CODE: UR/0105/65/000/

ACC NR: AP6014149

AUTHOR: Zubritskiy, E. V.; Khomyak, Ye. M.; Tsydypov, Ch. Ts.

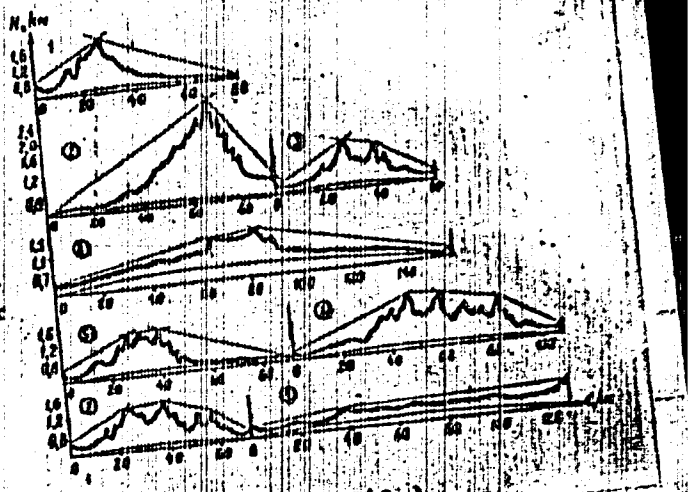
ORG: none

TITLE: Stability of VHF signal level in medium-long mountain-terrain routes [Recommended for publication by the 2nd All-Union Conference on the propagation of VHF in Mountain Terrains, 4-9 July 64, Ulan-Ude]

SOURCE: Elektrosvyaz', no. 12, 1965, 19-26

TOPIC TAGS: VHF communication, VHF wave propagation

ABSTRACT: VHF transmission characteristics were measured on eight 82-157-km long mountain routes (see figure). Two sets of equipment were used: (1) A 10-w AM 100-mc transmitter with G = 7 db and a receiver with a sensitivity of 0.6 μv; G = 7 db; (2) An 80-kv pulsed 209-mc transmitter with G = 8.7 db and a receiver with a



UDC: 621.371.562.1

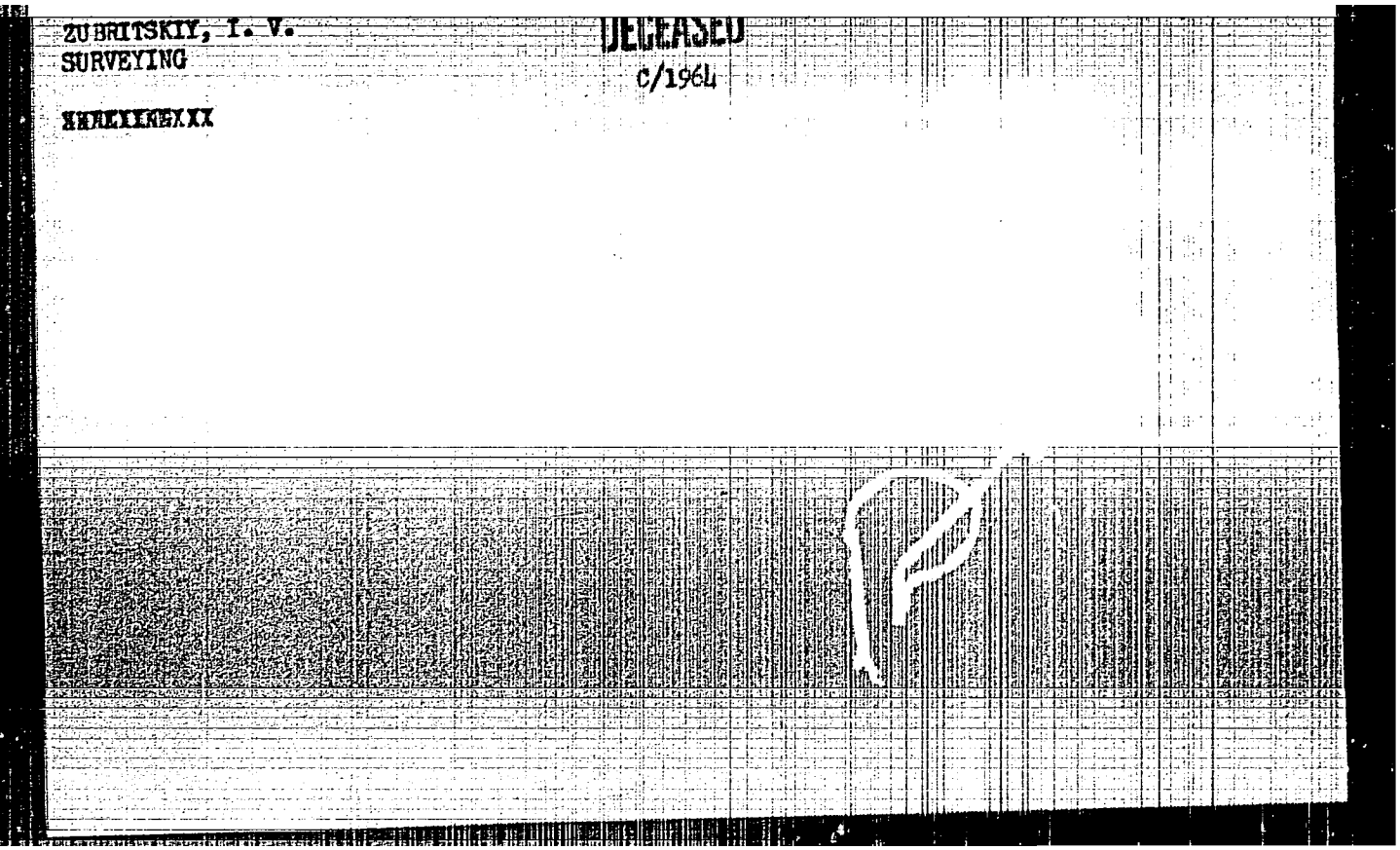
Card 1/2

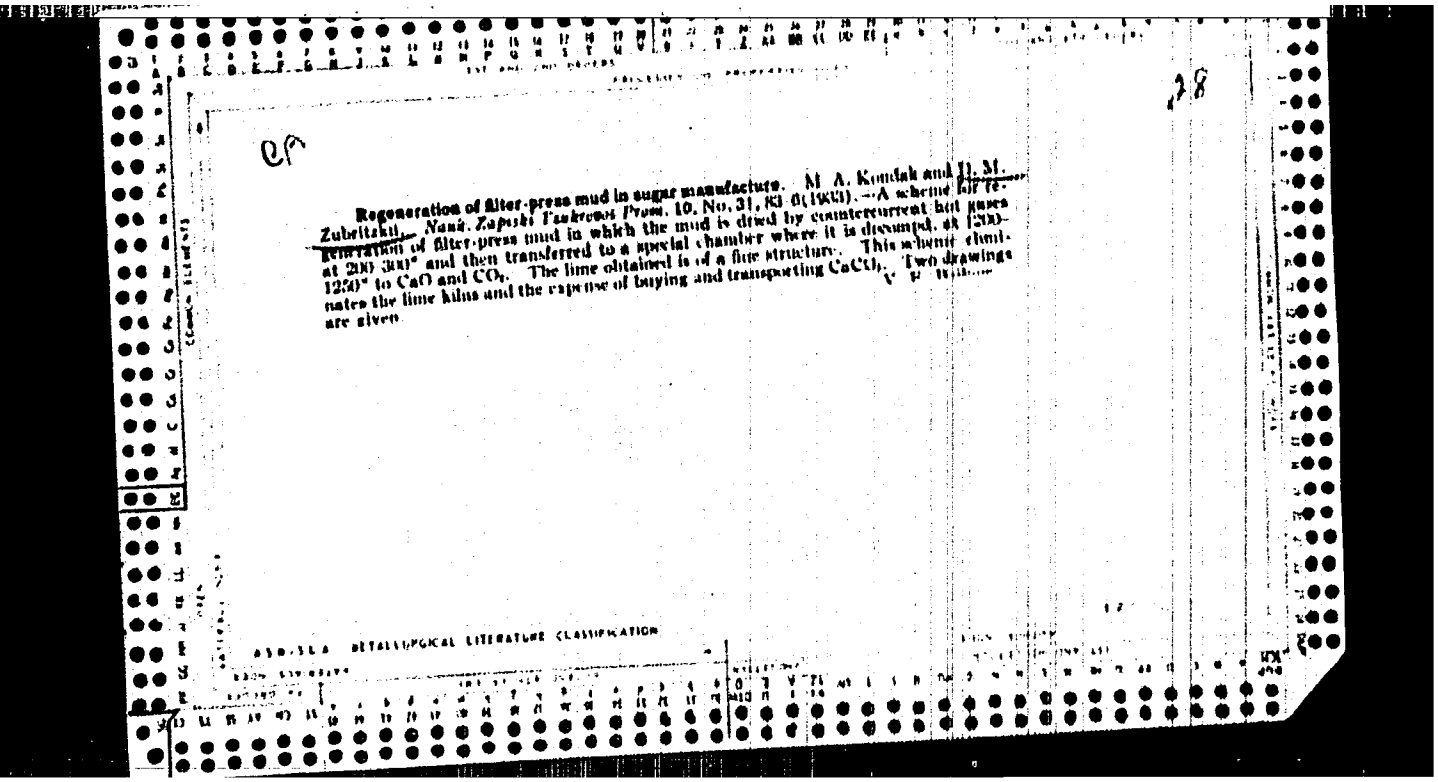
L 37633-66
ACC NR: AP6014149

sensitivity of 5 μv, G = 7 db. These results are reported: (1) The signal level is fairly stable wherever the diffraction mechanism of the field propagation predominates (short route, single-peak mountain); the signal suffers considerable fading if the diffraction field component is comparable to the tropospheric component (multipeak mountains); (2) The swing and frequency of fluctuation increases with the signal frequency; (3) No pronounced interdependence between the average hourly signal level and the near-ground refraction index was observed, while their diurnal averages show clear correlation; (4) Slow level fluctuations are explainable by their refraction nature. Orig. art. has: 5 figures, 8 formulas, and 4 tables.

SUB CODE: 17, 09 / SUBM DATE: 28Jan65 / ORIG REF: 003 / OTH REF: 003

Card 2/2 vmb





Regeneration of filter-press mud in sugar manufacture. M. A. Kondak and H. M. Zubritskii. *Nauk. Zapiski Tsukrovoi Prom.* 10, No. 31, 83-9(1948).—A scheme for regeneration of filter-press mud in which the mud is dried by countercurrent hot gases at 200-300° and then transferred to a special chamber where it is decomposed at 1200-1250° to CaO and CO_2. The lime obtained is of a fine structure. This scheme eliminates the lime kilns and the expense of buying and transporting $CaCO_3$. Two drawings are given.

ZUBRITSKIY, K.V.

Experimental basis for the permissible concentration of ethylbenzene in bodies of water. San.okhr.vod.ob zagr.prom. stoch.vod no.5:62-77 '62. (MIRS 17:6)

1. Kafedra gigiyeny Voronezhskogo meditsinskogo instituta.

FAUSTOV, A.S.; ZUBRITSKIY, K.V.

Establishing hygienic standards for the concentration of the ethylbenzene, styrene, and nekal complex in the water of reservoirs. Trudy Vor. med. inst. 47:36-37 '62 (MIRA 16:12)

1. Kafedra gigiyeny Voronezhskogo meditsinskogo instituta.

ZUBRITSKIY, K.V.

Elimination of the influence of high-boiling fractions from the synthesis of isoprene rubber on the organoleptic properties of water. Trudy Vor. med. inst. 47:57-58 '62 (MIRA 16:12)

1. Kafedra gigiyeny Voronezhskogo meditsinskogo instituta.

S/112/59/000/012/076/097
A052/A001

9,2520

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 12, p. 215, # 25395

AUTHOR: Zubritskiy, L.A.

TITLE: Application of p-n Transitions with an Increased Thermal Excitation of Change Carriers to Temperature Compensation

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1957, 94, Tr. Radiofiz. fak., 2, pp. 119-130

TEXT: It is proposed to use semiconductor diodes connected in a fixed bias circuit for the temperature compensation of transistor d-c amplifier circuits. By selecting the temperature coefficient of the diode, the constant collector current within a broad temperature range (up to 60-70°C) can be achieved. Methods of engineering calculation of compensation circuits are given which are in a good agreement with the experiment.

R.K.S.

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

SOV/142-58-4-9/30

AUTHOR: Zubritskiy, L.A.

TITLE: Effect of the Injection of Minority Carriers on the Input Impedance of a Crystal Channel Transistor (Vliyaniye inzhektsii neosnovnykh nositeley na vkhodnoye soprotivleniye kristallicheskogo kanal'nogo trioda)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 4, pp 445-450 (USSR)

ABSTRACT: The effect of thermally generated and injected minority carriers on the input resistance of the transistor is examined as well as methods for reducing this effect. The paper also describes the dependence of conductivity and input current on temperature, input voltage and flow injection factor. There are 3 majority carrier currents in a real "channel triode". The current of majority carriers that is directed from the source through the channel to the anode; the current of thermally generated minority carriers and the electron current which is conducted through the anodes. The

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SOV/142-58-4-9/30

Effect of the Injection of Minority Carriers on the Input Impedance of a Crystal Channel Transistor

input conductivity of a "channel triode" is formed by 2 components: the first is obtained from thermally generated carriers, the second as a result of electron feed to the anodes. Depending on the connection between these components, the conduction can be positive or negative. The experiment showed that in all "channel triodes" with an anode contact, electron conduction took place and the input conduction was negative. The negative resistance of the triodes can be used for generating both sinusoidal and non-sinusoidal oscillations. The data indicate that the role of minority carriers in "channel triodes" is especially great and determines to a considerable degree qualities such as input impedance and thermal stability. Two basic types of "channel triodes" can be determined: 1) Generator, with a strong injection of minority carriers from the anode and (2) amplifier, where all efforts have been made to reduce the concentration of minority carriers. There are 1 diagram, 4 graphs and

Card 2/3

SOV/142-58-4-9/30

Effect on the Injection of Minority Carriers on the Input Impedance of a Crystal Channel Transistor

7 references, 3 of which are Soviet and 4 English.

ASSOCIATION: Kafedra fiziki sverkhvysokikh chastot Khar'kovskogo ordena Trudovogo Krasnogo Znameni gosudarstvennogo universiteta imeni A.M. Gor'kogo (Chair of Super High Frequency Physics, Khar'kov Order of the Red Labor Banner State University imeni A.M. Gor'kiy.)

SUBMITTED: February 8, 1958

Card 3/3

27891
S/048/61/025/010/001/003
B104/B112

21.6000
AUTHORS: Zubritskiy, L. A., Popov, A. I., Sorokin, P. V., and Samoylov, V. F.

TITLE: Semiconductor spectrometers of charged particles

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25, no. 10, 1961, 1286 - 1290

TEXT: The authors constructed a series of germanium and silicon spectrometers. They investigated the properties of these spectrometers by means of α-particle radiation from a Po^{210} source. The voltage pulses obtained from the detector were amplified by a linear amplifier and analyzed by means of a 100-channel pulse analyzer of AM-100 (AI-100) type. In germanium spectrometers, n-type germanium with a resistivity of 40-45 ohm·cm is used. A surface-barrier p-n junction was produced by sputtering gold on the germanium surface. The germanium plates (5·5·1 mm) were etched in an CP-4 (SR-4) solution to obtain a regular reflecting surface. The crystal was mounted in a crystal-holder. A small amount

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Semiconductor spectrometers...

of indium soldered to the upper surface of the crystal produced a p-n junction. The construction is shown in Fig.1. The spectrometer was investigated at nitrogen temperature. The volt-ampere characteristic of the gold-germanium spectrometer described here is better than that of the spectrometer described by M. L. Halbert and J. L. Blankenship (Nucl. Instr. and Method., 8, 106 (1960)). If the voltage on the junction is between 10 and 30 v the resolving power of the spectrometer is $<0.5\%$. In silicon spectrometers, n-type silicon with a resistivity of 100 ohm·cm is used. By sputtering boron on silicon plates (4·4·1 mm, 1200°C, diffusion depth of boron $\lesssim 1\mu$) a p-n junction is produced. After finishing the diffusion process the p-layer is etched. The crystal is fixed in a tantalum crystal holder. An aluminum contact is soldered to the p-layer. The construction of the silicon instrument is the same as that of the germanium instrument. The silicon spectrometer was investigated at room temperature and nitrogen temperature. At room temperature the resolving power of the spectrometer is 3% (if the voltage on the junction is between 5 and 10 v). At nitrogen temperature, the resolving power of the silicon spectrometer is 2.5% (voltage on the junction between 50 and 180 v). Up to a voltage of 200 v, the current

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Semiconductor spectrometers...

is weaker than 0.01 μ a. The effective thickness of the sensitive layer at 30 v is 55μ. It prevails over the thickness of the volume charge of the p-n junction (28μ). The authors thank A. K. Val'ter and A. Ya. Taranov for cooperation. There are 9 figures and 7 non-Soviet references. The three most recent references to English-language publications read as follows: Amsel G., Baruch P., Smulkowskiy O., Nucl. Instr. and Method, 8, 92 (1960); Fridland S., Mayer J., Wiggins J., Nucleonics, 18, 2, 54 (1960); Almen E., Larsh, G. E., Gordon, T., Sikkeland, Rev. Scient. Instrum., 31, 10, 1114 (1960).

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR (Physico-technical Institute of the Academy of Sciences UkrSSR), Khar'kovskiy gos. universitet (Khar'kov State University)

Card 3/4

GONCHAR, V.Yu.; ZALYUBOVSKIY, I.I.; ZUBRITSKIY, L.A.; TITOV, Yu.I.; CHURSIN, G.P.

Semiconductor spectrometer for charged particles. Izv. AN SSSR. Ser. fiz. 28 no.1:102-104 Ja '64. (MIRA 17:1)

1. Institut yadernoy fiziki AN KazSSR i Khar'kovskiy gosudarstvennyy universitet.

ZUBRITSKIY, L.A.; CHURSIN, G.P.; GONCHAR, V.Yu.; ZALYUBOVSKIY, I.I.

Surface-barrier semiconductor counters with protective electrodes. Izv. AN SSSR. Ser. fiz. 28 no.1:105-106 Ja '64. (MIRA 17:1)

1. Institut yadernoy fiziki AN KazSSR i Khar'kovskiy gosudarstvennyy universitet im. A.M.Gor'kogo.

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Semigraphical method for calculating channel transistors. Izv. vys. ucheb. zav.; radiotekh. 8 no.2:270-279 Mr-Ap '65. (MIRA 18:7)

L 6440-66 EWT(l)/EEC(k)-2/T/EWA(h) IJP(c)

ACC NR: AP5026196 SOURCE CODE: UR/0142/65/008/004/0440/0447

AUTHOR: Zubritskiy, L. A. 41

38
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ORG: none

TITLE: Effect of the channel shape of the parameters of field-effect transistors

SOURCE: IVUZ. Radiotekhnika, v. 8, no. 4, 1965, 440-447

25,41

TOPIC TAGS: transistor, field effect transistor, unipolar transistor

ABSTRACT: The effect of the source-drain channel in a field-effect (unipolar) transistor upon its current-voltage characteristic is considered. A wedge-type (expanding toward the drain) channel is theoretically analyzed; in this design, the distribution of the electric field within the channel is equalized and its increase up to the values critical for carrier mobility is eliminated. The formulas were verified by experiments with lightly-doped Ge transistors having a donor concentration of 10^{15} atoms/cm^3. Another tested method for improving the transistor I-V characteristics is to provide an increasing impurity concentration toward the drain. Either method yielded higher channel current and slope and lower thermal noise as compared to those characteristics of a conventional uniform-channel field-

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effect transistor. Orig. art. has: 6 figures and 25 formulas.

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Card 2/2