SHISHAKOV, V.A.

Seventh astronomy contest in 1953. Fiz.v shkole no.6:91-92 '53.
(MLRA 6:10)
(Moscow--School contests) (School contests--Moscow)

SHISHAKOV, V.A.; PUTILIN, I.I. (Reviewers)

"Astronomical yearbook of the Kuybyshev Astronomical Observatory for 1951"; reviewed by V.A.Shishakov. "Dwarf planets (Planetoids)", E.L.Krinov. Reviewed by I.I.Putilin. Biul.VAGO no.12:45-47 '53. (MLRA 7:3)

(Krinov, E.L.) (Astronomy) (Planets, Minor)

SHISHAKOV, V.A.; SHAROV, A.S.

Sixth Competition in Astronomy 1952. Biul.VAGO no.13:41-42 '53.
(MLRA 7:3)
(Astronomy--Problems, exercises, etc.)

SHISHAKOV, V. (Moscow).

Conference on problems of teaching astronomy. Fiz. v shkole 13 no.3:93 My-Je '53. (MLRA 6:6)
(Astronomy--Study and teaching)

BAYEV, K.L.; SHISHAKOV, V.A.; REZNIKOVSKIY, P.T., redaktor; GAVRILOV, S.S., tekhnicheskiy redaktor.

[Elements of cosmography] Nachatki mirovedeniia. Izd. 4-e, perer. i dop. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1954. 123 p. (MIRA 8:4)
(Cosmography)

VORONTSOV-VEL'YAMINOV, B.A., professor; SHISHAKOV, V.A., kandidat pedagogicheskikh nauk, redaktor; TSIRUL'NITSKIY, N.P., tekhnicheskiy redaktor.

[Astronomy; textbook for the class 10 of secondary school] Astronomiia; uchebnik dlia 10-go klassa srednei shkoly. Izd. 8. Moskva, Ges.uchebno-pedageg. izd-vo Ministerstva prosveshcheniia RSFSR, 1954. 175 p. (MLRA 8:5)
(Astronomy)

SHISHAKOV, V.A. (g. Moskva)

Planning study material on astronomy. Fiz. v shkole 14 no.5:64-68 S-O '54. (MLRA 7:9)
(Astronomy--Study and teaching)

SHISHAKOV, V.A. (g. Moskva)

8th Competition of Astronomy. Fiz. v shkole 14 no.5:89-91 S-O '54.
(Astronomy--Competitions) (MLRA 7:9)

SHISHAKOV, V.A.(Moscow)

Astronomy in schools for combating religion. Fiz. v shkole 14 no.6:29-34 N-D '54. (MLRA 7:12)
(Astronomy--Study and teaching) (Russia--Religion)

SHISHAKOV, V.A.(Moscow); ZIGEL', F.Yu. (Moscow)

Planetarium for schools. Fiz. v shkole 14 no.6:91-93 N-D '54.
(Moscow--Planetaria) (MLRA 7:12)

POPOV, P.I.; SHISHAKOV, V.A.

Konstantin L'vovich Baev; obituary. Biul. VAGO no.15:52-55 '54.
(Baev, Konstantin L'vovich, 1881-1953) (MIRA 8:4)

RAYEV, Konstantin L'vovich, professor; SHISHAKOV, Vitaliy Alekseyevich; SAMSONENKO, L.V., redaktor; GAVRILOV, S.S., tekhnicheskiy redaktor

[Universal gravitation] Vsemirnoe tiagotenie. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1956. 38 p. (Nauchno-populiarnaia biblioteka, no.89)

(Gravitation) (MIRA 10:3)

SHISHAKOV, V.A.; PORTSEVSKIY, K.A.

Ninth Moscow Astronomic Olympiad in 1955. Biul. VAGO no.18:70-73 '56.
(MLRA 10:1)
(Moscow--Astronomy--Competitions)

SHISHAKOV, V., kandidat pedagogicheskikh nauk.

Halley's comet; on the 300th anniversary of Edmund Halley's birth.
Sov.voin 38 no.18:30 S '56. (MLRA 10:9)
(Halley, Edmund, 1656-1742) (Comet, Halley's)

SHISHAKOV, Vitaliy Alekseyevich; SHORYGIN, S.A., red.; YERMAKOV, Ye.A., tekhn.red.

[Stories about the moon] Rasskazy o lune. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1958. 46 p. (Nauchno-prosvetitel'naia biblioteka, no.17)
(Moon) (MIRA 11:4)

DAGAYEV, M.M.; ZIGEL', F.Yu., kand. ped. nauk; LARIONOV, A.F.; PORTSEVSKIY, K.A.; SHISHAKOV, V.A., kand. ped. nauk; BRONSHTEN, V.A., red.; KAVERIN, A.A. (Irkutsk); TSIKUL'NITSKIY, N.P., tekhn. red.

[1958 astronomical calendar for schools] Shkol'nyi astronomicheskii kalendar' na 1958 god. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR. No.8. 1958. 120 p. (MIRA 11:7)

1. Starshiy prepodavatel' Moskovskogo gorodskogo pedagogicheskogo instituta imeni V.P. Potemkina (for Dagayev). 2. Lektor Moskovskogo planetariya (for Larionov, Portsevskiy).

(Astronomy--Yearbooks)

3(1) PHASE I BOOK EXPLOITATION SOV/2109

Bayev, Konstantin Lvovich, and Vitaliy Alekseyevich Shishakov

Nachatki mirovedeniya (Elements of Cosmography) 6th ed. Moscow, Fizmatgiz, 1958. 127 p. 50,000 copies printed.

Ed.: L. V. Samsonenko; Tech. Ed.: V. N. Kryuchkova.

PURPOSE: This booklet is intended for the general reader interested in astronomy.

COVERAGE: This popular science type booklet discusses the general field of astronomy, celestial bodies, atmospheric phenomena, and the relationship of astronomy with the other earth sciences. No personalities are mentioned. No references are given.

TABLE OF CONTENTS:

Card 1/6

PHASE I BOOK EXPLOITATION SOV/4946

Mikhaylov, A. A., ed.

Stantsii v kosmose; sbornik statey (Space Stations; Collection of Articles) Moscow, Izd-vo AN SSSR, 1960. 444 p. 25,000 copies printed. (Series: Akademiya nauk SSSR. Nauchno-populyarnaya Seriya)

Resp. Ed.: A. A. Mikhaylov; Compiler: V. V. Fedorov; Ed. of Publishing House: Ye. M. Klyaus; Tech. Ed.: I. D. Novichkova.

PURPOSE: This book is intended both for the space specialist and the average reader interested in space problems.

COVERAGE: The book contains 73 short articles by various Soviet authors on problems connected with space travel and the launching of artificial earth satellites and space rockets. Some possibilities of future developments are also discussed. The articles were published in the period of 1957-1960. No personalities are mentioned. There are no references.

IV. UNPRECEDENTED FEAT OF SOVIET SCIENCE

V. SPACE SHIPS

SHISHAKOV, Vitaliy Alekseyevich; SIMAKIN, N.K., red.; SMIRNOVA, M.I., tekhn.red.

[For astronomy teachers in secondary schools; a methodological manual] V pomoshch' uchiteliu astronomii v srednei shkole; metodicheskoe posobie. Izd.2., perer. Moskva, Gos.uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1960. 167 p. (MIRA 13:9)
(Astronomy--Study and teaching)

SHISHAKOV, V., kand.pedagogicheskikh nauk

Discovery of the moon. Tekh.mol. 28 no.1:28-30,32 '60.
(MIRA 13:5)
(Moon--Observations)

SHISHAKOV, V.A.; DAGAYEV, M.M.; ZIGEL', F.Yu.; SVITKOV, L.P., red.; ZAYTSEVA, K.F., red. kart; TSIRUL'NITSKIY, N.P., tekhn. red.

[School astronomical calendar for 1962] Shkol'nyy astronomicheskii kalendar' na 1962 god. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR. No.12. 1961. 87 p. (MIRA 14:11)
(Astronomy)

SHISHAKOV, V.A., kand.ped.nauk

Aurora borealis. IUn. nat. no.3:13 Mr '61. (MIRA 14:3)
(Auroras)

SHISHAKOV, V.A., kandpedagogicheskikh nauk

Interplanetary station salutes Venus. Jun.nat. no.5:1-4 '61.
(MIRA 14:4)

(Venus probes)

SHISHAKOV, V.A. (Moskva)

Utilizing the School Astronomical Calendar in an astronomy course. Fiz. v shkole 21 no.1:48-49 Ja-F '61. (MIRA 14:9)
(Astronomy—Yearbooks)

SHISHAKOV, V.A.; DAGAYEV, M.M.; PORTSEVSKIY, K.A.; SVITKOV, L.P., red.; ZAYTSEVA, K.F., red. kart; KORNEYEVA, V.I., tekhn. red.; TSIKUL'NITSKIY, N.P., tekhn. red.

[School astronomical calender for 1963]Shkol'nyi astronomicheskii kalendar na 1963 god. Moskva, Uchpedgiz. No.13. 1962. 74 p. (MIRA 15:10)

(Astronomy—Yearbooks)

SHISHAKOV, V.A. (Moskva)

Astronautics in an astronomy course. Fiz. v shkole 21 no.6:43-46 N-D '61. (MIRA 14:12)
(Astronautics--Study and teaching)

SHISHAKOV, V.A.

Questions and answers at the 14th Moscow Astronomical Olympiad in 1960. Biul.VAGO no.30:63-64 '62. (MIRA 15:8)
(Moscow--Astronomy--Competitions)

SHISHAKOV, Vitaliy Alekseyevich; LAGUTEV, Mikhail Mikhaylovich; Prinimal uchastiye PORTSEVSKIY, K.A.; SIROTOV, L.A., red.

[School astronomical calendar for 1964] Shkol'nyi astronomicheskii kalendar' na 1964 god. Vyp. chetyrnadsatyi. Moskva, Uchpedgiz, 1963. 70 p. (MIRA 17:6)

SHISHAKOV, V.A.; STAMBYKINA, I.A. (Yaroslavl'); GUBIN, P.A. (Leningrad); VIRIN, A.Ya. (Smolensk)

Schools and planetariums. Fiz. v shkole 23 no.3:49-54 My-Je '63. (MIRA 16:12)

1. Predsedatel' uchebno-[illegible]ndicheskoy sektsii Moskovskogo planetariya (for Shishakov).

SHISHAKOV, Vitaliy Alekseyevich; CHERNIKOVA, M., red.; SILONOVA, G., tekhn. red.

Galileo Galilei. Moskva, Sovetskaia Rossiia, 1964. 36 p. (MIRA 17:3)

NOVIKOV, Igor' Dmitriyevich; SHISHAKOV, Vitaliy Alekseyevich; KULIKOV, G.S., red.

[Homemade astronomical instruments and observations with them] Samodel'nye astronomicheskie instrumenty i nabliudeniia s nimi. Moskva, Nauka, 1965. 122 p. (MIRA 18:5)

[illegible], N.F., [illegible]; [illegible], N..., dotsent; SHISHAKOV, V.A., kand. pedagog. nauk; RADIV[illegible], V.V., prof.; BALIKA, D.A., prof.

Reviews and bibliography. Zem.i vsel. 1 no.5:90-94 [illegible] 1965. (MIRA 18:1[illegible])

SELIVANOVA, L.N.; KOSSOVSKAYA, I.I.; SHISHAKOVA, I.A.; ZAKUTINSKIY, D.I., prof.

Tosicity and distribution of finely-dispersed metallic nickel in the organism. Farm.i toks. 23 no.6:549-557 N-D '60. (MIRA 14:3)

(NICKEL--TOXICOLOGY)

TIKHOMIROVA, M.V.; YEVSEYEVA, N.K.; SHISHAKOVA, I.A. (Moskva)

Amount of copper in the blood of animals during subacute radiation injury. Pat. fiziol. i eksp. terap. 5 no.4:69-70 Jl-Ag '61. (MIRA 14:9)

(COPPER IN THE BODY) (RADIATION SICKNESS)

SHISHAKOVA, S. V.

Pterygium colli. Pediatriia, Moskva no.5:59-61 Sept-Oct 1950. (CIML 20:1)

1. Of the Clinic of Children's Surgery, Second Moscow State Medical Institute imeni Stalin (Director -- Prof. S. D. Ternovskiy) attached to the Children's Hospital imeni Filatov (Head Physician V. V. Kvitnitskaya).

PIGUZOVA, L.I.; NIKOLINA, V.Ya.; DUBININ, M.M.; SHISHAKOVA, T.N.

Resistance to acids of synthetic erionite zeolites. Khim. i tekh. topl. i masel 10 no.10:32-34 O '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

L 23516-65 EWT(m)/T
ACCESSION NR: AP4047120 S/0080/64/037/010/2158/2165

AUTHOR: Vasil'yeva, O. A.; Golubeva, L. G.; Dubinin, M. M.; Yegorova, Ye N. Shishakova, T. N.; Ul'ko, N. G.

TITLE: Adsorption properties and maximum adsorption capacity of formed synthetic type A and X zeolites

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 10, 1964, 2158-2165

TOPIC TAGS: type A zeolite, type X zeolite, adsorption, adsorption capacity

ABSTRACT: The study was made to explain the reduced adsorptive properties and reduced maximum adsorption of formed synthetic type A and X zeolites [illegible] as much as 10-15% lower than theoretical values calculated on the [illegible] zeolite crystals by additives which were practically inert [illegible] lowered adsorption properties of the formed zeolites were attributed to the lower quality of the initial zeolite crystals primarily due to incomplete washing. This was particularly noted in the CaA zeolites whose quality

Card 1/2

2

was substantially lower than that of the NaX zeolite crystals. The decrease in the maximum adsorption capacity of dried tablets made of thoroughly washed zeolite crystals equaled the calculated decrease due to dilution by the binding materials. The adsorptive properties of formed zeolites made from properly washed zeolite crystals and subjected to thermal treatment at 600-650C for 6-8 hours were practically unchanged. The additive content in the formed zeolite can therefore be determined from the maximum adsorption capacities for water in the initial crystalline zeolite and the formed zeolite. "In conclusion the authors thank B. A. Lapkind and Ya. V. Mirsko for supplying the zeolite samples for the investigation." Orig. art. has: 4 tables and 3 equations.

ASSOCIATION: None

SUBMITTED: 30Mar63 ENCL: 00

SUB CODE: OC, GC NO REF SOV: 003 OTHER: 000

UR/0062/65/000/006/1116/1118

..., V. M., Nikolina, T. Ya., Piguzova, L. I., Shishakova, I. N.

... structure of synthetic erionite (zeolite T)

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 6, 1965, 1116-1118

TOPIC TAGS: zeolite, erionite, zeolite structure

ABSTRACT: Crystalline zeolites T were synthesized in which the maximum content ... was about 3%. X-ray diffraction studies of the ... with filtered radiation from chromium, iron, and ... The data show that the crystals belong to a hexagonal ... and ... = 15.12 A, which are the same as ... erionite. The structure of ... data reported in the literature. The most important property of erionite is its stability to acids. It is also ... gases, and this is an advantage over synthetic zeolites of ...

Card 1/2

L 5[illegible]-[illegible]

ACCESSION NR: AP5017967

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 12Oct64 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 000 OTHER: 007

Card 2/2

L 54175-65 EWT(m)/T
ACCESSION NR: AP5019784 UR/0062/65/000/007/1303/1305
548.19

AUTHOR: Shishakova, T. N.; Dubinin, M. M.

TITLE: The structure of synthetic Zh zeolite

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 7, 1965, 1303-1305

TOPIC TAGS: zeolite, crystal structure analysis, sodalite

ABSTRACT: The designation Zh was given by S. P. Zhdanov (S. P. Zhdanov, N. N. [illegible], and Ye. N. Yegorova, *Dokl. AN SSSR*, 154, 419, 1964) to a zeolite which he [illegible] and which has the composition $Na_2O \cdot Al_2O_3 \cdot 2.1SiO_2 \cdot pH_2O$ and an alumino- [illegible] and is analogous to the natural mineral sodalite. The purpose of this work was to determine the positions of the cations in the structure of Zh [illegible] ray patterns of crystalline powder of $Zh_{4.5}$ zeolite were taken, and the [illegible] amplitudes were calculated from the average intensities. The projection [illegible] parameters remains [illegible]

Card 1/3

ACC NR AP5 [illegible]

[illegible] atoms is superimposed on it. Both sodium atoms are designated by the [illegible] the analysis gave the following parameters of this structure, which has [illegible] symmetry [illegible] for Na, x [illegible] and for O, x = 0.151, y = 0.14[illegible], and [illegible] zeolite, the Na^+ [illegible] are further from the centers [illegible] and closer to the center of the cuboctahedral cells than [illegible] are being made [illegible]

[illegible] fizicheskoy [illegible] Akademii nauk SSSR (Institute [illegible] Academy of Sciences SSSR)

[illegible] 55

[illegible] OTHER: 004

Card 2/2

AP5013784

ENCLOSURE: 01

Fig. 1. Projection of the electron density of $Zh_{4.5}$ zeolite on the (001) plane

Card 3/3

L 4108-66 EWT(m)/T

ACC NR: AP5024950 UR/0065/000/010/0032/0034
543.544

38
B

AUTHOR: Piguzova, L. I.; Nikolina, V. Ya.; Dubinin, M. M.; Shishakova, T. N.

TITLE: Acid resistance of the synthetic zeolite erionite

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 10, 1965, 32-34

TOPIC TAGS: zeolite, hydrochloric acid, gas adsorption, adsorption, desorption

ABSTRACT: Synthetic erionite, having the formula $0.5K_2O \cdot 0.4Na_2O \cdot Al_2O_3 \cdot 6.6SiO_2 \cdot 5.5H_2O$, was treated with solutions of hydrochloric acid of various concentrations for 1 hr at 96 — 98C. It was found that under drastic conditions (acid of pH 2.1 — 2.4), the structure of the zeolite remains preserved. No changes in the crystal lattice of the zeolite, even when treated with 0.1 N HCl, could be detected by x-ray structural analysis. The water adsorption capacity also changed very little. The synthetic zeolite in the H-form was studied under stationary conditions in the adsorption-desorption of an NO_2-N_2O_4 gas mixture: after 8 adsorption cycles, no appreciable change in adsorption properties was observed. Very slight amounts of benzene adsorbed on synthetic erionite showed that its effective por radius is about 5A. "The NO_2 — N_2O_4 adsorption-desorption experiments were carried out at the Kazan khimiko-tekhnologicheskiy institut im. S. M. Kirova (Kazan Chemical Engineering Institute) by E. B. Krasnyy and T. G. Musin, who used a technique which they developed." Orig. art. has: 5 figures and 1 table.

ASSOCIATION: VNII NP

Card 1/2

L 4108-66

ACC NR: AP5024950

SUBMITTED: 00 ENCL: 00 SUB CODE: MT, GC

NO REF SOV: 004 OTHER: 005

BVP

Card 2/2

SHISHALOV, G.I.

Ice cutting machines. Biul.tekh.-ekon.inform. no.11:45-46 '58. (MIRA 11:12)

(Ice) (Cutting machine)

SHISHALOV, O.I.

Hydraulic wedge. Biul.tekh.-ekon.inform. no.11:73-74 '58.
(MIRA 11:12)

(Hydraulic machinery)

AUBAKIROVA, R.B.; KOZLOVSKAYA, Z.A.; POTOK, S.I.; SHISHALOV, V.A.

Antofagastite and botallackite from the oxidation zone of the Dzhezkazgan deposit. Izv. AN Kazakh. SSR. Ser. geol. 21 no.5: 90-95 S-O '64. (MIRA 18:5)

1. Institut geologicheskikh nauk im. K.I.Satpayeva AN KazSSR, Alma-Ata.

MAKSAKOVA, Ye.N.; SHISHALOVSKAYA, O.S.

Importance of electrophoretic determination of the glycoproteins and lipoproteins of blood serum in children with rheumatic fever. Vop.revm. 3 no.1:47-53 Ja-Mr '63. (MIRA 16:4)

1. Iz detskogo klinicheskogo otdeleniya (zav. - doktor med.nauk A.V.Dolgopolova) Instituta revmatizma (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I.Nesterov) AMN SSSR.
(BLOOD PROTEINS) (RHEUMATIC FEVER) (PAPER ELECTROPHORESIS)

SHISHANINA, A.D.

Materials on the etiology and pathogenesis of the white spot disease in larvae of salmonoid fishes. Trudy sov.Ikht.kon. no.9:94-98 '59. (MIRA 13:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo khozyaystva i okeanografii.
(Salmon--Diseases and pests)

SUDEREVSKIY, Ivan Stepanovich; SHISHANKOV, V., red.; KOROLEVA,A., mladshiy red.; ULANOVA, L., tekhn. red.

[Problems of the division of labor; the communist means of production] Problemy razdeleniia truda; kommunisticheskii sposob proizvodstva. Moskva, Sotsekgiz, 1963. 238 p. (MIRA 17:2)

FROBST, Abram Yefimovich; ALAMPIYEV, P.M., retsenzent; ITIN, L.I., retsenzent; SHISHANKOV, V., red.; BESSUDNOVA, N., mlad. red.

[Efficiency of territorial production organization; methodological studies] Effektivnost' territorial'noi organizatsii proizvodstva metodologicheskie ocherki. Moskva, Mysl', 1965. 206 p (MIRA 18:4)

KOLOSOV, Aleksandr Fomich; SHISHANKOV, V.S., red.; ROTOVA, R.S., red. izd-va; VORONINA, R.K., tekhn. red.

[Reproduction of public capital] Vosproizvodstvo obshchestvennogo kapitala. Moskva, Gos.izd-vo "Vysshaia shkola," 1961. 92 p. (MIRA 15:1)

(Capital)

KOCHETKOV, Leonid Mikhaylovich; REBROV, V.D.; TELEZHKIN, N.A.; SHISHANKOV, V.S., red.

[Chemicalization and integration in U.S.S.R. industry] Khimizatsiia i kombinirovanie v promyshlennosti SSSR. Moskva, Mysl', 1965. 149 p. (MIRA 18:8)

NEMCHINOV, Vasiliy Sergeyevich, akademik (1894-1964); VAYNSHTEYN, A.L., red.; SHISHANKOV, V.S., red.; KOKOSHKINA, I.K., red.

[Economic-mathematical methods and models] Ekonomiko-matematicheskie metody i modeli. Moskva, Mysl', 1965. 477 p. (MIRA 18:9)

KUFMAN,R.A.; SHISHANOV,V.L.; KHLOPKIN,P.A.

Apparatus for dyeing on bobbin and beams. Tekst.prom.8 no.2:25-26 F '48. (MLRA 8:11)

(Dyes and dyeing--Apparatus)

BLYABLIKOV, N.P.; SHISHANOV, V.L., inzhener.

Automatic regulation of warp tension on ATL-100 looms. Tekst. prom.14 no.5:22-25 My '54. (MLRA 7:6)

1. Glavnyy inzhener kombinata "Sovetskaya zvezda" (for Blyablikov)
(Looms)

IN

4

L 51366-65 EEC(b)-2/EWT(1)/T Pq-4/Pl-4 IJP(c) GS

ACCESSION NR: AT5013929 UR/0000/64/000/000/0242/0243

AUTHOR: Bogdanov, A. A.; Brusin, I. Ya.; Yemelin, V. V.; Zverev, V. A.; Lyubina, A. G.; Markus, F. A.; Salenikovich, Ye. Yu.; Cheremukhin, A. M.; Shisharin, A. V.

TITLE: The diffractometer as an instrument which uses the diffraction phenomenon for multichannel spectral or correlation analysis of random processes

SOURCE: Vsesoyuznyy simpozium po difraktsii volн. 3rd, Tbilisi, 1964. Referaty dokladov. Moscow, 1964, 242-243

TOPIC TAGS: diffraction pattern, random process, spectrum determination, Fraunhofer line, optical information processing

ABSTRACT: Various types of optical equipment may be used for both successive and parallel analysis of the spectra and correlation functions of transparent objects. The diffractometer is one of the instruments which may be used in this manner. The spectra or correlation functions for a large number of processes can be determined simultaneously by observing the Fraunhofer diffraction pattern from individual transparent objects or combinations of objects. For instance, the spectra and correlation functions may be found for diffraction processes recorded as lines of variable density on a photographic film. In this method, the maximum number of

Card 1/2

L 51368-65

ACCESSION NR: AT5013929

simultaneously operating channels depends on the quality of the optical system and the film. In actual practice, the instrument can handle a great deal of information in a comparatively short period of time, which gives it a considerable advantage over electronic devices and even over digital computers. The instrument may also be used for signal separation and for detecting weak signals against a noisy background. The resolution and dynamic range, determined for sinusoidal signals, depend on the size of the "window" in the optical system and on the quality of the readout system. The instrument may be used as an optimum matched filter for detecting a special form of signal. In this case, the Fresnel diffraction pattern is used. "Film noises" (amplitude and phase distortions in the light wave which appear after passage through a uniformly fogged film) limit both the resolution and the dynamic range of the device. [14]

ASSOCIATION: none

SUBMITTED: 09Sep64 ENCL: 00 SUB CODE: OP, EC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4007

Card 2/2

NOVOLODSKIY, P.I.; SHISHARIN, B.N.

Improving the performance of open-hearth furnace plants.
Metallurg 5 no.8:12 Ag '60. (MIRA 13:7)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat.
(Open-hearth furnaces--Maintenance and repair)

KLYUCHEROV, A.P.; KONDRAT'YEV, S.N.; Prinimali uchastiye: GUSAROV, F.V.; UDOVENKO, V.G.; PETROV, G.A.; BURKSER, V.Ye.; SHMONIN, I.A.; KUDRIN, Ye.A.; GALAKHMATOV, S.N.; ZIMINA, L.P.; SHISHARIN, B.N.; KONDYURINA, R.V.; BURMISTROV, K.A.; SHIRNIN, I.A.; SIMONENKO, F.N.; GORSHILOV, Yu.V.; KOLPAKOV, B.V.; GUSAROV, A.K.; BOLOTOV, P.G.

Heat insulation of open-hearth furnace crowns. Metallurg 5 no.11: 14-17 N '60. (MIRA 13:10)

1. Nizhe-Tagil'skiy metallurgicheskiy kombinat.
(Open-hearth furnaces--Design and construction)
(Insulation (Heat))

DVORKIND, M.M., inzh. V rabote prinimali uchastiye: VAS'YAS, I.P.; KOKSHAROV, V.D.; DRESVYANKIN, V.I.; PARAMONOVA, A.P.; GOLOKHMATOV, S.N.; SHISHARIN, B.N.; GOLIKOVA, T.A.; KLISHA, Ya.A.; KOZHEVNIKOVA, Ye.L.; VYDRINA, Zh.A.; BUSHUYEVA, T.N.; NAZARENKO, G.A.

Behavior of open-hearth furnace crowns under the effect of feeding oxygen into the burner flame and into the bath. Stal' 20 no.2:117-121 F '60. (MIRA 13:5)

1. Vostochnyy nauchno-issledovatel'skiy institut ogneuporov.
(Open-hearth furnaces)
(Firebrick)

PETROV, G.A.; KLYUCHEROV, A.P.; SHISHARIN, B.N.

Cleaning open-hearth furnace regenerator checkers. Metallurg 6 no.4:19-20 Ap '61. (MIRA 14:3)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat.
(Open-hearth furnaces—Equipment and supplies)

[illegible], A.I.; NIKIFOROV, V.F.; SHISHKIN, B.N.

Accelerating the firing of open-hearth furnaces. Stal' 25 no.6:517-521 Je '65. (MIRA 18:6)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat.

[illegible], [illegible]; [illegible]; [illegible];
[illegible]

Cleaning the checkerwork, checker flues, and smoke flues from flue dust during the operation of an open-hearth furnace. Stal' 25 no.6:[illegible] Je '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki i Nizhne-Tagil'skiy metallurgicheskiy kombinat.

30./51-6-5-21/34

24(4)

AUTHORS: Levikov, S.I. and Shishatskaya, L.P.

TITLE: Hydrogen and Mercury-Helium Lamps for SF-4 Spectrophotometers (O vodorodnoy i rtutno-geliyevoy lampakh dlya spektrofotometrov SF-4)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 5 pp 688-691 (USSR)

ABSTRACT: Quartz photoelectric spectrophotometers SF-4 are widely used to measure optical densities or transmission coefficients of liquids and solids in the region 220-1100 mμ. Two continuous emission light sources are used in conjunction with these spectrophotometers: an incandescent lamp A-7 and a hydrogen lamp VSFU-3. A periodic check of the graduation scale of SF-4 is made by means of a third lamp: a mercury-helium lamp RGFU-2. The VSFU-3 lamp is shown in Fig 2. It is a low-voltage arc lamp with a directly heated oxide cathode which works on d.c. or a.c. This lamp has a device known as a "light gun": the discharge between electrodes passes through a narrow aperture in a screen which separates the cathode from the anode. A small spiral tube made of wire is placed in this aperture and this practically doubles the emission intensity of the lamp. The cathode oxide layer is deposited using a special technique which ensures high stability of the emission intensity. The lamp is made from glass ZS-5 and special "uviol" glass is used to [illegible] (Fig 2). [illegible] of the window wall does not exceed

0.2 mm. The optical transmission of the window (Se-30) between 200 and 340 mμ) is shown in Fig 1. The lamp is filled with dried and purified hydrogen at a pressure of 4 mm Hg. A d.c. or rectified a.c. voltage of 250 V and a filament current of 3.5 A is required to start the lamp. After the arc is struck, the filament current is lowered to 0.3 A. The lamp can be used also on a.c. (it works then as a rectifier). Fig 3 shows the relative change in the emission intensity of the VSFU-3 lamp as a function of its working life (about 200 hours). To obtain a stable emission the supply is stabilized by means of a special electronic device SRS-38 which holds the discharge current constant to within 0.1%. For measurements where the emission intensity has to be very constant a battery of accumulators has to be used (Fig 4). The mercury-helium lamp RSFU-2 is similar in its construction and dimensions to the hydrogen lamp VSFU-3, just described. It differs only by the absence of the spiral in the aperture of the screen between the anode and the cathode. The RSFU-2 lamp is filled with helium at 10-12 mm Hg and a small amount of mercury is added to helium. The electrical characteristics of the mercury-helium lamp are the same as those of the hydrogen lamp except that the working voltage is only 35-35 V and the striking voltage is only 150 V d.c. The RSFU-2 lamp can be also fed from a.c.; its striking voltage is

Card 2/3

Hydrogen and Mercury-Helium Lamps for SF-4 Spectrophotometers

then much lower and it behaves as a rectifier. The most intense helium and mercury lines between 226 and 1083 mμ emitted by the RSFU-2 lamp are listed in a table on p 691. The working life of either of the two lamps is not less than 200 hours. Both these lamps can be used in optical or spectral apparatus other than the spectrophotometer SF-4. If the stability of the emission is not important then these lamps can be started using a circuit shown in Fig 5.

SUBMITTED: June 4, 1958

S/051/61/011/005/017/018
E202/E192

AUTHORS: Levikov, S.I., and Shishatskaya, L.P.

TITLE: Comparison of spectral intensities of hydrogen and deuterium radiations

PERIODICAL: Optika i spektroskopiya, v.11, no.5, 1961, 689-691

TEXT: The authors compared the intensities of the three Balmer lines of the continuous and band spectra of hydrogen and deuterium in identical conditions of excitation in an arc discharge lamp, operated at 0.3 A and 80 V. The results are as shown in the table. The authors also analysed the short wave region of the UV spectrum from 2500 - 1460 Å, of the hydrogen and deuterium discharge lamps. By plotting the relative intensity of radiation of hydrogen and deuterium against the wavelength, it was found that deuterium is more effective (i.e. more intense) than hydrogen, not only in the 3600 - 2150 Å region, but also considerably further, almost down to 1710 Å. At the latter wavelength the two gases show equal intensity. In the shorter wavelengths, down to 1460 Å, hydrogen is more effective.

Card 1/2

Comparison of spectral intensities ... S/051/61/011/005/017/018
E202/E192

There are 2 figures, 1 table and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.
SUBMITTED: April 19, 1961

Table

Balmer lines	Wavelength in Å		Intensity ratio of D and H lines
	H-lamp	D-lamp	
Red	6562.846	6561.063	1.29
Blue	4861.322	4859.992	1.11
Violet	4340.458	4339 277	1.37

Card 2/2

39297
S/048/62/026/007/028/030
B117/B144

AUTHORS: Levikov, S. I., and Shishatskaya, L. P.

TITLE: New deuterium lamps

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 7, 1962, 964-966

TEXT: The radiation intensities of new ДСФУ-3 (DSFU-3) (Uviol glass window) and ДФЛ-25 (DLF-25) (lithium fluoride window) deuterium lamps were compared with those of standard ВСФУ-3 (VSFU-3) and ВФЛ-25 (VLF-25) hydrogen lamps. Balmer lines measured with a СФ-4 (SF-4) spectrophotometer proved to be more intensive in the radiation spectrum of deuterium lamps than in that of hydrogen lamps. The mean intensity ratio of Balmer lines was 1.29 for red, 1.11 for light blue, and 1.37 for violet. In the 3600-2150 Å region, intensity measurements of the ultraviolet continuum in the four types of lamp showed deuterium to be more effective than hydrogen. The radiation intensity of D_2 exceeded that of H_2 by: 50-60 % at λ = 2200 Å but only by 30 % at λ = 3600 Å. A comparison between the intensities of ultraviolet radiation of VLF-25 and DLF-25 conducted with

Card 1/2

New deuterium lamps

S/048/62/026/007/028/030
B117/B144

the monochromator of a DF-41 (SP-41) device showed deuterium to be more effective than hydrogen to nearly 1700 Å. Its radiation intensity decreases rapidly between 2200 Å and the end of the range studied (1460 Å). At 1700 Å, the two gases have almost equal radiation intensity. The results show that the lamps used for the spectral region as far as 1700 Å should be filled with deuterium, and VSFU-3 lamps should be replaced by DSFU-3 lamps. Hydrogen should be used for all other sources of ultraviolet radiation. This paper was reported on at the XIV soveshchaniye po spektroskopii (XIV Conference on Spectroscopy). There are 2 figures and 1 table.

Card 2/2

AUTHORS: Bagdyk'yants, G. O., Shishatskiy, A. V. SOV/48-23-4-11/21

TITLE: A Roentgen Shadow Microscope (Rentgenovskiy tenevoy mikroskop)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1959, Vol 23, Nr 4, pp 481 - 484 (USSR)

ABSTRACT: First, the Roentgen microscope is considered along with photo-optical and electronic microscopes and the range of applicability is mentioned. In principle, in this microscope the shadow projection is depicted by a punctiform Roentgen source. This consists either of a probe on which an electron beam is focused or of an anticathode (diameter ~ C.5 μ) on which the electron beam hits. Figure 1 and 2 show the model designed by the authors in cooperation with the designers N. G. Zandin and S. P. Rozov. Because of the low intensity, the films must be exposed up to 20 minutes at an accelerating voltage of 10 kv. With 30 kv exposure lasts only 3 minutes. A special model of anode, cathode and stop yields an electron beam of high intensity and small aperture. With an accelerating voltage of 9 kv and an emission current of 50 μA an exposure time of 30-40 sec is necessary for highly sensitive films. A description follows of the construction of accelerator and electromagnetic lenses. The image screen is observed with a 37fold photo-optical magnification. The microscope features two cameras: one for single pictures

Card 1/2

(20 x 20 mm) and one for series pictures (maximum 36 pieces). The resolving power of the electron beam goes as far as 300 Å, that in the Roentgen film as far as 0.5 μ. Cosslett and Nixon (Ref 8) attained 0.14 μ by an instrument of this type. A table specifies the resolving powers and exposure times of one American, one Japanese, two English and one Russian instrument. There are 2 figures, 1 table, and 12 references, 2 of which are Soviet.

9(6) SOV/48-23-5-1/31

AUTHORS: Bagdyk'yants, G. O., Shishatskiy, A. V.

TITLE: Peculiarities of the Picture in X-ray Shadow Microscopes (Osobennosti isobrazheniya v rentgenovskom tenevom mikroskope)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 5, pp 538 - 540 (USSR)

ABSTRACT: By way of an introduction it is pointed out that among the methods suggested hitherto for the preparation of X-ray microscopic pictures, the method of shadow projection is applied in practice. The present paper deals with some special results obtained by X-ray microscopic photography with the X-ray shadow microscope GOI. It is shown that in the case of a resolving power of 0.5μ and a 10fold magnification of the negative, a 40fold primary magnification is required to render the picture observable with the naked eye. Theoretically there is no upper limit for magnifications made possible by instruments of this type; the times of exposure, however, become exceedingly long with very strong magnifications. The quality of the pictures depends on the properties of the film and on the photographing technique, and in further works a

Card 1/2

high-sensitivity fine-grain aerial film is employed. In discussing the contrast and intensity of the X-ray pictures it is pointed out that a greater wavelength is required for a good contrast. The authors used "white X-ray light", and an accelerating voltage of 7 - 10 kv was applied in the case of biological objects. Specific amperages of up to 5500 a/cm^2 are given for the electron probe and the anticathode; reference is also made to the lateral anticathode cooling. In selecting the anticathode material the following items were taken into account: 1) effective X-ray efficiency; 2) thermal properties; 3) wavelength of the maximum emission of the material. A discussion follows concerning the mechanical demands made on the cathode, and in the final part, the range of applicability of microscopes of this type is dealt with. For comparative purposes, an American and a Japanese microscope are mentioned, and two pictures taken with the GOI instrument are shown. There are 2 figures and 8 references, 3 of which are Soviet.

ACCESSION NR: AP4018397 S/0120/64/000/001/0205/0206

AUTHOR: Shishatskiy, A. V.; Zhizhin, I. P.

TITLE: Generator of single high-voltage pulses

SOURCE: Pribory* i tekhnika eksperimenta, no. 1, 1964, 205-206

TOPIC TAGS: pulse generator, surge generator, impulse generator, high voltage pulse generator, 25 kv pulse generator, square pulse generator

ABSTRACT: A single-pulse generator capable of developing a negative pulse, variable from 20 to 500 microsec, with an amplitude up to 25 kv is described. The output stage is similar to that of a radar modulator which uses a GMI-90 tube and a storage capacitor in the anode circuit. The pulse duration can be adjusted by a potentiometer connected to the grid circuits of single-shot multivibrators designed with 6N8S tubes. Two oscillograms illustrate the resulting pulses. Orig. art. has: 2 figures.

Card 1/2

ACCESSION NR: AP4018397

ASSOCIATION: Gosudarstvenny*y opticheskiy institut (State Optical Institute)

SUBMITTED: 02Feb63 DATE ACQ: 18Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 000 OTHER: 000

Card 2/2

SOV/137-58-9-18541

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 9, p 51 (USSR)

AUTHORS: Rabkin, M. A., Torgovitskaya, S. B., Ratner, Yu. Z., Shishatskiy, E. Ye., Fishteyn, B. M.

TITLE: Prevention of Corrosion in Cooling-system Components of a Blast Furnace (Zashchita detaley sistemy okhlazhdeniya domennoy pechi ot korrozii)

PERIODICAL: Sb. nauchn. tr. Zhdanovsk. metallurg. in-t, 1957, Nr 4, pp 222-232

ABSTRACT: The corrosion destruction of cooling-system components (CSC) of the "Azovstal'" plant blast furnaces employing sea water as a coolant was investigated. It has been established that the water-pipe system of a furnace begins to fail as early as 2.5 months after a general overhaul of the furnace, and that, on the average, approximately 4000 m of the 10,000 m of water pipes must be replaced within a one-year period. The following factors contribute to the destruction of the components: Electro-chemical corrosion (C) (formation of macrogalvanic couples at the junctions of steel pipes with bronze, copper, cast-iron and other CSC); destruction of

Card 1/2

Prevention of Corrosion in Cooling-system Components of a Blast Furnace

metal and its protective film by erosion caused by hard particles suspended in the water; chemical C due to sulfur-dioxide and carbon-dioxide gases present in blast-furnace shops at elevated temperatures. Threaded areas and their adjoining zones suffer the greatest destruction, also steel Tees and cast-iron elbows in which the oxide film composed of the C products is destroyed by impact as the water jet is forced into a turn. The investigation revealed the following: The inefficiency of electrochemical protection of the CSC by Zn protectors; the inefficiency of the employment of Al-Zn alloys which become overgrown with barnacles and other impurities contained in the water; the ineffectiveness of the method whereby pipes and fittings are internally coated with cadmium and enamel. In order to prevent C, it is recommended that components made of different metals be joined together by means of 50-300 mm long connecting pipes made of Cr-Ni stainless steel (utilizing for this purpose the waste products of the pipe-rolling industry) and that all fittings be coated internally with asbestos cement (85% cement and 15% asbestos).

1. Blast furnaces--Performance 2. Blast furnaces--Equipment
3. Corrosion--Control

L. Kh.

Card 2/2

SHISHATSKIY, V., inzh.-tekhnolog

Reconditioning engine casings by epoxy resins. Rech. transp. 22 no.11:32-33 N '63. (MIRA 16:12)

1. Pinskiy sudostroitel'nyy i sudoremontnyy zavod.

[redacted], N. [redacted]

"The Strength of Ice," No 2, pp 30-41.
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

High Performance Designs of Broaches 832

Itsykson, E.M.. Plant Experience in Design of Broaches 1
Various design characteristics of the spline, involute, build-up and burnish broaches are presented. A brief description of the K-profile joint is also given. (Where K stands for the German company - Krause - which developed this joint)

Shishayev, V.P., Engineer. Helical Broaches 15
A detailed description including technical specifications and manufacturing procedure of helical broaches is presented.

AVAILABLE: Library of Congress

GO/whl
11-20-58

Card 2/2

SHISHEBAROV, A.K., inzh.; FLAKSMAN, S.A., inzh.

Use of connectors in the erection of droppers between bus disconnectors and 110 kv bus systems. Energetik 10 no.10:33-34 O '62. (MIRA 15:12)

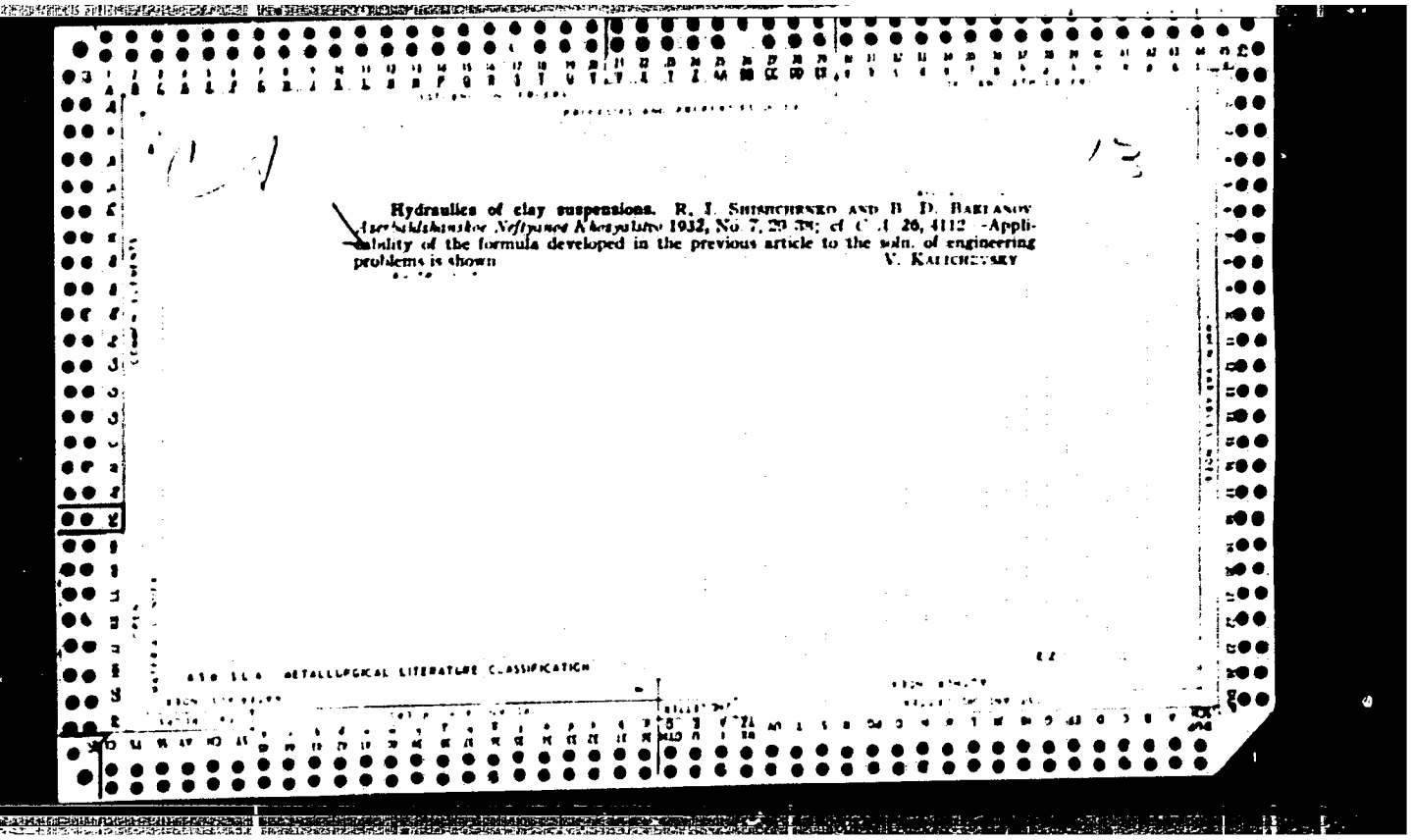
(Electric substations)
(Electric power distribution)

SHISHEDZHIEV, N., inzh.

"Aluminum and its application in electrical engineering" by Vatslav Vetrovets [Vetrovez, V.] and Bokhomil Parzhesh [Parez, B.]. Reviewed by N. Shishedzhiev. Elektroengeriia 14 no.1:32 Ja '63.

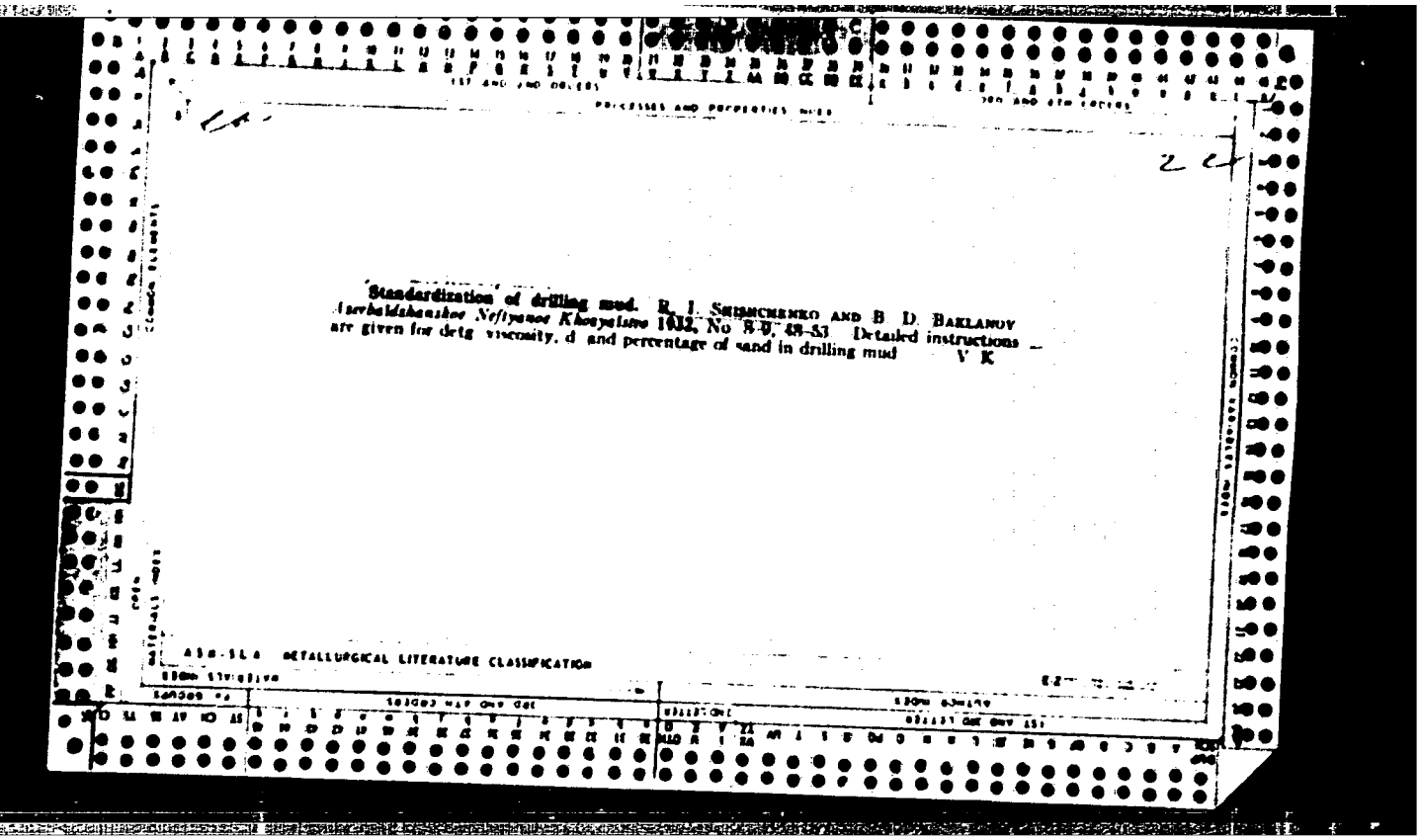
SHISHCHENKO, G., mashinist kombayna.

Achieving outstanding performance. Mast.ugl. 3 no.9:4 S '54.
(Coal mining) (MLRA 8:2)

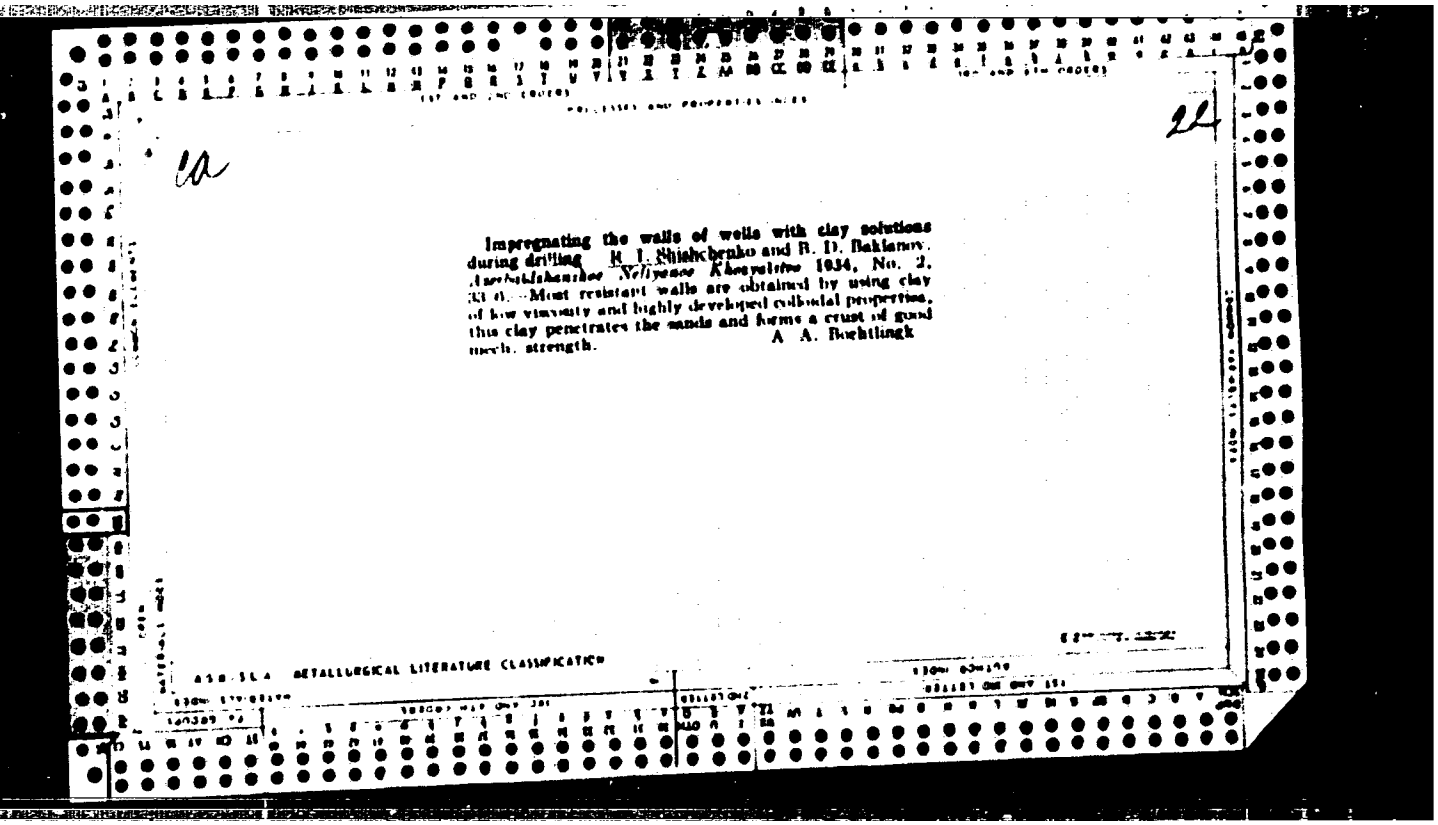


Hydraulics of clay suspensions. R. I. Shishchenko and B. D. Barlasov *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1932, No. 7, 29-38; cf. *C. A.* 26, 4112.—Applicability of the formula developed in the previous article to the soln. of engineering problems is shown. V. Katchevsky

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001549530013-0"



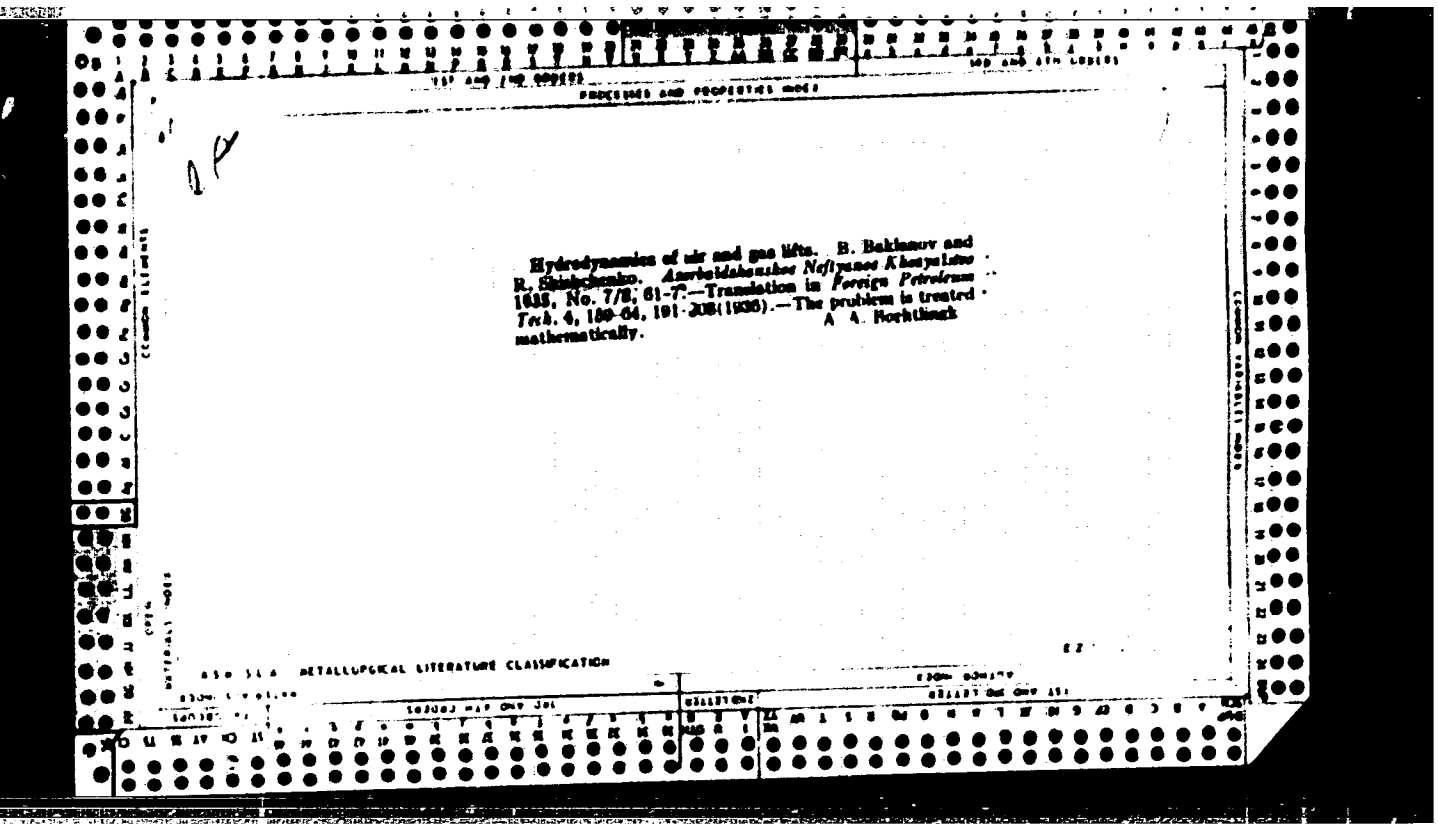
'Standardization' of drilling mud. R. I. Shishchenko and B. D. Baklanov. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1932, No 8-9, 48-53. Detailed instructions are given for determining viscosity, d and percentage of sand in drilling mud. V. K.



Impregnating the walls of wells with clay solutions during drilling. K. I. Shishchenko and B. D. Bakhanov. *Neftyanoe Khozyaistvo* 1934, No. 2. (Russ.)—Most resistant walls are obtained by using clay of low viscosity and highly developed colloidal properties; this clay penetrates the sands and forms a crust of good mech. strength.

A. A. Bochtlingk

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



Hydrodynamics of air and gas lifts. B. Baklanov and R. Shishchenko. *Azerbaidzhanskoe Neftyanoe Khozyaistvo* 1935, No. 7/8, 61-7.—Translation in *Foreign Petroleum Tech.* 4, 189-94, 191-208(1936).—The problem is treated mathematically. A. A. Horbitsch

PROCESSES AND PROPERTIES INDEX

ca

22

Loaded clay solutions to prevent cave-ins. R. Sh[illegible]chenko and P. Shvetsov. [illegible] *Neftyan. Khoz.* 1936, No. 4, 16-20.—Filtration can be decreased by using heavily loaded mud solns. treated with humates, alkalies and water glass. For deep wells the [illegible] of the mud soln. should be brought up to 1.[illegible] and higher to minimize filtration and to support better the walls of the well. Various formulas adapted to Russian clays are discussed. A. A. Boehtlingk

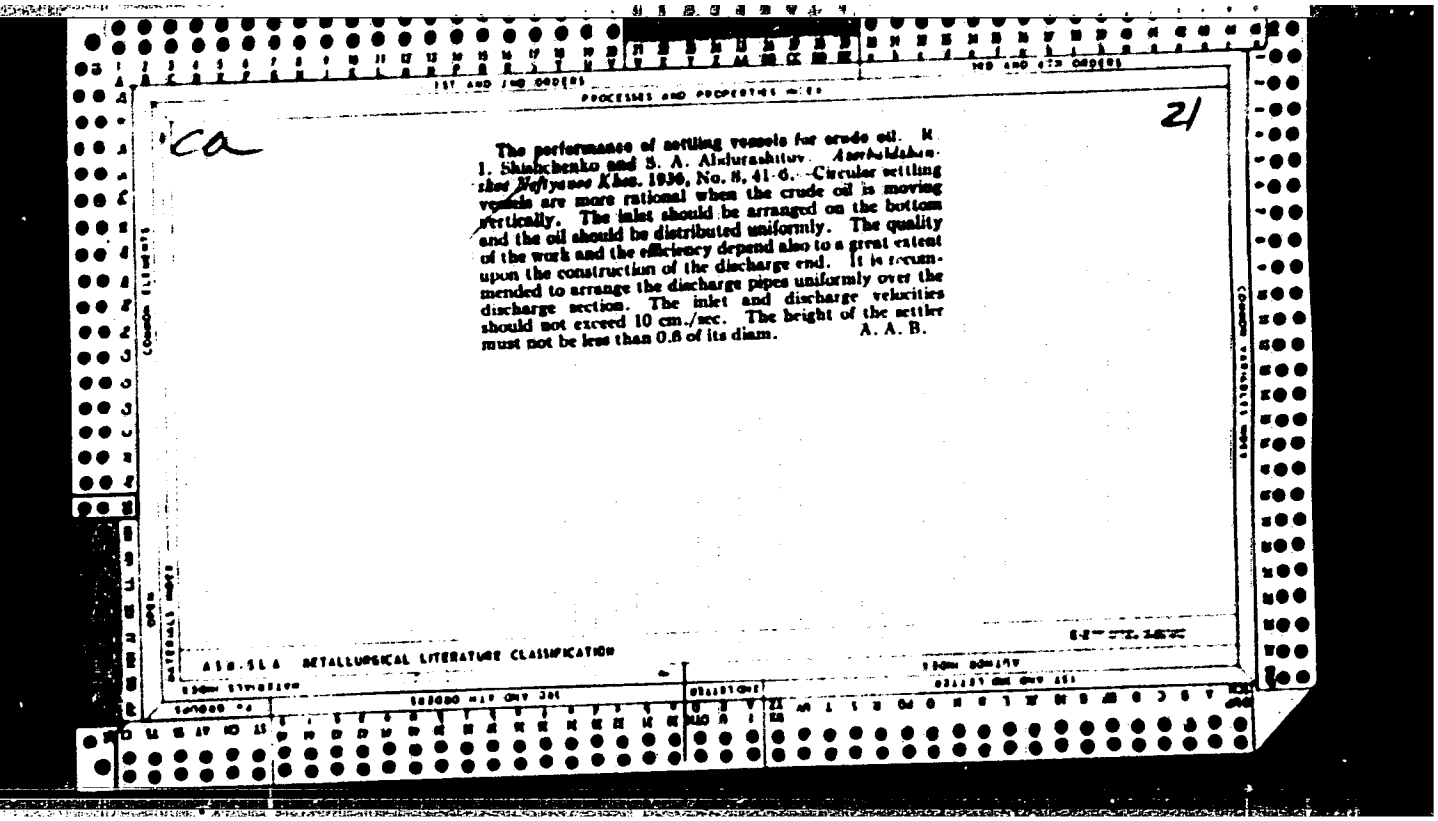
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

22

Recovery of barite from clay solutions. N. A. Shubchenko. *Azerbaidzhanskoe Neftyanoe Khoz.* 1930, No. 5, 17-22.—The barite can be recovered from mud solns. in hydrolytic classifiers or by means of centrifuges. The sepn. is not quite complete, some clay always remaining with the recovered barite. The recovery by centrifuging is given preference because of the possibility of using more viscous solns. of mud and the greater compactness of the equipment. A. A. Bochtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



21

Ca

The performance of settling vessels for crude oil. M. I. Shishchenko and S. A. Alsfurashitov. *Azerbaidzhan. skoe Neftyanoe Khoz.* 1930, No. 8, 41-6. Circular settling vessels are more rational when the crude oil is moving vertically. The inlet should be arranged on the bottom and the oil should be distributed uniformly. The quality of the work and the efficiency depend also to a great extent upon the construction of the discharge end. It is recommended to arrange the discharge pipes uniformly over the discharge section. The inlet and discharge velocities should not exceed 10 cm./sec. The height of the settler must not be less than 0.6 of its diam. A. A. B.

A10-51A METALLURGICAL LITERATURE CLASSIFICATION

Well-boring and mine-operating machinery and equipment Baku, Azerbaidzhanskoe otd-nie Gos. nauch.-tekhn. izd-va neftianoi i gorno-toplivoi lit-ry, 1947. 391 p. (49-14292)

SHISHCHENKO, R. I.

Transport i khranenie nefti. [Oil transportation and storage]. Baku, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, Azerbaidzhanskoe otd-nie, 1950.
153 p. illus.
Bibliography: p. [152].

DLC: TN879.5.S5

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

Shishchenko, R.I.

3

Apparatus for determining the water separation of clay cement at high temperature. R. I. Shishchenko and I. [illegible]

[illegible] systematically controlled in oil well cements. The existing control method can be applied only at normal temp and therefore is limited to shallow wells. For wells of 4000-5000 m., where the temp. is about 120-150°, the present method is completely unsuitable. A special app. for studying the water sepn. of clay in cement at temps. above 100° has been developed and is described in detail. Various clay cements were tested at temps. of 25-150° and pressures of 5, 10, 20, and 30 atms. Testing cements at 20 and 30 atms. and at temps. of 50-150° showed no great differences. It is demonstrated by curves that the water-sepn of clay cements generally increases with the temp. For cements which were treated with lignite the water sepn did not decrease or varied only little at high temp. Consequently in order to manuf. a clay cement which would have the property necessary for oil-well drilling of 4000-6000 m. the cement should be treated with a caustic lignite ext.

H. G. Voelker

SHISHCHENKO, R. I.

USSR.

Apparatus for determining the viscosity and the static displacement pressure of clay mortars at higher temperatures. R. I. Shishchenko and E. Yaichnikova. *Novosti Neftyanoi Tekh., Neftepromyslovoe Delo* 1950, No. 6, 6-9.—The existing methods for detg. the viscosity and the static displacement pressure for clay mortar can be used only at temps. up to 100°. For higher temps. they were absolutely useless. Therefore, a new app. was constructed which was different from the others in that it consisted of 2 concentric cylinders and was completely airtight. The app. and the procedure are described in detail. First the clay mortar to be tested was heated for 20 min. at the testing temp., then the static pressure and the viscosity were detd. Quite a number of complex processes take place in the clay mortar while heating it at higher temps. The nature of them had so far not been investigated. Among others, peptization and coagulation processes take place. The course and the trend of these processes are influenced by many factors but first of all the content and the nature of the electrolyte play a major role. Preliminary studies on this subject at temp. up to 160° indicated that at increasing temps., the static displacement pressure grows likewise. For a few clay or mortar mixts. a decrease of the static displacement pressure was recorded at temps. above 120°. The viscosity generally decreases at higher temps., although, for some mortars at certain temp. intervals an increase of the viscosity is mentioned, which further at still higher temps. decrease again. The authors, therefore, thought it necessary to obtain new data on this subject. In this paper further studies are conducted and a formulation was prepd. for producing clay mortars, which can be used for drilling, especially deep oil wells.

H. G. Voelker

SHISHCHENKO, R.I., dotsent, kandidat tekhnicheskikh nauk; YES'MAN, I.G., redaktor; ISRAFILOV, K.I., tekhnicheskiy redaktor.

[Hydromechanics of clay solutions] Gidravlika glinistykh rastvorov. Baku, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1951. 135 p. (MIRA 8:4)
(Clay) (Fluid mechanics)