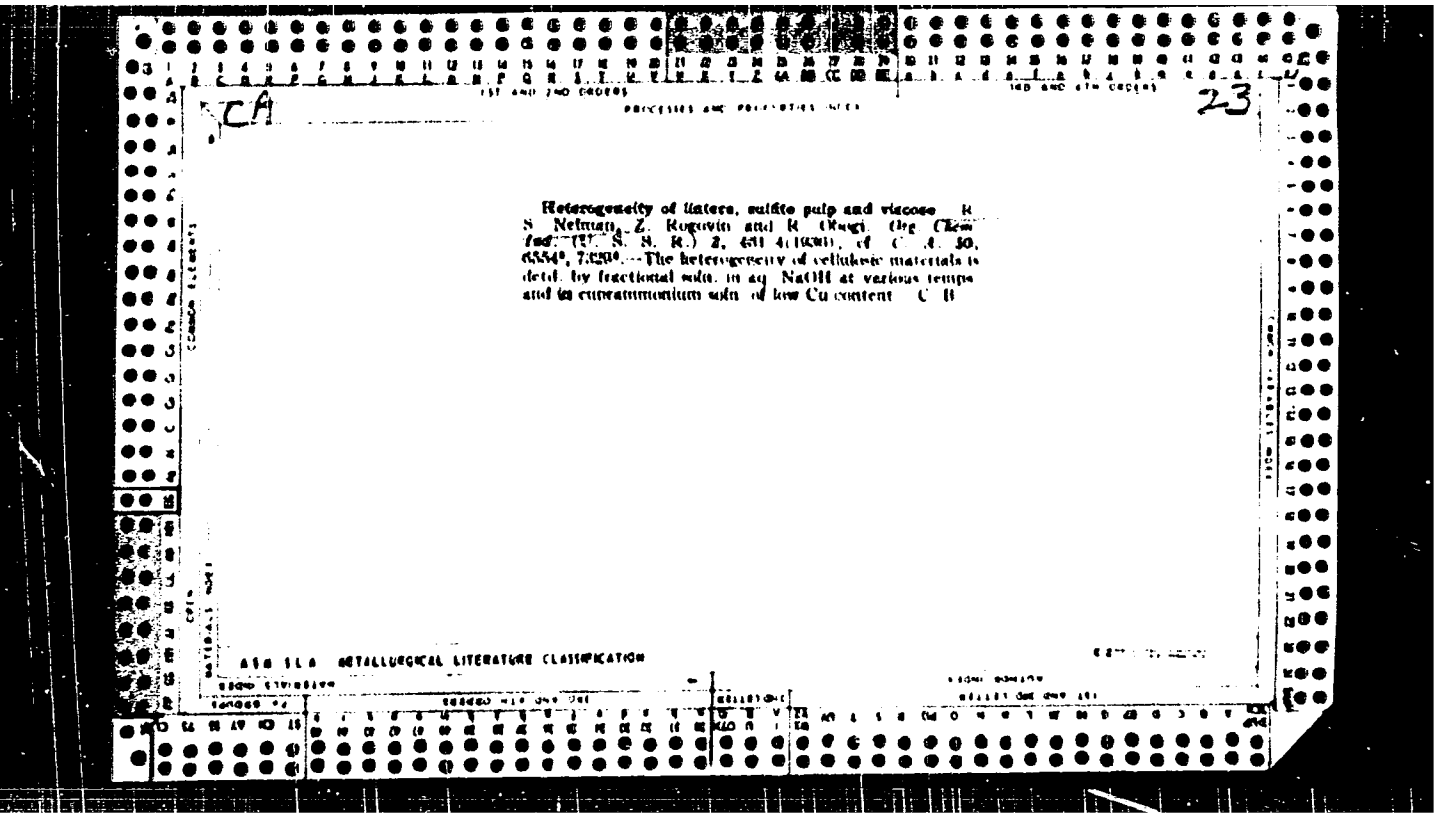
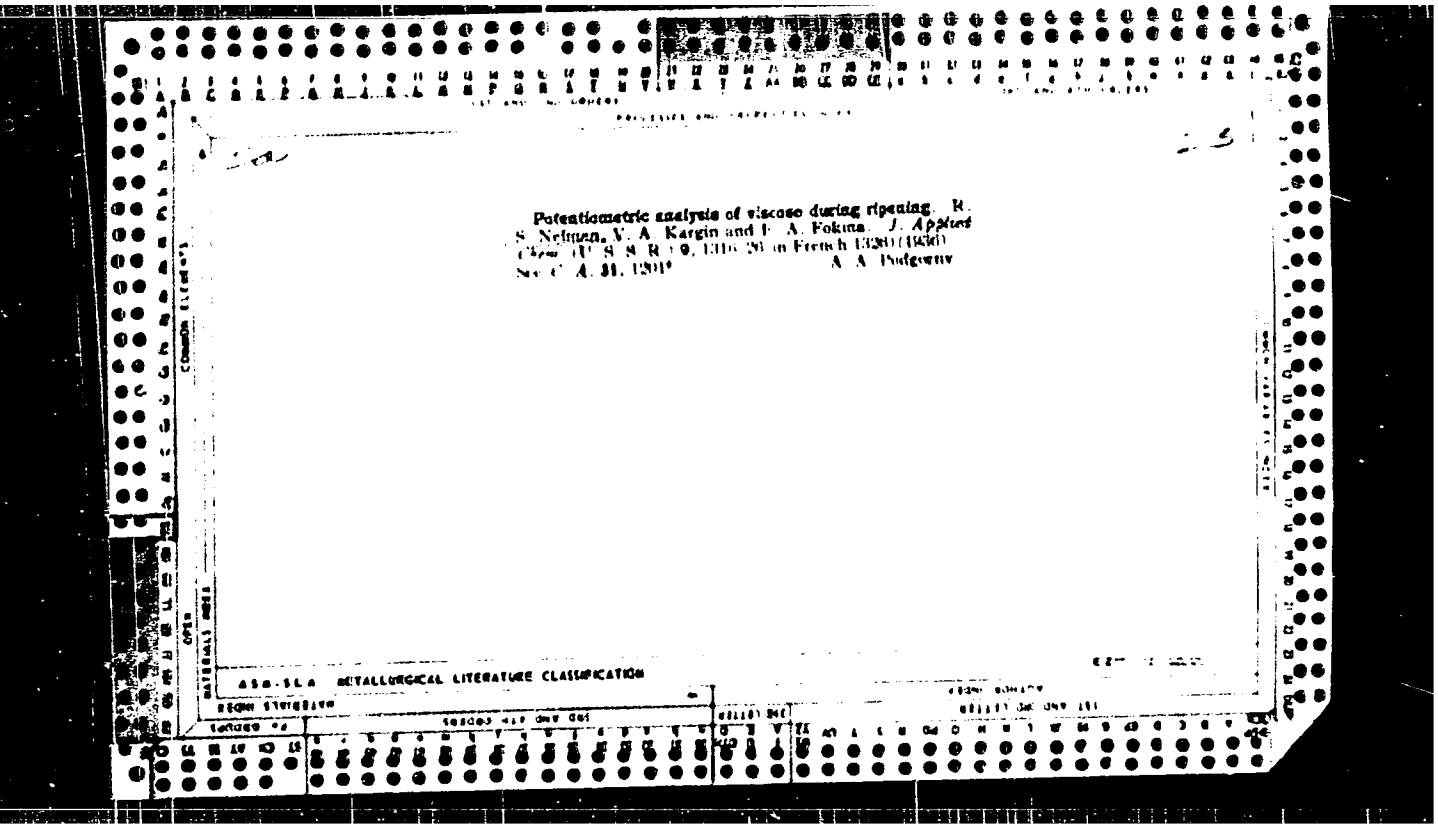


CA

23

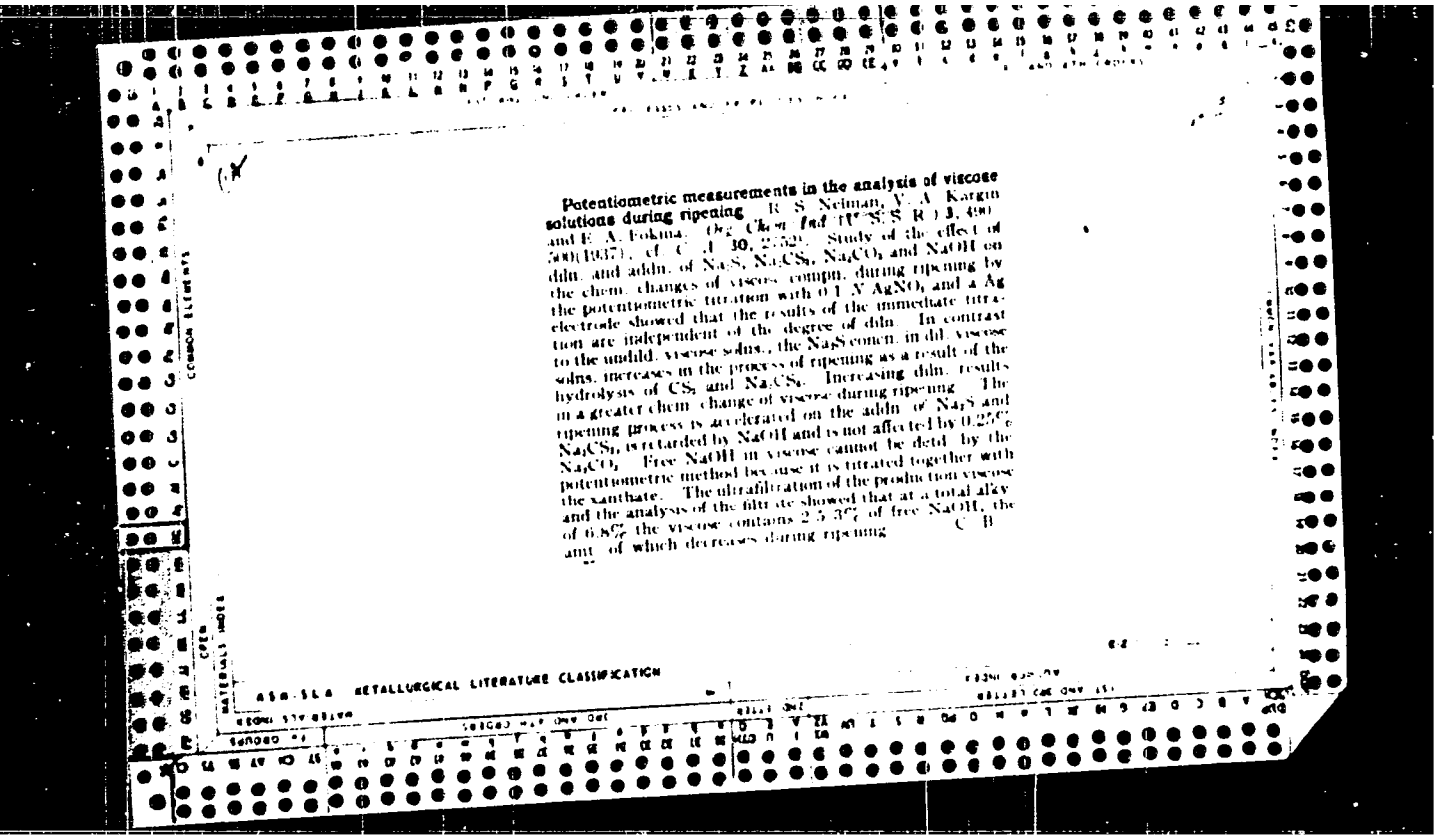
Heterogeneity of linters, sulfite pulp and viscose. R. S. Neiman, Z. Rogovin and R. Otagi. *Org. Chem. Ind.* (U. S. S. R.) 2, 451-4 (1936); cf. C. A. 30, 6554⁹, 7:2310.—The heterogeneity of cellulosic materials is detd. by fractional solns. in aq. NaOH at various temps. and in cuprammonium solns. of low Cu content. C. H.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

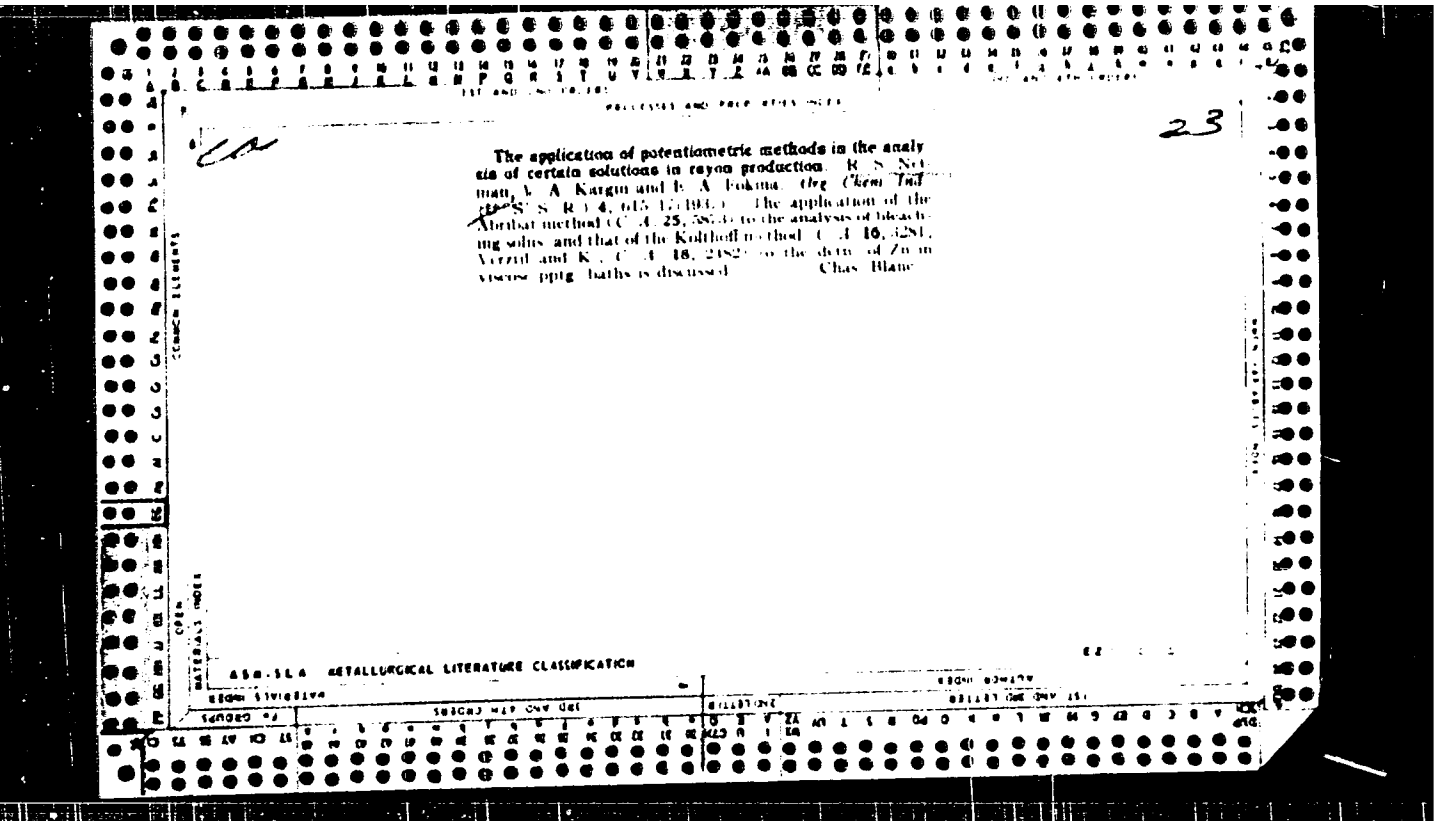


Potentiometric analysis of viscose during ripening. R.
S. Nelmun, V. A. Kargin and P. A. Fokina. *J. Applied*
Chem. (U. S. S. R.) 9, 1116-20 in French (1936).
Nov. C. A. 31, 1301. A. A. Podgornov

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

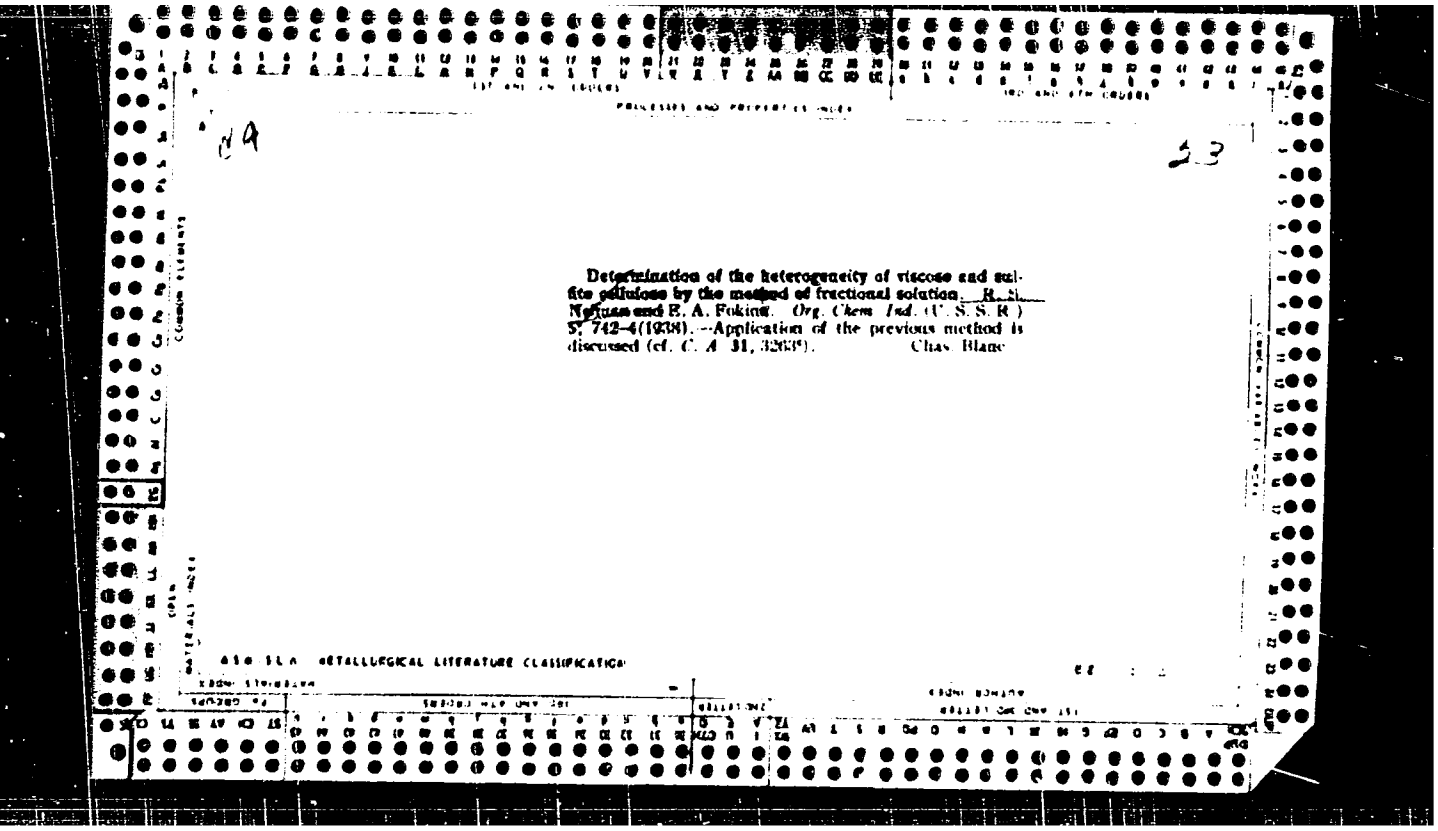


Potentiometric measurements in the analysis of viscose solutions during ripening. R. S. Neiman, V. A. Kargin and E. A. Fokina. *Zhur. Obshchei Khim. [J. Gen. Chem.] (U.S.S.R.)* 3, 490-500(1937). cf. *C. A.* 30, 2752. Study of the effect of dilu. and addn. of Na_2S, Na_2CS_3, Na_2CO_3 and NaOH on the chem. changes of viscose compn. during ripening by the potentiometric titration with 0.1 *N* $AgNO_3$ and a Ag electrode showed that the results of the immediate titration are independent of the degree of dilu. In contrast to the undild. viscose solns., the Na_2S concn. in dil. viscose solns. increases in the process of ripening as a result of the hydrolysis of CS_2 and Na_2CS_3. Increasing dilu. results in a greater chem. change of viscose during ripening. The ripening process is accelerated on the addn. of Na_2S and Na_2CS_3 is retarded by NaOH and is not affected by 0.25% Na_2CO_3. Free NaOH in viscose cannot be detd. by the potentiometric method because it is titrated together with the xanthate. The ultrafiltration of the production viscose and the analysis of the filtrate showed that at a total alky. of 6.8% the viscose contains 2.5-3% of free NaOH, the amt. of which decreases during ripening. C. B.

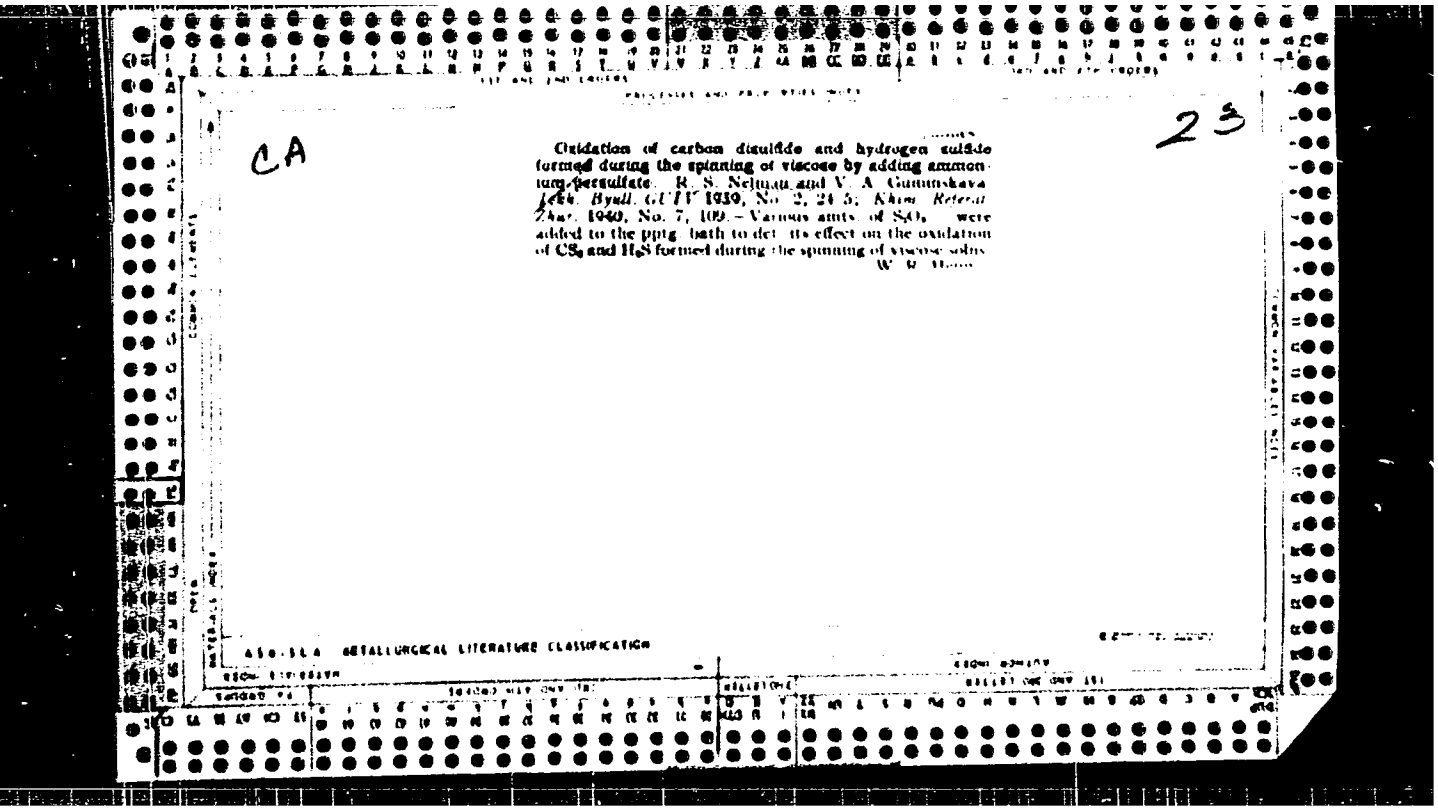


The application of potentiometric methods in the analysis of certain solutions in rayon production. R. S. Nemati, L. A. Kargin and E. A. Fokina. *Zhur. Khim. Tekh.* (U.S.S.R.) 4, 615-17 (1934). The application of the Abribat method (C. A. 25, 5853) to the analysis of bleaching solns. and that of the Kolthoff method (C. A. 16, 3281), Verzil and K. (C. A. 18, 2482) to the detn. of Zn in viscose pptg. baths is discussed. Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Determination of the heterogeneity of viscose and sulfite cellulose by the method of fractional solution. R. Sh. Nefiuan and E. A. Fukina. *Org. Chem. Ind.* (U. S. S. R.) 5: 742–6(1938).—Application of the previous method is discussed (cf. *C. A.* 31, 3263⁹). Chas. Blanc



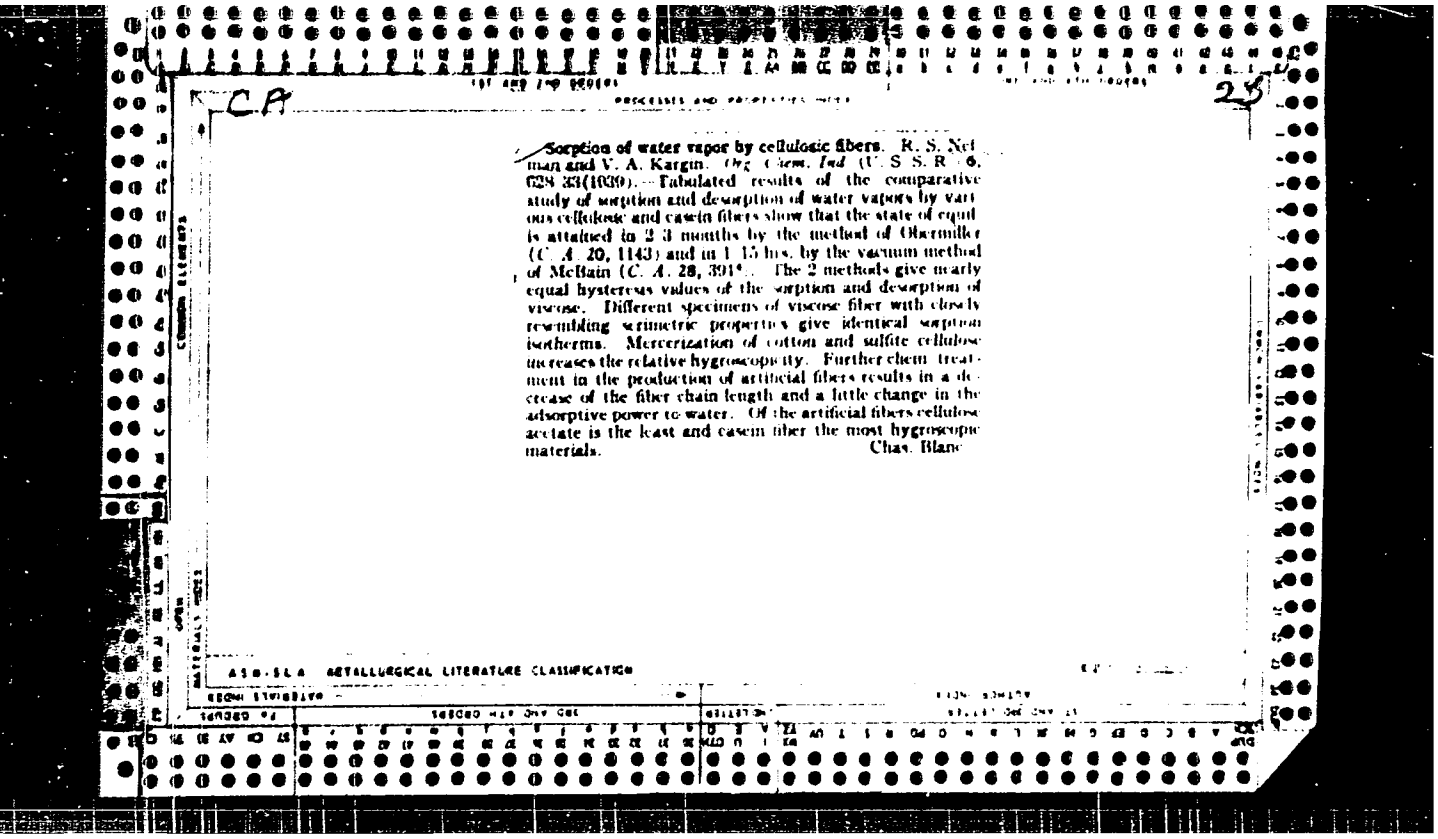
CA

23

Oxidation of carbon disulfide and hydrogen sulfide formed during the spinning of viscose by adding ammonium persulfate. R. S. Neiman and V. A. Gunnikova. *Izvest. Byull. GIPV* 1939, No. 2, 24-5; *Khim. Referat. Zhur.* 1940, No. 7, 109.—Various amts. of SO_2 were added to the pptg. bath to det. its effect on the oxidation of CS_2 and H_2S formed during the spinning of viscose solns.

W. R. H.

A50-51A METALLURGICAL LITERATURE CLASSIFICATION

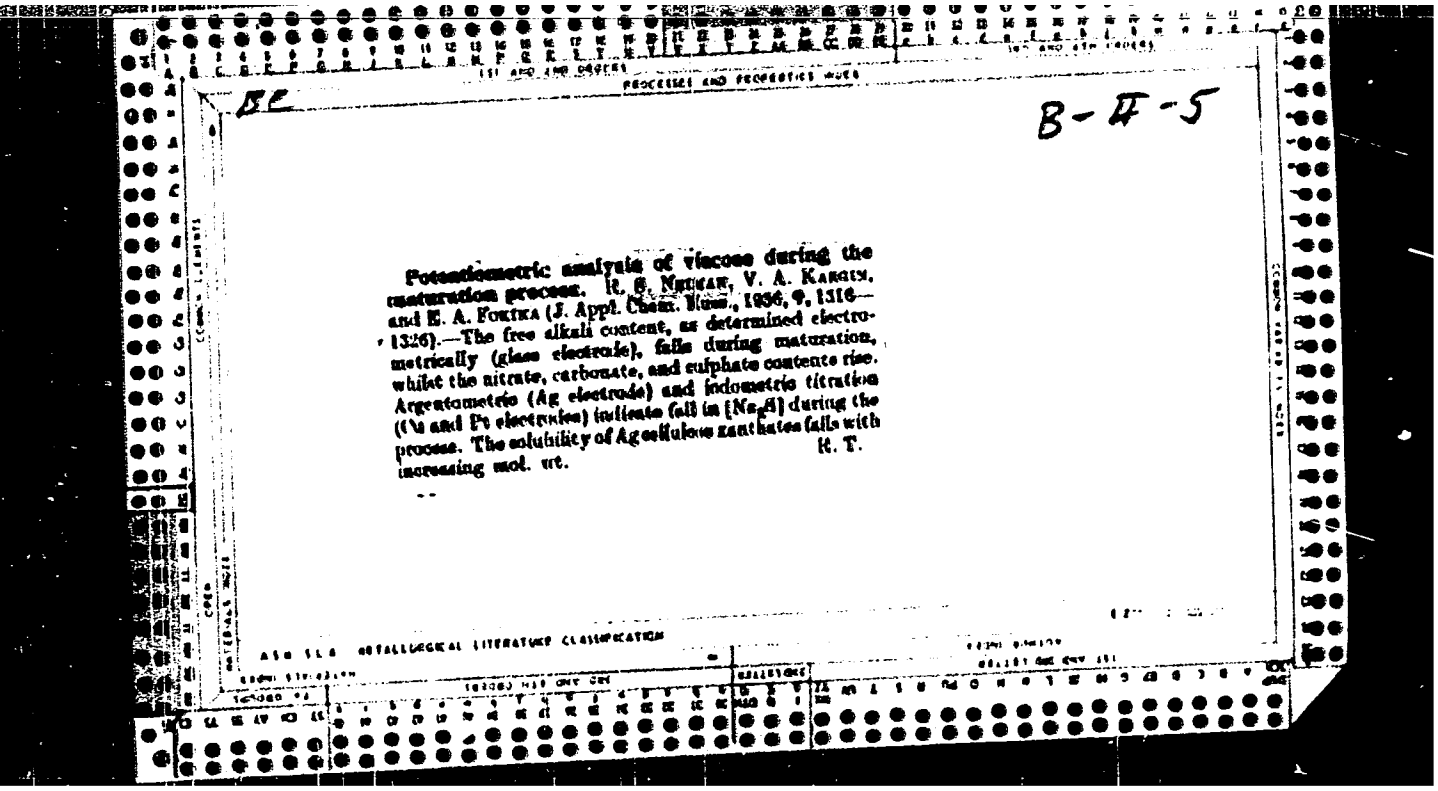


CA

25

Sorption of water vapor by cellulosic fibers. R. S. Neiman and V. A. Kargin. *Org. Chem. Ind.* (U. S. S. R.) 6, 628-33(1939).—Tabulated results of the comparative study of sorption and desorption of water vapors by various cellulosic and casein fibers show that the state of equil is attained in 2-3 months by the method of Obermiller (*C. A.* 20, 1143) and in 1-15 hrs. by the vacuum method of McBain (*C. A.* 28, 391⁹). The 2 methods give nearly equal hysteresis values of the sorption and desorption of viscose. Different specimens of viscose fiber with closely resembling sorptive properties give identical sorption isotherms. Mercerization of cotton and sulfite cellulose increases the relative hygroscopicity. Further chem. treatment in the production of artificial fibers results in a decrease of the fiber chain length and a little change in the adsorptive power to water. Of the artificial fibers cellulose acetate is the least and casein fiber the most hygroscopic materials. Chas. Blanc

A 5 8 - S L A METALLURGICAL LITERATURE CLASSIFICATION

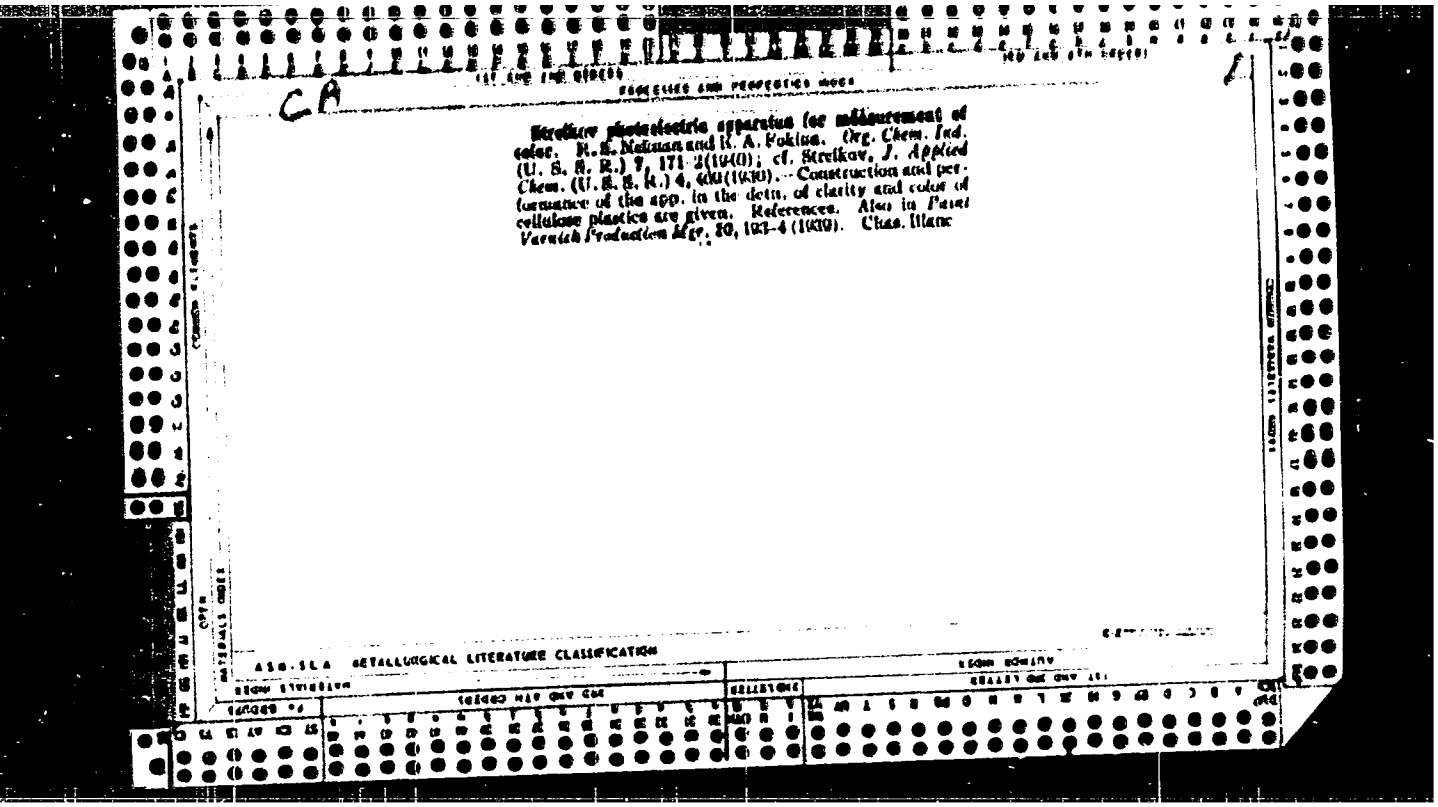


B-II-5

Potentiometric analysis of viscose during the maturation process. R. G. Nuttall, V. A. Kargin, and E. A. Fokina (J. Appl. Chem. Russ., 1936, 9, 1316—1326).—The free alkali content, as determined electrometrically (glass electrode), falls during maturation, whilst the nitrate, carbonate, and sulphate contents rise. Argentometric (Ag electrode) and iodometric titration (Ag and Pt electrodes) indicate fall in [Na_2S] during the process. The solubility of Ag cellulose xanthates falls with increasing mol. wt. R. T.

The properties and structure of cellulose ester solutions. VI. Xanthation of cellulose solutions. Z. A. Rogovin, R. S. Sorkian and Grishina. *J. Applied Chem.* U. S. S. R. **12**, 262–8 (in French, 268) (1939); cf. C. A. **33**, 3580. — Cellulose hydrate was dissolved by treatment with [illegible]% NaOH at [illegible] for 1 hr., the soln. dild. with water to various concns. of NaOH and well mixed with excess CS₂ for 1.5–2 hrs. at [illegible] to [illegible]. Cellulose soln. was treated with 1.14% NaOH at 20° for 30 min., the excess of NaOH pressed out and the alkali cellulose treated with [illegible]% CS₂ by wt. of cellulose. Xanthation proceeded in both cases at lower NaOH concns. than those used for mercerizing cellulose. Preliminary treatment of cellulose with 4–6% NaOH solns. yielded xanthates with the normal degree of esterification but somewhat lower soly. in alkali (70–80%). This is attributed to the retention by the xanthate of some of the bridge linkages of the initial cellulose. **VII. The conditions of formation of tridimensional molecules of cellulose and their properties.** Z. A. Rogovin and M. Ioffe. *Ibid.* 269–76 (in French, 276). — One part of cellulose hydrate was treated with 10 parts of 3.5% NaOH soln. for 1–24 hrs. The excess NaOH soln. was pressed out and the cellulose (1 part) was mixed with soln. (20 parts) of dichlorohydrin in acetone for 5–72 hr. The product was washed with dil. AcOH and then with water, and dried at [illegible]. The product was only slightly sol. in [illegible]% NaOH soln. and was insol. in cuprammonium hydroxide soln. This is attributed to the formation of bridges between sep. chains. The product was more hygroscopic and less strong in the wet state than the initial cellulose owing to the increased distance between the chains of fiber.

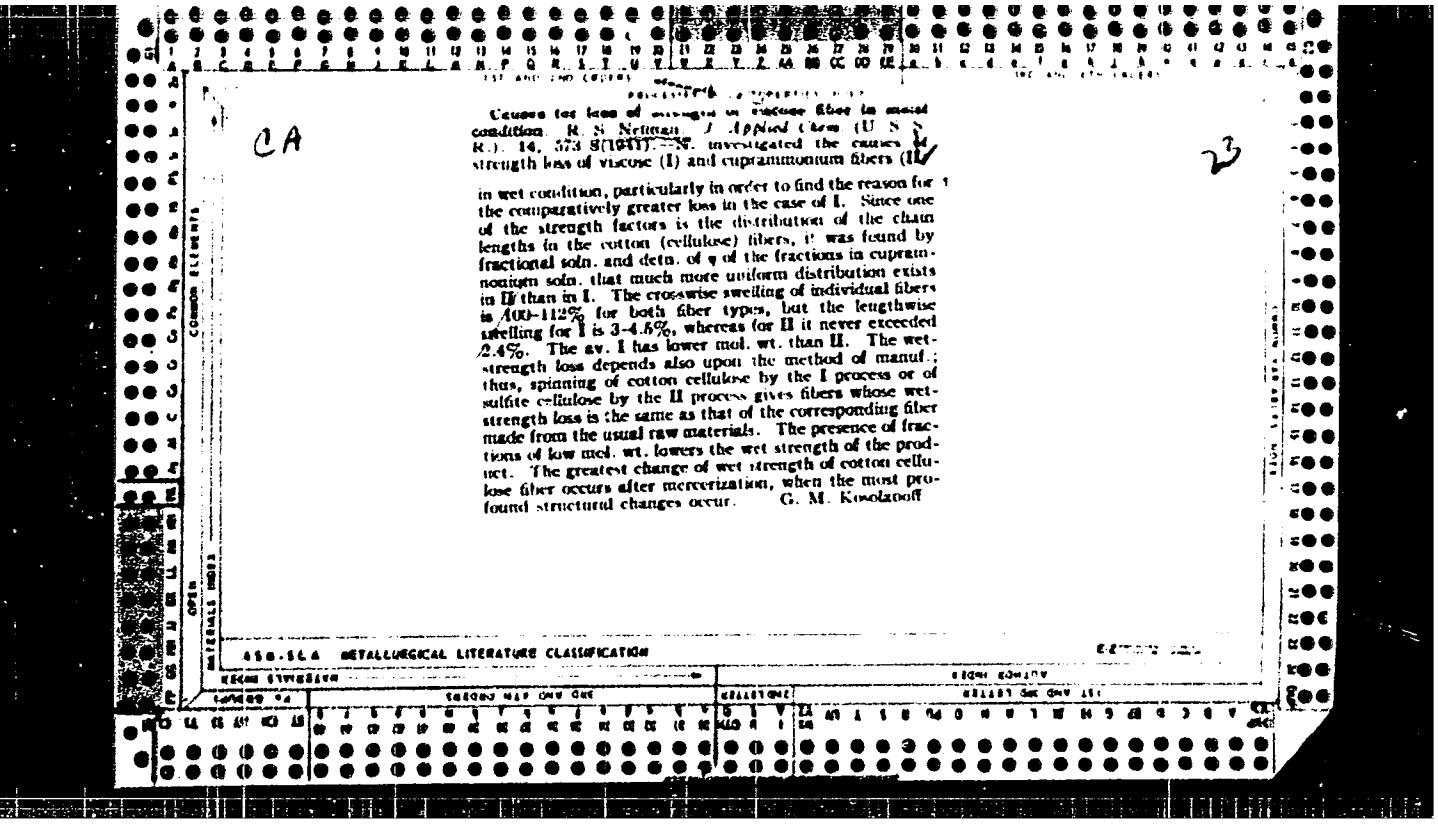
A. A. Podgorny



CA

Strelkov photoelectric apparatus for measurement of color. K. S. Nelsman and I. A. Fuklina. *Org. Chem. Ind.* (U. S. S. R.) 7, 171-2(1940); cf. Strelkov, *J. Applied Chem.* (U. S. S. R.) 4, 403(1430).—Construction and performance of the app. in the detn. of clarity and color of cellulose plastics are given. References. Also in *Paint Varnish Production Mgr.* 10, 193-4 (1430). Chas. Blanc

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

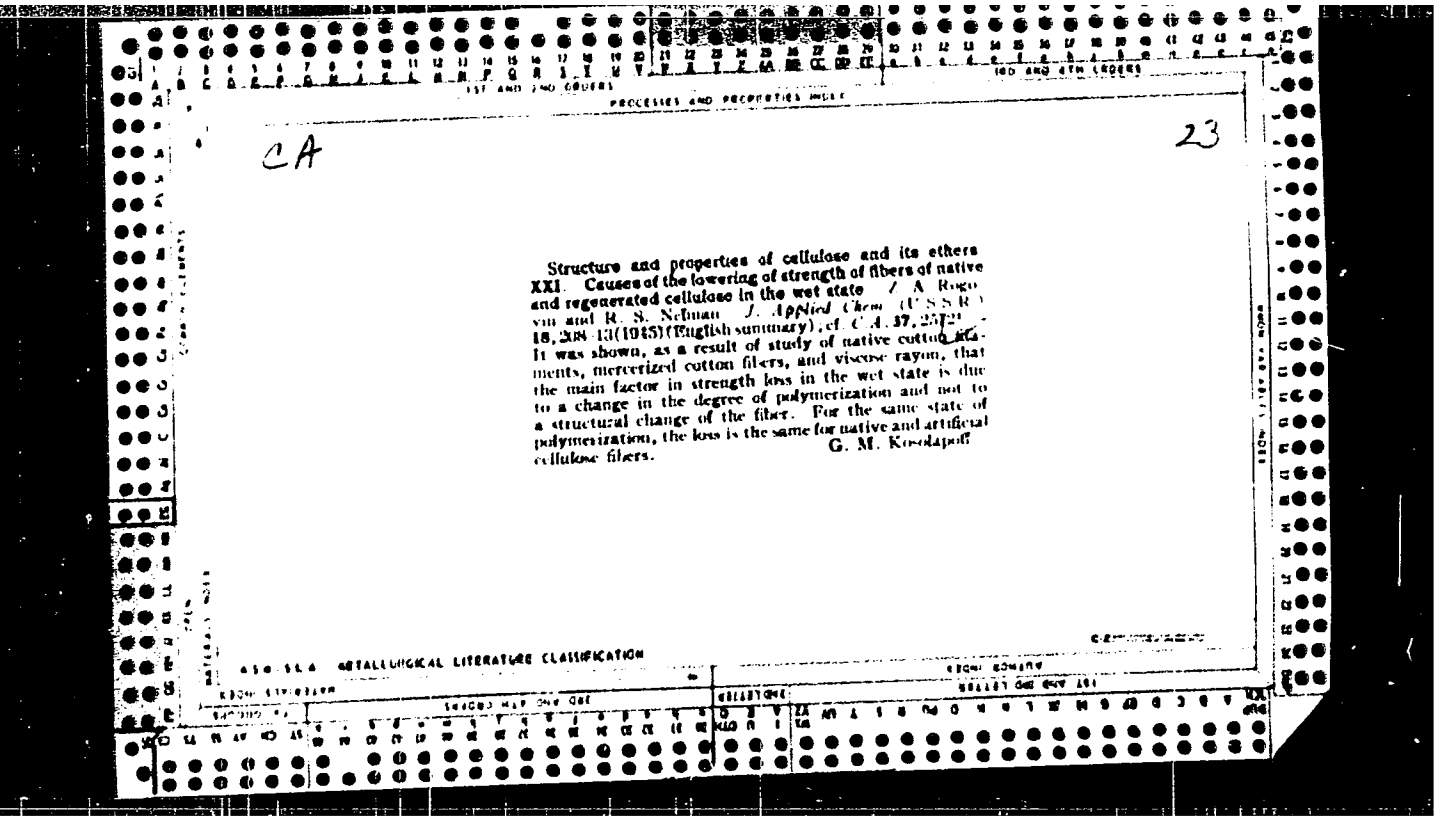


CA

23

Causes for loss of strength in viscose fiber in moist condition. R. S. Neiman. *J. Applied Chem.* (U. S. S. R.). 14, 573-8(1941).—S. investigated the causes of strength loss of viscose (I) and cuprammonium fibers (II) in wet condition, particularly in order to find the reason for the comparatively greater loss in the case of I. Since one of the strength factors is the distribution of the chain lengths in the cotton (cellulose) fibers, it was found by fractional soln. and detn. of η of the fractions in cuprammonium soln. that much more uniform distribution exists in II than in I. The crosswise swelling of individual fibers is 100–112% for both fiber types, but the lengthwise swelling for I is 3–4.6%, whereas for II it never exceeded 2.4%. The av. I has lower mol. wt. than II. The wet-strength loss depends also upon the method of manuf.; thus, spinning of cotton cellulose by the I process or of sulfite cellulose by the II process gives fibers whose wet-strength loss is the same as that of the corresponding fiber made from the usual raw materials. The presence of fractions of low mol. wt. lowers the wet strength of the product. The greatest change of wet strength of cotton cellulose fiber occurs after mercerization, when the most profound structural changes occur. G. M. Kosolapoff

456-564 METALLURGICAL LITERATURE CLASSIFICATION

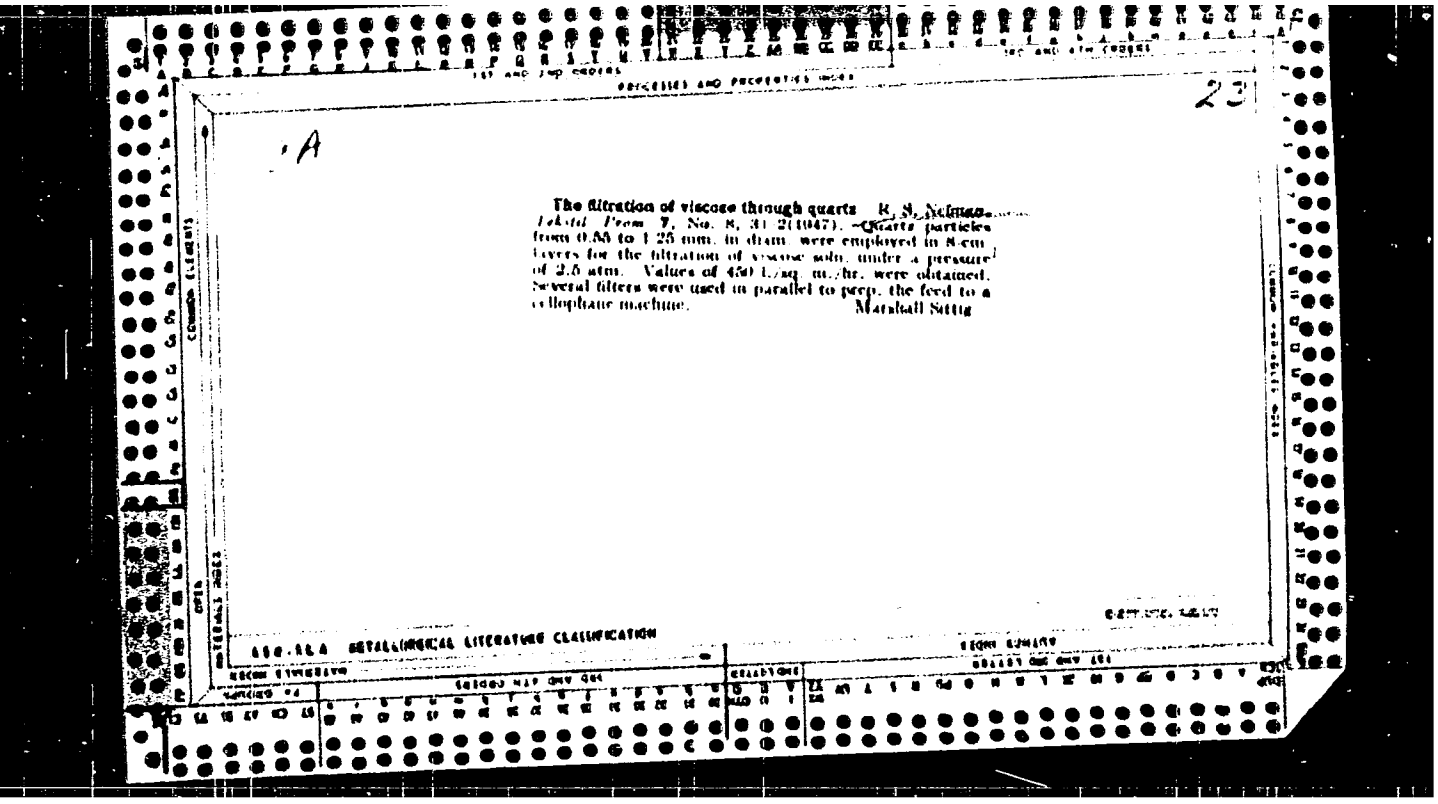


CA

23

Structure and properties of cellulose and its ethers XXI. Causes of the lowering of strength of fibers of native and regenerated cellulose in the wet state. / A. Rogovin and R. S. Nelman. *J. Applied Chem.* (U.S.S.R.) 18, 208-13(1945)(English summary); cf. *C.A.* 37, 2521. - It was shown, as a result of study of native cotton filaments, mercerized cotton fibers, and viscose rayon, that the main factor in strength loss in the wet state is due to a change in the degree of polymerization and not to a structural change of the fiber. For the same state of polymerization, the loss is the same for native and artificial cellulose fibers.

G. M. Kosolapoff



23

A

The filtration of viscose through quartz R. S. Nelmes.
Metal Prom. **7**, No. 8, 31-2(1947).—Quartz particles from 0.85 to 1.25 mm. in diam. were employed in 8-cm. layers for the filtration of viscose soln. under a pressure of 2.5 atm. Values of 450 l./sq. m./hr. were obtained. Several filters were used in parallel to prep. the feed to a cellophane machine.
Marshall Sittig

NEYMAN, R.S.

Most efficient concentration of sodium hydroxide in viscose baths. Khim.volok. no.3:45-46 '59. (MIRA 12:10)
(Rayon)

NEYMAN, R.S.; GRYAZNOVA, V.I.

Structure of viscose fibers. Khim.volok. no.5:47-50 '61.
(MIRA 14:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna.

(Rayon)

NEYMAN, S., kapitan i-go ranga zapasa

Making use of harbors subject to freezing. Rech.transp. 21 no.11:60 N '62. (MIRA 15:11)
(Harbors--Cold weather operation)

[redacted], V. I.

Technology

Preventing static in radio reception, Moskva, Gosenergoizdat, 1951.

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

NEFAD, S. I., Engineer, Cand Tech Sci

Dissertation: "Investigation of the Process of Cold Stamping the Outer Raceways of Taper Roller Bearings."

12/3/57

Moscow Automechanical Inst

SO Vecheryaya Moskva
Sum 71

Neyman, S. I.

25(5) PHASE I BOOK EXPLOITATION SOV/3220

Vsesoyuznyy nauchno-issledovatel'skiy institut po normalizatsii v mashinostroyenii

Novoye v tekhnologii mashinostroyeniya (New Developments in Machine Designing) Moscow, Mashgiz, 1959. 222 p. (Series: Its: Trudy, vyp. 1) Errata slip inserted. 5,500 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov mer i izmeritel'nykh priborov.

Ed.: G.B. Lur'ye, Doctor of Technical Sciences, Professor; Ed.: L.G. Prokof'yeva; Tech. Ed.: A.F. Uvarova; Managing Ed. for Literature on Machine Building and Instrument Construction: N.V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for engineers and technicians in machine-building plants, design and planning enterprises, and scientific research organizations for machine-building technology. It may also be used by aspirants and students of advanced courses in Institutions of Higher Education and technical schools for machine building.

COVERAGE: The collection contains 10 articles which describe the theoretical and experimental work by the All-Union Scientific Research Institute for Normalization in Machine-Building (formerly VNIITMASh), carried out in 1956-1957 to investigate new equipment designs and progressive technique for manufacturing machine parts in different branches of general machine building: hydraulic equipment building, textile- and sewing-machine manufacturing, etc. The article by N.Ye. Chernis which discusses a system of machine fitting using "Universal fixture attachments" (copyrighted in the Soviet Union by V.S. Kuznetsov and V.S. Ponomarev under Nr. 75777), may be of special interest. References accompany each article.

Card 3/4

8

NEYMAN, S.I., kand.tekhn.nauk; SIDOROV, I.A., inzh.

Alvanced technological process for making spinning-ring blanks.
Trudy VNIINMASH no.1:27-60 '59. (MIRA 13:5)
(Spinning machinery) (Forging)

BAKYSHEV, V.P.; HEYMAN, S.L.; RAYGORODSKIY, M.A.

Maneuvering and service of car dumpers. Koks i khim. no.2:10-14 '61. (MIRA 14:2)

1. Giprokoks.
(Coke industry--Equipment and supplies)

NEYMAN, S.L., inzh. (g.Khar'kov); RAYGORODSKIY, M.A., inzh. (g.Khar'kov)

Further expansion of collaboration in the use of transportation equipment and approach tracks. Zhel.dor.transp. 43 no.3:75-77 Mr '61. (MIRA 14:3)

(Railroads--Joint use of facilities)

NEYMAN, S.M., student; BUGROV, V.F., student

Lignin is a diluent of slurry. TSement 29 no.1:19-20 Ja-F '63.
(MIRA 16:2)

1. Kazakhskiy tekhnologicheskiy institut.
(Lignin) (Cement)

NEYMAN, S.M.

Analysis of the synchronizing system for telephotographic equipment with an electronic brake. Elektrosviaz' 10 no.3:57-64 Mr '56. (Phototelegraphy) (MIRA 9:7)

"[illegible]", S. M.

"[illegible]", S. M. -- "A New Method of Autonomous Synchronization of Start-Stop Telegraphic Equipment." Leningrad Electrical Engineering Inst of Communications imeni Professor M. A. Bonch-Bruyevich. Leningrad, 1955. (Dissertation for the Degree of Candidate in Technical Sciences)

SOURCE: Knizhnaya Letopis', No 4, 1956

NEYMAN, S. M.

p. 3

23(4) 23 (5) SOV/77-4-2-15/18

AUTHOR: Lyalikov, K.S.

TITLE: Successes of Soviet Electrophotography (Uspekhi sovetskoy elektrofotografii) A Scientific and Technical Conference on Questions of Electrography (Nauchno-tekhnicheskaya konferentsiya po voprosam elektrografii)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 2, pp 149-152 (USSR)

ABSTRACT: This is an account of a scientific and technical conference on electrography, the first to be held in the Soviet Union and evidently in the world. It was organized in Vil'nyus on December 16-19, 1958 by the Soviet narodnogo khozyaystva Litovskoy SSR (Council for National Economy of the Lithuanian SSR), the Gosudarstvennyy nauchno-tekhnicheskiy komitet Sovota ministrov Litovskoy SSR (State Scientific and Technical Committee of the Council of Ministers of the Lithuanian SSR) and the Nauchno-issledovatel'skiy institut elektrografii (Scientific Research Institute of Electrography). The conference, attended by over 300 scientific workers, was opened by the Deputy Chairman of the Council for National Economy of the Lithuanian SSR P.A. Kul'vets, after which the director of the Institute for Electrography, I.I. Zhilevich, reviewed the state and prospects for development of electrography in the USSR. He stated that research in this field should be carried out along the following lines: a) a search for new photo-active materials with high dark resitance; b) physical research into the internal photoeffect; c) development of photosemiconductor layers; d) development of the theory of the electrophotographic process. K.S. Lyalikov (speaking also for O.G. Popova) gave a report in which he suggested determining the light sensitivity of electrophotographic layers in GOST units. N.Z. Plavina (speaking also for I.I. Zhilevich, L.I. Hyun'ko, N.N. Markevich, E.I. Kalinauskene and O.K. Suveyzdis) reported on some research on the sensitization of a semiconductor in electrophotographic layers. V.M. Fridkin gave a report on highly sensitive electrophotographic layers and an electrophotocopying device, and reviewed the formation process of the latent electrophotographic image on the basis of the zonal theory. He also described the design of an electrosensitometer for determining sensitivity by the relaxation period of a charge on the surface of the layer, and the circuit of an electrophotographic copying device. Anfilov finished describing the latter and then spoke on the mechanics and kinetics of the development of the latent electrophotographic image in liquid developers.

Card 3/10

SOV/77-4-2-15/18

Successes of Soviet Electrophotography; A Scientific and Technical Conference on Questions of Electrography

K.M. Vinogradov described some of the features of the cascade and liquid methods of electrophotographic development. Yu.Ye. Karpeshko devoted his report to the criterion of light sensitivity of the elctrophotographic process. After the reports, a discussion took place on methods of determining the light sensitivity of electrophotographic layers. A.N. Chernyshev spoke on the prospects of developing polygraphic processes using electric and magnetic forces. O.V. Gromov (speaking also for I.I. Zhilevich, A.A. Sukhiy, V.A. Gordeyeva, A.S. Pauzha and Yu. I. Kevalaytis) reported on the development of elctrophotographic reproducing equipment. A.S. Pauzha (speaking also for I.I. Zhilevich, A.S. Borisovich, N.M. Gal'vidiks and M.I.Rautkauskas) reported on the use of electrographic methods in recording oscillographs and other recording instruments.
V.I. Yurchenko (speaking also for L.N. Balin) spoke on the possibility of electrophotographically recording images from electron-beam tubes. L.S. Korol' (speaking also for N.N. Markovich, T.I. Kozlovskaya, B.I. Kalinauskene, M.K. Naynens, I.I. Zhilevich and E.A. Montrimas) gave a detailed description of laboratory and machine methods of producing photosemiconductor papers (zinc oxide was used). A.A. Sukhiy (speaking also for I.I. Zhilevich, O.V. Gromov, V.A. Gordeyev, K.V. Fedotov and T.N. Ger) described a laboratory and industrial machine for producing photosemiconductor papers. T.A. Shishkina (speaking also for Ya.A. Oksman) reported on a method of examining electrophotographic materials using an a/c bridge. S.I. Khotyanovich (speaking also for A.I. Gikens and I.S. Shilevkens) spoke on developing materials for electrophotography and ferromagnitography, including developers giving a "reverse" image. B.I. Tikhonov reviewed methods of measuring the electrostatic potentials of electrophotographic layers, stressing that the oscillating electrode should not be placed above a layer with varying potential as this causes self-discharge. L.V. Krukovskis (speaking also for R.S. Gorevcy, A.I. Osipov and Ye. S. Kheyfets) spoke on the practice of producing velveteen papers in an electrostatic field, and showed samples produced by the Grigishkaya paper factory. Ye.L. Nemirovskiy then gave a historical review of the development of electrographic methods in which he paid tribute to the work of the Scientific Research Institute of Electrography in Vil'nyus and the Institut poligraficheskogo mashinostroyeniya (Moskva)-(Polygraphic Machine-Building Institute (Moscow)). Debates were then held

Card 6/10

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136820(

on methods of measuring the potential of charged electrophotographic layers, the vibration pick-up most-used was shown in B.I. Tikhonov's report to be not always accurate. S.G.Grenishin stated that the bad influence of the oscillating electrode can be eliminated if the electrode probe above its surface is fixed and the pick-up is connected to it by a shielded cable. In the debate on Ye.L. Nemirovskiy's report it was stated that the research of Academicians A.N. Terenin and Ye.K. Putseyko should be considered as the basis of all work on electrophotographic papers with ZnO, as they were the first to show the possibility of optical sensitisation of the internal photoeffect in ZnO. E.M.Gol'vidis then gave a report on the depositing of charges by a corona discharge. A.I. Kaminskas and A.P. Yanulis reviewed some of the results of the use of electrographic methods in radiography. L.I. Syun'ko (speaking also for I.I. Zhilevich, I.I. Plavin, Yu.K. Vishchakas and Yu.A.Zibuts) reported on relaxation processes in semiconductor layers, using a vibration electrometer. Yu.K.Vishakas gave a report on research on some physical properties of the polycrystalline layers of selenious cadmium. M.P. Mikalkyavichyus spoke on some of the photoelectric properties of Sb_2S_3 and Sb_2Se_3; the absorption maximum of the latter is about 900 mμ. S.M. Norman reported on methods of obtaining selenium light-sensitive layers, including sublimation and thermal treatment; it was also found that the sensitivity of the layers increased after storage for 1.5 to 2 months at room temperature. P.M. Podvigalkin (speaking also for S.G.Grenishin) spoke on research into the electrical properties of electrophotographic layers of amorphous selenium and powdered zinc oxide. E.K. Shiktorov (speaking also for A.S. Tauraytis) discussed the production of selenium layers and some of their properties. Finally the following reports on ferromagnetography were delivered; 1) B.Ya. Kaznacheyev, V.M.Zhogina, "Electrodeposition of Magneto-Hard Alloys with Given Magnetic Characteristics" 2) M.T.Krutyunov, "Visualization of Magnetic Oscillograms by the Ferrographic Method" 3) V.T.Patrunov, "Ferrographic Recording of Facsimile Images" 4) I.I.Zhilevich, I.I. Gikis, B. Ye. Buchek, I.I. Kayniso, A.K.Kizhis, "Mock Experiments in Non-Pressure Ferromagnetic Printing". There was also an exhibition showing the work of the Electrographic Institute. The most important conclusion of the conference was that a solid approach had been made to the possibility of wide technical use of the methods of electrography. It was considered that although work in this field actually started only in 1955-56 it has covered as much ground as the USA in 10 years. While admitting that it was easier to reproduce results already achieved than to be the first to arrive at them, the conference observed that the Americans took good care that no important information appeared in the literature available.

Card 10/10

No. 164020

SOURCE: Byulleten' izobreteniy i tovarny*kh znakov, no. 14, 1964, 21

TOPIC TAGS: electrophotography

Translation: 1. A method for developing a latent electrophotographic image by using a camel's hair brush saturated with developing power. The photosensitized paper is moved past the brush. In order to avoid having a background appear in blank spots and to make it possible to reproduce both black and white and halftone originals, after the sensitized paper has been moved past the brush, which is lightly impregnated with the developing powder, a dust cloud is created when the fibers of another camel's hair brush are struck against stationary metal filaments to which a voltage is fed while the brush is rotated. 2. A method of this description in which the voltage applied to the metal filaments is varied in order to control the intensity of the dust cloud.

Card 1/2

L 8961-65
ACCESSION NR: AP4048809

ASSOCIATION: Leningradskiy elektrotekhnicheskiy institut svyazi im. Professora M. A. Bonch-Bruyevicha (Leningrad Electrotechnical Institute of Communications)

SUBMITTED: 29Jul63 ENCL: 00 SUB CODE: ES

NO REF SOV: 000 OTHER: 000 JPRS

LUGININA, I.G.; LUGININ, A.N.; NEYMAN, S.M.; KONONENKO, G.V.

High temperature attachment to a polarizing microscope for studies in the electric field. Izv. AN SSSR. Neorg. mat. 1 no.11: 2044-2046 N '65. (MIRA 18:12)

1. Kazakhskiy khimiko-tekhnologicheskiy institut. Submitted April 26, 1965.

L 34066-66 EWT(m)/EWP(t)/ETI IJP(c) RDW/JD

ACC NR: AP6017934 SOURCE CODE: UR/0315/66/000/004/0022/0023

AUTHOR: Sukonkin, G. A.; Neyman, S. M.

ORG: none

TITLE: Experimental model of a drum-type xerographic copier

SOURCE: Nauchno-tekhnicheskaya informatsiya, no. 4, 1966, 22-23

TOPIC TAGS: electrophotography, electrostatic printer, selenium

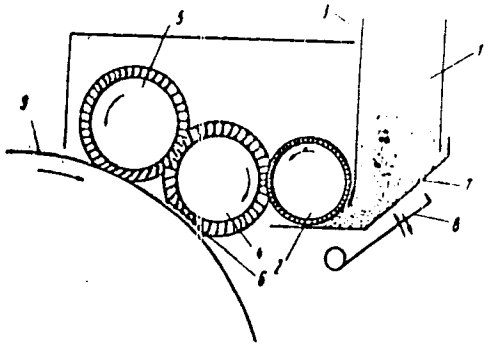
ABSTRACT: A description is given of the REM 420/620 electrostatic copier equipped with a rotating drum. The device is designed for reproduction and duplication of any type of documentation made in pencil or ink as well as from typewritten and printed copies. The maximum width of the xerographic copy is 420 mm. Originals up to 620 mm in width may be reduced by a factor of 1.4. The copying speed is 1 m/min, the installation weighs about 300 kg, measures 1.8×1.0×9.0 m, requires a power supply of 3 kw and has a resolution of 7-8 lines/mm. One of the new machines can replace ten of the conventional ERA-2 plate-type installations since all stages of the xerographic process are automated. The unit incorporates a new method for development of the latent electrostatic image using fur brushes in combination with a controllable low-intensity powder "cloud". A schematic diagram of the developing unit is shown in the figure. This unit consists of a chamber containing the developing powder 1 and a chamber containing the fur

Card 1/2 UDC: 681.621:772.93

L 34066-66

ACC NR: AP6017934

brushes *4* and *5*. These chambers are separated by feed roller *2* and partition *3* which may be moved vertically to regulate the area of contact between roller *2* and the developing powder. The fibers of brush *4* pick up the developing powder from roller *2*. The powder is simultaneously electrically charged. The powder is then transferred from brush *4* to brush *5* which is in contact with selenium layer *9*. Taut metal filaments *6* produce a powder "cloud" when contacted by the powder-charged fibers of the rotating brush. The electrical potential of these metal filaments may be varied to control the intensity of the "cloud". The powder in the developing chamber is periodically agitated by small hammers *8* which strike against the elastic bottom of the chamber *7*. Future improvements to be made in the device include installation of attachments for magnification of microphotocopies, the use of mercury lamps to increase the copying speed to 5-6 m/min, and an installation for chopping separate copies from a continuous roll. Orig. art. has: 3 figures.



[28]

SUB CODE: 14/ SUBM DATE: 20Dec65/ ATD PRESS: 5018

Card 2/2

MEYMAN, S.N., kandidat tekhnicheskikh nauk.

Combined dies and punches having hard alloy inserts. Proizv.-tekhn. inform. no.9:97-111 '54. (MLRA 10:3)
(Dies (Metalworking)) (Punches)

N e y M A N, T. G.

Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science; Machine and Instrument Manufacturing, Moscow, Izd-vo AN SSSR, 1958. 356 p.

21(3), 9(6) SOV/119-59-3-3/13

AUTHORS: Iordan, G. G., Candidate of Technical Sciences, Meyman, T. G., Engineer, Furman, K. S., Engineer

TITLE: Safety Technique in the Extensive Introduction of Radioactive Apparatus (O tekhnike bezopasnosti pri shirokom vnedrenii radioaktivnykh priborov)

PERIODICAL: Priborostroyeniye 1959, Nr 3, pp 21-22 (USSR)

ABSTRACT: The directives of the XX Congress of the KPSS contained the following passage: Plans must be established in due time for a more extensive use of radioactive radiation in industries, agriculture, and medicine, in particular for the inspection of production quality control of materials, for the inspection of production processes and their automatic control. In recent times such apparatus have been developed and introduced into industries. The radioactive level gage UR-4 is widely used in the control of the level of liquid chlorine in containers in various production processes. The radioactive level indicator RIU-1 measures the maximum and minimum height of dust in dust eliminators used in roasting pyrites in the "rimming zone". The radioactive device PZhR intended for the measurement of the density of fluids is used in the production of chlorinated

Card 1/4

Safety Technique in the Extensive Introduction of Radioactive Apparatus

oil, electrolytic soda, calcium chloride, etc. Special care must be taken in the use of radioactive apparatus which operates with gamma-radiation, and the same holds for apparatus using high-energy β-radiation. 250 of the 300 large industrial plants in the USA use radioactive isotopes in one or another form. In 1957 the use of radioactive isotopes saved 406 million dollars, and this figure will climb to 5 billion dollars in about 5 years. At present all directions for use of radioactive apparatus include specifications as to their installation and operation. If these specifications are strictly complied with, an irradiation of personnel with prohibitively high doses (that is 0.05 roentgen per working day) is excluded. In practice, however, it appeared that the unclear wording of these specifications renders control and sanitary inspection more difficult. Hence it is necessary to issue specialized sanitary regulations for the application of radioactive apparatus with inherent gamma-sources for technological inspection purposes. According to the opinion of the authors these regulations should be bases upon the following considerations: In places where people are working who are not professionally engaged in work with ionizing

radiation, the radiation dose originating from technological inspection apparatus should not exceed one tenth of the maximum admissible radiation dose. If this requirement is to be satisfied in practice, it is necessary to keep the dose rate on the surface of such apparatus below 0.2 microroentgen/second. The majority of apparatus which is in use at present do not comply with this standard, and if such "sub-standard" equipment is employed, additional protective measures are required. Subsequently, formulas for safety clearances are derived and applied to special cases. The safety clearances can also be determined with a dosimeter. It appears to be expedient that the manufacturers of radioactive apparatus should send a team of specialists to customers who will look after the installation of the equipment in a suitable place. A report is given on the problems involved in transporting such equipment and on its regular inspection. Finally, the authors express their gratitude to L. N. Balanina, researcher at the Institut gigiyeny truda i profzabolevaniy (Institute of Labor Hygiene and Professional Diseases) for her valuable assistance.

Safety Technique in the Extensive Introduction of Radioactive Apparatus

There are 3 references, 2 of which are Soviet.

SURNAME, Given Names

Country: Poland

Academic Degrees: [not given]

Affiliation: Office of Government's Representative for Use of Atomic Energy Matters, Palace of Culture and Science (Bjuro Pelnomocnika Rzadu dla Spraw Wykorzystania Energij Jadrowej, Palac Kultury i Nauki) Warsaw

Source: Leipzig, Isotopentechnik, No 5-6, May 1961, p. 147.

Data: "Measurements of the Concentration Of Solutions by Means of β -Radiation"

GPO 981643

NEYMAN, V.A.; PLYUSNIN, S.P.

Using electrothermal methods in stretching high-tensile wire reinforcements. Transp.stroi. 10 no.5:29-31 My '60. (MIRA 13:7)

1. Glavnyy tekhnolog Magnitogorskstroyputi (for Neyman).
2. Instruktor Chelyabinskoy nauchno-issledovatel'skoy stantsii Orgtransstroya (for Plyusnin).
(Reinforced concrete)

ISTOMINA, K.V.; NEYMAN, V.A.

Evaluation of the endothelial cup test in rheumatic fever. Lab. delo 5 no.6:15-19 N-D '59. (MIRA 13:3)

1. Iz kliniki gospital'noy terapii (zaveduyushchiy - prof. L.S. Shvarts) Saratovskogo meditsinskogo instituta.
(RHEUMATIC FEVER)

8(6) SOV/112-59-3-4711

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 58 (USSR)

AUTHOR: Neyman, V. A.

TITLE: Installation of Electrical Equipment of Hydroelectric Generating Stations and Requirements for Better Plan-and-Estimate Documentation (Montazh elektricheskogo oborudovaniya GES i trebovaniya po uluchsheniyu proyektno-smetnoy dokumentatsii)

PERIODICAL: V sb.: Novoye v proyektir. elektr. chasti gidroelektrost. M.-L., Gosenergoizdat, 1957, pp 131-133

ABSTRACT: Between 1951 and 1955, the "Gidroelektromontazh" building administration has done 170,000,000 rubles worth of electric-installation work, including 71,200,000 rubles in 1955. The cost of the work scheduled for the 6-th Five-Year Plan is over 500,000,000 rubles. The time required for putting it in operation has been cut approximately one-half. Shortcomings of the project documentation are listed in detail from the viewpoints of its scope,

Card 1/2

8(6) SOV/112-59-3-4711

Installation of Electrical Equipment of Hydroelectric Generating Stations and . . . .

quality, and technical substantiation of decisions; requirements to design organizations and plants are formulated.

V.V.M.

Card 2/2

NEYMAN, V. A.

LUKOMSKIY, A.N., inzhener; NEYMAN, V.A., inzhener.

New transformer substation units. Elek.sta. 28 no.1:70 Ja '57.
(MLRA 10:3)

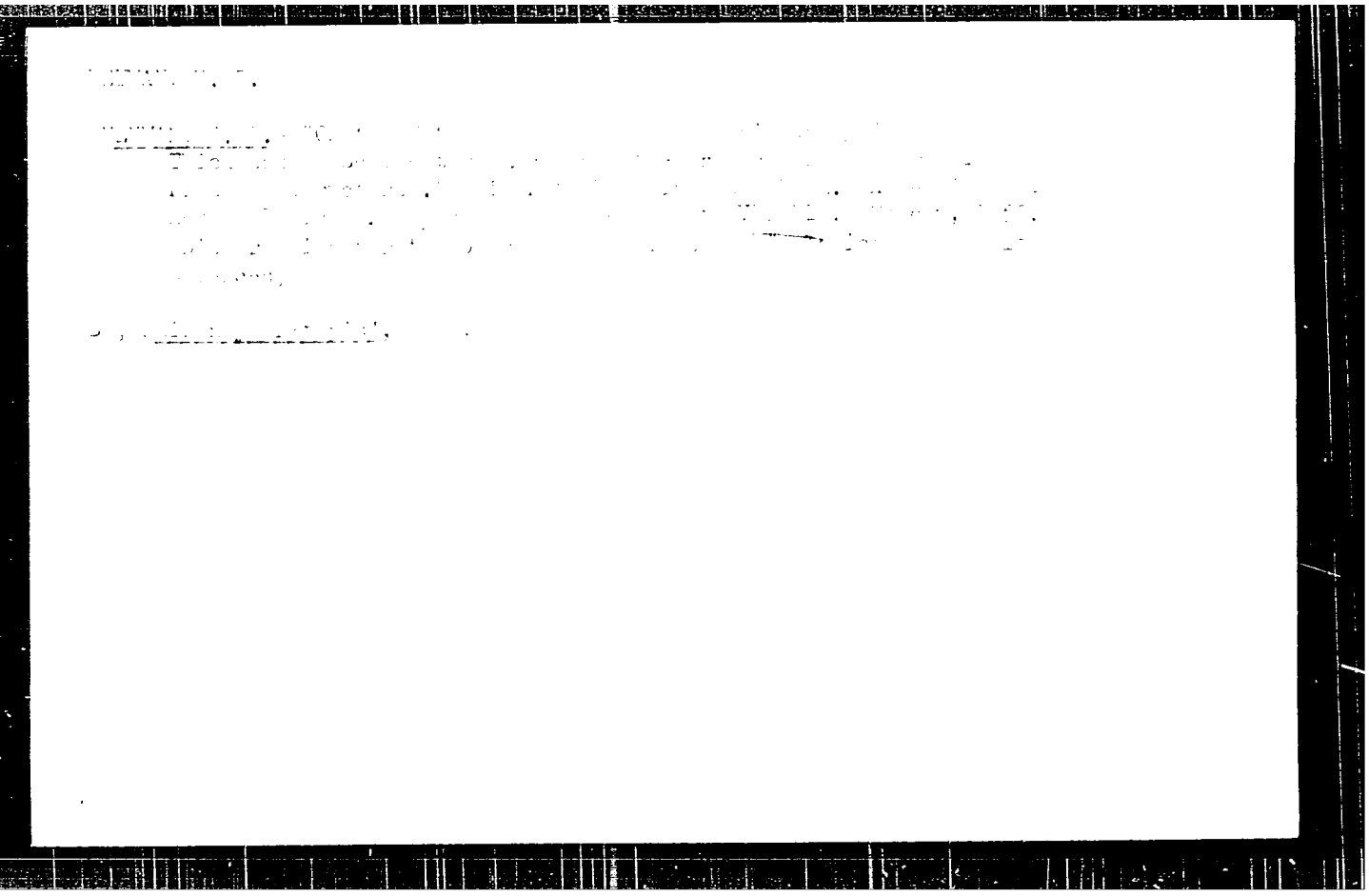
(Electric transformers)

NEYMAN, Vladimir Aleksandrovich; GORSHKOV, S.N., inzh., red.; LUKOVTSEV, A.A., inzh., red.; PETUKHOV, P.Z., doktor tekhn.nauk, red.; RUDIN, S.N., inzh., red.; SUSTAVOV, M.I., inzh., red.; KHRISANOV, M.I., kand.tekhn.nauk, red.; MAKAROV, Ye.M., red.izd-va; DUGINA, N.A., tekhn.red.

[Assembling centralized lubrication systems] Montazh tsentralizovannykh smazochnykh sistem. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 109 p. (Biblioteka slesaria-montazhnika, vypusk 8). (MIRA 14:1)
(Lubrication and lubricants)

NEYMAN, V.B.

Geophysical significance of the hypsographic curve. Biul.MOIP. Otd.geol. 29 no.6:75-80 N-D '54. (MLRA 8:2)
(Earth—Surface)



HEYMAN, V. B.

"The Theoretical Bases for Analyzing Rock Magnitudes (under Platform Conditions)"

A paper presented on 19 April, The Activity of the Moscow Society of Naturalists, Byulleten' Moskovskogo Obshchestva Ispytateley Prirody Vol LX.

No. 6, Moscow, Nov-Dec 1955, pp 80-90, Geology Section

Source: U-9235, 29 Nov 1956

L 25051-65 EWT(l)/EWG(v)/EEC(t) Po-4/Pe-5/Pae-2 MLK/GW

ACCESSION NR: AT5002748 S/0000/64/000/000/0322/0330

32
B+1

AUTHOR: Neyman, V. B.

TITLE: A comparative description of the hypsographic data on certain planets

SOURCE: Zemlya vo Vselennoy (The Earth in the universe). Moscow, Izd-vo Mysl', 1964, 322-330

TOPIC TAGS: hypsography, geological structure, expanding Earth, lunar surface, lunar formation, Earth crust, Martian surface, Martian crust, Venusian surface, Venusian atmosphere

ABSTRACT: The purpose of this study is to show that the surface of other planets, such as the Moon, Mars and Venus, can be determined by the use of a hypsographic

L 25051-65

ACCESSION NR: AT5002748

is considerably below zero; this makes it logical to associate its surface color with acidic rocks, i.e., to consider a large part of the Martian crust as analogous to the granite shell of the Earth. No granite shell has yet developed on the moon because of that planet's small size. Information on Venus is less definitive, but indications are that it is farther afield in its evolution than the other known planets. The

and 1 table; [illegible] has: 4 figures

ASSOCIATION: None

SUBMITTED: 30Jan64 ENCL: 00 SUB CODE: AA

NO REF SOV: 004 OTHER: 004

Card 2/2

HUYMAN, V.B.

Theoretical bases of analysis of strata thickness in platforms. Biul.MOIP.Otd.geol.30 no.6:90-91 N-D '55. (MLRA 9:4)
(Geology, Stratigraphic)

NEYMAN, V.B.

Age of the Upper Zolnensk stratum in the Samara Bend region. Dokl.AN SSSR 103 no.5:901-903 Ag '55. (MLRA 9:1)

1.Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut. Predstavleno akademikom S.I.Mironovym.
(Samara Bend--Geology, Stratigraphic)

AUTHOR: Neyman, V.B.

5-3-18/37

TITLE: On the Paleotectonic Control of Stratigraphic Classifications (O paleotektonicheskom kontrole stratigraficheskikh razbivok)

PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskiy, 1957, No 3, pp 165-166 (USSR)

ABSTRACT: The oscillation process affecting simultaneously enormous territories is the main one of tectonic processes proceeding in a plateau. Other tectonic processes occur only occasionally. The domination of the oscillation process supports the viewpoint that the well-known rhythm of sedimentary formations just reflects this oscillation process. An analysis of Meso- and Cenozoic rocks in the area north of the Caucasus has shown that there exist two types of layers sharply different by their paleotectonic and facial nature. The first type are layers of interstratification. They are built up of sands (sandstones), siltstones, clays, shell rocks and marls. These layers were deposited at depths less than 50 m. The second type of layers are monotonous (in vertical cross section) clays, carbonaceous or arenaceous, dependent on facial conditions. Depths of deposition are of the order of 100 m. The thicknesses of these layers vary from 50 and 100 m to 800 m with-

Card 1/2

5-3-18/37

On the Paleotectonic Control of Stratigraphic Classifications in the area under consideration (north of the Caucasus).

AVAILABLE: Library of Congress

Card 2/2

(27)(4.V, V.12

20-4-41/52

AUTHOR: Neyman, V. B.

TITLE: On the Stratigraphic Subdivision of the Oligocene-, Lower- and Middle Miocene Deposits Within the Boundaries of the Terek-Kuma Depression (O stratigraficheskom raschlenenii oligotsenovykh, nizhne- i srednemiotsenovykh otlozheniy v predelakh Tersko-Kumskoy depressii).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 4, pp. 690-693 (USSR)

ABSTRACT: The above mentioned depression is known to be located in the East Predkavkaz'ye. Its demarcation is described in detail. A thick tertiary sediment cover in the said depression attains a thickness of 4,5 km and has a monoclinal decline towards Southeast. About 1,5 km correspond to the deposits mentioned in the title. Their detailed subdivision has hitherto met with a number of problems that were not clear. After describing the opinions hitherto held, the author mentions the latest experiences gathered from the pole drill hole "Artezian", 200 km southeast of Astrakhan which refute the conceptions hitherto held concerning the subdivision of the cross section. In a depth of 780-1630 m 3 kinds of macrofauna were found, which are known not to descend farther than the lower Miocene. The Miocene border was loewered by about 800-900 m because of

Card 1/4

the pollen-spore analysis. Thus, the real bottom of the miocene is located in the interior of the "Lower Maykop" (according to Zhizhchenko). The boundary between Oligocene and Miocene is much deeper: to the Oligocene there belongs only the monotonous loam packet, whereas the entire higher packet of interbedding already enters the Miocene. Also the boundary between the lower and the middle Miocene was subjected to an equally strict revision. The occurrence in a depth of 710-1172 m of rich Chokrak fauna indicates a considerable thickness of the latter deposits. Although usually the Chokrak boundary is placed about 100 m higher than it should be, this was here caused by a complex of microfauna, which was deformed by rearrangement. According to knowledge recently acquired the thickness of the Chokrak in the Terek-Kuma depression does not amount to 50-100 but to 800-1000 m. Accordingly, the thickness of the Maykop sediments is decreased to 800 m. Also in the Western part of the depression the bottom of the lower- and middle Miocene (formerly classed as belonging to the Olikocene) was lower by about 1 km according to the most recent results

obtained. As a result of the analysis carried put by the author it was possible to subdivide the Miocene part of the cross section into a series of independent packets, which correspond uniquely to the packets of the Georgiyevsk-drilling hole (fig. 1), where they are reliable characterized by macrofauna. Miocene begins with the packet N_1^{1a} (fig. 1) 0 - 225 m thick; there follows N_1^{1b} - 0 -1?6 m; in the upper parts of the lower Miocene the packet N_1^{1c} is similar to the previous one, thickness 100-300 m. Chokrak sediments can be subdivided into 4 packets: the lowest $N_1^{tsch}a$ apparently comprises also the Tarkhan horizon and does not differ essentially from the two others beneath it. Its thickness is 150-300 m. The next packet $N_1^{tsch}b$, which is lithologically similar to the previous one, differs by the manner of interbedding. The total thickness is 100-300 m. A peculiar appearance characterizes the packet $N_1^{tsch}c$ (Budennovskaya); its thickness amounts to several

On the Stratigraphic Subdivision of the Oligocene-, Lower- and Middle Miocene Deposits Within the Boundaries of the Terek-Kuma Depression

20-4-41/52

'00 meters. The Chokrak sediments are crowned by the packet $N_1^{tsch}d$. Many research workers consider the latter to be the entire Chokrak and, if it is lacking, they look upon the Chokrak as absent. Its thickness is 0 - 185 m. Karagan sediments are very similar to the upper Chokrak. The latter do by far not always rest upon the Chokrak. They frequently rest considerably transgressively immediately upon the Maykop (even on its lower parts), or upon the lower Chokrak.
There are 1 figure, 1 table, and 5 references, all of which are Slavic.

ASSOCIATION: All-Union Scientific Geological Research Institute (Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy institut)

PRESENTED: March 20, 1957, by S. I. Mironov, Academician

SUBMITTED: March 20, 1957

AVAILABLE: Library of Congress

Card 4/4

BURSHTAR, M.S.; IL'IN, V.D.; NEYMAN, V.B.

Regional distribution of oil and gas pools in the lower Albian of the U.S.S.R. southern regions. Geol.nefti i gaza 3 no.6:19-23 '59. (MIRA 12:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut.
(Russia, Southern--Petroleum geology)
(Russia, Southern--Gas, Natural--Geology)

NEYMAN, V.B.

Remarks on B.P. Zhizhchenko's article "Area of transported terrigenous material and crustal movements." Sov. geol. 3 no.8:153-154 Ag '60. (MIRA 13:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(Rocks, Sedimentary) (Zhizhchenko, B.P.)

S/169/62/000/002/005/078
D228/D301

AUTHORS: Neyman, V. B. and Kirillov, I. V

TITLE: Hypothesis of the expanding earth in its geological, geophysical essence (author-amended paper read on December 9, 1960)

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1962, 4-5, abstract 2A14 (Byul. Mosk. o-va ispyt. prirody. Otd. geol., 36, no. 2, 1961, 125-126)

TEXT: The sharp boundary between the oceanic and the continental crust, the acute continental slope between continents and oceans and also the frequency curve for encountering heights and depths in continents and oceans -- which discloses the presence of a deep minimum (corresponding to the continental slope) between the two maxima corresponding to continents and oceans -- all testify to the genetic isolation of continents and oceans and render incompetent the hypotheses of the expansion of continents and oceans at each other's expense. Having constructed a rather accurate model of a

Card 1/2

S/169/62/000/002/005/072
D228/D301

Hypothesis of the ...

vertical earth with a diameter two times smaller than is the case today. I. V. Kirillov showed the reality of the stretching proc... Since younger zones cut the older within the continents in the successive imaginary removal of the younger zones it is, finally possible to arrive at a homogeneous and miniature earth. Thanks to this the break between the existing cosmic theories and the earth's present structure may be eliminated by means of the hypothesis of an expanding earth. According to I. V. Kirillov the process of orogenesis has the following form from the viewpoint of the expansion of the earth. Expansion, affecting on the whole only the crust's granitic part results in the accumulation of thick sediments in a given zone which corresponds to the establishment of a geosyn... Fusions and gaseous substances start to act from below in the ruptures of the crust's granitic part. These considerably further the growth of mountains occurring in the stage when the strong ... whose attenuation results in the development of denudation pro... es is temporarily retarded. [Abstracter's note: Complete transla... tion.]

Card 2/3

NEYMAN, Vladimir Borisovich; MITIN, R.S., red.; BELICHENKO, R.K., mladshiy red.; GOLITSYN, A.V., red. kadr.; VILENSKAYA, E.N., tekhn. red.

[The expanding earth]Rasshiriaiushchaiasia Zemlia. Moskva, Gos. izd-vo geogr. lit-ry, 1962. 78 p. (MIRA 16:3)
(Earth)

NEYMAN, Vladimir Borisovich; SMIRNOVA, Z.A., red. izd-va; BYKOVA, V.V., tekhn. red.

[Methods for paleotectonic analysis for use in platform areas] Voprosy metodiki paleotektonicheskogo analiza v platformennykh usloviiakh. Moskva, Gosgeoltekhizdat, 1962. 84 p. (MIRA 15:7)

(Geology, Structural)

41293

S/035/62/000/010/052/128
A001/A101

AUTHOR: Neyman, V. B.

TITLE: On the nature of main lunar formations

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 10, 1962, 62, abstract 10A436 ("Byul. Vses. astron.-geod. o-va", 1962, no. 30, (37), 28 - 32)

TEXT: The author notes that isolines on the hypsometric chart of the Moon compiled by Schruttka-Rechtenstamm (See RZhAstr, 1956, no. 11, 6395; 1960, no. 7, 6750) do not correspond to outlines of seas and continents. On the basis of the same observational data, the author re-compiled the lunar chart with allowance for the visible relief in drawing the isolines (the principle of the chart reconstruction is not revealed by the author). The hypsometric chart obtained by the author shows a tidal protrusion in the center of the lunar visible hemisphere, which was supposed theoretically; the maximum height of the protrusion over the sea boundaries amounts to 4 - 5 km. The frequency of heights and depths occurring on the lunar surface is compared with the occurrence of

Card 1/2

ZONENSHAYN, L.P.; [illegible]SPENSKAYA, I.A.; SAFRONOV, V.S.; NEYMAN, V.B.; GENDLER, V.Ye.; CHUPIKOV, V.S.; EREMIN, N.I.; KOGAN, B.S.; YAKOVLEVA, M.N.; LANGE, O.K., KABANOV, G.K.; KUZNETSOVA, K.I.; SINITSYNA, L.N.; SMIRNOVA, T.N.; VENKATACHALAPATI, V.; MASLAKOVA, N.I.; BELOUSOVA, Z.I.; YAKUBOVSKAYA, T.A.; YURINA, A.L.; RYBAKOVA, N.O.; MOROZOVA, V.G.; BAPASH, M.S.; PONAREV, V.I.; NIKONOV, A.A.

Activity of the Geological Sections of the Moscow [illegible] Society. Biul. MOIP. Otd. geol. 39 no.6; [illegible]

[illegible]

NEYMAN, V.B.; [illegible], V.M.; [illegible], V.M.

Ivan [illegible] [illegible]. [illegible] [illegible] [illegible]

[illegible]

1. Chleny Vsesoyuznogo astronomo-geodezicheskogo obshchestva.

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R00113682000

NEYMAN, V., mladshchyy sotrudnik

With mask and fins in the Indian Ocean. Voen.znan. 36 no.8: 32-33 Ag '60. (MIRA 13:7)

1. Institut okeanologii Akademii nauk SSSR.
(Diving, Submarine)

NEYMAN, V.G.

Circulation of water in the northeastern Indian Ocean in the summer monsoon period. Okeanologiia 3 no.3:418-423 '63.
(MIRA 16:8)

1. Institut okeanologii AN SSSR.
(Indian Ocean--Ocean currents)

NEYMAN, V.G.

Structure of zonal currents in the equatorial region of the Indian Ocean. Okeanologiia 4 no.5:920 '64 (MIRA 18:1)

L 38688-66 EWT(1)/FCC GW

ACC NR: AT6016945 (N) SOURCE CODE: UR/2639/65/000/000/0098/0109

AUTHOR: Ivanov, Yu. A.; Neyman, V. G.

ORG: none

TITLE: The frontal zones of the Antarctic Ocean

SOURCE: AN SSSR. Mezhduvedomstvennaya komissiya po izucheniyu Antarktiki. Antarktika (The Antarctic); doklady komissii, 1964. Moscow, Izd-vo Nauka, 1965, 98-109

TOPIC TAGS: ocean current, ocean dynamics, ocean property

ABSTRACT: Assuming the maximum gradients of the physical properties of the ocean to be the result of meridional and vertical advections, 86 meridional cross sections were selected and hydrological observations (collected by numerous investigators during many years and at various seasons) are summarized. It is concluded that the basic factor underlying the formation of dynamic fronts is transverse circulation. It is further concluded that the maximum gradients of physical properties of the ocean derive from the combined action of meridional and vertical advections. Solution of the diffusion equation reveals a unique correspondence between the spatial distribution of vertical components of the current velocities for the dynamic fronts. The authors present a map of the frontal zones of the Antarctic showing the dynamic fronts as follows: (1) the Antarctic divergence at 68°-67° S latitude, where relatively warm and saline

Card 1/2

KOSHLYAKOV, M.N.; NEYMAN, V.G.

Some results of measurements and calculations of zonal currents in the equatorial region of the Pacific Ocean. Okeanologiia 5 no.2:235-249 '65. (MIRA 18:6)

1. Institut okeanologii AN SSSR.

L 23375-66 EWT(1) GW

ACC NR: AP6007654 (N) SOURCE CODE: UR/0213/66/006/001/0161/0164

AUTHOR: Neyman, V. G.

ORG: Institute of Oceanology AN SSSR (Institut okeanologii AN SSSR)

TITLE: Current measurement from a moving ship

SOURCE: Okeanologiya, v. 6, no. 1, 1966, 161-164

TOPIC TAGS: ocean dynamics, oceanographic ship, ocean current

ABSTRACT: Current measurements made by the Vityaz' oceanographic expedition in the Pacific and Indian oceans are discussed. The existence of currents of relatively high velocities at 1000 to 1500 m depths, comparable to those at the surface was established. It was found that the "difference" method and the "comparison" method (which makes use of buoys) are not reliable. The Vityaz' expedition improvised a method based on observations made from the drifting vessel and data obtained from stationary buoy stations with automatic recording devices placed at 50, 150, 500, and 1000 m levels. Current velocity measurements from the vessel and the stationary buoy stations for five depth horizons are given in a table. Analysis of the data shows that 1) the maximum difference in the direction of the current is ±150°; 2) the velocity differences at some stations are several times greater than the measured magnitudes; 3) the observed differences are a function of velocity; 4) the evaluation of random

Card 1/2 UDC: 551.46.085

L 23375-66

ACC NR: AP6007654

errors in both measurement methods is extremely difficult; and 5) existing measurement methods can not be considered entirely reliable. Orig. art. has: 1 table.

SUB CODE: 08/ SUBM DATE: 29Oct64/ ORIG REF: 003/ OTH REF: 001

Card 2/2

ACC NR: AP6031377 (A) SOURCE CODE: UR/0145/66/000/007/0080/0086

AUTHOR: Neyman, V. G. (Engineer)

ORG: None

TITLE: Static and dynamic characteristics of a choke hydraulic drive with a variable-discharge pump

SOURCE: IVUZ. Mashinostroyeniye, no. 7, 1966, 80-86

TOPIC TAGS: hydraulic pump, hydraulic engineering, servomechanism, frequency characteristic

ABSTRACT: In view of the wide use of choke-controlled hydraulic drives with variable-discharge pumps, the author analyzes the effect of this type of pump on the static and dynamic characteristics of the actuating mechanism. A schematic diagram of a choke drive with a variable-discharge pump is shown in the figure. It is assumed that the slide valve has zero overlap and that the drive shaft rotates at a constant speed. Overflow pressure, leakage in the actuating mechanism, pressure losses due to piston friction and hydraulic drag in the pipelines and channels are disregarded together with the effect of the state of distribution of the parameters. A system of equations describing this type of drive is derived on the basis of expressions for the balance of flow rate in the discharge line and in the actuating mechanism as well as formulas for the forces acting on the regulating element of the pump and the actuating piston.

Card 1/3

UDC: 621.226

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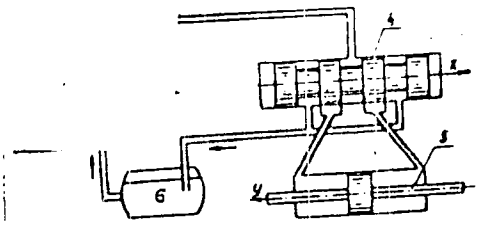


1--variable-discharge pump; 2--discharge regulator; 3--choke; 4--slide valve; 5--power cylinder; 6--overflow tank

This system of equations is solved for steady-state flow conditions to give an expression for the mechanical characteristics of the actuating mechanism. An analysis of the velocity characteristics of the actuating mechanism shows that a reduction in the slope of the control characteristics of the pump reduces the speed of the actuating piston, increases the amplification factor of the actuating mechanism for the case of small signals and reduces this factor for large signals, and increases the nonlinearity of the velocity characteristics. The frequency response and transition processes in the given hydraulic drive are analyzed. Stability conditions are found from analysis of pump stability using the Hurwitz criterion for a third order system. Forced vibrations are considered in a hydraulic drive with a sinusoidal input signal in the absence of a load. It is shown that the pump has no effect on the phase-frequency characteristics of the actuating mechanism but may change the amplitude-frequency characteristics and the shape of the output signal. Experimental results confirm the validity of the

Card 2/3

ACC NR: AP6031377

analysis given in this paper. The article was presented for publication by Doctor of technical sciences, Professor V. P. Prokof'yev, MVTU im. N. E. Bauman. Orig. art. has: 4 figures, 13 formulas.

SUB CODE: 13/ SUBM DATE: 09Mar66/ ORIG REF: 002

Card 3/3

pattern of currents is connected with monsoon and trade winds and determines the main features of the distribution of hydrological elements. Based on dynamic computations, the water circulation in the baroclinic layer of the ocean corresponds to a two-layer

Card 1/2

ACC NR: AT7003616

model. The topography of the upper isothermal layer is in agreement with the dynamic topography of the ocean surface. Divergence and convergence zones as well as boundaries of regions with different hydrological structure are determined. Orig. art. has: 12 figures. [BA]

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 008/ OTH REF: 007

Card 2/2

[illegible]

AUTHORS: [illegible], K. [illegible], [illegible], V. [illegible], [illegible], V. [illegible], [illegible], [illegible] M., [illegible], V. [illegible], [illegible], [illegible], [illegible] M., [illegible], [illegible], [illegible], N. P., [illegible], V. [illegible].

TITLE: Experimental [illegible] of Lead [illegible] With [illegible] Semi-Industrial [illegible]

PERIODICAL: Izvestiya [illegible] Tsvetnaya metallurgiya, [illegible], Nr 1, pp [illegible] (USSR)

ABSTRACT: This article [illegible] the application [illegible] experimental method of lead smelting with [illegible] semi-industrial [illegible] developed by K. V. [illegible], Cand. of Techn. [illegible], (Collection of Scientific Works, KazGMI, Nrs [illegible], [illegible], [illegible], [illegible]). [illegible] carried out by the experimental shop and lead plant (svintsovyy zavod) of Leninogorsk Combine (Leninogorskiy Kombinat) and by Kazakh Mining and Metallurgical Institute (Kazakhskiy gornometallurgicheskiy institut). Smelting was done in a single-phase electrical furnace with a 0.[illegible] m^2 bottom area, 2[illegible]0 kW transformer

Card 1/9

Experimental Electr melting of Lead
Concentrates With Slag Under Semi-
Industrial Conditions

power, and voltage steps of 30, 40, and [illegible]; bottom and walls were lined with [illegible] magnesite; roof and slag with magnesite. Optimal [illegible] 5,500 to 6,000 amp; electrode dip into bath, 270-300 mm; depth of fully fused bath, 650-750 mm; depth of [illegible] layer, 150-200 mm. Melt was tapped 2-3 times per shift and metal, 1-2 times a day. Temperature under the roof was 700-800°; of the slag, 1,000-1,050°, and it had a low viscosity at this temperature; slag-matte was tapped immediately after turning off the furnace and without allowing it to settle. It contained only 0.2% Pb, indicating good separation. A series of chemical reactions occur during smelting.

$$PbS + Na_2CO_3 + CO \rightarrow Pb + Na_2S + 2CO_2$$

$$PbS + Na_2CO_3 + C \rightarrow Pb + Na_2S + CO + CO_2$$

$$CO_2 + C \rightarrow 2CO$$

$$4PbS + 4Na_2CO_3 \rightarrow 4Pb + 3Na_2S + Na_2SO_4 + 4CO_2$$

Card 2/3

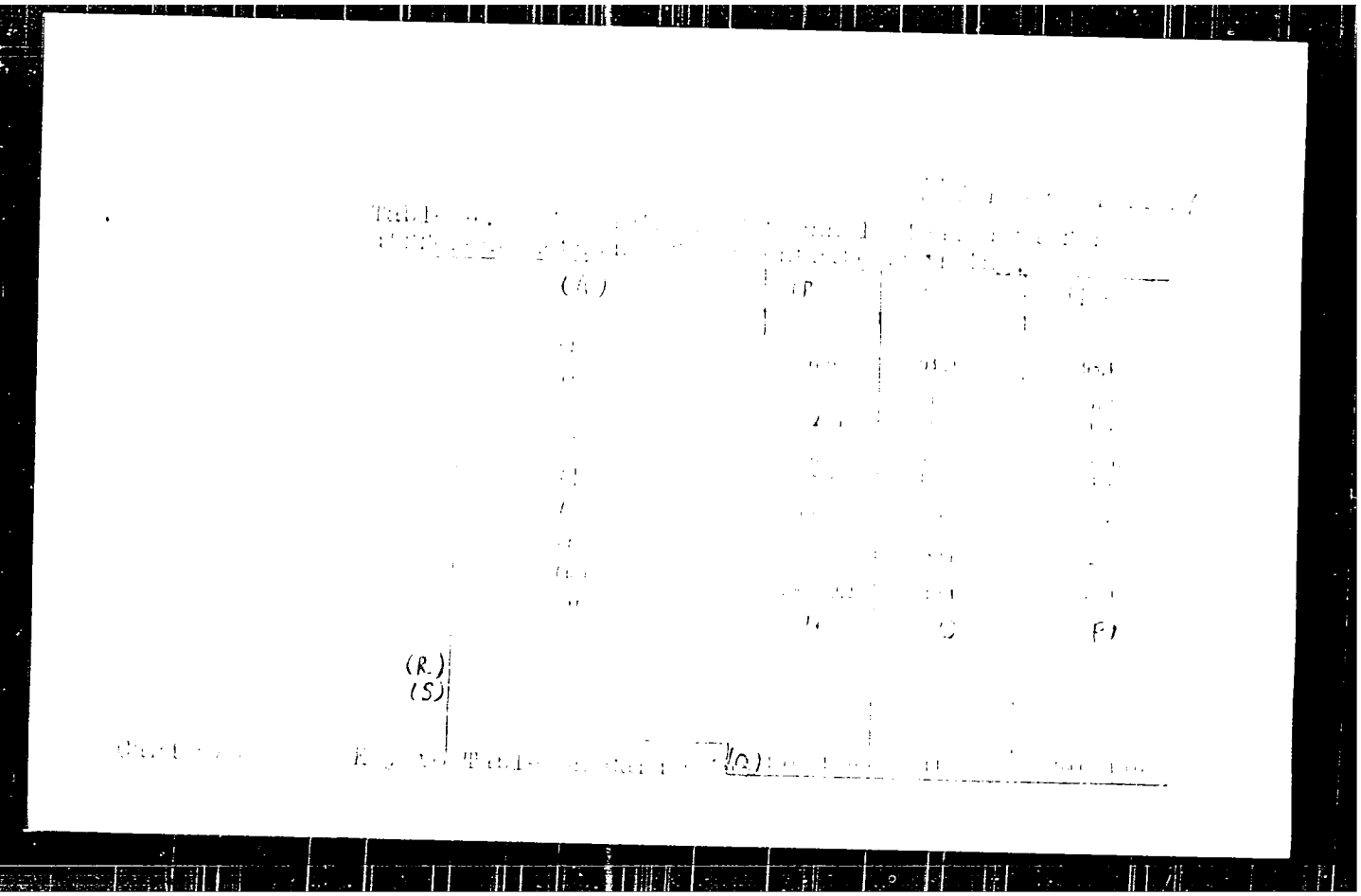
Card 3/3

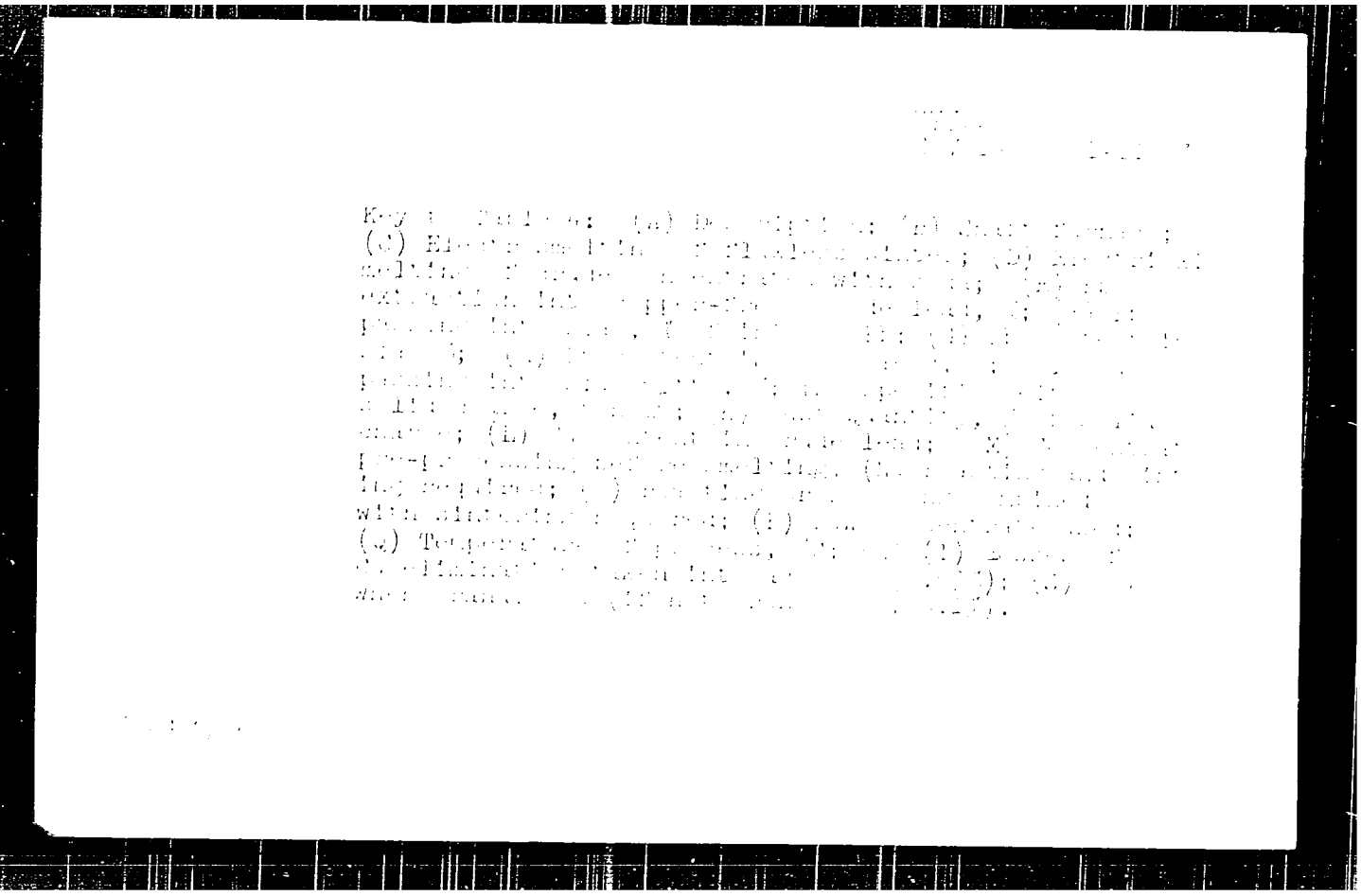
Experimental Electr[illegible] of Lead Concentrates With Soda Under Semi-Industrial Conditions

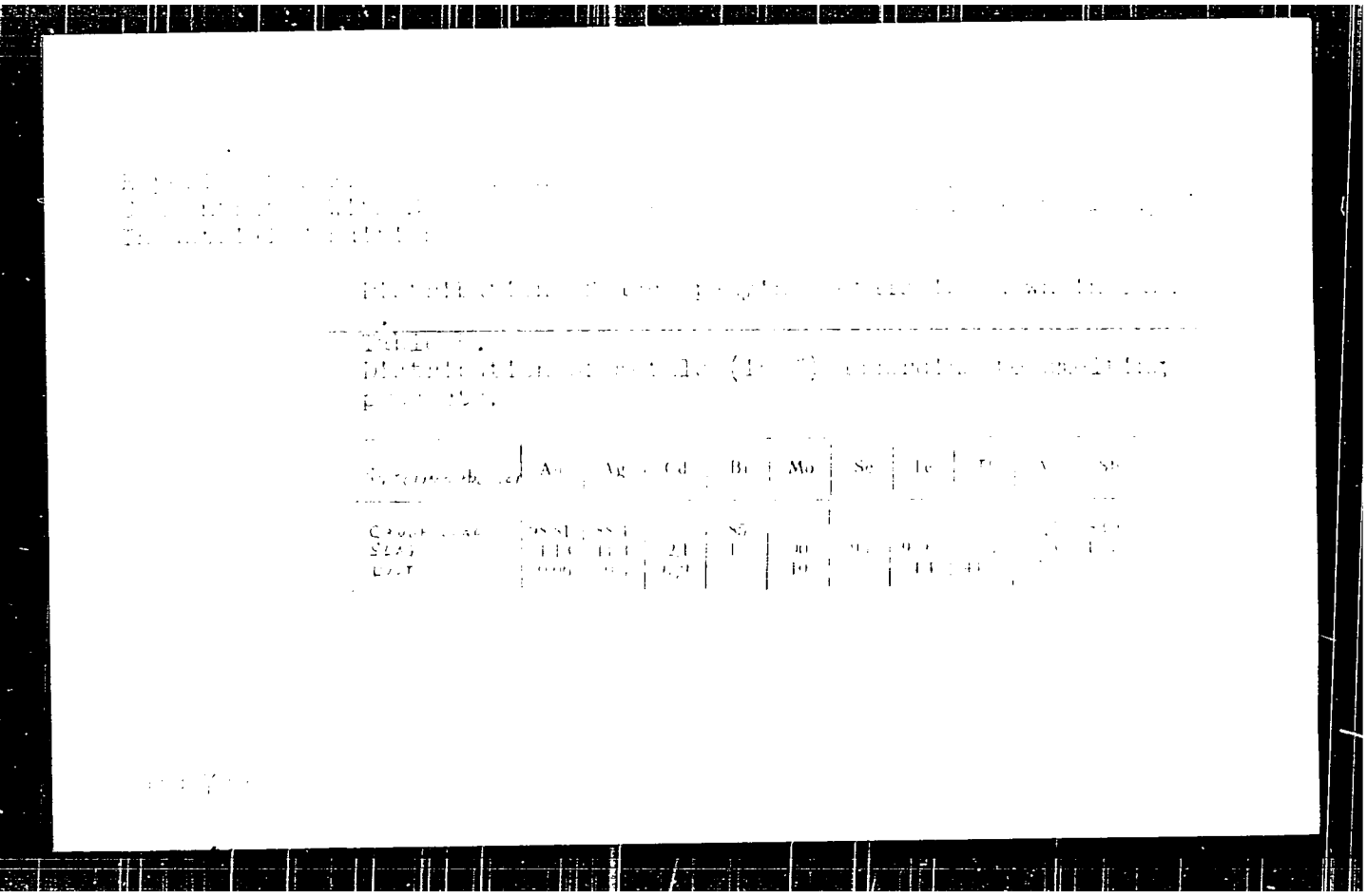
[illegible] SOV/14[illegible]-1-11/27

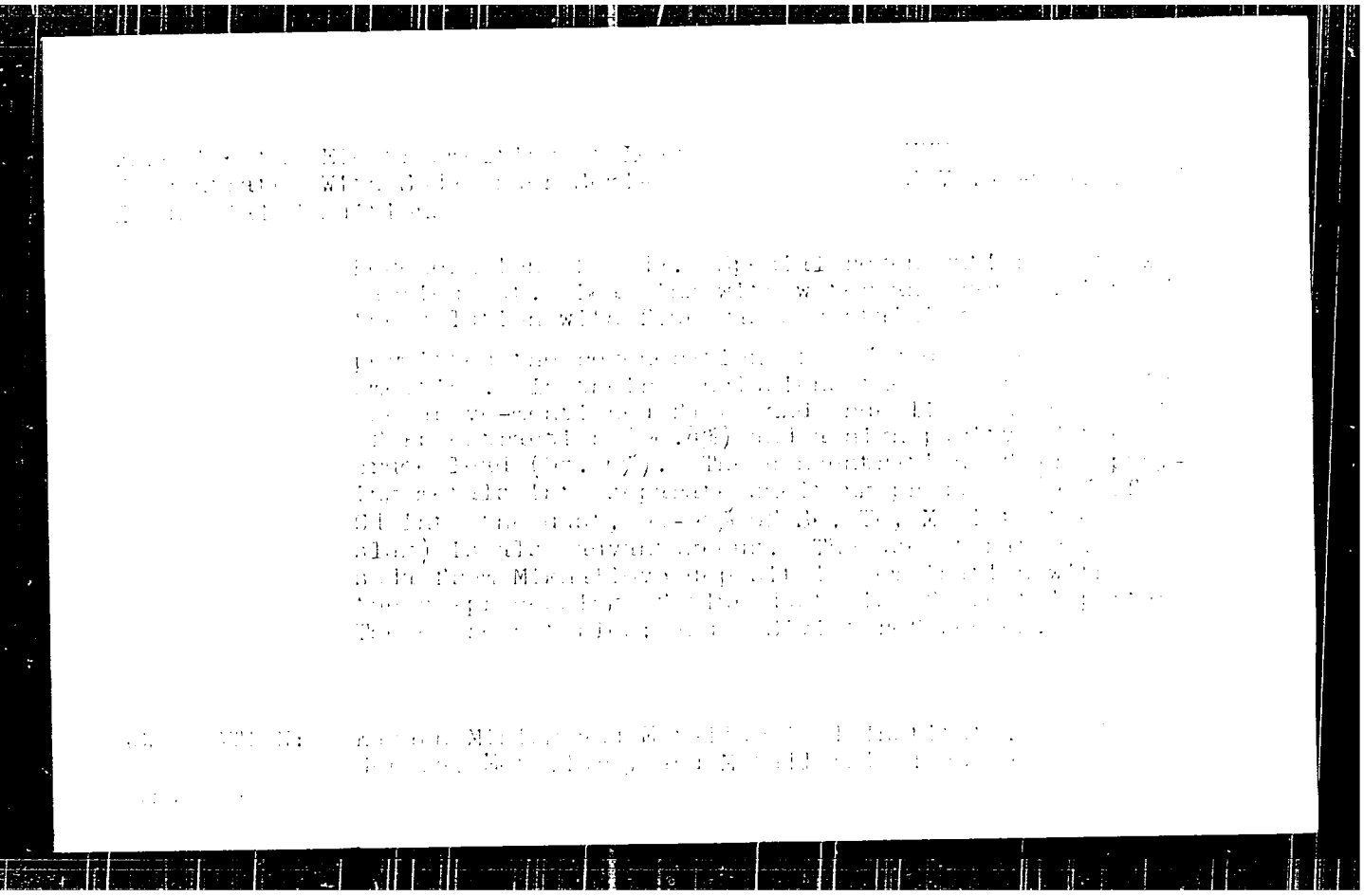
substituted for calcinated soda with resulting lead extraction of 92.7% (7.3% sublimated). Zinc, in this case, passed 50% into slag and flue dust. The average power consumption was 97[illegible] kwh per ton of charge, which is probably a higher rate than under normal conditions, the furnace size being small. The average soda consumption was 4% of the weight of the concentrate (Mikhailov's natural soda containing a mere 74.3% Na_2CO_3, its actual consumption is only 74% even when 100% is added). Test smelting of lead flue dust resulted in a [illegible]% penetration of zinc into the dust). Table 4 gives a comparative analysis of conventional and [illegible] smelting at Leninskiy Lead Plant.

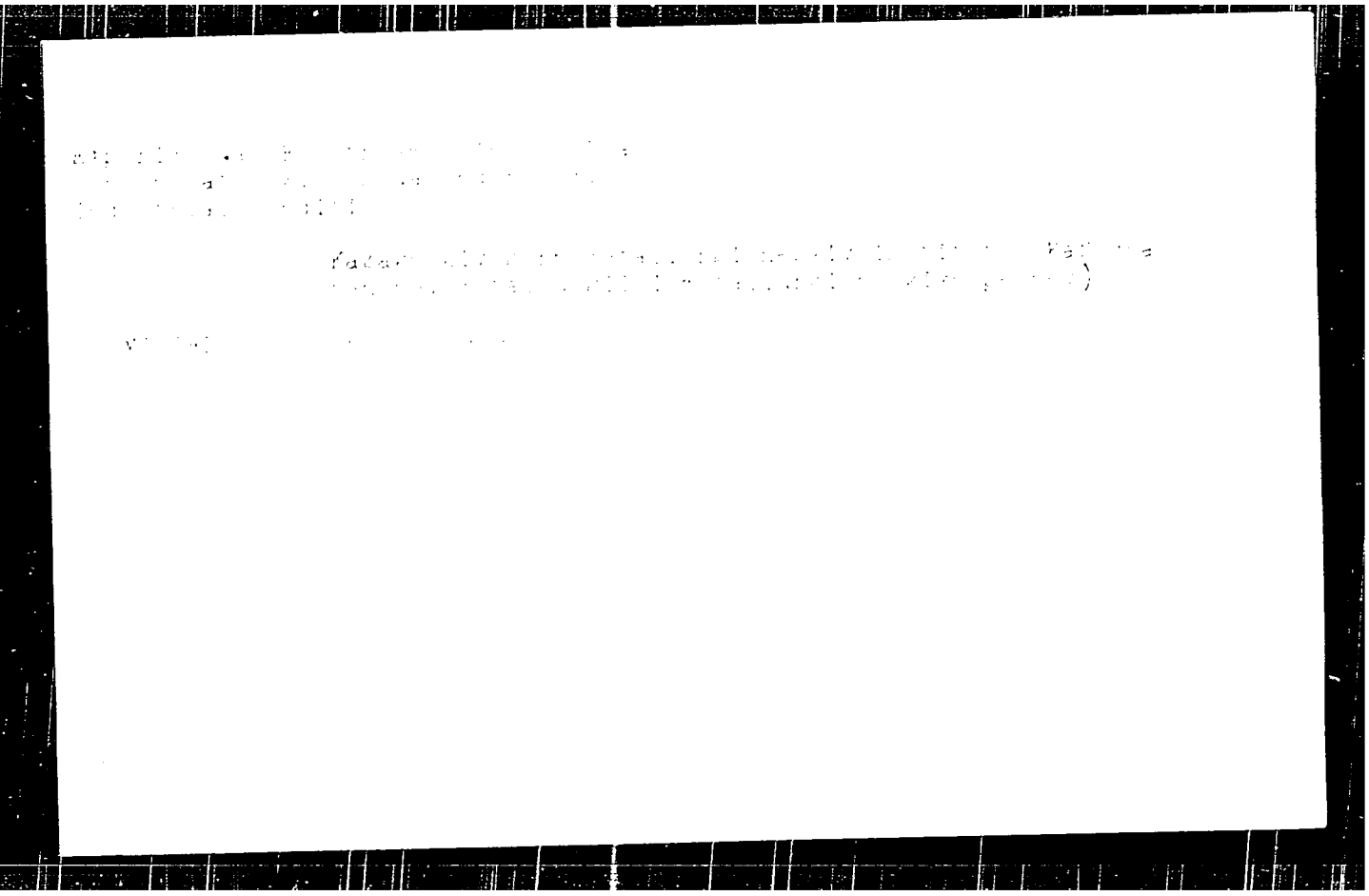
Card 4/9











MALKIN, I.M.; CHIRKOVA, N.P.; MEYMAN, V.G.; KARLINSKAYA, L.S.; GANCHENKO, V.M.; POKIDYSHEV, M.I.; CHERNYSHEV, Yu.P.; PLATONOV, G.F.; MIKHAYLOV, N.I.; ABDEYEV, M.A.; MILLER, O.G.; BUTENKO, N.S.; DYUYSEKIN, Ye.K.

Treatment of zinc-bearing slags in electric furnaces with coke conductivity. TSvet. met 33 no. 12:15-23 D '60. (MIRA 13:12)

1. Leninogorskiy polimetallicheskiy kombinat (for Malkin, Chirkova, Meyman, Karlinskaya, Ganchenko, Pokidyshev, Chernyshev). 2. Altayskiy gorno-metallurgicheskiy institut AN KazSSR (for Platonov, Mikhaylov, Abdeyev, Miller, Butenko, Dyuysekin).
(Zinc--Electrometallurgy) (Electric furnaces)

LEYMAN, V.I.

Special machines for making loads for telephone apparatus. Probl. pered.inform. no.6:133-146 '60. (MIRA 13:11)
(Telephone, automatic)

NEYMAN, Vladimir Il'ich; ROZHDESTVENSKAYA, V.A., red.

[Simulation of problems in the theory of telephone communications] O modelirovanii zadach teorii telefonnykh soobshchenii; lektsiia dlia studentov fakul'teta telefonno-telegrafnoi sviazi i slushatelei fakul'teta usovershenstvovaniia. Moskva, Vses. zaochnyi elektr. in-t sviazi, 1961. 50 p. (MIRA 16:8)

(Telephone)

33504
S/562/61/000/009/004/0[illegible]
D201/D302

9.7100 (2403)

AUTHORS: Neyman, V. I., and Paramonov, Yu. V.

TITLE: Electronic random number generator

SOURCE: Akademiya nauk SSSR. Laboratoriya sistem peredachi in-formatsii. Problemy peredachi informatsii, No. 9 1961. Elementy sistem avtomatiki, 87-102

TEXT: The author gives the theory and description of a random num-ber generator used for simulating telephone call flows in a spe-cialized machine designed for analysis of switching circuits by sta-tistical methods. The physical source of random pulses best suited to the requirements was a noise generating silicon diode Д-813 (D-813). It was assumed that the generated pulses obeyed the Pois-son distribution and since a random number generator based on this distribution works as a pure random generator in approximation only and since the noise is amplified, the Kotel'nikov theorem has been used for a more accurate determination of probability of bi-nary random numbers. The random number generator operates at a

Card 1/ 3

Electronic random number ...

rators described above. The increase in the number of outputs may be achieved by connecting to the generator 32-terminal output a diode matrix and a synchronous switch. The generator is periodically checked by applying the Kendall-Smith randomness criteria. The authors acknowledge the helpful suggestions of A. D. Kharkovich. There are 11 figures and 13 references: 6 Soviet-bloc and 7 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: R. Syski, The Theory of Congestion in Lost-Call Systems. A. T. E. Journal 1953, v. 9, 4; L. Pawlak, Flip-flop as generator of random binary digits. - Mathematical tables and other aids to computation. Jan. 1956, v. 10, 53, p. 28?; S. W. Broadhurst and A. T. Harmston, An electronic traffic analyser. P.O. Electr. Engnrs. Journal, Jan. 1950, v. 42, Part 4; A million random digits with 100,000 normal deviates. The Free Press Glencoe Illinois, 1955.

Card 3/3

31202

S/106/61/000/012/006/010
A055/A127

9,7100

AUTHOR: Neyman, V. I.

TITLE: Simulating of switching systems

PERIODICAL: Elektrosvyaz', no. 12, 1961, 41 - 49

TEXT: This article deals with a method to determine the carrying capacity of switching systems by means of static tests. This method, called "Monte Carlo method" outside the Soviet Union is called simulating method by the author. After a general survey of the basic principles underlying the static test method, the author describes an electronic computer which was specially designed for static tests in telephony and which can possibly be used instead of the universal electronic digital computer. For simplicity, the described model is a model with 11 outputs (n = 11), with a number of "load groups" ("grup nagruzki") g = 6 and with an accessibility D = 3. The corresponding device is shown in the figure which comprises the data unit of random magnitudes with M outputs and the model of the examined system. The devices registering losses are not shown. Cell I represents a coincidence circuit and cell T represents a dynamic trigger, which is excited when a pulse reaches its upper input, and is switched off when a pulse

Card 1/3

31202

Simulating of switching systems

S/106/61/000/012/006/010
A055/A127

reaches its lower input. A separate element is shown in the figure which is a device with two steady states, operating as follows; if a pulse reaches input 2 the device is in the first state (the dynamic trigger is switched off and the "line" is free); if one pulse reaches input 1, the device passes into the second state (the trigger is excited and the "line" is engaged). In this state, all the subsequent pulses applied to input 1 will reach the output. This state will persist until one pulse at least is applied again to input 2, which will bring the device back to the first state. In other words, a kind of valve exists between input 1 and the output. The device is therefore called "pulse-valve" by the author. Using separator diodes, it is possible to construct, with these valves, any system of "incompletely accessible insertion" ("nepolnodo stupnoye vklyucheniye"). The peculiar feature of the insertion of elements is the fact that the cells T, simulating the "concentration lines" ("obshchii linii"), whose contacts have then access to different lines, are connected with several cells I, forming a multichannel valve. In the design of the described model, it is necessary to take into account the time during which the information passes through the cells; the action rate of the model should thus be reduced. This defect does not exist in the transistorized model. The author describes a system de-

Card 2/3

51202

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Simulating of switching systems

signed in Sweden for operation with the universal electronic digital computer BESK (system already described by Wallström in Ericsson Technics). There are 4 figures, and 11 references: 10 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Wallström. Artificial traffic trials on a two-stage link system using a digital computer. "Ericsson Technics", 1958, v. 14, no. 2. The names of the Soviet-bloc authors or scientists mentioned in the article are: B. S. Lifshits (Sbornik trudov NIITS, 1960, no. 7). G. P. Basharin (Elektrosvyaz', 1960, no. 1). Yu. A. Shreyder (Priborostroyeniye, 1956, no. 7). V. K. Lezerson and Z. F. Greybo (Elektrosvyaz', 1958, no. 7). Yu. V. Paramonov. A. Ya. Khinchin. B. A. Sevastyanov, L. Takacs, E. V. Markhay. V. N. Roginskiy. A. D. Kharkevich.

SUBMITTED: May 10, 1961

Card 3/3

S/562/62/000/011/007/008
E140/E135

AUTHORS: Neyman, V.I., and Paramonov, Yu.V.

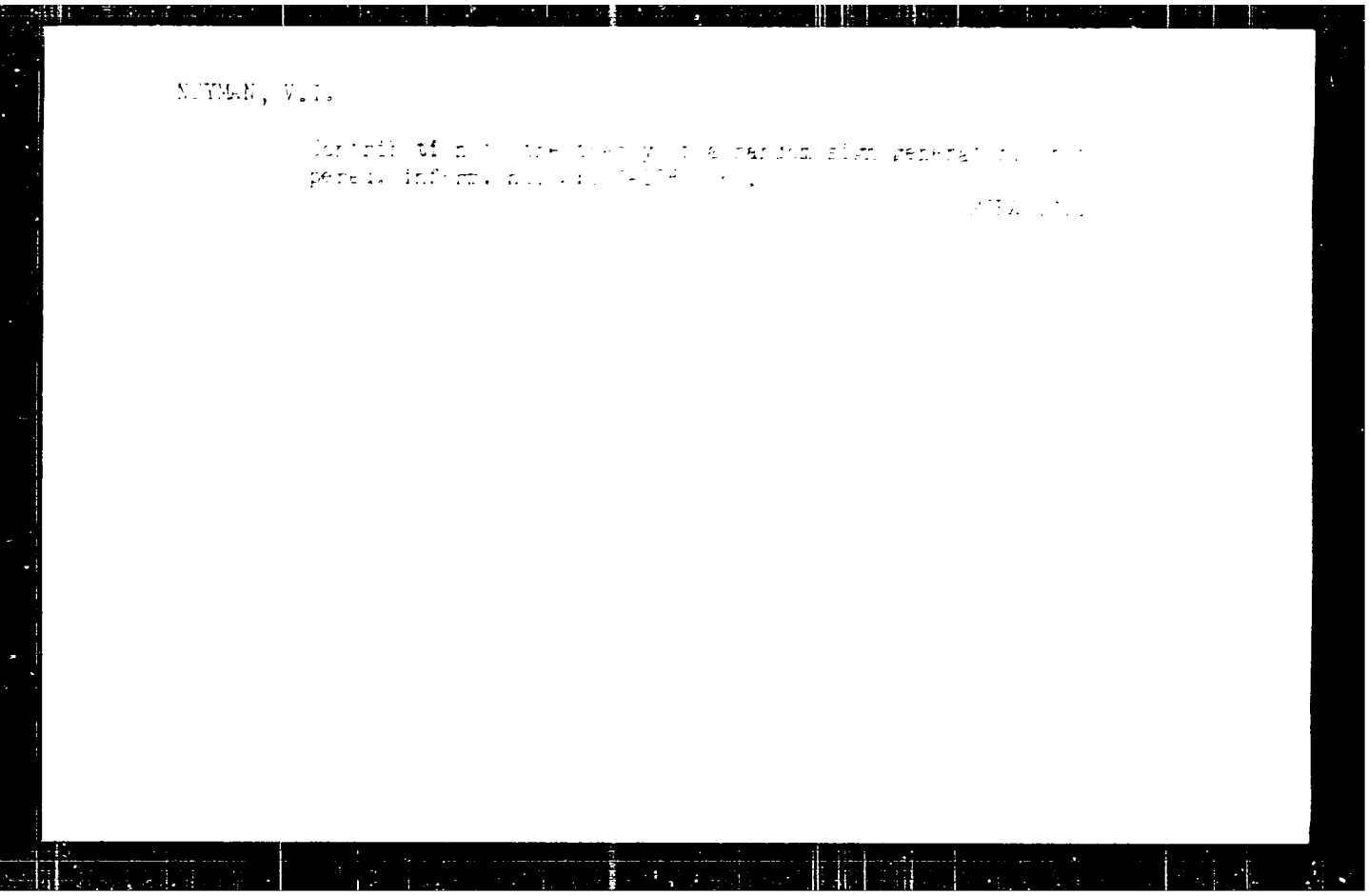
TITLE: On a method for obtaining random numbers

SOURCE: Akademiya nauk SSSR. Institut problem peredachi informatsii. Problemy peredachi informatsii. no.11. 1962. Voprosy teorii perarabotki i raspredeleniya informatsii. 117-123.

TEXT: The method consists of measuring the total duration of the time during which a random signal (noise) exceeds a certain level durin, a fixed time interval, and of comparing this duration with a clock of sufficiently high frequency to determine the parity of this duration with respect to the clock. A vacuum-tube circuit is described for obtaining 10^5 random bits per second using this method.
There are 3 figures.

SUBMITTED: May 13, 1961

Card 1/1



NITMAN, V.I.

[illegible]

BOKUNYAYEVA, A.I.; LAYKHTER, B.G.; LEV, R.A.; MEYMAN, V.M.

Degeneration due to aging in the region of the macula lutea. Vest. oft. 70 no.2:36-39 Mr-Ap '57. (MLRA 10:6)

1. Glaznoye otdeleniye TSentral'noy poliklinik Ministerstva zdravookhraneniya SSSR (nauchnyy rukovoditel' prof. Z.A.Kaminskaya)
(RETINA, physiol.
degen. due to aging in region of macula lutea (Rus))
(AGING, eff.
same)

BERMAN, A.S.; MEYMAN, V.S.

Estimating the porosity of sandstone reservoirs containing [illegible] fresh water. Neftegaz. geol. i geofiz. no.10:42-47 [illegible]