L 20781-66

ACC NR: AP6005561

one can be reloaded while the other is pressurized. Calculations of amplifier diameters and pump size required for a certain application are presented as an example. Orig. art. has: 5 formulas and 1 figure.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 006/ OTH REF: 003

Card 2/2

L 00316-66 EWT(d)/EWT(m)/EWP(w)/EPF(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/
EWP(h)/EWP(z)/EWP(b)/EWP(l)/ETC(m) BW/JD/WW/WB/DJ/GS

ACCESSION NR: AT5020435 UR/0000/65/000/000/0088/0092

AUTHORS: Klimov, K. I.; Mikheyev, V. A.

TITLE: Effects of gaseous environment on lubricant effectiveness under conditions of bearing friction

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya smazochnogo deystviya i novyye materialy (Theory of lubricating action and new materials). Moscow, Izd-vo Nauka, 1965, 88-92

TOPIC TAGS: lubricant, lubricant life, lubricant property / N 15 lubricant, MS 20 lubricant, MAS 35 lubricant, FM 1322/300 lubricant, PMS 100 lubricant, PMS 20 lubricant, MT 4 friction machine

ABSTRACT: The effects of load, temperature, and gaseous environment on the effectiveness of various lubricants were investigated on friction machine MT-4 (G. V. Vinogradov i dr. Pribory dlya issledovaniya fiziko-khimicheskikh svoystv i struktury metallov i materialov. Vypusk No. P-60-45/6. M., TsNIITEI, 1960). Lubricated balls of Cr-Mo steel (12.7 mm diameter) were loaded with 37.5-300 kg (top ball) and tested at 2560 rpm until a sudden rise in friction torque indicated lubricant failure (± 30% reproducible). Tests were conducted in air, under

Card 1/3

L 00316-66 3
ACCESSION NR: AT5020435

vacuum (10^{-4} tor) and under nitrogen (1 liter/minute). It was found that the time-to-failure t as a function of absolute temperature T and stress σ could be expressed as $\log t = A + B/T\sigma$ (A, B = constants). Curves of time-to-failure at different operating temperatures (100-400C) were obtained for 8 lubricants in air, vacuum, and nitrogen (see Fig. 1 on the Enclosure). It was found that for hydrocarbon lubricants (MS-20, MAS-35, N-15) and ethylpolysiloxane fluid (lubricant 6) time-to-failure increased considerably in Ni, indicating the importance of oxidation processes. For lubricants Fm 1322/300, PMS-100, PMS-20, and dioctalsebacynate, the effect of Ni atmosphere was negligible. In vacuum the decrease of O_2 concentration tends to lengthen operating life, while the increased lubricant vaporization decreases it. The net effect was always a decrease of time-to-failure in a vacuum as compared with air and N_2 curves. Orig. art. has: 2 figures.

ASSOCIATION: Nauchnyy sovet po treniyu i smazkam, AN SSSR (Scientific Committee on Friction and Lubrication, AN SSSR)

SUBMITTED: 22May65 ENCL: 01 SUB CODE: FP

NO REF SOV: 003 OTHER: 002

Card 2/3

L 00316-66

ACCESSION NR: AT5020435

ENCLOSURE: 01

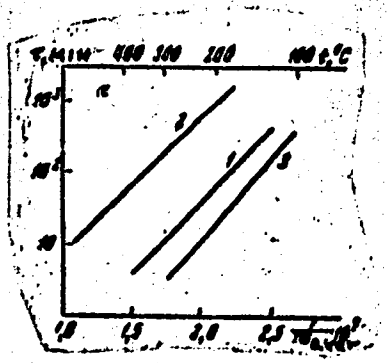


Fig. 1.
Sample curves for K-15 lubricant;
1- air, 2- N_2; 3- vacuum

Card 3/3

MIKHEYEV, V.A.

[Hydraulic press units; calculation, construction and operation] Gidravlicheskie pressovye ustanovki; raschet, konstruirovanie i ekspluatatsiia. Izd. 2., ispr.i dop. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.i sudostroit. lit-ry, 1953. 74 p. (MLRA 6:10)
(Hydraulic presses)

MIKHEYEV, V. A. and KORNILOV, I. I.

"Constitution Diagrams of Metallic Systems Based on Chromium," Uspekhi Khimii 22 (1953) pp 87/98.

B-77406, 21 Jul 54

MIKHEYEV, V.A.; BUTAKOV, S.Ye., doktor tekhnicheskikh nauk, redaktor; DUGINA, N.A., tekhnicheskiy redaktor.

[High-pressure hydraulic pumps and pump accumulator stations] Gidronasosy vysokikh davlenii i naso sno-akkumuliatornye stantsii. Moskva, Gos. nauchno-tekhn. izd-vo Mashinostroit. lit-ry, 1954. 140 p. (Pumping machinery) (MLRA 8:1)

MIKHEYEV, V. A., Eng.

"Use of Extremely High Liquid Pressures in New Hydraulic Presses"
p. 467-476 in book
Increasing the Quality and Efficiency of Machinery, Moscow, Mashgiz, 1957,
626pp.

122-5-3/35

AUTHOR: Mikheyev, V.A. (Engineer)

TITLE: A New Design of a Stuffing Box with a Graphite Loaded Grease Seal. (Novaya konstruktsiya sal'nika s metallozhidkostnym uplotneniyem)

PERIODICAL: Vestnik Mashinostroyeniya, 1957, Nr 5, pp.9-10 (USSR)

ABSTRACT: A new type of hydraulic seal for reciprocating plungers is described and illustrated. The seal occupies an annular space between a 45 mm diameter plunger and a 65 mm diameter housing. 10 mm lengths at each end of the space are filled with "Lion" type packing. The middle 70 mm length contains 5 pairs of rings, namely five outer rings of 7 mm square cross-section fitting the housing and leaving a clearance of 3.5 mm against the plunger, and five inner rings of the same basic cross section fitting the plunger. All but the inner ring at the end have an internal chamfer facing inwards towards the high pressure side (45°). All clearance spaces are filled with an emulsion consisting of 70% silver graphite mixture and 30% grease. The mild steel, non-heat treated, ground rings are oiled in assembly. A similar seal for an 80 mm plunger was tested under static conditions against a spindle oil pressure of 400 atm. After 68 hours no leakage

Card 1/2

122-5-3/35

A New Design of a Stuffing Box with a Graphite Loaded Grease Seal.

was observed. Reciprocating motion tests are described and the test stand illustrated diagrammatically. Fully tight sealing was observed against 350 atm in machine oil and 320 atm in water. The numbers of reversals in the tests were 113 000 and 312 000 respectively. Editorial remarks suggest that testing was insufficient. There are ? illustrations.

AVAILABLE: Library of Congress.

Card ?/?

SOV/137-58-7-14346

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7 p 56 (USSR)

AUTHORS: Mikheyev, V A , Sushchinskiy, D A

TITLE: Water-sealed Electrodes (Gidrouplotnennyye elektrodov)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 10, pp 30-31

ABSTRACT: Good sealing of the interior of electric reduction furnaces is reflected in output per unit time thermal conditions, internal pressure, electrode service, and the atmosphere of the department. The asbestos-sealed heat-exchanger system formerly employed did not work out. A water-seal type of jacket is proposed. Around the electrode there would be an annular trough with high walls, filled with running water. A hollow, water-cooled annular blade fastened to the electrode holder, is lowered into this trough A telescopic device is provided to assure the required motion of the electrodes As the knife rises, supplementary piping is linked therewith, so that the bottom of the bottom pipe is always in the water.

V. I.

Card 1/1 1. Electric furnaces--Equipment 2. Electrodes--Sealing

25(1) PHASE I BOOK EXPLOITATION SOV/1581

Mikheyev, Valentin Aleksandrovich

Gidropressovyye ustanovki sverkhvysokikh davleniy (Super-high Pressure Hydraulic Presses) Moscow, Mashgiz, 1958. 117 p. 5,000 copies printed.

Reviewer: L.A. Yefimov, Engineer; Ed.: V.B. Skornyakov, Candidate of Technical Sciences; Tech. Ed.: N.A. Dugina; Exec. Ed. (Ural-Siberian Division, Mashgiz): M.A. Bezukladnikov, Engineer.

PURPOSE: This book is intended for engineering and technical personnel, designers and technologists, scientific personnel and students at vtuzes.

COVERAGE: The book presents material on the development and operation of hydraulic presses operating at super-high pressures. The advantages of such presses over conventional hydraulic presses and prospects for using them in Soviet industry are described. The author presents designs and constructions of hydraulic presses with super-high pressure. The following personalities are mentioned for their active participation in the development of new hydraulic machinery:

Card 1/3

designers and hydraulic press builders F.Ya. Karakuts, L.P. Kibardin, F.B. Shiker, B.I. Polyakov, I.A. Rozhenko, Ye.A. Korovin, V.V. Kalinkin, A.M. Figurovskaya, A.L. Ayzenshtok, and B.A. Trembach.
There are 9 references, of which 8 are Soviet and 1 English.

TABLE OF CONTENTS:

Super-high Pressure (Cont.) SOV/1581

AVAILABLE: Library of Congress (TJ1460.M53)

GO/sfm
5-29-59

Card 3/3

MIKHEYEV, V. A.

AUTHOR: Ya. Sh. SOV/136-58-[illegible]/21

TITLE: Conference on New Methods of Smelting Lead [illegible] po novym metodam plavleniya svintsa)

PERIODICAL: Tsvetnyye Metally, 1958, Nr [illegible], pp [illegible] (USSR)

ABSTRACT: A conference on [illegible] concentrates was held [illegible] 1958. Since the last meeting in 1953, over 20 flowsheets and variants have been [illegible] by various [illegible] and organisations and the purpose of the present meeting was to evaluate this work. Pre-prints of the following reports had been circulated: "On Electric Smelting of Lead Raw Materials" by A.P. Sychev, V.A. [illegible], D.A. Sushchinskiy of VNIItsvetmet, A.V. Yakov of Kazgipro-tsvetmet; "On Precipitation and Reaction Smelting of Lead Concentrates" by V.P. [illegible], I.A. [illegible], M.P. Smirnov, I.N. Kudryavtsev of Giintsvetmet, I.R. Polyvyanyy et al. of the Institut metallurgii i obogashcheniya AN KazSSR (Institute of Metallurgy and Beneficiation of the Ac.Sc. KazSSR); "On Hydrometallurgical Treatment" by A.N. Vol'skiy, R.A. Arakeva, A.M. Yegorov, P.S. Titov, F.M. Loskutov and V.S. Iovelianov of Mintsvetmetzoloto and A.V. Pomosov, A.I. Levin et al. of the Ural'skiy

Card 1/3

politekhnicheskiy institut (U... Polytechnic Institute); on the "Electrolytic Production of Lead by Electrolysis of Fused Salts" by I.G. Gul'..., A.V. ..., V.P. Barinova and V.K. Rap..l' of Gi... and Yu.K. Delimarskiy, I.D. P...enko, ... G... and A.A. ... of IONKh Ac.Sc. Ukrainian SSR. The ... by D.M. Yukhtanov, deputy director of Gintsvetmet, ... discussed recent progress and noted that predictions that the lead industry would develop in the direction of the hydrometallurgical treatment of flotation concentrates had not been fulfilled; he said that the ... developed of the new methods ... electrolytic ... electrolysis of fused materials and ... would retain its importance for a long time. In the discussion that followed, D.M. Chizhikov, ... member of the Ac.Sc. USSR, systematized and ... all known processes. P.A. Pazdnikov and A.A. ... described methods of treatment developed ... high effectiveness of which was ... by V.A. ... of Giprotsvetmet and S.I. Sobol' of Gintsvetmet.

Card 2/3

A.M. Zykov of the Leningrad Polytechnic Institute criticised the reports presented as being insufficiently analytical. G.P. Vyatlev of the Ukrtsink Works recommended the adoption of electric instead of shaft smelting of secondary lead materials at the works. A.N. Vol'skiy, Corresponding Member of the Ac.Sc. of the Mintsvetmetzoloto described work he had directed there on sulphide oxidation and recommended more attention to safety aspects. V.F. Fedorov of the GNTK USSR drew attention to the comparative lack of work in the Soviet lead industry on new methods, but opposed the proposal by Gintsvetmet to build a new, large electric furnace at the Leninogorsk Works. P.I. Kravchenko of the Elektrotsink Works deplored the incompleteness of all the work reported at the conference. A.M. Lomov of Kavkazgiprotsvetmet considered the adoption of electric smelting of lead concentrates and I.D. Panchenko of IONKh of the Ac.Sc. Ukrainian SSR with electrolysis of fused salts. F.M. Losmutov, Professor, Doctor of Technical Sciences of Mintsvetmetzoloto reminded the conference that electric smelting is not applicable to all materials and disagreed with Kostin's suggestion that all Soviet works should be converted to

this practice; he also spoke against alkali treatment of lead-containing materials - a view opposed by G.G. Zapevalov of the Irkutskiy gorno-metallurgicheskiy institut (Irkutsk Mining-metallurgical Institute) who also stressed the need for economic evaluation. L.A.C. ... of Giprotsvetmet doubted whether electric smelting could revolutionise the lead industry and urged more research on the alkali process and sintering. I.V. ...nov of the Gosplan of the KazSSR criticised the research work reported but D.N. Klushin of Giintsvetmet said that this work had gone a long way to realise the aims set out at the previous conference though much effort had been wasted. Many speakers deplored the lack of central direction of research work. After putting on record their views on the proposed methods, the conference decided that effort should be concentrated on the study and development of a) electric smelting of primary lead raw materials with added fluxes and electric smelting of secondary materials; b) electrolysis of lead concentrates in fused electrolytes (for the rich materials of the "Elektrotsink" and ... Works); c) electrolytic refining of lead in aqueous

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134120005-4"

Conference on New Methods of [illegible] Lead SOV/130-58-9-14/21

solutions and [illegible] Works); [illegible] metallurgical and [illegible] middlings from the [illegible]. The conference [illegible] cease and that research [illegible] Abou[illegible] 100 representatives attended the conference.

Card 5/5 1. Lead--Production 2. Lead ores--Processing 3. Industrial equipment

MIKHEYEV, Valentin Aleksandrovich; YAM, Vladimir Mozusovich; POLYAKOV, Boris Ivanovich; GOLOSKOV, E.I., inzh., retsenzent; OBOLDUYEV, G.T., inzh., red.; BORODULINA, I.A., red. izd-va; KUREPINA, G.N., red. izd-va; PETERSON, M.M., tekhn. red.; BARDINA, A.A., tekhn. red.

[Modernization of hydraulic press equipment] Modernizatsiia gidropressovogo oborudovaniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 248 p. (MIRA 14:8)
(Hydraulic presses--Technological innovations)

MIKHEYEV, V.A.; GUBAYDULLIN, G.S.

Sinter roasting of lead charge mixtures on a sintering machine with bottom blow, recirculation of gases and the use of oxygen. TSvet. met. 36 no.4:27-35 Ap '63. (MIRA 16:4)

(Sintering) (Lead ores)

MIKHEYEV, V.A.; PAVLOV, A.M.

[Hydraulic scale breaking in rolling mills] Gidrosbiv okaliny v prokatnykh tsekhakh. Moskva, Izd-vo Metallurgiia, 1964. 104 p. (MIRA 17:12)

L 32451-65 EWT(d)/EWT(m)/EWP(w)/EPF(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l) Pf-4/Pr-4 JD/DJ

ACCESSION NR: AP4049883 S/0318/64/000/003/0031/0034

35
34
B

AUTHOR: Klimov, K. I.; Mikheyev, V. A.

TITLE: A five-ball friction machine for research on lubricating materials

SOURCE: Neftepererabotka i neftekhimiya, no. 3, 1964, 31-34

TOPIC TAGS: lubricant, lubricant testing, friction machine, lubricant stability

ABSTRACT: With high-temperature and high-speed conditions outstripping the qualifications of mineral oil and plastic lubricating materials, especially because of a lack of high-temperature stability, and since extensive research in this area is lacking, even the research methods have not yet been developed. Four-ball friction machines are unsatisfactory by virtue of the time necessary for completing experiments; the authors therefore constructed a five-ball friction machine applicable to cases of rolling friction, sliding friction, or both. The apparatus, shown in Fig. 1 of the Enclosure, has five balls 9.52 mm in diameter capable of revolving in opposite or coinciding directions at speeds of 500-10,000 rpm. As is evident from the drawing, pressure can be applied from either or both sides of the machine, and the two balls can be rotated in similar, opposite, or intermittent fashion, or one of them can be completely removed from operation. Infinite variations may be made by substituting balls of differing materials, and

Card 1/4

L 32451-65

ACCESSION NR: AP4049883

by regulating the temperature of the system. Orig. art. has: 2 figures.

ASSOCIATION: VNIINP

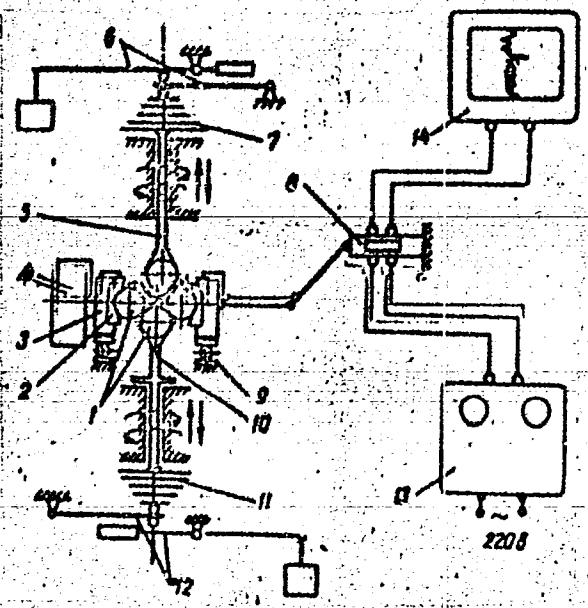
SUBMITTED: 00 ENCL: 02 SUB CODE: FP

NO REF SOV: 003 OTHER: 000

Card 2/4

L 32151-65

ACCESSION NR: AP4049883 ENCLOSURE: 01



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APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134120005-4"

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ACCESSION NR: AP4049883 ENCLOSURE: 02

Figure 1. Diagram of the five-ball friction machine: 1. pyramid of five balls; 2. external ring of the bearing; 3. housing; 4. electric oven; 5. upper ball; 6. upper "load" assembly; 7. upper flywheel complex; 8. tensometric indicator; 9. thrust bearing; 10. lower ball; 11. lower flywheel assembly; 12. lower "load" assembly; 13. feed panel for the tensometric indicator; 14. EPP-09 device.

Card 4/4

MIKHEYEV, V.A., inzh.

Simulation of the systems of railroad automation by means of digital computers. Vest. TSNII MPS 23 no.4:57-60 '64. (MIRA 17:8)

L 50572-65 EWI(m)/EWP(w)/EPF(c)/EWA(d)/EPR/T/EWP(t)/EWP(b) Pr-4/Ps-4 JD/DJ

ACCESSION NR: AP5009901 UR/0065/65/000/004/0052/0055

AUTHORS: Klimov, K. I.; Mikheyev, V. A.

TITLE: Effects of temperature and loading on the performance of oils in the rolling friction zone

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 4, 1965, 52-55

TOPIC TAGS: lubricant, lubricating oil, synthetic lubricant, testing device, test method, friction, friction bearing, rolling affect/ MS 20 mineral oil

ABSTRACT: The performance of organosilicon lubricants in the rolling friction zone of a five-ball experimental friction machine (shown schematically in Fig. 1 on the Enclosure) was studied in a broad range of temperatures and loads. This machine was described by K. I. Klimov and V. A. Mikheyev (Pyatisharikovaya mashina treniya dlya issledovaniya smazochnykh masel. Neftepererabotka i neftekhimiya, No. 3, 1964, 31). The rolling friction zone is formed of a 5-ball pyramid and a spherical-bearing ring fixed to a bowl. The upper and lower balls are connected rigidly to the shafts 5 and 10 which rotate in the same direction at 3200 revolutions/min. Load is exerted by the upper dynamometer 6. The bowl 3 remains motionless, and the middle balls roll along the internal surface of the bearing

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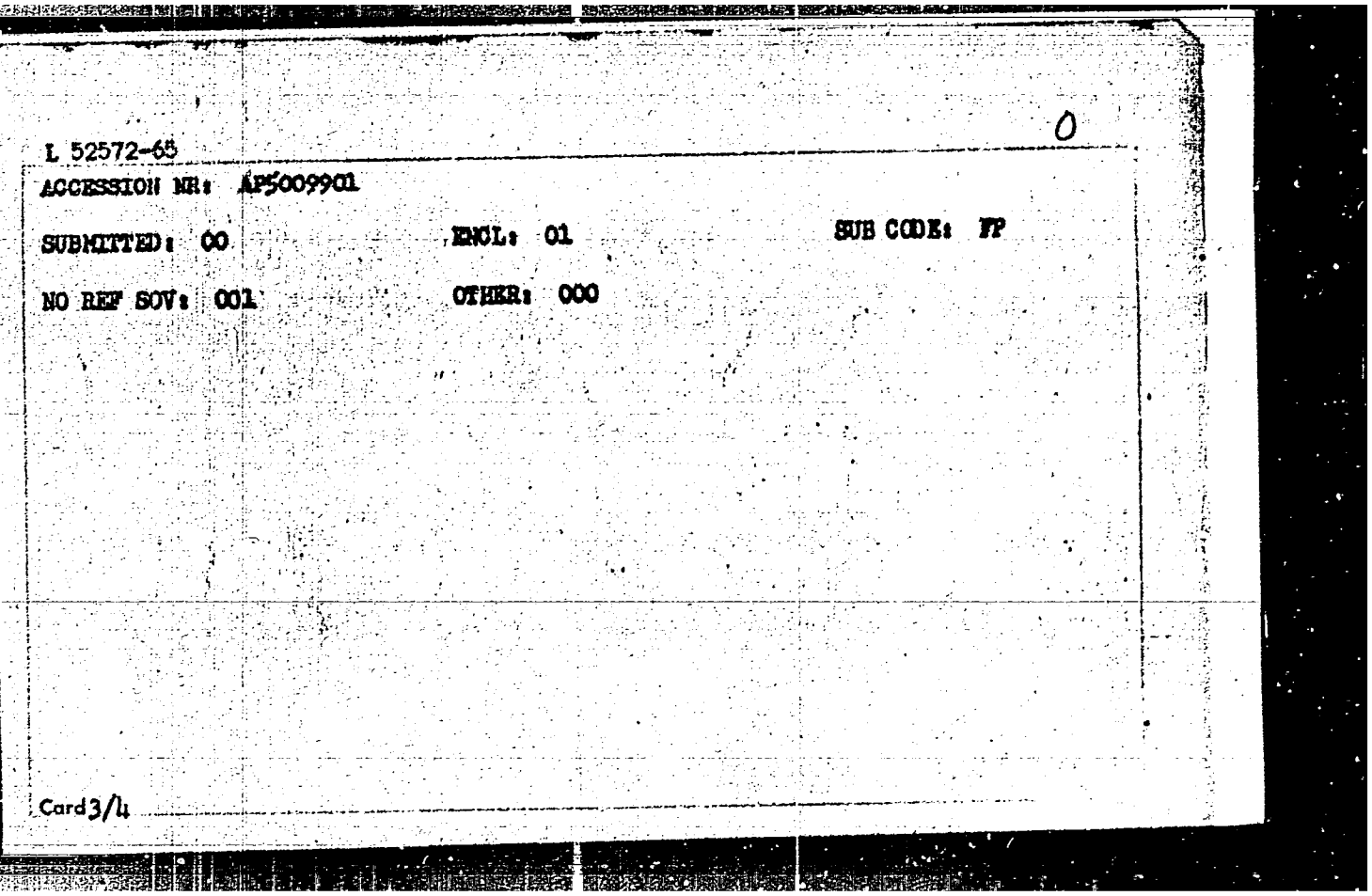
L 52572-65

ACCESSION NR: AP5009901

ring 2, while the upper and lower ones roll on the adjacent balls. In the current experiments, the friction zone was heated to the required temperature, the lubricant was introduced, and the shafts were put into motion. The conditional term "oil performance time" indicates a period from the start to the beginning of dry friction. These periods were determined for the five synthetic lubricants and were compared to those of the MS-20 and other mineral oils. The results obtained are tabulated. The behavior of MS-20 and of the organosilicon fluids under different temperatures and loads is shown graphically. Empirical equations describing the relation of the oil performance time to stress and temperature are presented. The performance time of the mineral oils in the temperature range 100-400C increased with the transition from distillate to residual oils; the time of the residual MS-20 oil at 200C was 30 times shorter than that of the distillate transformer oil. This difference decreased with the lowering of temperature. Although the organosilicon lubricants were less volatile than the mineral oils, their performance times at 400C and mean stress of 12350 kg/cm^2 (at the contact of the middle balls with the bearing ring) were considerably lower than those of MS-20, and the difference increased with the lowering of temperature. Orig. art. has: 1 table and 5 figures.

ASSOCIATION: none

Card 2/4



L 52572-65

ACCESSION NR: AP5009901

SUBMITTED: 00 ENCL: 01 SUB CODE: FP

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Card 3/4

L 52572-65

ACCESSION NR: AP5009901

ENCLOSURE: 01

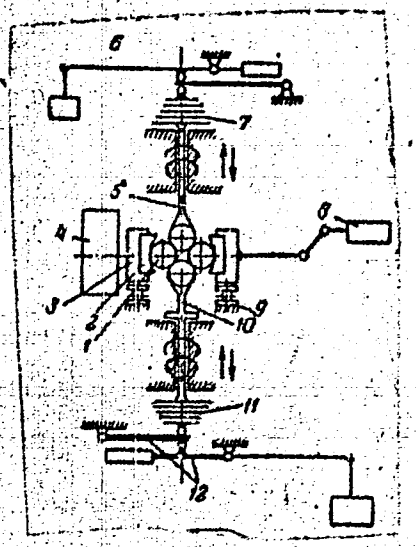


Fig. 1. Scheme for a five-ball friction machine.

1- five-ball pyramid; 2- external bearing ring; 3- bowl; 4- electrical heater; 5- upper shaft; 6- upper loading device; 7- upper set of pulleys; 8- sensing element of strain gauge; 9- thrust bearing; 10- lower shaft; 11- lower set of pulleys; 12- lower loading device

Card 4/4

L 55244-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 IJP/RM UR/0065/65/000/006/0050/0053
ACCESSION NR: AP5014951 621.892:665.521.5

AUTHORS: Klimov, K. I.; Mikheyev, V. A.

TITLE: Working capacity of oils during rolling friction in different gaseous media

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1965, 50-53

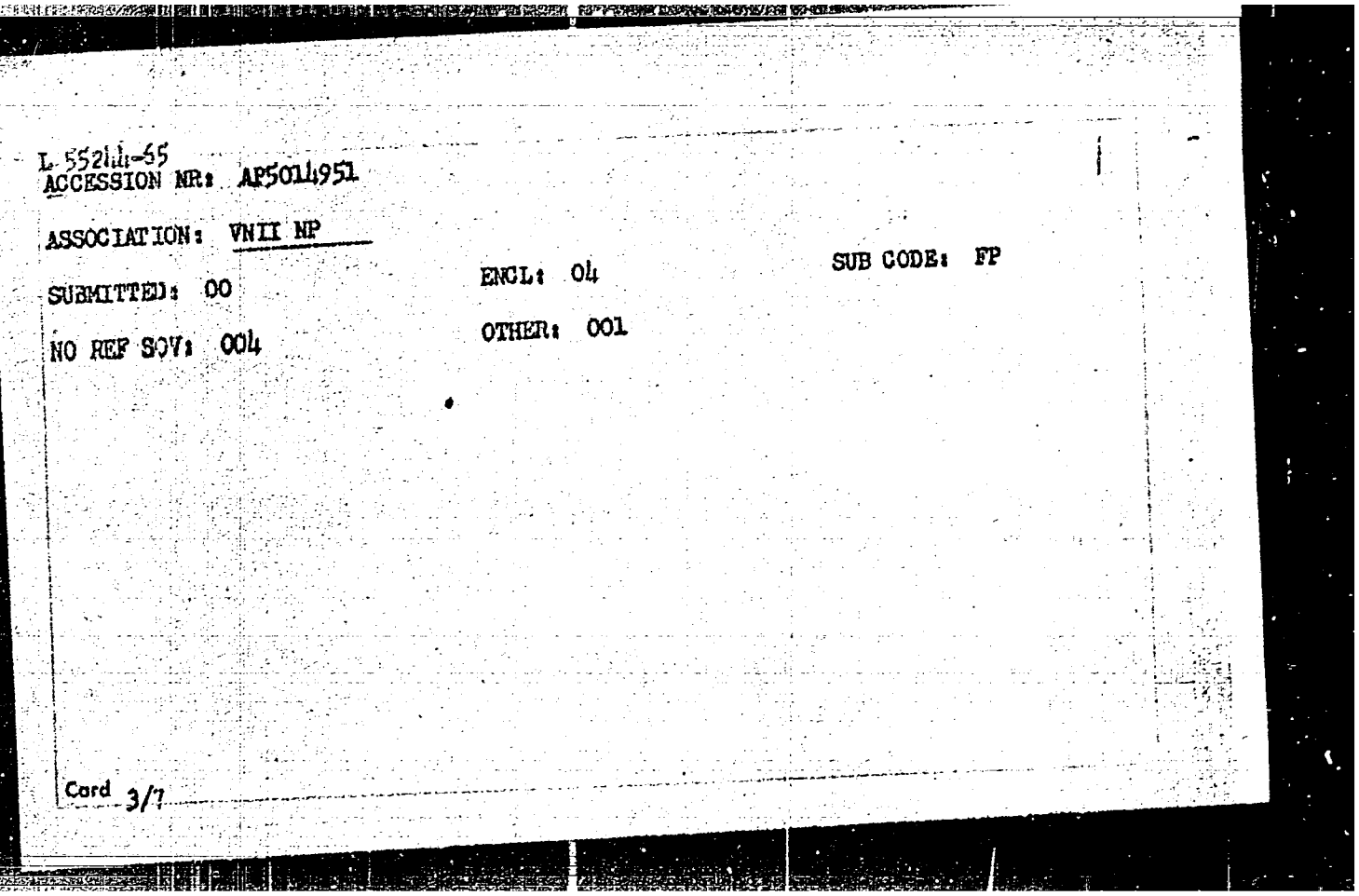
TOPIC TAGS: lubricating oil, engine, organosilicon compound, rolling effect, friction, friction bearing, oxygen/ MS 20 oil, SM 6 oil, PMS 100 oil, PMS 20 oil, FM 1322 300 oil, OS oil, MT 4 testing device

ABSTRACT: The effect of vacuum and neutral gas on the performance of different organosilicic and hydrocarbon oils (PMS-100, FM 1322.300; PMS-20, SM-6) in the rolling friction nodes was studied in the MT-4 testing device (shown in Figures 1 and 2 on the Enclosure). Balls made of Si-Mo steel and covered with the investigated oil are placed in a ShKh-15 steel cup inside the chamber of the four-ball friction device filled with air or nitrogen or evacuated. The friction zone is heated and loaded before the shaft is put into motion. The rolling friction moment is registered continuously. Time period τ (from the shaft rotation start

Card 1/2

to the sudden increase in the friction moment) determines the normal work period of the friction node. The relation of τ min to the absolute temperature (T) and to stress at the zone of ball contact with the vertical cup walls (σ_{cp}) is described by the equation $\lg \tau = A + \frac{B}{T\sigma_{cp}}$,

where A and B are constants used in the wearing capacity evaluation of oils in the rolling friction zone. Investigation results are presented in Figures 3 and 4 on the Enclosure. For comparison, the upper abscissa of all the graphs shows a temperature series for the particular case: $\sigma_{cp} = 10^4$ kg/cm^2. The organosilicic lubricants proved inferior to the hydrocarbon oils. The working capacity of the hydrocarbon oils and the ethylpolysiloxene fluids increased under nitrogen, while that of the methyl- and phenylpolysiloxene and dioctylsebacinate remained unchanged. In a vacuum, the period of normal working performance decreased with the increase in oil volatility. This effect was corrected by decreasing the gas-space volume. At the exchange of atmospheric conditions for vacuum (with unlimited gas-space), the working capacity of oils began to depend on the degree of the oil oxidation by atmospheric oxygen and on the oil volatility (the rate of oil expenditure was decreased due to oxidation and increased as a result of evaporation). Orig. art. has: 1 table and 5 figures.



L 55211-65
ACCESSION NR: AP5014951

ASSOCIATION: VNII NP

SUBMITTED: 00 ENCL: 04 SUB CODE: FP

NO REF SOV: 004 OTHER: 001

Card 3/7

L 5524h-65
ACCESSION NR: AP5014951

ENCLOSURE: 01

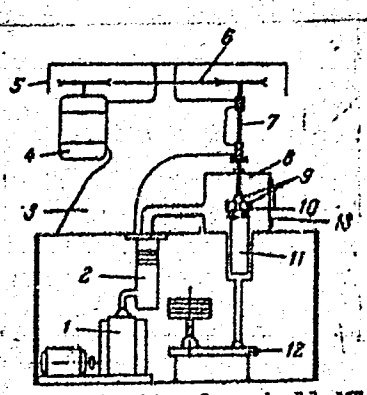


Fig. 1. Scheme for the four-ball MT-4 apparatus.

1- forevacuum pump; 2- diffusion pump; 3- pedestal; 4- electro-motor; 5- protective frame; 6- transmission belt; 7- shaft; 8- chamber; 9- four-ball pyramid; 10- cup; 11- hydraulic loading device; 12- sample piston-manometer; 13- lid of the chamber

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L 55244-65
ACCESSION NR: AP5004951

ENCLOSURE: 02

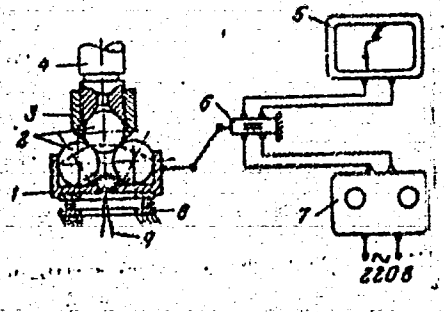

Fig. 2. Scheme for the friction node of the MT-4 device.

1- working cup; 2- four-ball pyramid; 3- clamping nut; 4- shaft; 5- EPP-09; 6- tensometric dynamometer; 7- rectifier; 8- thrust bearing; 9- thermocouple

Card 5/7

L 55244-65

ACCESSION NR: AP5011951

ENCLOSURE: 03

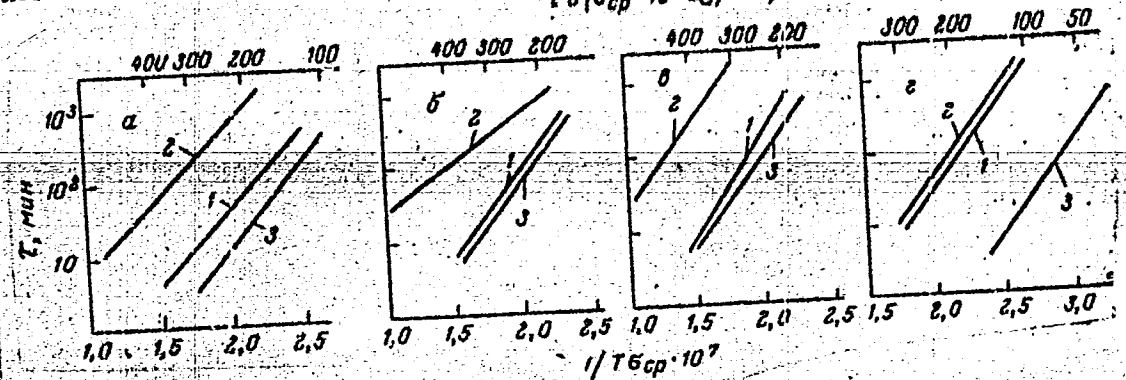

Fig. 3. Working capacity of oils in various gaseous media.

a- naphthenic hydrocarbons; б- MS-20; b- aromatic hydrocarbons; г- O.S.; 1- air; 2- nitrogen; 3- vacuum

Card 6/7

L 55244-65
ACCESSION NR: AP5011951

ENCLOSURE: 04

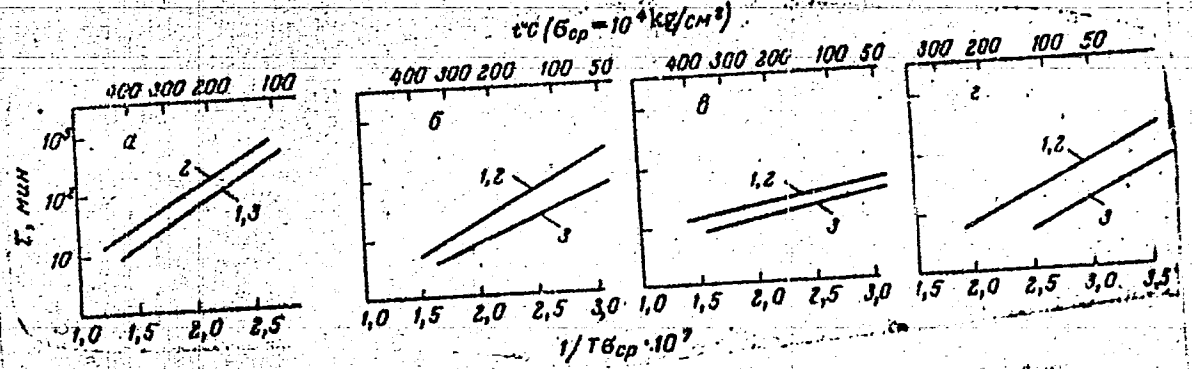

Fig. 4. Working capacity of oils in various gaseous media.

a- SA-6; б- FM 1322/300; b- PMS-100; г- PMS-20; 1- air; 2- nitrogen; 3- vacuum

Card 7/7 MB

MIKHEYEV, V.A., inzh.

Selecting superhigh-pressure drive for hydrostatic presses.
Vest.mashinostr. 45 no.10:57-58 O '65. (MIRA 18:11)

EWT(d)/EWT(l) IJP(c) RB/GG

ACC NR: AP6011456 SOURCE CODE: UR/0413/66/000/006/0098/0099

AUTHORS: Marchuk, P. Yo.; Pegushin, L. M.; Mikheyev, V. A.

ORG: none

TITLE: A device for the group input of information from punched cards to an electronic computer. Class 42, No. 179991 [Announced by Central Scientific Research Institute of the Ministry of the Means of Communications (Tsentral'nyy nauchno-issledovatel'skiy institut Ministerstva putey soobshcheniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 98-99

TOPIC TAGS: punched card, computer input unit

ABSTRACT: This Author Certificate presents a device for the group input of information from punched cards to an electronic computer with a linear structure. The device implements the interruption of the machine operation and is designed to provide the possibility of random and independent changes of the parameters of the group input in the process of reading a large mass of punched cards. Registers are used in the device as the detectors of the current address, the numbers of the cells, and selection parameters which are stored in the memory. The input channels of the registers are connected through valves with the outputs of the triggers of the computer command register (see Fig. 1). The resolution inputs of the valves are connected with the separate outputs of the computer decoder.

UDC: 681.142

Card 1/2

L 08944-67

ACC NR: AP6011258

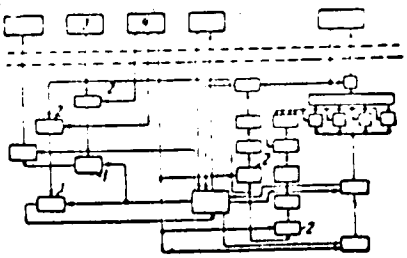

Fig. 1. 1 - registers; 2 - valves; 3 - command registor; 4 - docodor

Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 10Feb64

Card 2/2 mst

MIKHEYEV, V.A., inzh.; PERSHEYEV, V.[illegible], inzh.

Group protection of information models. Vest. TSNII MPS [illegible]
63-64 '65.

NAZAROV, M.S.; OVSYANNIKOV, N.G.; SOYUZOV, A.A.; MITAISHVILI, A.A.; YUDIN, P.G.; SOLOV'YEV, I.F.; SVIRIDOV, A.A.; RUMYANTSEV, S.M.; KOLICHENKO, K.N.; NIKULIN, M.R.; ORLOV, D.A.; MAYOPSKIY, G.I.; SEMENOV, I.Ya.; SUTYRIN, M.A.; KOVALEV, A.I.; VLASOV, A.A.; LEVIN, Ya.L.; KLIMOVITSKIY, A.Z.; METAL'NIKOV, G.F.; PANUSHKIN, G.P.; CHECHETKIN, A.V.; MIKHEYEV, V.D.; KOLOKOL'NIKOV, K.A.; MOISEYEVA, A.I.; TIRON, G.I.; KRYLOVA, V.F.; GOFMAN, Ya.M.; BUDCHANOV, B.F.

K.I. Korshunova; an obituary. Rech. transp. 20 no.12:[illegible] D '61. (MIRA 14:12)

(Korshunova, Kseniia Ivanovna, 1910-1961)

L 33437-66 EWT(m)/EWP(j)/T IJP(c) DS/WW/JW/JWD/RM

ACC NR: AP6020553 SOURCE CODE: UR/0414/66/000/001/0068/0073

AUTHOR: Aleksandrov, V. V. (Novosibirsk); Konev, E. V. (Novosibirsk); Mikheyev, V. F. (Novosibirsk); Khlevnoy, S. S. (Novosibirsk)

ORG: none

TITLE: Surface temperature of burning nitroglycerine powder

SOURCE: Fizika goreniya i vzryva, no. 1, 1966, 68-73

TOPIC TAGS: nitroglycerine, combustion temperature, solid propellant combustion, combustion research

ABSTRACT: The surface temperature T_s of nitroglycerine powder H burning in air was measured as a function of the initial temperature of the powder T_0 (ranging from -25 to 125C). A thin (~5μ) manganin-constantan thermocouple located between the compressed powder specimen and an ebonite substrate cemented together with acetone was used for the measurements. The tabulated and graphed results show that the surface temperature of the powder is practically independent of the initial powder temperature and varied between 275 ± 21C at T_0 = 20C and 281 ± 11C at T_0 = 116C. The average T_s is about 275C and, apparently, is the boiling temperature of the nitroglycerine and dinitrotoluene

UDC: 536.46+541.427.6

Card 1/2

L 33437-66
ACC NR: AP6020553

4/11

mixtures in the presence of nitrocellulose and decomposition products. Data on the burning velocity of H powder at T_0 < 20—40C, calculated on the assumption that T_s is equal to the boiling temperature of the mixture, are in good agreement with published experimental data on the dependence of the burning velocity u on the initial powder temperature in the same temperature range. The results indicate that the evaporation of the volatile components plays a great role in the burning of nitroglycerine powders. To explain the $u(T_0)$ dependence, it is suggested that at T_0 < 40C, u is determined by the solid-phase reaction and at T_0 > 40C, u is determined by the reaction in the gaseous or in the aerosol phase. The author is grateful to A. A. Koval'skiy for his advice and also to all his coworkers at the Laboratory of the combustion of condensed systems of the Institute of chemical kinetics and combustion, Siberian branch, AN SSSR for their discussion of the work. Orig. art. has: 4 figures, 1 table, and 2 formulas. [PS]

SUB CODE: 19/ SUBM DATE: 15Nov65/ ORIG REF: 008/ OTH REF: 001/
ATD PRESS: 5027

Card 2/2 ULR

L 43982-66 EWT(l)/EWP(e)/EWT(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/WW/JWD/JT

ACC NR: AP6029754 (A) SOURCE CODE: UR/0414/66/000/002/0044/0051

AUTHOR: Mikheyev, V. F. (Novosibirsk); Khlevnoy, S. S. (Novosibirsk); Khudyakov, A. V. (Novosibirsk)

ORG: none

TITLE: A thin film resistance thermometer for recording temperatures on the surface of powder during rapid heating

SOURCE: Fizika goreniya i vzryva, no. 2, 1966, 44-51

TOPIC TAGS: solid propellant, propellant, combustion, solid fuel rocket

ABSTRACT: One of the important characteristics of solid rocket fuel is the change in the surface temperature prior to ignition at various initial conditions and with various types of energy incident on the surface. The study of the ignition process is of greatest interest when the fuel is heated very rapidly (ignition time 10^{-2} sec), which is close to the actual ignition conditions in solid fuel rocket engines. Temperature measurement of the fuel surface has been studied by methods based on the emission of infrared radiation from the surface. This, however, had the shortcoming that the products of evaporation and decomposition affect the measurements. In the present study, a thin film resistance thermometer (0.5 μ thick and 0.2—0.3 mm wide) was prepared and used to measure the surface temperature during rapid heating by light energy. The nickel resistance thermometer was prepared electrolytically.

Card 1/2 UDC: 536.46+541.427.6

L 43982-66
ACC NR: AP6029754

and standardized with a manganese-constant thermocouple at 0—300C. The thermometer was mounted on 20 mm diameter and 7 mm thick fuel samples which were heated by light flux of 12—14 cal/cm^2 sec. Temperature recordings were made with an oscillograph. The heating of a powder ~~M~~—carbon black mixture took 0.1 to 0.3 sec. The thermometer can be used with energy fluxes of 10—100 cal/cm^2 sec obtained with an arc furnace. This would ensure heating in 10 μsec. The authors thank T. F. Voyevodchenko, V. P. D'yachkov, and M. S. Dumayev for their help in preparing the experiment. Orig. art. has: 8 figures. [PV]

SUB CODE: 21/ SUBM DATE: 17Nov65/ ORIG REF: 005/ OTH REF: 014/ ATD PRESS: 5071

Card 2/2 ULR

MITKEVICH, V. G.

Engr., Kuznetsk Metallurgical Combine, -cl'Ka-.

"Annealing [illegible] while they are [illegible]," Stal', [illegible]

MIKHEYEV, V.G.; KUDRYAVTSEV, G.L.

Device for determining the alpha phase in stainless steel.
Zav.lab. 22 no.3:341-342 '56. (MLRA 10:5)

1.Kuznetskiy metallurgicheskiy kombinat im. Stalina.
(Steel, Stainless--Analysis) (Magnetic instruments)

307

AUTHOR: Mikheyev, V.G., Eng. (Kuznetsk Metallurgical Combine).

TITLE: An investigation of defective rails removed from tracks. (Issledovanie snyatykh s puti defektnykh rel'sov).

PERIODICAL: "Stal'" (Steel), 1957, No.4, pp.343-347 (U.S.S.R.)

ABSTRACT: A large scale investigation of rails (rolled in 1947-48) taken from tracks was carried out in 1950-51 by the Central Laboratory of the Kuznetsk Combine. It was then established that the most frequent defect (horizontal split on the head at the end of rails) was due to flakes. In 1949, slow cooling of rails after rolling and hardening of ends (from rolling heating) in special boxes was introduced. This treatment prevented the formation of flakes and in 1954-56 a new investigation of 130 rails removed from tracks (produced in 1951-53) was carried out. The distribution of the above rails according to defects is shown in Table 1. No defects caused by flakes were found. The majority of defects was associated with the local contamination of metal by non-metallic inclusions and with the presence of fine cracks and fissures in the middle of the rails base. A significant part of the rails removed was found to be sound. It is pointed out that previously, when a single rail was found to have flakes, all the rails made from the same melt were removed. A detailed description of defects with illustrations is given. There is 1 table and 10 figures.

Mikheyev, V.G.

AUTHORS: Sakharov, G.A. and Mikheyev, V.G. (Kuznetsk Metallurgical Combine). 380

TITLE: An improvement in the surface quality of stainless steel sheets. (Uluchsheniye poverkhnosti nerzhaveyushchego lista).

PERIODICAL: "Stal'" (Steel), 1957, No.4, pp. 377-378 (U.S.S.R.)

ABSTRACT: The most common defects on the surface of metal during rolling thick sheets from steel 1X18H9T on the Kuznetsk Combine were cracks on slabs and fissures, film-cracks on finished sheets. The formation of these defects was due to factors related to melting and rolling of the metal. Treatment of data collected from 549 melts indicated that the quality of the surface of sheets deteriorates with increasing Cr : Ni and Ti : C i.e. with increasing amount of α-phase in the metal. Initially ingots were heated to 1260-1280°C (without correction). A decrease of the heating temperature to 1250-1260°C noticeably improved the surface quality of the sheets produced. A check on the content of the α-phase in slabs (edges, middle and intermediate parts) after heating was carried out. (Table). It was found that the content of α-phase increases from the edges towards the middle of the slab, moreover, the amount of α-phase in slabs placed in the corners of the heating

An improvement in the surface quality of stainless steel sheets. (Cont.)

furnace was higher. It was found from experience that on the appearance of cracks in the first rolled ingot of a melt, the plasticity of the metal in the remaining ingots can be improved by increasing the soaking time by 2-4 hours with simultaneous decrease in temperatures by 20-30°C. When the content of the α-phase in ingots does not exceed 15%, their heating temperature should be 1260-1270°C with soaking time of 4 hours. Total duration of heating of 5.8 t ingots - 6 to 8 hours. When the content of the α-phase is higher than 15% the heating temperature should be lowered to 1250°C. There are four figures and 1 table.

S/129/62/000/006/003/008
E193/E383

AUTHORS: Shipilov, A.D. and Mikheyev, V.G., Engineers

TITLE: Case-hardening of a chromium stainless steel

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, no. 6, 1962, 55 - 56 + 1 plate

TEXT: The investigation described in the present paper was carried out at Kuznets Metallurgical Combine with the object of studying the structure and properties of case-hardened steel 1Kh13 (1Kh13), which is characterized by exceptionally high resistance to abrasion. Case-hardening was carried out at 920 - 940 °C in a solid carburizing medium consisting of 85% semicoke and 15% soda. After quenching from the carburizing temperature a case was obtained which consisted mainly of a carbide phase interspersed with a small proportion of martensite. The depth of carburization depended on the carburizing time and ranged from 0.6 mm after 15 hours to 1.6 mm after 60 hours. The carbon content of the case decreased gradually from about 3.5% at the surface to about 0.2% at a distance of 1.5 mm from the surface. Hardness measurements conducted on test pieces

Card 1/2

S/129/62/000/006/008/008
E193/E383

Case-hardening of ....

carburized and quenched from 800 - 1 100 °C showed that the maximum hardness HRC = 67 was attained after quenching from 900 °C. With increasing distance from the surface of the carburized case, its hardness after this treatment remained constant at HRC = 67 to a depth of 0.4 mm, after which it gradually decreased, reaching a value of 45 at a distance of 2 mm from the surface. The results of tempering experiments are rproduced in Fig. 6, where the hardness (HRC) at the surface of the case is plotted against the tempering temperature (°C), the various curves relating to specimens quenched from temperatures indicated by each curve. It is stated in the concluding paragraph that by changing the material of a pressing die from steel 10 to steel 1Kh13 a tenfold increase in the life of the tool was attained. There are 6 figures.

ASSOCIATION: Kuznetskiy metallurgicheskiy kombinat
(Kuznets Metallurgical Combine)

Card 2/2

MONASTYRSKIY, V.Ya.; DUBROVIN, A.K.; LASKARONSKIY, E.N.; GRACHOV, A.N.; DANILOV, F.M.; KONOVALOV, K.N.; MIKHEYEV, V.S.; PEGOV, V.I.

Improving the technology of smelting, pouring, and heating 0 - 2Kh13 steel ingots. Metallurg 10 no.12:14-15 D '65.

1. Kuznetskiy metallurgicheskiy kombinat.

MIKHEYEV, Vladimir Ivanovich; TRIFONOV, V., red.; MUKHIN, Yu., tekhn.red.

[A leap into the future; an account of the building of socialism in the people's China] Skachok v budushchee; rasskaz o stroitel'stve sotsializma v narodnom Kitae. Moskva, Gos.izd-vo polit. lit-ry, 1959. 78 p. (MIRA 12:4)
(China--Economic policy)

MIKHEYEV, V.I.

Lay-off of shaft axes in the Kalininugol' Rumintsev Mine. Ugol' Ukr. 4 no.10:32-33 O '60. (MIRA 13:10)

1. Glavnyy marksheyder shakhty im. Rumyantseva tresta Kalininugol'.
(Mine surveying)

S/044/62/000/008/007/073
C111/C333

AUTHORS: Postoyev, V. S., Mikheyev, V. I.

TITLE: The tension state of a torus shaped shell under the influence of hydrostatic pressure

PERIODICAL: Referativnyy zhurnal, Matematika, no. 8, 1962, 33-34, abstract 8B149. ("Tr. Vses. zaochn. lesotekhn. in-ta", 1961, no. 7, 125-137)

TEXT: Examined is the calculation of a torus shaped shell in the general case, where the boundary conditions are given more exact than usual. The method of asymptotic integration is used to solve the equation for the symmetrical deformation of such a shell; the calculation formulas are obtained relatively easy by this method.

[Abstracter's note: Complete translation.]

Card 1/1

S/081/61/000/020/035/089
B117/B147

AUTHORS: Mikheyev, V. I., Semenov, V. V.

TITLE: Data for the X-ray detector of metals and alloys

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 123, abstract 20D142 (Zap. Leningr. gorn. in-ta, v. 38, no. 2, 1961, 107-121)

TEXT: The authors give data of standard X-ray patterns of Te, Sn, Pb, Ag, Au, Al, Ta, Pt, Ir, Pd, Rh, Co, Zn, Cu, Os, Cr, Ni, Fe, and some of their alloys. They suggest a variant of the identification key of these elements. [Abstracter's note: Complete translation.]

Card 1/1

MIKHEYEV, V.I.; SAL'DAU, E.P.; MIKHEYEVA, I.V., red.; SHVETSOVA, E.M., ved. red.

[X-ray guide to minerals] Rentgenometricheskii opredelitel' mineralov. Leningrad, Nedra. Vol.2. 1965. 362 p. (MIRA 18:7)

MIKHEYEV, V.I. [deceased]; SHAFRANOVSKIY, I.I.; GENDELEV, S.Sh.

Crystal edge forms. Report No.3: Simple edge forms of trigonal and hexagonal systems. Zap. LGI 38 no.2:122-139 '61. (MIRA 15:1)

(Crystallography)

Viktor Ivanovich Mikheyev

MIKHEEV, V.L.

USSR/Solid State Physics - Structural Crystallography E-3

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 897

Author : Mikheev, V.L.
Inst : -
Title : X-ray Determinative Tables for Minerals.

Orig Pub : Kristallografiya, 1957, 2, No 4, 466-469

Abstract : No abstract.

Card 1/1

21 (7)

AUTHORS: Mikheyev, V. L., Skobelev, N. K., Druin, V. A., Flerov, G. N. SOV/56-37-3-45/62

TITLE: On the Spontaneous Fission of Am^{241}

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 3(9), pp 859 - 861 (USSR)

ABSTRACT: A number of heavy odd nuclei showing spontaneous fission has already been investigated by American authors. A short report is given on these investigations in the introduction. In the following, investigations carried out by the authors themselves are described. A gas scintillation counter was used as a detector for the fission fragments. The counter consisted essentially of a hermetically closed chamber filled with xenon, the glass window of which was connected to a photomultiplier; the inside of the window was covered by a layer of quaterphenyl ($\sim$50 $\mu g/cm^2$), which caused ultraviolet radiation to be transformed into visible light. The chamber was evacuated to $5 \cdot 10^{-6}$ Hg and then filled with Xe (2 atm). The FEU-33-type photomultiplier had a time resolution of $\sim 3 \cdot 10^{-9}$ sec. Recording of the

Card 1/3

fission fragments in the case of the strong α-background was carried out by means of a fast discriminator; a DGTs-7 diode served as nonlinear element in the circuit. The entire device was first tested by means of a Pu^{240} target and was calibrated with U^{235}(200 μg). The Pu^{240}-half life was determined as amounting to $1.7 \cdot 10^{11}$a, which agrees well with other measurements. For the purpose of determining the counting characteristic all counters were surrounded by paraffin, and Po+Be was used as a neutron source (cf. figure). It was found that in the transition from Pu^{240} to Am^{241} the characteristic practically did not change. Measurements on ~60 μg Am^{241} were carried out during 160 hours with a discrimination threshold of 4v. During this time 26 pulses were recorded; as shown by control tests, at least 18 of them originated from the background. Thus, the lower limit of the half-life of the spontaneous fission of Am^{241} is about $2 \cdot 10^{14}$a. The Cm^{242} impurity is estimated

On the Spontaneous Fission of Am^{241} SOV/56-37-3-45/62

at 10^{-10}%. In conclusion, the results are compared with those obtained by Segre; the authors thank V. F. Gerasimov for his advice in constructing the counters. There are 1 figure and 6 references, 1 of which is Soviet.

SUBMITTED: May 26, 1959

Card 3/3

86742
S/120/60/000/006/017/045
E032/E314

26.1640

AUTHORS: Karnaukhov, V.A. and Mikheyev, V.L.

TITLE: Apparatus for Measuring the Total Thickness of α-active Deposits

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 6, pp. 60 - 61

TEXT: The principle of the method is stated to be as follows. Consider an α-active deposit whose thickness is t. The average range of α-particles leaving the deposit along the normal to its surface is $R'_o = R_o - t/2$, where R_o is the average range of α-particles emitted from a standard source whose thickness can be neglected. By determining the difference between R_o and R'_o one can find the total thickness of the deposit under investigation. Fig. 1 shows the apparatus employed by the present authors. The specimen under investigation 2 and the standard specimen 3 can be presented in turn to the window of the proportional counter 5. Both the specimen-holder and the proportional counter are mounted on the same metal tube 1. The tube can be evacuated and then filled

S/120/60/000/006/017/045
E032/E314

Apparatus for Measuring the Total Thickness of α-active Deposits

with methane which was used as the working gas. The counting efficiency was 1.5×10^{-4}. The average range of α-particles was determined by altering the pressure of the gas. The gas pressure was measured by a mercury manometer. Fig. 2 shows some of the experimental curves obtained. They are all normalised to unity (the counting rate on the plateau was assumed to be equal to unity). Curve 1 was obtained with a Pu^{239} standard. The amount of plutonium determined from an α-count was found to be 20 μg/cm^2 (PuO_2). Curve 2 refers to a Pu^{239} target prepared with the aid of tetra-ethylene glycol on a niobium foil. The thickness of the specimen, which was measured from the displacement relative to the standard curve, was found to be 200 μg/cm^2 (PuO_2). The amount of plutonium calculated from the α-particle count was found to be 220 μg/cm^2 (PuO_2). Curve 3 was obtained with the same target

86742

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E032/E314

Apparatus for Measuring the Total Thickness of α-active Deposits

as Curve 2 but with the target covered by an aluminium foil having a thickness of 390 $\mu g/cm^2$. Curve 4 refers to a target of Pu^{241}. The α-count was due to an 8% impurity of Pu^{240}. The target was prepared with the aid of tetra-ethylene glycol on a niobium foil. The total thickness of the target was found to be 830 $\mu g/cm^2$ (PuO_2). The amount of plutonium determined from the α-count was found to be 120 $\mu g/cm^2$ (PuO_2). Curve 5 was obtained with a Pu^{240} target deposited by electrolysis on a nickel foil. The total thickness of the target was 620 $\mu g/cm^2$ (PuO_2) and the amount of plutonium determined from the α-count was 110 $\mu g/cm^2$ (PuO_2). In these experiments the thickness of the target was determined to an accuracy better than 70 $\mu g/cm^2$ according to PuO_2.

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86742

S/120/60/000/006/017/045
E032/E314

Apparatus for Measuring the Total Thickness of α-active Deposits

Acknowledgments are expressed to G.N. Flerov and S.M. Polikanov for interest in this work.
There are 2 figures and 2 Soviet references.

SUBMITTED: October 15, 1959

Card 4/4

33139

S/120/61/000/006/005/041
E032/E114

21.6000

AUTHORS: Bredel', V.V., Mikheyev, V.L., and Polikanov, S M.

TITLE: Silicon detectors for heavy charged particles

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961 44 48

TEXT: The authors describe a method of preparation of charged-particle detectors using n-type silicon. The method is based on the work of G Dearnaley and A B. Whitehead (Ref 7 Report AERE - R3437, Harwell, Berkshire, 1960). The n-type crystals (140 ohm.cm) were cut into plates of 5 x 5 x 1 mm^3 or 2 x 2 x 1 mm^3 so that the large face corresponded to the (111) orientation, i.e. it was perpendicular to the direction of growth of the crystal. The specimens were then polished with the aid of a rotating disc, the abrasive being fine silicon carbide powder deposited on a silk surface. The crystals were then washed in water and afterwards placed for ten minutes in boiling concentrated nitric acid. They were placed (for about ten minutes) in a mixture consisting of two parts of concentrated (90%) nitric acid, one part of glacial acetic acid and one part of

Card 1/ 4

X

Silicon detectors for heavy charged.

40% hydrofluoric acid. In the next stage the mixture was gradually diluted with distilled water. The washed crystals were dried with filter paper and placed in a drying cabinet maintained at 100 °C. 100μ copper foils were attached on either side of the crystal with the aid of the БФ-2 (BF 2) adhesive and the assembly was placed between two mica plates, one of which had a rectangular aperture cut in it. This aperture is indicated by the dashed line in Fig.2. Both sides of the crystal and foil were covered with a layer of gold (evaporated in vacuum) to a thickness of 100-200μg per cm^2. Experiments were then carried out to determine the maximum bias which can be applied to the detector without breakdown. The better of the two sides was chosen as the working side and the detector was finally placed in a plastic holder using the BF-2 adhesive to keep it in position. Measurements showed that the detectors had a practically constant resolution of about 2.5% for bias voltages between about 15 and 90 volts (cm^{242} particles) Above 90 volts the resolution increases, reaching about 6% at about 100 volts (6 MeV). A 30% improvement in the resolution can be obtained by reducing the temperature of the detector to the

Silicon detectors for heavy ....

temperature of liquid nitrogen. The detector was found to be linear for α-particles between 5.3 and 8.78 MeV. A study was also made of the effect of the magnetic field on silicon p—n detectors and it was found that the amplitude of the pulses is independent of the magnetic field up to 12 kOe. Acknowledgments are expressed to G.N. Flerov for suggesting this work, to S.M. Ryvkin and his associates at LFTI AN SSSR for their advice about semiconducting devices. Acknowledgments are also expressed to I.I. Chuburkova and B.V. Fefilov.
There are 10 figures and 8 references: 2 Soviet-bloc and 6 non-Soviet-bloc. The four most recent English language references read as follows:

Ref.4: S.S. Friedland, J.W. Mayer, J.S. Wiggins. Nucleonics, v.18, no.2, 1960, 28.
Ref.6: M.L. Halbert, J.L. Blankenship. Nucl. Instrum. and Methods, v.8, 1960, 106.
Ref.7: in text above.
Ref.8: Seventh Scintillation Counter Symposium, IRE Trans. Nucl. Sci., v. HS-7, no.2-3, 1960.

X

33239

Silicon detectors for heavy charged... S/120/61/000/006/005/041
E032/E114

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy
(Joint Institute of Nuclear Research)

SUBMITTED: April 3, 1961

Fig.2

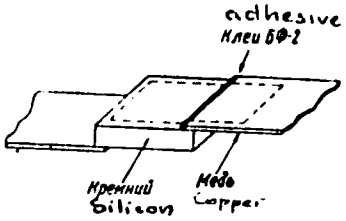
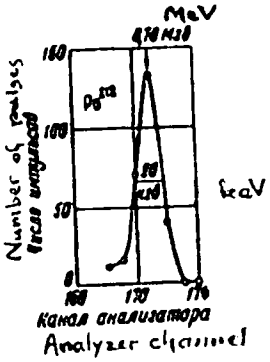


Fig.5: Spectrum of Po^{212} α-particles (sensitive area of detector 0.1 cm^2)



Card 4/4

DRUIN, V.A.; MIKHEYEV, V.L.; SKOBELEV, N.K.

Spontaneous fission of Am^{241}. Zhur. eksp. i teor. fiz. 40 no.5:1261-1262 My '61. (MIRA 14:7)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Nuclear fission) (Americium—Isotopes)

POLIKANOV, S.M.; VAN TUN-SEN; KEKK, Kh.; MIKHEYEV, V.L.; OGANESYAN, Yu.TS.; PLEVE, A.A.; FEFILOV, B.V.; SARANTSEVA, V.K., tekhn. red.

[Formation of nuclei with anomalous periods of spontaneous fission in reactions with heavy ions]Obrazovanie iader s anomal'nym periodom spontannogo deleniia v reaktsiiakh s tiazhelymi ionami. Dubna, Ob"edinennyi in-t iadernykh issl., 1962. 6 p. (MIRA 15:10)
(Nuclear fission) (Nuclear reactions)
(Uranium—Isotopes)

POLIKANOV, S.M.; DRUIN, A.V.; KARNAUKHOV, V.A.; MIKHEYEV, V.L.; PLEVE, A.A.; SKOBELEV, N.K.; SUBBOTIN, V.G.; TER-AKOP'YAN, G.M.; FOMICHEV, V.A.

[Spontaneous fission with an anomalously short period] Spontannoe delenie s anomal'no korotkim periodom. Dubna, Ob"edinennyi in-t iadernykh issl. Pt.1. 1962. 17 p. (MIRA 15:1)
(Nuclear fission) 1962

38855

S/056/62/042/006/007/047
B104/B102

(2106)

AUTHORS: Polikanov, S. M., Druin, V. A., Karnaukhov, V. A., Mikheyev, V. L., Pleve, A. A., Skobelev, N. K., Subbotin, V. G., Ter-Akop'yan, G. M., Fomichev, V. A.

TITLE: Spontaneous fission with an anomalously short period. I

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 6, 1962, 1464 - 1471

TEXT: U^{238} was irradiated by accelerated Ne^{22} and O^{16} ions from the internal beam of the 300 cm cyclotron of the OIYaI. By means of an ionization chamber, spontaneous fission fragments of an unknown isotope having a half life of ~0.02 sec were recorded. The nucleus obtained is assumed to be in an isomeric state with spontaneous fission probability increased (by more than 10^9 times). From experimental data the atomic number is estimated to be ≤ 100. G. N. Flerov, Corresponding Member AS USSR, is thanked for supervising the investigation. There are 5 figures and 1 table.

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S/056/62/042/006/007/047
B104/B102

Spontaneous fission with an anomalously...

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: January 24, 1962

Card 2/2

POLIKANOV, S.M.; VAN TUN-SEN; KEKK, Kh.; MIKHEYEV, V.L.; OGANESYAN, Yu.TS.; PLEVE, A.A.; FEFILOV, B.V.

Formation of nuclei with anomalous periods of spontaneous fission in reactions involving heavy ions. Zhur. eksp. i teor. fiz. 44 no.3: 804-807 Mr '63. (MIRA 16:3)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Nuclear fission) (Nuclear reactions)(Ions)

L 17338-63 EWT(1)/EWT(m)/BDS/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/LJP(C)/SSD Pab-4

ACCESSION NR: AP3004883 S/0120/63/000/004/0027/0030 71 68

AUTHOR: Kekk, Kh.; Mikheyev, V. L.; Pleve, A. A.; Fefilov, B. V. 41

TITLE: Measuring heavy-ion energy in the internal beam of a cyclotron 19

SOURCE: Pribory*i tekhnika eksperimenta, no. 4, 1963, 27-30

TOPIC TAGS: cyclotron, cyclotron measurement, heavy ion, heavy-ion energy

ABSTRACT: Ion energy is measured by means of silicon surface-barrier detectors. Scattered by a thin foil at a definite angle, the ions are recorded along with alpha-particles of known energy. The amplitudes of the resulting pulses are compared with the amplitudes of the generator pulses that are fed into the input of a transistorized pre-amplifier operating in an 18-kilooersted-strong magnetic field. The overall error in determining initial ion energy does not exceed 2%; it is largely due to the GI-2A pulse generator. The energy measuring method is claimed to be convenient for use in apparatus intended for investigating some

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L 17338-63

ACCESSION NR: AP3004883

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effects of the ion energy. "The authors consider it their pleasant duty to thank G. N. Flerov for initiating this project and his constant interest in it. We also thank S. M. Polikanov for directing the project." Orig. art. has: 4 figures.

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (United Nuclear Research Institute)

SUBMITTED: 18Aug62 DATE ACQ: 28Aug63 ENCL: 00

SUB CODE: NS NO REF SOV: 002 OTHER: 005

Card 2/2

L 17597-63 FCS(f)/EWT(m)/BDS S/056/63/044/003/004/033 59 58
AFFTC/ASD

AUTHOR: Polikanov, S. M., Wang T'ung-Seng, Kook, Ch., Mikheyev, V. L., Oganesyan, Yu. Ts., Pleve, A. A., and Pefilov, B. V.

TITLE: Formation of nuclei with an anomalous spontaneous fission period in reactions involving heavy ions 19

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 3, 1963, 804-807

TEXT: Continuing the work on spontaneous fissions with anomalously short decay lifetime reported earlier in Ref. 1 (S. M. Polikanov, V. A. Druin, V. A. Karnaukhov, V. L. Mikheyev, A. A. Pleve, N. K. Skobelev, V. G. Subbotin, G. M. Ter-Akopyan, and V. A. Fomichev, ZhETF, 42, 1464, 1962), the authors measured the decay life times and the production curves while bombarding U^{238} by O^{16}, Ne^{20}, Ne^{22}, and B^{11} ions and of U^{235} and Th^{232} by the O^{16} and Ne^{22} ions respectively. The experimental setup was the same as the one described in Ref. 1. Results are contained in Fig. 1 and Table 1. The authors speculate in details about possible reactions leading to the observed fissions and conclude that the present results support the

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Formation of nuclei..."

previously advanced assumption (Ref. 1) that the fissions occur from some isomeric states of $Z < 97$ elements. In the case of Ne and O ions they assume the existence of transfer reactions. The investigation was led by Prof. G. N. Flerov. There is 1 figure and 1 table.

Table 1

Reactions	$U^{238}+B^{11}$	$U^{238}+O^{16}$	$U^{238}+Ne^{20}$	$U^{238}+Ne^{22}$
Number of pulses in the first chamber	82	130	289	89
Number of pulses in the second chamber	20	28	30	16
Calculated value for $T_{\frac{1}{2}}$, msec	15,6±2,8	14,3±1,0	9,7±0,8	12,9±2,1

Note: The decay life time, obtained from only two ionization chambers may actually represent certain averages over several isomeres having different decay life times.

Card 2/3

L 17597-63

S/056/63/044/003/004/053

Formation of nuclei...

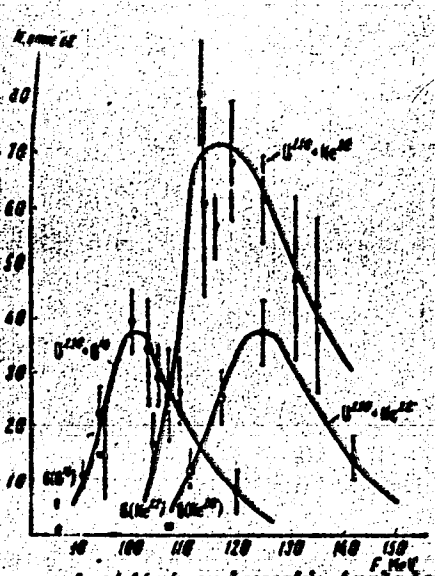

Fig. 1. a - N, relative units

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute for Nuclear Research)

SUBMITTED: August 18, 1962

Card 3/3

FLEROV, G.N.; POLIKANOV, S.M.; GAVRILOV, K.A.; MIKHEYEV, V.L.; PERELYGIN, V.P.; PLEVE, A.A.

Formation of spontaneously fissioning isomers in reactions involving α-particles and deuterons. Zhur. eksp. i teor. fiz. 45 no.5:1396-1398 N '63. (MIRA 17:1)

1. Ob"yedinennyy institut yadernykh issledovaniy.

POLIKANOV, S.M., kand.fiz.-matem.nauk; MIKHEYEV, V.L.

New type of nuclear fission. Priroda 53 no.6:70-73 '64.
(MIRA 17:6)

1. Ob"yedinennyy institut yadernykh issledovaniy, Dubna.

L 33752-66 EWT(m)

ACC NR: AP6025838 SOURCE CODE: UR/0089/66/020/003/0230/0232

AUTHOR: Zager, B. A.; Miller, M. B.; Nikolayev, V. L.; Polikanov, S. M.; Sukhov, A. M.; Flerov, G. N.; Chelnokov, L. P.

ORG: none

TITLE: Properties of the 102 sup 254 isotope

SOURCE: Atomnaya energiya, v. 20, no. 3, 1966, 230-232

TOPIC TAGS: isotope, cyclotron, half life, particle physics

ABSTRACT: Isotope 102^{254} has been produced on the external beam of the 150 centimeter OIYaI cyclotron following the $Am^{245}(N^{15}, 4n)102^{254}$ reaction. It was established by recording the α-decay of the primary and daughter nuclei that the half-life of this isotope is within the 20-50 sec interval, while the energy of the emitted α particles is equal to 8.10 ± 0.05 MeV. The new results are in disagreement with the data found in literature ($T_{1/2}$ = 3 sec, and E_α = 8.3 MeV). The authors thank the collective that worked on the accelerator: A. F. Linev, I. A. Shelayev, and V. S. Alfayav for checking the efficiency of the cyclotron; K. A. Gavrilov for preparing the target, which was stable under very intense beams; and V. A. Chugreyev for carrying out the construction work. They also thank Doctor of Physicomathematical Sciences I. G. Gverdtsiteli, who provided the isotope N^{15}; V. I. Kuznetsov, A. G. Smirnov-Amrin, and A. G. Kozlov, who guaranteed the receipt of Am^{243} for the target. Finally, they thank A. G. Belov, V. I. Ilyushchenko and V. I. Nikolayev for help in conducting the experiments. Orig. art. has: 2 figures. [JPRS: 36,139]

SUB CODE: 18, 20 / SUBM DATE: 15Dec65 / ORIG REF: 006 / OTH REF: 005

Card 1/1 UDC: 546.799.92

MIKHEYEV, V.M.

Vtoraia zhizn'instrumenta. (Moskva)

Moskovaskii bol'shevik, 1943. 47 p. illus.

Second period in the utilization of an instrument.

DLC: TJ1185.M49

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

MAKAREVICH, B.K.; MIKHEYEV, V.M.; TIKHVINSKIY, V.I.; PANKIN, A.V., doktor tekhn. nauk, retsenzent; FEDOROV, V.N., dots., retsenzent; MAKOVSKIY, G.M., red.; ABUMOVA, Ye.S., tekhn. red.

[Reconditioning metal-cutting tools] Vosstanovlenie rezhushchego instrumenta. Moskva, Gos. nauchno-tekhn. izd-vo machinostroit. lit-ry, 1948. 174 p. (MIRA 15:4)
(Metal-cutting tools--Maintenance and repair)

9(5) PHASE I BOOK EXPLOITATION SOV/3176

Problemy kibernetiki, vyp. 2 (Problems of Cybernetics, No. 2) Moscow, Fizmatgiz, 1959. 323 p. Errata slip inserted. 18,000 copies printed.

Ed.: A. A. Lyapunov; Compilers-Editors: O. B. Lupanov, B. Yu. Pil'chak, S. V. Yablonskiy, and Yu. I. Yanov; Eds.: A. A. Konoplyankin, and M. L. Smolyanskiy; Tech. Ed.: S. N. Akhlamov.

PURPOSE: The purpose of this collection of articles is to organize scientific papers on cybernetics and to unite the efforts and interests of Soviet scientists working in this field.

COVERAGE: This is the second volume of "Problemy kibernetiki", dealing with problems of biology, mathematics and engineering as they relate to cybernetics. The first volume, which appeared in 1958, considered problems of programming, machine translation and computer design. Future volumes propose to include a still greater number of subjects related to cybernetics. The editors list 5 recent Soviet books (including 2 translations) dealing

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with cybernetics. They thank the following persons for their help in preparing the book for publication: G. V. Vakulovskaya, T. L. Gavrilova, A. A. Muchnik, B. I. Finikov, M. L. Tsetlin and V. S. Shtarkman. References follow each article.

TABLE OF CONTENTS:

perform these functions, a universal, abstract machine language must be created. The author discusses the ideas of various authors on this subject. There are 14 references: 9 Soviet (5 are translations) and 5 English.

Kaluzhnin, L. A. (Kiyev) Algorithmic Expression of Mathematical Problems 51

The author reports on the work of two seminars in Kiyev: one at the Institute of Mathematics, Academy of Sciences, USSR, under the supervision of V. S. Korolyuk and Ye. L. Rvacheva-Yushchenko on automatic programming ("programs that program"), the other at Kiyev State University, under the supervision of the author on the theory of algorithms and mathematical logic. The aim of both seminars is to find general methods of preparing mathematical and logical problems for processing and solving in modern high-speed computers. There are 7 references: 5 Soviet (1 is a translation) and 2 English.

Mikheyev, V. M. (Moscow). On Sets Containing the Largest

MIKHELEV, V.M. (Moskva)

Optimum multiplication algorithms using multiples of the multiplicand. Zhur. vych. mat. i mat. fiz. 4 no.5:958-963 S-O '64. (MIRA 17:12)

REPUTUN, N.I.; AL'PEROVICH, D.I.; MIKHEYEV, V.N.; SHNEYDER, V.G.

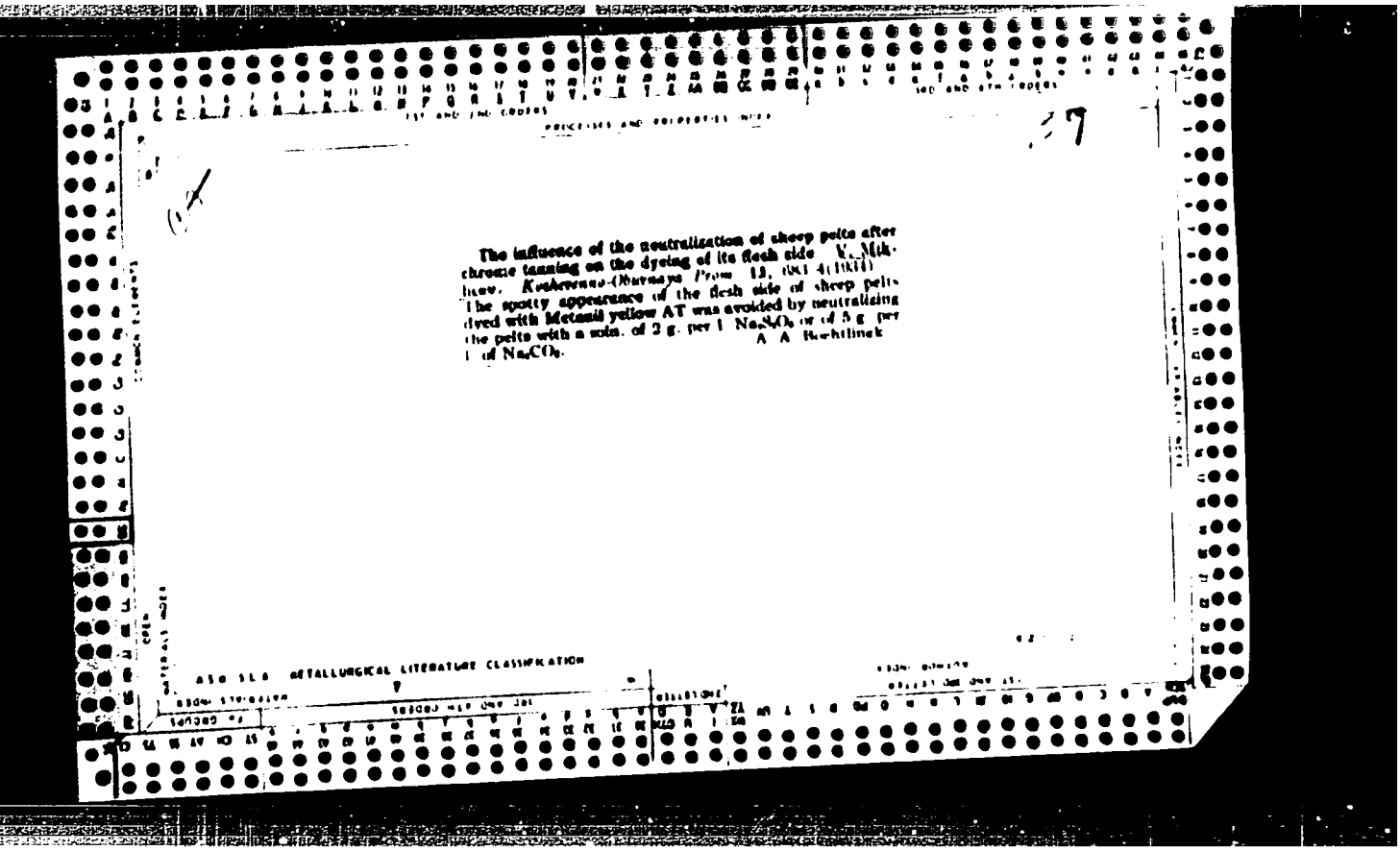
Development of a method for expert testimony in alcoholic intoxication. Zhur. nevr. i psikh. 60 no.11:1523-1528 '60. (MIRA 14:5)

1. Kafedra sudebnoy meditsiny (zav. - prof. A.P.Kurdyumov) i psikhiatrii (zav. - prof. D.S.Ozeretskovskiy) I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova.
(ALCOHOLISM)

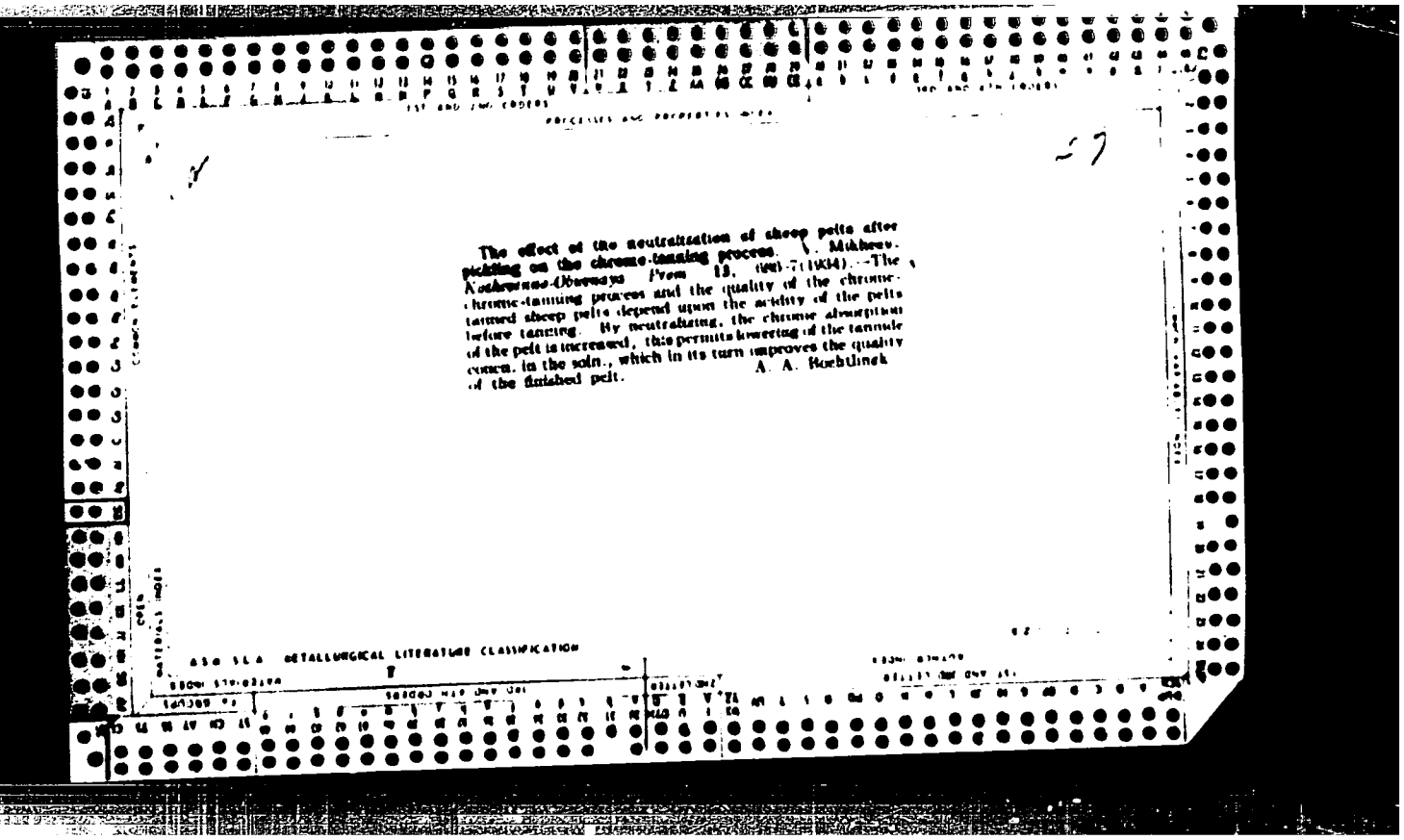
PROCESSES AND PROPERTIES INDEX

The preparation of sheep skins. V. Mikheev. *Kozhevenno-Obuvnaya Prom. S. S. S. R.* 13, 410 12(1934). Insufficient hydrolysis in the pickling of sheep skins is remedied by the introduction of alkalies. Soda treatment yielded good hides and led to a lowering in the fat content. Salt spots on the flesh side are due to [illegible] drying of the skins; treatment with [illegible] does not cause the formation of salt spots on properly dried hides. Unstable color of the hides dyed with metanil yellow AT was caused by H_2SO_4 vapors originating from the pickling operation. A. A. Boehtlingk

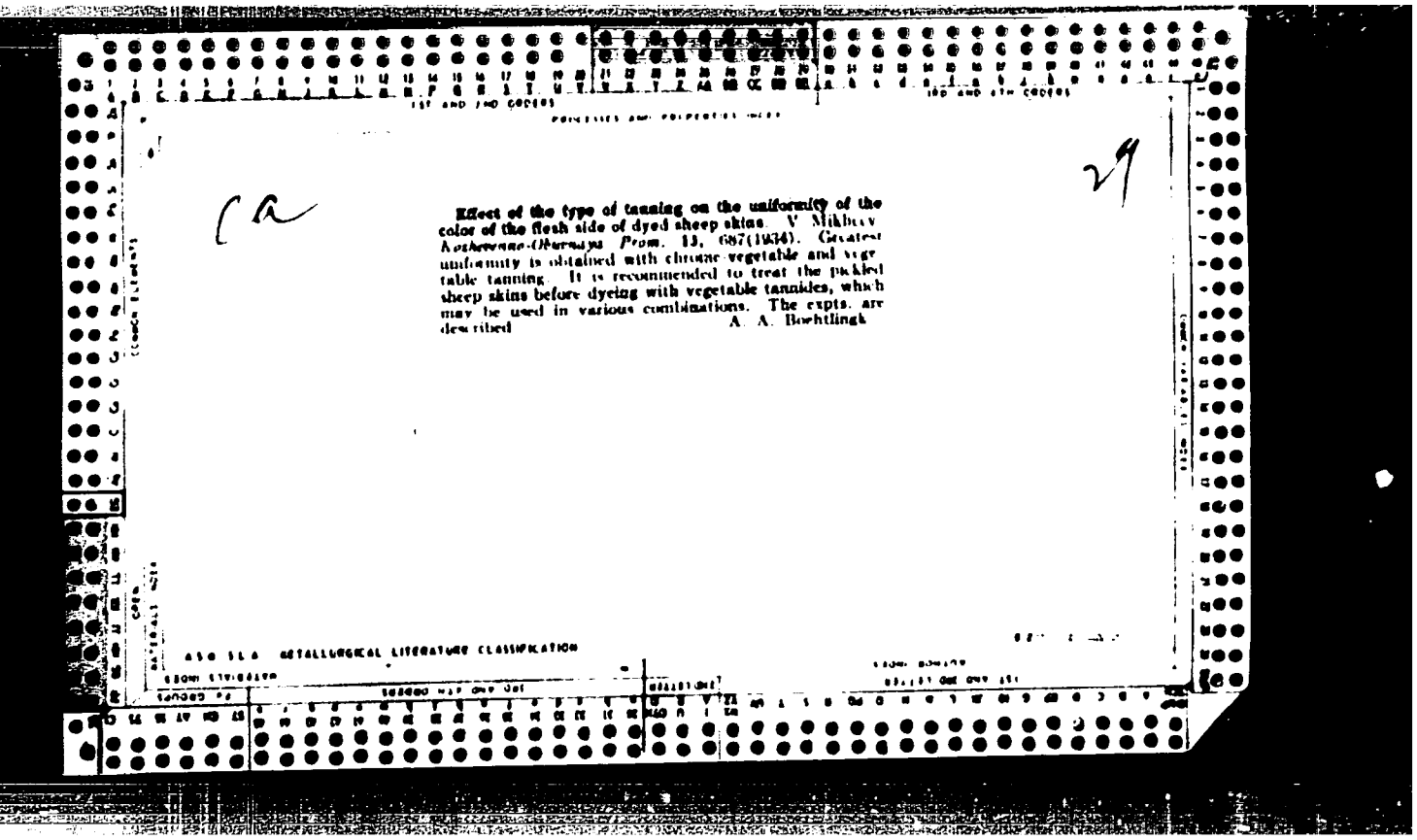
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



The influence of the neutralization of sheep pelts after chrome tanning on the dyeing of its flesh side. V. Mikhnev. *Kozhevenno-Obuvnaya Prom.* 13, (No. 4) 11(1938). The spotty appearance of the flesh side of sheep pelts dyed with Metanil yellow AT was avoided by neutralizing the pelts with a soln. of 2 g. per l $Na_2S_2O_3$ or of 5 g. per l of Na_2CO_3. A. A. Ruchlinek



The effect of the neutralization of sheep pelts after pickling on the chrome-tanning process. V. Mikheev. Kozhevenno-Obuvnaya [From] 13, (6)[illegible]. --The chrome-tanning process and the quality of the chrome-tanned sheep pelts depend upon the acidity of the pelts before tanning. By neutralizing, the chrome absorption of the pelt is increased, this permits lowering of the tannage concn. in the soln., which in its turn improves the quality of the finished pelt. A. A. Boehtlingk



Effect of the type of tanning on the uniformity of the color of the flesh side of dyed sheep skins. V. Mikhaev. *Kozevenno-Obuvnaya Prom.* 13, 687(1934). Greatest uniformity is obtained with chrome-vegetable and vegetable tanning. It is recommended to treat the pickled sheep skins before dyeing with vegetable tannides, which may be used in various combinations. The expts. are described. A. A. Bowtlingk