L 4774-66 EWT(1) AT

ACC NR: AP6031272 SOURCE CODE: UR/0057/66/036/009/1681/1684

AUTHOR: Yekhichev, O. I.; Zinchenko, G. N.; Zinchenko, N. S.; Karnaukhov, I. M.; Slabospitskiy, R. P.; Taranov, A. Ya.

ORG: none

TITLE: An atomic beam ionizer as a source of polarized ions

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 9, 1966, 1681-1684

TOPIC TAGS: ionizer, polarized ions, polarized ion source, atomic beam ionizer, electron beam, ionization

ABSTRACT: An ionizer based on the principle of ion focusing as developed and patented earlier by Zinchenko and others, is described in some detail. In this arrangement, the electron beam is coaxial with, instead of perpendicular to, the beam of polarized atoms, thus increasing the ionization length. The electron beam was produced by an electron gun with an oxide cathode 5.5 and 9.6 mm in inner and outer diameter, respectively. The distance from the cathode to the anode was about 7 mm, and from the anode to the collector, 60 mm. The hole diameters in the cathode, anode, and collector were 6, 7, and 8 mm, respectively. An investigation of the characteristics of the device revealed that the transmission factor of the electrons was 100 percent through the anode orifice, and 92 percent through the entire ionizer. The divergence of the electron beam was small, the beam diameter varying between 6 and 8 mm. A hydrogen atom beam produced by the dissociation of molecules in glow-discharge and

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ACC NR: AP6031272

focused according to atomic spins in a field of a magnetic quadrupole was introduced into the ionizer. The measured efficiency of ionization was found to be 4.5×10^{-4} at a 90-mamp electron current and a 1400-v potential difference between the cathode and anode. The mass-spectrometric data on the composition of the focused atomic beam showed that it consists of hydrogen atoms, thus confirming the stated efficiency of ionization. This efficiency is 3 to 5 times higher than the results reported in the Proceedings of the International Symposium on Polarization Phenomena of Nucleons (Birkhaser Verlag. Basel und Stuttgart, 1961). Orig. art. has: 3 figures and 1 formula. [FP]

SUB CODE: 20/ SUBM DATE: 10Dec65/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS: 5080

Card 2/2 UCR

KURITSYNA, D.A.; YEKHILEVSKAYA, Ye.L.; IVANOVA, L.V.; CHZHAN KHUN-SHUN' [Chang Hung-shun]

Problem of shortening the quarantine period in measles. Trudy LSGMI 32:30-34 '57. (MIRA 12:8)

1. Kafedra epidemiologii sanitarno-gigiyenicheskogo meditsinskogo instituta (zav.kafedroy - prof. V.A.Bashenin) i Gorodskaya sanitarno-epidemiologicheskaya stantsiya g. Leningrada (glavnyy vrach - A.I.Kyupar).

(MEASLES, prev. & control
quarantine, problems in shortening period
(Rus))

GRIGOR'YEVA, N.G.; YEKHILEVSKAYA, Ye.L.

Experience in the control of diphtheria in Leningrad during the period 1948-1959. Sov.med. 24 no.12:111-116 D '60. (MIRA 14:3)

1. Iz Leningradskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach Kovshilo, V.Ye.).
(LENINGRAD--DIPHTHERIA)

ANSHELES, I.M.; YEKHILEVSKAYA, Ye.L. (Leningrad)

Ways of eliminating the incidence of diphtheria. Sov. zdrav. 19 no.11:36-40 '60. (MIRA 13:11)

1. Iz Leningradskogo instituta imeni Pastera i Leningradskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(LENINGRAD--DIPHTHERIA)

YEKHILEVSKAYA, Ye.L.

Control of whooping cough in Leningrad. Vop. okh. mat. i det. 6 no.9:80-82 S '61. (MIRA 14:9)

1. Iz Leningradskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach V.Ye.Kovshilo).
(LENINGRAD--WHOOPING COUGH)

VARAVITSKIY, I.M., kandidat meditsinskikh nauk; YEKHINOVICH, Ye.M.; LITVINOVA, Ye.S.

Novocillin therapy in syphilis. Vest.ven.i derm. no.1:35-37 Ja-F '54. (MLRA 7:2)

1. Iz Ukrainskogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (direktor - professor A.M.Krichevskiy) i 4-go vendispansera (glavnyy vrach L.Ya.Leshchenko). (Syphilis)

SAVVIN, L., inzh. (Moldaviya); YEKHLAKOV, A., inzh. (Sverdlovsk); TRUSOV, I., inzh. (Frunze); IVANOV, N.; PLAKSEYEV, G. (Kherson); KNOROZ, M. (L'vov); GROMENKO, P., rabochiy (Novosibirsk); TARASOV, O. (Novorossiysk); D'YAKOV, P., inzh. (Kamensk-Shakhtinskiy); BUTUSOV, V., dotsent (Moskva); SUNDAKOV, M., inzh., student; PORTNOV, Ya., kand. tekhn. nauk (Makhachkala); PETROV, Yu., inzhener-stroitel' (Ivanovo)

Readers argue, agree, advise. Tekh. mol. 31 no.6:6-9 '63. (MIRA 16:7)

1. Starshiy inzhener Usol'skogo mashinostroitel'nogo zavoda (for Ivanov). 2. Moskovskoye vysshoye tekhnicheskogo uchilishche imeni Baumana (for Butusov). 3. Zaochnoye otdeleniye fakul'teta zhurnalistiki Leningradskogo gosudarstvennogo universiteta (for Sundakov).
(Technological innovations)

YEKHLAKOV, A.D.

Grinding of rails. Put' i put.khoz. 7 no.12:4-5 '63.
(MIRA 16:12)

1. Nachal'nik rel'soshlifoval'nogo poyezda na Sverdlovskoy doroge.

126-5-3-27/31

AUTHORS: Yekhlakov, A.D., Gladkovskiy, V.A. and Rodionov, K. P.

TITLE: The Effect of Pressure on Young's Modulus for Certain Metals (O vliyanii davleniya na modul' Yunga nekotorykh metallov)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1957, Vol 5, Nr 3, pp 559-560 (USSR)

ABSTRACT: An apparatus dependent on observations on bending (not described in detail) is used at hydrostatic pressures up to 5000 kg/cm^2. Electrolytic copper and aluminium, 99.85-99.95% pure, and medium-carbon steel are used; the results are given in Table 1 (left column: Al, Cu, Steel; units cm^2/kg; columns: from (2), from experiment), for pressures up to 4000 kg/cm^2. These metals were used because the bulk (K) and shear (G) moduli are known for high hydrostatic pressures. Eq.(2) is derived by differentiating the standard Eq.(1); Eq.(3) is an approximate formula relating K to p due to Bridgman. Table 2 is similar to Table 1 (same materials); the units are cm and kg. There are 7 references, none of which is Soviet.

Card 1/1

ASSOCIATION: Institut fiziki metallov Ural'skogo filiala AN SSSR (Institute of Metal Physics, Ural Branch of the AS USSR)

SUBMITTED: May 15, 1957

1. Metals--Elasticity 2. Metals--Pressure

SOV/126-7-1-16/28

AUTHORS: Yekhlakov, A.D. and Gladkovskiy, V.A.

TITLE: New Method for the Determination of the Dependence of Young's Modulus of Solid Bodies on Pressure (Novyy metod opredeleniya zavisimosti modulya Yunga tverdykh tel ot davleniya)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 1, pp 116-121 (USSR)

ABSTRACT: In this paper a static method for the direct experimental study of the dependence of Young's modulus of substances on pressure is suggested. This method is based on the determination of the change in rigidity of a cantilever beam-specimen on application of hydrostatic pressure. This determination is based on the restoration of the initial angle of bend of the cantilever beam-specimen, which is rigidly fixed in a high-pressure chamber, by means of turning the chamber through a certain angle $\Delta\alpha$, the value of which determines the change of Young's modulus with pressure. The method suggested also allows the simultaneous determination of the compressibility of the

liquid which transmits the pressure to the specimen. In order to measure the change of Young's modulus with pressure a high-pressure apparatus was built. The main part of this apparatus is a special steel mandrel, which is shown in Fig.2. The specimen, 1, in the form of a length of wire, is inserted in pincer grips, 2. A centralizing device, 3, enables the circuit to be closed, 5, at a pre-determined time for a selected angle of inclination of the apparatus. A load, 4, of 0.4-0.6 g in weight, was chosen which was usually made of the same material as the specimen (except for experiments with aluminium). The apparatus, when assembled, was placed in a high-pressure chamber, and was firmly affixed to it by means of two cover plates, 6. A high pressure was established in the chamber by a high-pressure compressor of the L.F. Vereshchagin type. The chamber is provided with an electric conductor, which passes through a conical ebonite stopper. The other end of the tappings, 7, makes contact with the chamber.

 The working of the apparatus consists in the following:

New Method for the Determination of the Dependence of Young's Modulus of Solid Bodies on Pressure

at the beginning of the experiment the apparatus with the specimen at atmospheric pressure is, by turning the high-pressure chamber, put in a position at which short-circuiting of contacts, 5, occurs. If Young's modulus of the investigated substance increases with rise in pressure, and hence the angle of bend of the beam-specimen decreases, then it is sufficient to set up a relatively small pressure in the chamber to cause short-circuiting of the contacts. For repeated short-circuiting of the contacts (at existing pressure) a supplementary turning of the chamber through a certain angle $\Delta\alpha_1$ is required, etc. Hence, the relationship between the angle of turn of the chamber and the hydrostatic pressure both on raising and on lowering of the pressure, can be found. The experiments were carried out with aluminium, copper (containing 0.05-0.15 per cent impurities) and steel St50. The specimens were made from 0.7-1.0 mm diameter wire. A mixture of kerosene and transformer oil, the compressibility of which was determined in this apparatus (see Fig.3) was chosen as the medium for transmitting the high pressure to the specimen. In the

New Method for the Determination of the Dependence of Young's Modulus of Solid Bodies on Pressure

determination of the compressibility of the mixture loads used were of materials which markedly differed from one another in their specific gravity. The experiments were carried out at room temperature (20°C). The results of direct measurements of the change in Young's modulus with pressure for aluminium, copper and steel St50 are shown in Fig.4. There are 4 figures and 7 references, of which 2 are Soviet and 5 English.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Metal Physics, Ac. Sc. USSR)

SUBMITTED: November 25, 1957

S/126/60/009/01/029/031
E091/E191

AUTHOR: Yekhlakov, A.D.

TITLE: On the Change in Stress State of a Solid under the Action of Hydrostatic Pressure. Letter to the Editor

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol 9, Nr 1, pp 155-156 (USSR)

ABSTRACT: According to Yu.N. Ryabinin (Ref 1) one of the main reasons for the increase of plasticity of a metallic specimen under the action of a great hydrostatic pressure is the change in the stress state. However, the qualitative picture he gives of elongation under pressure does not fully elucidate this change: first, because the example given refers to a two-dimensional specimen, and secondly because he considers the case when hydrostatic pressure is equal in magnitude to, or exceeds, the tensile load applied to the specimen. Such a limited consideration of the problem has led the author of that article (Ref 1) to the conclusion that uniaxial tension under atmospheric pressure changes under great hydrostatic pressure to axial tension, accompanied by strong lateral compression. This scheme does not illustrate

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On the Change in Stress State of a Solid under the Action of Hydrostatic Pressure. Letter to the Editor

fully a qualitative rapid change - the disappearance of tensile stresses in the specimen. If a similar scheme is considered for the case of a three-dimensional specimen under conditions of application of a hydrostatic pressure p equal to or exceeding a tensile stress σ, then it can easily be seen that if $p = \sigma$ the uniaxial tension is replaced by biaxial compression, and at a pressure of $p > \sigma$ it is replaced by non-uniform general compression. Thus three types of stress state are possible when testing specimens in tension under hydrostatic pressure: (1) $p < \sigma$ - the case considered in Ryabinin's article - the hydrostatic pressure is completely relieved in the specimen by tensile stresses. The specimen experiences axial tensile stresses equal to $\sigma - p$ in one direction, and compressive stresses equal to p in two other directions. (2) $p = \sigma$ - no tensile stresses exist in the specimen and the hydrostatic pressure has been relieved. The specimen experiences only compression in two directions. (3) $p > \sigma$ - two-

S/126/60/009/01/029/031
E091/E191

On the Change in Stress State of a Solid under the Action of Hydrostatic Pressure. Letter to the Editor

directional compressive stress, equal to σ, and hydrostatic pressure equal to $p - \sigma$ takes place. No tensile stresses exist. There is 1 Soviet reference. This is a complete translation.

Card 3/3

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals, Acad.Sci. USSR)

SUBMITTED: October 9, 1959

S/126/60/009/06/020/025
E111/E352

AUTHORS: Yekhlakov, A.D. and Rodionov, K.P.

TITLE: Hydrostatic Method for Measuring the Compressibility of a Liquid at High Pressure

PERIODICAL: Fizika metallov i metallovedeniye, 1960, Vol 9, Nr 6, pp 932 - 935 (USSR)

ABSTRACT: One of the authors (Yekhalov) has previously indicated the possibility of using a static method for determining the pressure coefficient of Young's modulus of solids for studying the compressibility of liquid (Ref 4). The present article gives the method of calculation and results for several liquids, some based on published data (Refs 7,8). The apparatus has been described previously (Ref 4) and consists (figure) essentially of a pressure-chamber which can be inclined at various angles, containing a duralumin weight attached to a flexible steel rod rigidly fixed at its other end. The free end of the rod operates a contact. Increase in pressure in the chamber causes the weight to rise, opening the contact: the inclination of the chamber is then altered to close it. The authors

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S/126/60/009/06/020/025
E111/E352

Hydrostatic Method for Measuring the Compressibility of a Liquid at High Pressure

now give an improved equation for calculating the compressibility and tabulate results for paraffin, paraffin + 25-75% transformer oil and transformer oil at 20 - 80 °C and 1 to 5 000 kg/cm^3. The accuracy of determination is within 0.5%.
There are 1 figure, 1 table and 8 references, 7 of which are Soviet and 1 English.

ASSOCIATION: Institut fiziki metallov AN SSSR (Institute of Physics of Metals of the Ac.Sc., USSR)

SUBMITTED: December 14, 1959

Card 2/2

35011
S/596/61/000/000/001/003
D217/D304

1.8000

AUTHORS: Buzynov, A.Ye., Yekhlakov, A.D., Motova, Z.A., Mochalov, M.D., and Fakidov, I.G.

TITLE: Action of γ-irradiation from the betatron on X-ray films, and the constitution of exposure graphs of irradiated steel

SOURCE: Akademiya nauk SSSR. Institut fiziki metallov. Betatronnaya gamma-defektoskopiya stali. Moscow, 1961, 10 - 25

TEXT: A sensitometric investigation of the action of γ-rays on several types of films was studied and the distribution of the intensity of irradiation along the cross section of the beam was measured. German films made by Agfa (GDR), Laue, Sino, Texo-R, Texo-S and the high sensitivity Russian films of factory no. 8, "Rentgen-X-opytnyy" and "Rentgen-X-opytnyy" sprayed from one side, were investigated. From the sensitometric results obtained, exposure graphs were plotted. These, in conjunction with curves for the angular distribution of intensity and figures illustrating the dependence of

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Action of γ-irradiation from ...

exposure-time of defects on the degree of blackening of the film, enabled the exposures under various conditions of X-raying to be calculated. It was found, that the experimental film "Rentgen-X" sprayed on both sides, was the most sensitive one with respect to γ-rays from the betatron. The German films Agfa, Laue, Agfa Sino and Agfa Texo-R have similar sensitivity characteristics under similar conditions. The film Texo-S is somewhat less sensitive. Intensifying screens considerably shorten the time of exposure. The 1 and 2 mm front lead screens differ little from each other as to their action on the film. With an increase in thickness of the irradiated steel plates, the conventional characteristic curves of the films are displaced in the direction of increasing exposure and change their general character, the linear portion of the curve decreasing in extent. The contrast range also changes somewhat. All imported films, when used in conjunction with the betatron, should receive longer exposures than those indicated by the manufacturer. Curves were constructed for the dependence of the degree of blackening of the film on the distance from the center of the beam, for various exposures in the center of the field of irradiation and for

steel plates of various thicknesses (50 - 426 mm). Exposure graphs for the Agfa Texo-R film were constructed for several degrees of blackening. Graphs were constructed for two sets of screens, used respectively for the determination of small defects (pores, cracks etc.) and for big casting defects. There are 13 figures, 4 tables and 19 references: 7 Soviet-bloc and 12 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: A.L. Pace, Non-destructive testing, 12, 1954, no. 2, 21; R. Widerøe, Non-destructive testing, 11, 1953, no. 4, 23; C.E. Juran, Non-destructive testing, 11, 1953, no. 8, 25; K. Nelson, Journal Sci. Instr., 33, 1956, no. 1.

X

35012
S/596/61/000/000/002/003
D217/D304

1.8000

AUTHORS: Buzynov, A.Ye., Yekhlakov, A.D., Mochalov, M.D., and Fakidov, I.G.

TITLE: Experimental determination of the sensitivity of the photo-radiographic method of non-destructive testing by γ-irradiation and by irradiation from a betatron of 22 Mev.

SOURCE: Akademiya nauk SSSR. Institut fiziki metallov. Betatronnaya gamma-defektoskopiya stali. Moscow, 1961, 30 - 35

TEXT: The authors experimented with the models of defects in the form of cylindrical holes with fairly big diameters (10 mm), so that the degree of diffuseness of the edge was considerably less than the radius of the hole. The sensitivity was determined for defects of various depths ΔL, measured along the beam, and for various total thicknesses of irradiated plates L. The difference in thickness between sound and faulty places was of relatively little

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Experimental determination of the ...

significance, owing to the small size of the defects. It can, therefore, be assumed that changes in the characteristic curves of the film used would be insignificant for variations in thickness of this order. A graduated non-destructive testing machine was specially made for the investigation. The apparatus was made in the form of eight segments of a disc, each differing from the preceding one in thickness by 1 mm (except for the first and eigth, which differed from each other by 7 mm). An annular hole of radius 4 cm was drilled through the eight segments; the center of the annulus coincided with that of the disc, and the diameter of the hole was 10 mm. The holes and steps were intended to simulate defects of definite dimensions. The apparatus was placed in front of the irradiated steel plates, and orientated so that its center should coincide with the axis of the betatron beam. Under these conditions, the defects received γ-rays of equal intensity, and shadow images thereof were arranged along the circumference of the film. For exposure, an Agfa Texo-R film, 15 x 20 cm, was placed between the intensifying screens. In order to minimize the dispersed background radiation, a lead screen, 3 mm thick, was placed behind the rear fluorescent screen,

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and a lead screen, 25 mm thick, was placed behind the adaptor. Steel plates of various thicknesses were used as specimens for irradiation. It was found that the relative sensitivity of the radiographic method of betatron testing increases with increase in thickness of the steel plates. The dependence of the magnitude of the smallest detectable defect on the thickness of the irradiated steel plates was established. The size of the smallest detectable defect depends on the thickness and combination of intensifying screens. There are 8 figures and 10 references: 1 Soviet-bloc and 9 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: H. Crainer, Non-destructive testing, 15, 1957, no. 4, 234; R. Widerde, Non-destructive testing, 12, 1954 no. 4, 27; A.L. Pace, Non-destructive testing, 12, 1954, no. 2, 21; E.A. Burril, Non-destructive testing 11, 1952, no. 2, 23.

X

DUBROVKIN, S.D., kand.tekhn.nauk; YEKHLAKOV, S.V., kand.tekhn.nauk; MOSTINSKAYA, S.B., inzh.

Using electronic computers in the investigation of thermal processes of polyethylene pipe welding. Vod. i san. tekh. no.8:20-22 Ag '65. (MIRA 18:12)

SHEVELEV, F.A.; KAGAN, D.F.; YEKHLAKOV, S.V.

Use of plastic pipes in rural construction. Vod. i san. tekh. no.6:18-24 Je '61. (MIRA 14:6)

(Water supply, Rural)
(Pipe, Plastic)
(Milk—Transportation)

KAGAN, D.F., kand. tekhn.nauk; VANYAKIN, D.M.; YEKHLAKOV, S.V., inzh.; IFTINKA, G.A., red.izd-va; KASIMOV, D.Ya., tekhn. red.

[Basic recommendations on the use of pressure pipes made of low-density polyethylene (high pressure)] Osnovnye rekomendatsii po primeneniiu napornykh trub iz polietilena nizkoi plotnosti (vysokogo davleniia). Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 63 p. (MIRA 15:4)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut sanitarnoy tekhniki.
(Pipe, Plastic) (Polyethylene)

KAGAN, D.F., kand. tekhn.nauk; VANYAKIN, D.N., kand. tekhn. nauk; LOBACHEV, P.V., kand. tekhn. nauk; YEKHLAKOV, S.V., inzh.; PAVLOV, L.D., inzh.; RUZIN, M.Ya., inzh.; ANDREYEVA, I.N., inzh.; SHMAKOVA, G.D., inzh. Prinimali uchastiye: SAPOZHNIKOV, M.M., kand. tekhn. nauk; GEFDING, A.K., kand. tekhn. nauk; MALINOVSKIY, R.B., inzh.; STRASHNYKH, V.P., red. izd-va; KASIMOV, D.Ya., tekhn. red.

[Instructions for designing, installing, operating, and repairing interior water supply systems using vinyl plastic pipes] Ukazaniia po proektirovaniiu, montazhu, ekspluatatsii i remontu vnutrennikh vodoprovodov iz viniplastovykh trub. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 91 p. (MIRA 15:2)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut sanitarnoy tekhniki. 2. Nauchno-issledovatel'skiy institut sanitarnoy tekhniki Akademii stroitel'stva i arkhitektury SSSR (for Kagan, Vanyakin, Lobachev, Yekhlakov, Pavlov, Ruzin, Andreyeva, Shmakova). 3. Leningradskiy nauchno-issledovatel'skiy institut Akademii kommunal'nogo khozyaystva im. K.D.Pamfilova (for Sapozhnikov). 4. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhnicheskikh i sanitarno-tekhnicheskikh rabot (for Gefding). 5. Institut po proyektirovaniyu zhilishchno-grazhdanskogo stroitel'stva v g. Moskve (for Malinovskiy).
(Water pipes)

SHEVELEV, F.A.; VANYAKIN, D.M.; LOBACHEV, P.V.; YEKHLAKOV, S.V.

Designing, assembling, using, and repairing interior water pipes made of vinyl plastic. Sbor.trud.NIIST no.8:5-25 '61. (MIRA 15:5)

(Pipe, Plastic)

SHEVELEV, F.A.; KAGAN, D.F.; YEKHLAKOV, S.V.; MIRONOV, A.A.

Analysis of procedures and types of joints of polythene tubes.
Sbor.trud.NIIST no.8:26-63 '61. (MIRA 15:5)
(Pipe, Plastic)

YEKHLAKOV, S.V., inzh.

Contact welding of polyethylene pipe fittings into the bell. Vod. i san. tekh. no.5:22-25 My '63. (MIRA 16:6)
(Pipe, Plastic—Welding)

LOGINOV, Vasiliy Sergeyevich; YEKHLAKOV, S.V., red.

[Gas pipelines made of vinyl plastics; installation and operation] Viniplastovye gazoprovody; opyt montazha i ekspluatatsii. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1963. 50 p. (MIRA 17:6)

KAGANS, D.; YEKHLAKOV, S.; ZUKOV, L.[translator]; DIRIŅŠ, J., red.

[Polyethylene pipes in agriculture; planning, laying and assembling] Polietilena caurules lauksaimniecība; projektesana, iegulāisana un montaza. Riga, Latvijas Valsts izd-ba, 1964. 104 p. (MIRA 18:1)

YEKHLAKOVA, I.N., inzh.; KLETINSKIY, A.K., inzh.

Experience with polyethylene pipe for carrying highly mineralized water. Vod. i san. tekh. no.5:26-28 My '63. (MIRA 16:6)
(Pipe, Plastic) (Mineral waters--Transportation)

YEKHLAKOVA, N.G.; NOSKOV, V.G.

Use of stabilized soil in city road building. Nauch. trudy AKKH no.24:38-49 '64 (MIRA 18:2)

YEKHLAKOVA, S.A.

137-58-5-8753

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 5, p 4 (USSR)

AUTHORS: Plaksin, I. N., Okolovich, A. M., Figurkova, L. I., Yekhlakova, S. A.

TITLE: A Comparative Analysis of the Procedures Employed for the Separation of Copper-lead Concentrate at the Berezovskaya and Zolotushinskaya Plant (Sravnitel'nyy analiz usloviy raboty tsiklov razdeleniya medno-svintsovogo kontsentrata na Berezovskoy and Zolotushinskoy fabrikakh)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 10, pp 13-19

ABSTRACT: A presentation of results of the sampling of selective flotation of Cu-Zn (Cu-Pb?) concentrates at Zolotushinskaya and Berezovskaya milling plants. A comparison of the data obtained revealed the following facts. According to all criteria the progress of flotation processes at the Berezovskaya plant is more stable. All operations of selective flotation at the Berezovskaya plant are carried out with considerably thicker pulp and the content of the solid constituents is kept constant. The processes at the two plants also differ greatly with regard to the amounts of depressant employed. The Zolotushinskaya plant operates with a

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A Comparative Analysis of the Procedures Employed (cont.)

higher cyanide content. The selection process at that plant proceeds at a higher concentration of hydroxyl ion (with a pH greater than 10) without addition of alkaline reagents for the regulation of flotation; the introduction of soda merely impairs the separation of minerals. At the Berezovskaya plant 100-150 g/t of soda are introduced for this process while the pH remains within the range of 9.

A. Sh.

1. Copper ores--Flotation 2. Zinc ores--Flotation 3. Lead ores--Flotation
4. Ores--Processing

ANNENKOV, V.F.; YEKIMENKO, N.A.

Use of compressed wood in the enterprises of White Russia.
Mashinostroitel' no.7:24-25 Jl '65. (MIRA 18:7)

YEKIMENKO, N.A.; ANNENKOV, V.F.

Compressed wood from the waste of veneer manufacture (cores).
Der. prom. 14 no.7:10-11 Jl '65. (MIRA 19:1)

1. Otdel mekhaniki polimerov AN BSSR.

YASNOPOL'SKAYA, A.A.; VIKHLYAYEVA, R.P.; YEKIMENKO, T.M.

Nineteenth interdepartmental conference on cathode electronics. Radiotekh. i elektron 6 no.8:1407-1408 Ag '61. (MIRA 14:7)
(Cathodes) (Electronics--Congresses)

29321

S/109/61/006/010/019/027
D/246/D302

9,3130 (1003, 1138, 1160, 1371)

AUTHORS: Basalayeva, N.Ya., Yekimenko, T.M., Yelinson, M.I., Zernov, D.V., Savitskaya, Ya.S., and Yasnopol'skaya, A.A.

TITLE: Investigating some properties of a cold magnesium-oxide cathode with self-enhancing emission

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 10, 1961, 1720 - 1740

TEXT: The aim of this work was to study some properties of cold magnesium oxide cathodes which were not investigated in technical literature. In the experimental apparatus, cathodes made by cataphoresis and spraying were used, with varying thicknesses (6 - 35 μ and 12-60 μ, respectively). They both had high porousness (80 % of the total volume). They had nickel substrate of the type NM (magnesium added) and platinized nickel. The instrument used was a diode with tubular cathode of oval cross-section and a mesh-anode. The starter used was a thin (100 μ ∅) tungsten filament. The ca-

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Investigating some properties ...

thode was activated by baking it for 10 min. at 850°C. Number of specimens approx. 400. Their volt-ampere characteristics corresponded to those in the literature. a) To investigate the effect of oxygen, specimens were oxidized in cycles, at 850°C in atmosphere, starting at 0.1 mm of Hg pressure. Then the max. stable current, I_e was measured with the corresponding potential difference, U_a, between anode and cathode. I_e/U_a was then taken as an approximate criterion of the quality of the cathode. Fig. 4 shows I_e/U_a as a function of the number of cycles (N) for cataphoresis cathodes. Fig. 5 - the same for sprayed cathodes. The same types of curves were obtained for platinized nickel substrate (Pt layer ~50 μ thick), which proves that NiO layer does not play any significant role in the mechanism of emission. b) Investigation of temperature-dependence showed that there are both reversible and irreversible changes of the emission. If the cathode is heated higher than 400°C, irreversible processes start. It was shown that heating up the MgO layer is responsible for limiting current density, hence, improvement by its cooling. c) The time dependence of the starting process was also investigated. It was shown that it is sufficient to

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Investigating some properties ...

illuminate the cathode to start the cold emission. On the other hand the decrease of the incandescence of the starter electrode greatly increases the starting time. d) The influence of the presence of a magnetic field is shown in Fig. 14. e) The increase in thickness (up to 30 - 40 μ) of sprayed cathodes improves their emitive properties. The opposite is true for cataphoresis cathodes, but comes from single centers, situated in cracks for thick ones. g) By positively charging up the MgO layer, it was impossible to start the emission, thus it is necessary to introduce a small amount of free electrons for starting. At the end the authors discuss the various hypotheses proposed in technical literature to explain the effect and state they intend to test them in their future experiments. There are 14 figures and 11 references: 6 Soviet-bloc and 5 non-Soviet-bloc. The references to the 4 most recent English-language publications read as follows: D. Dobischek, Electronics and Communs, 7, 5, 26, 1959; A.M. Skellett, B.G. Firth, D.W. Mayer, Proc. I.R.E., 47, 10, 1704, 1959; Y. Mizushima, Y. Igarashi, T. Imai, J. Phys. Soc. Japan, 15, 4, 729, 1960; H.N. Daglish, Proc. I. E.E., 108B, 37, 103, 1961.

SUBMITTED: May 23, 1961

Card 3/3

L 3991-66 EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EWP(i)/EIC/EWG(m)/EPA(w-2/i/EWP(t)//EWP(k)

ACC NR: AP5025655 EWP(b)/EWA(c)/EPF(c)-2 IJP(c) JD/WW/JG/AT/WH

UR/0080/65/038/010/2222/2226
537.363+546.261+546.831

AUTHOR: Savitskaya, Ya. S.; Yekimenko, T. M.; Zhivulina, L. I.

TITLE: Preparation of thin zirconium carbide layers by electrophoresis

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 10, 1965, 2222-2226

TOPIC TAGS: zirconium carbide, refractory coating, electrophoresis

ABSTRACT: A study, claimed to be the first of its kind, has been made of depositing thin (80—100 μ) ZrC layers on metallic substrates by electrophoresis of a ZrC suspension in alcohol. Two problems were studied: 1) preparation of stable ZrC suspensions; and 2) establishment of the optimum depositing conditions. Study of the stability of organic ZrC suspensions resulted in the selection of ethyl alcohol as the dispersive medium and in the addition of 0.5% solution of $HFCl_4$ in absolute ethyl alcohol as generator of the electric charge on the particle surface. Suspensions of the following composition were selected for the experiments: absolute alcohol, 80 ml; ZrC powder with 2—5 μ particle size, 20 g; 0.5% $HFCl_4$ solution in absolute alcohol, 0.5—2 ml. Experimental study of electrophoresis resulted in the determination of the dependence of the coating thickness and coating density on time, the electrokinetic potential (ξ) of the particles, and cell potential. From these data curves were plotted which made it possible to select conditions for depositing ZrC coatings of the desired quality. Orig. art. has: 8 figures. [BO]

Card 1/2

L 3991-66

ACC NR: AP5025655

ASSOCIATION: none

SUBMITTED: 00

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: OC,GC

ATD PRESS: 4120

GC

Card 2/2

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962520008-8"

[illegible] four times

SOURCE Moscow Gosudarstvennaya nauchno-issledovatel'skiy institut

mashin (Laboratory for the Study of Wear of Agricultural Machine Parts) of the [illegible] Scientific Research Technological Institute), jointly with the Tsentral'nyy [illegible] konstruktorskiy tekhnologicheskiy byuro (Central Technological Bureau

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962520008-8"

YEKIMOV, A.A.

ROZINA, L.A.; VAYNSHTEYN, O.L., professor, otvetstvennyy redaktor; YEKIMOV, A.A., redaktor; KUZNETSOV, S.S., professor, redaktor

Sergei Pavlovich Kravkov (1873-1938). Bibliogr. sost. L.A.Rozinoi. Leningrad, 1949. 34 p. (MLRA 10:1)

1. Leningrad. Nauchnaya biblioteka imeni M.Gor'kogo.
(Kravkov, Sergei Pavlovich, 1873-1938)

YEKIMOV, A.A.

D.I.Mendeleev's work in the petroleum industry. Vest.Len.un. 10 no.8:137-151 Ag '55. (MLRA 9:1)
(Mendeleev, Dmitrii Ivanivich, 1834-1907)

LEVIN, Mikhail Izrailevich; YEKIMOV, A.A., kandidat tekhnicheskikh nauk, nauchnyy redaktor.

[Supplying industry with material and equipment] Material'no-tekhnicheskoe snabzhenie predpriiatiia. Leningrad, 1956. 44 p. (Ekonomika promyshlennogo predpriiatiia; rekomendatel'nyi ukazatel'literatury, no.7). (MLRA 10:2)
(Bibliography--Industrial management)

Yekimov, A.A.

YEKIMOV, A.A. (Leningrad).

Letter from D.I. Mendeleev to V.I. Kovalevskii. Vop. ist. est. i tekh. no.3:194-196 '57. (MIRA 11:1)
(Mendeleev, Dmitrii Ivanovich, 1834-1907)
(Kovalevskii, Vladimir Ivanovich)

AUTHOR: Yekimov, A. A. 54-1-14/17

TITLE: N. I. Voskoboynikov and the First Oil Refinery in Baku (N. I. Voskoboynikov i pervyy Bakinskiy neftezavod), From the History of Oil Refining and the Development of Petrochemistry in Russia in the Thirties of the 19th Century (Iz istorii neftepererabotki i razvitiya nauki o nefti v Rossii v 30-kh godakh XIX v.)

PERIODICAL: Vestnik Leningradskogo Universiteta Seriya Fizki i Khimii (Nr 1), 1958, Nr 4,

ABSTRACT: The article is based on unpublished documents and describes the present stage of research work and the utilization of Baku oil and petroleum products in the thirties of the 19th century. The article begins with the biography of mining engineer N. I. Voskoboynikov: he was the first to draw the attention of Russia's governmental institutions to the prospects of a more intense utilization of Baku oil, and began oil refining in 1834-1838. In the present article data are given concerning the investigation of the chemical composition of oil (G. H. Hess, Member AN) as well as a

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N. I. Voskoboynikov and the First Oil Refinery in Baku. 54-1-14/17
From the History of Oil Refining and the Development of Petrochemistry in Russia in the Thirties of the 19th Century

technical description of the first Baku oil refinery built according to N. I. Voskoboynikov's project in the village of Balakhany (the use of natural gas for heating the still, the designs of the still, the condenser and the receiver, the plant lighting system, etc.). The article gives the designs of the plant, which were found in the depository of the Leningrad Central State Historical Archives. There are 3 figures and 15 references, all of which are Slavic.

SUBMITTED: December 23, 1956

AVAILABLE: Library of Congress

1. Petroleum-Production-Development

Card 2/2

YEKIMOV, A.A.

V.I. Voskoboinikov and the first oil refinery in Baku (from the history of oil refining and development of petroleum science in Russia in the 1930's [with summary in English]). Vest.LGU 13, no.4:141-151 '58. (MIRA 11:4)

(Baku--Petroleum--Refining)

YEKIMOV, A.A

Outline of the economics of the Carpathian oil-bearing region. Izv. vys. ucheb. zav.; neft' i gaz 4 no.8:112 '61. (MIRA 14:12)

(Carpathian Mountain region--Petroleum industry)

YEKIMOV, A.A.

Pages from the history of drilling for oil in the Caucasus from the 1840's through the 1860's. Izv.vys.ucheb.zav.; neft' i gaz 4 no.7:124-127 '61. (MIRA 14:10)
(Caucasus--Boring)

YEKIMOV, A.A.

Refining Rumanian oil in refineries of southwestern Russia in the 1850's and 60's. Izv. vys. ucheb. zav.; neft' i gaz 4 no.11:113-117 '61. (MIRA 17:2)

ACCESSION NR: AT4012206 S/2797/63/023/002/0118/0151

AUTHOR: Yekimov, A. A.

TITLE: New principles for the development of a physical theory

SOURCE: Pulkovo. Astron. observ. Izvestiya, v. 23, no. 2 (173), 1963, 118-151

TOPIC TAGS: special theory of relativity, theory of relativity, Einstein theory of relativity, general theory of relativity, physical theory, Lorentz transformation, conservation of energy, conservation of momentum, curvature of space, Newton second law, gravitating mass, de Broglie wave

ABSTRACT: Energy, momentum and moment of inertia serve as a basis for physical theories. These are proposed as primary physical concepts and other physical values are expressed through them. For example, velocity is defined as the ratio of the momentum of a moving material object to its total energy. Velocity thereby is expressed as a physical concept not dependent on time and space. All the basic formulas of the special theory of relativity, including the Lorentz transformation, are derived on the basis of the law of conservation of energy and the law of conservation of momentum, taking into account Einstein's principle of relativity. From these three general principles it is found that the speed of light is independent of the motion of the source and it therefore is considered

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ACCESSION NR: AT4012206

that due to more fundamental laws of nature it cannot be used as the basis for the development of a general physical theory. Moreover, if the postulate of constant speed of light is set aside the problem of the curvature of space around gravitating masses is left open. The concept of mass is introduced by using Newton's second law as a definition of mass as a measure of the inertia of energy. All the main conclusions of the general theory of relativity can be obtained (without assuming curvature of space) on the basis of the laws of conservation of energy, momentum and moment of momentum and by using Galileo's principle (in a broader sense) that any material object (including photons) in a gravitational field is subjected to identical acceleration. The value obtained for the gravitational red shift in the first approximation is the same as that given by Einstein's theory of relativity. The values found for the motion of the perihelion of Mercury and the deflection of light in the solar gravity field differ somewhat from those of Einstein. For the former 38".2 is obtained (Einstein - 43".0) and the latter 2".04 (Einstein - 1".75). Only those phenomena which are dealt with in Einstein's theory of relativity are considered on the basis of the new principles. These new principles apparently allow for further development. For example, by quantization of the moment of momentum it is possible to derive an expression for de Broglie waves. Orig. art. has: 107 formulas, 1 table and 7 figures.

Card 2/3

ACCESSION NR: AT4012206

ASSOCIATION: GLAVNAYA ASTRONOMICHESKAYA OBSERVATORIYA, PULKOVO (Main Astronomical Observatory)

SUBMITTED: 00	DATE ACQ: 27Feb64	ENCL: 00
SUB CODE: PH, AS	NO REF SOV: 005	OTHER: 002

Card 3/3

YEKIMOV, A.A.

D.I. Mendeleev and the problem of the oil and gas occurrences in the northern and eastern parts (Volga-Ural) of Russia. Izv. vys. ucheb. zav.; neft' i gaz 6 no.1:117-120 '63. (MIRA 17:10)

MININ, Yuriy Vladimirovich, ... -rist; YEKIMOV, D.G., red.; KARZIN, G.A., red.; TANASHEV, R.I., red.; FILIMONOVA, D.S., red.

[For an economic use of fuel and lubrication materials] Za ekonomiiu goriuchego i smazochnykh materialov. Arkhangel'sk, Arkhangel'skoe knizhnoe izd-vo, 1963. 24 p. (MIRA 17:5)

SOV/124-58-11-12942

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 154 (USSR)

AUTHORS: Gurevich, M. A., Yekimov, G. K.

TITLE: An Instrument for the Measurement of the Total-head Distribution Profile in Fluid Jets (Pribor dlya izmereniya profilya napora v zhidkikh struyakh)

PERIODICAL: Nauchno-tekhn. inform. byul. Leningr. politekhn.in-t, 1957, Nr 12, pp 49-59

ABSTRACT: A presentation of the calculation and description of the design, the electric circuitry, and test results of an instrument proposed by L. G. Shikhov (Leningr. politekhn. in-t, Graduate Thesis, 1954; unpublished). The instrument operates on the principle of the capacitive manometer and consists of a stepped cylinder filled with water. The wide portion of the cylinder is covered with the diaphragm of a capacitive transducer; a capillary tube ("needle") is exposed to the total-head pressure. The electric circuitry differs from the usual type employed in capacitive manometers by the presence of a device which excludes the capacity of the connecting hose from the resonance network. The authors point

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An Instrument for the Measurement of the Total-head Distribution (cont.)

out that the natural vibration frequency (NVF) of the sensor of the instrument is significantly (by an order of 10^2) lower than the NVF of the diaphragm, whereupon they make certain assumptions and derive an equation for the approximate computation of the NVF and the logarithmic damping decrement and propose a calculation procedure for the instrument. Following are the contents and results of the tests: 1. A determination of the NVF and of the logarithmic damping decrement was performed for several sensors (results are adduced for four of them) which differ in the dimensions of the needles and diaphragms; these determinations were accomplished by means of oscillographic recordings of the total head of a water jet which was chopped by a rotating disk. Within the limits of accuracy of the measurements a proportionality was observed between the experimental and the calculated values of the frequency values (the formulas are accurate except for a constant factor). 2. Measurements were made of the total-head profile in jets of liquids of different viscosity (water, castor oil, oleogel of aluminum naphthanate) within a broad speed range (3-80 m/sec) by means of the oscillographic recording of the readings of a sensor moving strictly along a diameter of the jet, with simultaneous pin-pointing of its coordinates. A verification was accomplished by means of a comparison of the mean velocity computed from the discharge and from the total-head profile, and also by the construction of the total-head profile by a

An Instrument for the Measurement of the Total-head Distribution (cont.)

different method, namely, the introduction into the liquid of a finely dispersed glittering powder and the stroboscopic observation of the displacement of periodically illuminated particles thereof. The data and graphs adduced testify to the fairly close agreement of the results. The highest NVF (1500-1800 cps) is indicated for a sensor with a needle diameter of 1 mm, a 2-mm thickness of the steel diaphragm, and a diameter of the unconstricted part of 16 mm.

A. A. Rabinerson

POMERANTSEV, V.V.; YEKIMOV, G.K.

Approximate computation methods for the conveyance of nongrainy materials along feed chutes. Inzh.-fiz.zhur. 5 no.12:59-64 D '62. (MIRA 16:2)

1. Politekhnicheskiy institut imeni M.I.Kalinina, Leningrad.
(Fuel—Transportation)

POMERANTSEV, V.V., doktor tekhn. nauk, prof.; YEKIMOV, G.K., inzh.

Cascade trough-type fuel hoses. Energomashinostroenie 9 no.3:23-25 Mr'63. (MIRA 17:5)

POMERANTSEV, V.V., doktor tekhn. nauk, prof.; MARGULIS, S.A., inzh.; YEKIMOV, G.K., inzh.; SOSENSKIY, A.I., inzh.

Operation of the V.V. Pomerantsev high-speed TsKTI furnace on waste wood. Energomashinostroenie 11 no.5:7-10 My '65. (MIRA 18:6)

YEKIMOV, G.P., inzh.

Urgent problems of improving the quality of drain pipes. Stroi. mat. no.11:12 N '65. (MIRA 18:12)

YEKIMOV, K. K.

333

Organizatsiya Truda I Rabochego Mesta Kuznetsa Svobodnoy Kovki.--Mekhanizatsiya Kuznechnykh Operatsii. Pod. Red. P.V. Kamneva. L, 1954 32s. S Chert; 7 L. Chert. 21 SM. (Vsesoyuz. O-vo Po Rasprostraneniyu Polit. I Nauch. Znaniy. Leningr. Dom Nauch-Tekhn Propagandy. Kom. Kuznetsov I Shtampovshchikov LONITOM ash. B-chka Kuznetsa-novatora. Vyp. 10). 6.250 EKZ. 1 r. 5k.-(54-55299) P
621.73:653.5+621.73.0025

SO: Knizhnaya, Letopis, Vol. 1, 1955

YEKIMOV, K.K.

KAMNEV, P.V.; YEKIMOV, K.K.; GAFOV, B.I., inzhener, retsenzent; OBOLDUYEV, G.T., inzhener, redaktor; POL'SKAYA, R.G., tekhnicheskiy redaktor

[Machanization of laborious operations in forge shops] Mekhanizatsiia trudoemkikh operatsii kuznechnogo proizvodstva. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1954. 46 p. (Forging) (MLRA 7:11)

YEKIMOV, K.K.

137-58-3-5081

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 88 (USSR)

AUTHORS: Yekimov, K. K., Ginzburg, Z. M.

TITLE: Mechanization of Press-forging Operations in Leningrad Plants (Opyt leningradskikh zavodov po mekhanizatsii kuznechno-shtampovochnykh rabot)

PERIODICAL: V sb.: Kuznechno-shtampovochn.proiz-vo. Leningrad, Lenizdat, 1957, pp 112-125

ABSTRACT: A description of equipment and apparatus, and an account of improvements in their design, introduced in the mechanization of a number of press-forging operations at Leningrad plants. The transfer of metal from its storage place to the appropriate station is accomplished by means of a railroad crane, which had been converted from steam to electrical operation. The operation of cutting the stock is completely mechanized by the employment of track-type slat conveyors and roller-type conveyors. The design of improved gripping and manipulating devices is presented together with a description of a system in which the drop-hammer and the rotary crane are controlled jointly. The author also shows the design of a rocking mono-

Mechanization of Press-forging Operations in Leningrad Plants

rail with a pneumatic lifter and describes the application and design of the following equipment: conveyors for the drop-hammer stand; a ground-type manipulator and a tilter operating in conjunction with the forging hammer; an electrically powered tilter; an overhead clamp-type holder; revolving plates and a manipulator operating in conjunction with the forging presses. The modernization of control systems for hydraulic, steam-hydraulic, and frictional presses is examined.

P.S.

25(1);18(5) PHASE I BOOK EXPLOITATION SOV/3382

Yekimov, Konstantin Konstantinovich, Vladimir Dmitriyevich Makrinov, and Georgiy Ivanovich Sukhanov

Izgotovleniye pokovok pod kovochnymi molotami i pressami (Hammer and Press Forging) Moscow, Mashgiz, 1958. 120 p. (Series: Bibliotechka kuznetsa-novatora, vyp. 4). 7,000 copies printed.

Reviewer: B. O. Bange, Engineer; Ed. (Title page): P. V. Kamnev, Candidate of Technical Sciences, Docent; Ed. (Inside book): G. T. Obolduyev, Engineer; Ed. of Publishing House: I. A. Borodulina; Tech. Ed.: O. V. Speranskaya; Managing Ed. for Literature on Machinery Manufacturing (Leningrad Division, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for engineering and technical personnel of forge shops and can also be used by engineering students.

Card 1/5

Hammer and Press Forging SOV/3382

COVERAGE: This book, one of a series of eight books on the subject, presents information on methods of drop and press forging including examples of advanced methods. Considerable attention is paid to the problem of the mechanization of forging operations and organization of workplaces around drop hammers and presses. The first and second chapters were written by G. I. Sukhanov, the third and fifth by K. K. Yekinov, and the fourth by V. D. Makrinov. No personalities are mentioned. There are 14 references, all Soviet.

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7. Production of ferrous metal forgings 35
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20. Conveying equipment and devices in press-forging shops 104
21. Mechanisms and equipment for press forging 108
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AVAILABLE: Library of Congress

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SOV/137-59-3-6935

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 287 (USSR)

AUTHOR: Yekimov, K. K.

TITLE: A New Design of a Crankshaft-driven Forging Press With Electro-hydraulic Regulation of the Base (Novaya konstruktsiya kovochnogo krivoshipnogo pressa s elektrogidravlicheskim upravleniyem nizhnego stola)

PERIODICAL: V sb.: Novoye v kuznechno-shtampovochn. tsekhakh Leningrada. Leningrad, 1958, pp 109-119

ABSTRACT: Based on the experience of combined forging in two 40-ton, crankshaft-driven presses with a hydraulically operated base, a 200-ton crankshaft-driven press was designed and manufactured at the Barnaul plant. The machine consists of a crankshaft mechanism, connected through a drive to the main motor, and a hydraulically powered adjustable base. Although it is free to travel and raise and lower the billet along the vertical columns of the press housing, the base does not participate in the forging operations other than by providing a firm support whenever the two dies are pressed together. The slider is powered from an oscillating crankshaft by means of a rocker arm

A New Design of a Crankshaft-driven Forging Press (cont.)

which transmits the force from the connecting rod of the crankshaft mechanism. This type of drive enhances the efficiency of the machine by reducing friction losses. Technical specifications, the kinematic system employed, and the over-all view of the press are given. The press was installed at the Kirov plant, where it is now in operation.

A. M.

Card 2/2

ASHKINAZI, Aleksandr L'vovich; YEKIMOV, K.K., inzh., retsenzent; REZNIKOVICH, K.A., kand.tekhn.nauk, red.; VARKOVETSKAYA, A.I., red.izd-va; SPERANSKAYA, O.V., tekhn.red.

[Potentialities of steam-powered equipment in press-forge shops] Rezervy parosilovogo oborudovaniia kuznechno-pressovykh tsekhov. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 225 p. (MIRA 12:12)
(Forging machinery) (Steam engines)

IVANOV, A.P.; LISITSYN, V.D.; YEKIMOV, K.K.

Scientific conference on modernization and operation of forging and pressing machinery in Leningrad. Kuz.-shtam.proizv. 1 no.3: 47-48 My '59. (MIRA 12:10)
(Forging machinery) (Power presses)

PHASE I BOOK EXPLOITATION SOV/4381

Yekimov, Konstantin Konstantinovich

Mekhanizatsiya i avtomatizatsiya kuznechno-shtampovochnogo proizvodstva (Mechanization and Automation of Forging and Stamping) Moscow, Mashgiz, 1960. 161 p. 4,500 copies printed.

Reviewer: P.M. Pavlovich, Engineer; Ed.: A.P. Atroshenko, Docent, Candidate of Technical Sciences; Ed. of Publishing House: M.A. Chfas; Tech. Ed.: O.V. Speranskaya; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye.P. Naumov.

PURPOSE: This book is intended for engineering and technical workers engaged in forging and stamping.

COVERAGE: The book discusses problems involved in mechanization and automation of forging and stamping shops. The mechanization experience gained in advanced plants is also discussed. Recommendations are made and descriptions of some of the most effective devices and mechanisms which are being introduced in these plants are given. No personalities are mentioned. There are 13 references, all Soviet.

Card 1/4

YEKIMOV, K. K.

PHASE I BOOK EXPLOITATION SOV/5658

Ivanov, Aleksandr Petrovich, Candidate of Technical Sciences, and Viktor Dmitriyevich Lisitsyn, Candidate of Technical Sciences, eds.

Modernizatsiya kuznechno-shtampovochnogo oborudovaniya (Modernization of Die-Forging Equipment) Moscow, Mashgiz, 1961. 226 p. Errata slip inserted. 10,000 copies printed.

Reviewer: V. Ye. Nedorezov, Candidate of Technical Sciences; Ed. of Publishing House: T. L. Leykina; Tech. Ed.: A. A. Bardina; Managing Ed. for Literature on Machine-Building Technology (Leningrad Department, Mashgiz): Ye. P. Naumov, Engineer.

PURPOSE: This book is intended for foremen, machinists, designers, and process engineers concerned with the modernization and designing of die-forging equipment. It may also be used by students at schools of higher education.

COVERAGE: The book contains material presented at the Conference

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Modernization of Die-Forging Equipment SOV/5658

on Problems in the Modernization and Operation of Die-Forging Equipment, held in November 1958 in Leningrad. The Conference was called by Leningradskiy Sovet narodnogo khozyaystva, Sektsiya obrabotki metallov davleniyem Leningradskogo oblastnogo pravleniya NTO Mashprom (Leningrad Council of the National Economy, Section of Metal Pressworking at the Leningrad Oblast Board of the Scientific and Technical Society of the Machine Industry) and Leningradskiy mekhanicheskiy institut (Leningrad Mechanical Engineering Institute). Actual problems in the modernization, operation, and repair of die-forging equipment are described. Analyses are provided for problems involved in the mechanization and automation of die-forging and stamping operations. Also included are practical data to be used in the modernization of equipment. No personalities are mentioned. There are 59 references: 56 Soviet, 2 German, and 1 English.

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92-58-5-9/30

AUTHOR: Yekimov, M. V. Chief of PTO SMU No. 4 Tatneftepromstroy

TITLE: The Erection of Storage Tanks Built of Large Prefabricated Sections (Krupnoblochnyy montazh rezervuarov)

PERIODICAL: Neftyanik, 1958, Nr 5, pp 10-11 (USSR)

ABSTRACT: The modern construction engineering employed in oil fields is characterized by the standard procedure of assembling large prefabricated sections at the construction site. Oil fields of the Tatar Republic started to follow this procedure in 1955 and the SMU (Construction and Installation Administration) No. 4 used this method to assemble several manifolds used in gathering and transporting crude oil. Later, in 1956 the SMU used a similar method to assemble three steel storage tanks of 1000 cu. m. capacity each. In this case such elements as roofs, bottoms, stairs, etc., were made at the construction site of the storage tanks and not at the place designated for assembly operations. All necessary material, welding equipment, tractors, automatic hoists, etc. were brought to the construction site. Such organization of work created serious difficulties, and in 1957 the SMU No. 4 was compelled to revise its construction methods. As a result, tank bottoms, roofs,

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The Erection of Storage (Cont.) 92-58-5-9/30

frames, stairs, etc. are now welded at the special assembly area and when ready all these elements are brought by trucks to the site where storage tanks are erected. The assembly of storage tanks built of large prefabricated sections proved to be very profitable from a financial point of view. This method of assembly also contributed to the safety of workers, saved a considerable amount of material and time, and reduced the overall construction cost. There is 1 photograph showing how various sections of a manifold are being assembled at a special area designated for assembly operations.

ASSOCIATION: PTO SMU No. 4 Tatneftepromstroy

1. Oil tanks--Storage 2. Oil tanks--Construction

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YEKIMOV, P.

(R)

Determining the surface tension at the interface petroleum-water. P. Ekimov. *Novosti Neftyanoi Tekh., Neftepromyslovoe Delo* 1950, No. 4, 9–11.—The study of surface effects, especially the surface tension at the interface petroleum-water, gain more and more importance. There are several methods for measuring surface tensions. The most important is the method of P. A. Rebinder. However, this method was not successful for the detn. of many natural petroleum samples. Hysteresis or lagging of wetting appeared, which hindered the formation of an equil. of drops. This was caused by surface-active compds. present in the crude oil. These two factors result in the following behavior: If the end or tip of the pipet of the Rebinder app. is immersed in water, then the petroleum does not run out in the shape of droplets; the petroleum starts to flow continuously along the outside of the capillary. Refined petroleum products such as gasolines, kerosine oils, etc., form under the same conditions an equil. of drops, which makes it possible to measure their surface tension with water. Therefore the change of the surface tension was studied by adding surface-active compds., which were extd. from petroleum, to nonpolar liquid hydrocarbons and to water and solns. of electrolytes. Naphthenic acids and other surface-active substances dissolve very poorly in water and salt solns. Therefore, in order to conduct these investigations, the naphthenic acids were digested for about 8 days with the salt soln., by mixing them periodically. The optimum time of digesting must be detd. experimentally. The results of this study of surface tension on nonpolar hydrocarbons and admixts. of surface-active compds. can be profitably used also for the detn. of surface-active matter in water after extg. petroleum. For this purpose a curve can be drawn by plotting the change of surface-tension at the interface of transformer oil-water against the amt. of naphthenic acids added. If on the given curve points are plotted, which correspond with those of the surface tension at the interface transformer oil-water after the extn. of natural petroleum, then analogically can be detd. the content of surface-active compds. in the water expressed in cc. of naphthenic acid. H. G. Voelker

YEKIMOV, P.P.

Physical properties of Paleozoic rocks in the Minusinsk depression and Kuznetsk and Karaganda Basins in connection with the evaluation of their oil and gas potentials. Avtoref. nauch. trud. VNIGRI no.17:74-78 '56. (MIRA 11:6)
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