BEKHER, P.M.; KOGANOVSKIY, A.M.; KRAYUKHINA, N.N.; MYSHKINA, N.P.; TARAN, P.N.; TROYANOV, I.A.; SHEYN, S.M.

Adsorption removal of aromatic compounds from the waste waters of aniline dye production. Ukr. khim. zhur. 27 no.2:268-273 '61. (MIRA 14:3)

1. Institut obshchey i neorganicheskoy khimii AN USSR i Rubezhanskiy filial Nauchno-issledovatel'skogo instituta organicheskikh poluproduktov i krasiteley.

(Salvage(Waste, etc.))
(Aromatic compounds)

SOV/112-59-5-9567

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 158 (USSR)

AUTHOR: Troyanov, I. A.

TITLE: Standardization of Computing Perforating Machines of the "SAM" Penza Factory

PERIODICAL: V sb.: Mekhaniz. ucheta i vychisl. rabot. M.-L., Mashgiz, 1958, pp 199-202

ABSTRACT: In 1958-1959, the SAM Penza Factory is expected to start batch production of standardized 80- and 45-column perforators and verifiers designed on the same structural base. As compared to previous machines, new ones have a number of operating advantages. The P80-5 perforator has a one-punch solenoid for each position, which has increased its capacity to 12 strokes per sec. The K80 and K45-5 verifiers have a brush-type sensing mechanism which is very stable. An alphabetic PA80 perforator and KA80 verifier are planned. S45-5 and S80-5 standardized sorters are manufactured

Card 2/ Card 1/2

TROYANOV, L.A.

Standardizing computer-punched-card machines designed by the "SAM" Penza Plant. [Izd.] LONITOMASH 44:199-202 '58.

(MIRA 11:9)

(Penza--Calculating machines)

USSR/Cosmochemistry - Geochemistry. Hydrochemistry. D.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30390

Author : Rimskaya-Korsakova, O.M., Troyanov, M.D.
Inst :
Title : New Data Concerning Tungstenite

Orig Pub : Zap. Vses. mineralog. o-va, 1956, 85, No 3, 277-285

Abst : Report of a new discovery of the mineral tungstenite (I), hitherto known to occur only in one deposit (Emma, State of Utah). The described I was found in skarnic deposit Lyangar of western Uzbekistan, along contact zone of biotitic granites and a limestone-schist bed of Lower Paleozoic. Associated minerals: pyroxen, garnet, scheelite, pyrrhotine, chalcopyrite, sphalerite, molybdenite, pyrite and other. Chemical composition of I (in %): W 73.71, S 26.20, R_2O_3 0.50, SiO_2 0.10, total 100.51; by means of spectra were discovered in addition (in %):

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USSR/Cosmochemistry - Geochemistry. Hydrochemistry. D.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30390

Fe n . 10^{-1}, Mg, Ag, Ca, Cu n . 10^{-2}, Mn n . 10^{-3}, Mo n . 10^{-4}. Chemical analysis of incomplete pseudomorphism of I in scheelite (in %): W 26.08, WO_3 41.99, CaO 16.16, CO_2 5.00, S 9.42, R_2O_3 0.80, MgO 0.25, total 99.70; present in smaller amounts are: Mg, Li, Al n . 10^{-1}, Si, Cu, Mn n . 10^{-2}, Ga n . 10^{-3}, Mo, Be n . 10^{-4}. On the basis of x-ray analysis parameters of unit cell were calculated: $a_o = 3.151 \pm 0.004$, $c_o = 12.359 \pm 0.009$ kX, $a_o : c_o = 1 : 3.922$. It is assumed that formation of I occured during the hypothermal stage, together with other sulfide minerals -- under reducing conditions, with a sharp deficiency in oxygen. The process took place according to the formulation: $CaWO_4 + 2H_2S + CO \rightarrow WS_2 + CaCO_3$ (secondary calcite) + $2H_2O$.

Card 2/2

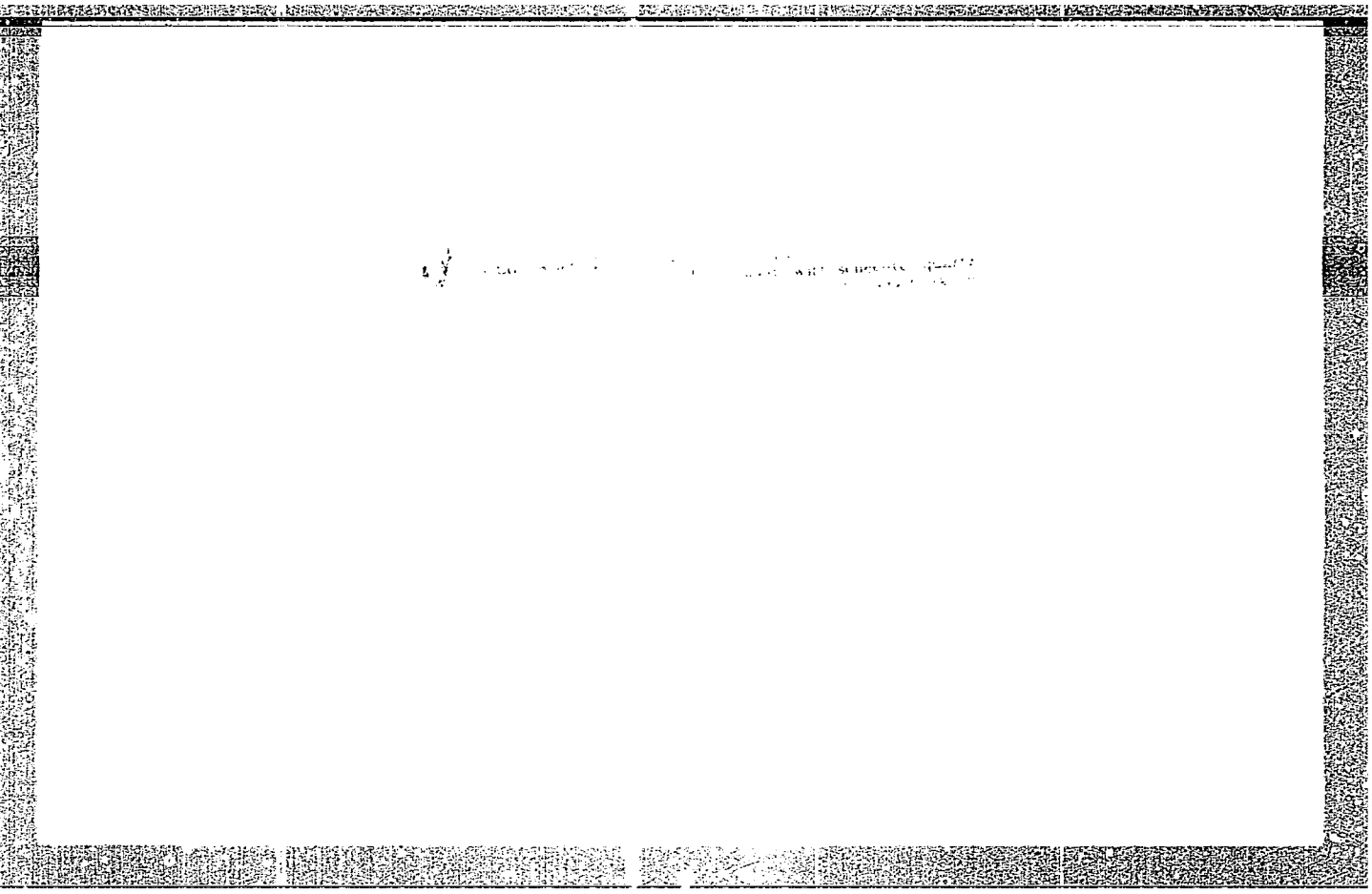
TROYANOV, M.D.

Karacha-Kuduk cassiterites. Uzb.geol.zhur. no.3:59-64 '58.
(MIRA 12:1)
1. Glavnoye upravleniye geologii i okhrany nedr pri Sovete Ministrov UzSSR.
(Zirabulak Mountains--Cassiterite)

USHAKOV, N.D.; TROYANOV, M.D.; LITSENMAYER, N.V.

New evidence on finds of scheelite in hydrothermally changed magmatic, sedimentary, metamorphic, and other rocks. Sov. geol. no.53:80-86 '56. (MLRA 10:4)

(Scheelite)



RIMSKAYA-KORSAKOVA, O.M.; TROYANOV, M.D.

New data on tungstenite. Zap.Vses.min.Ob-va 85 no.3:277-285 '56.
(MLRA 9:11)

1. Kafedra mineralogii Leningradskogo ordena Lenina Gosudarstvennogo universiteta imeni A.A.Zhdanova, Trest "Sredaztsvetmetrazvedka."
(Tungstenite)

TROYANOV M.D.

Characteristics of [illegible] sedimentary [illegible] of lead-zinc mineralization in one of the sections of Western Uzbekistan. Lit. i pol. ископ. no.3:60-69 My-Je '65. (MIRA 18:10)

1. Vsesoyuznyy [illegible] neftyanoy geologii i [illegible] Uzbekskoy SSR, Samarkand.

AUTHORS: Zenkevich, B.A., Subbotin, V.I., Troyanov, M.F.

TITLE: The Critical Thermal Load in the Flow of Water Over a Tube in the Longitudinal Direction, Which has not yet Attained Saturation Temperature (Kriticheskiye teplovyye nagruzki pri prodol'nom omyvanii puchka trubok vodoy, nedogretoy do temperatury nasyshcheniya)

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 4, pp. 370-372 (USSR)

ABSTRACT: Experimental determination of thermal load was carried out by means of a special apparatus, a sectional view of which is given. The tubular fuel elements (two different variants) were put together in groups of 7 or 19 each in a working channel. (Lattice spacing: equilateral triangle with a = 6 mm). For the determination of the critical point of the regime thermocouples, which were fitted in the channel, were used. The critical thermal flux (q_{cr}) was determined from the electric power developed and was checked by the thermal balance of the water.

Card 1/2 If the q_{cr}-values in dependence on ψ (K_2) are drawn both for the

group of seven as well as for that of nineteen tubes, it will be found that there is good agreement between the values and the theoretically derived relation. There is, however, a deviation between the values for 7 and for 19 tubes, which is probably due to the experimental conditions. There are 3 figures, and 2 Soviet references.

SUBMITTED: November 25, 1957

1. Water--Thermodynamic properties 2. Water--Testing equipment

Card 2/2

AUTHORS: Kirillov, P. L., Troyanov, M. F. SOV/89-5-4-23/24

TITLE: On an Error in the Values of the Specific Heat of the Alloys of Sodium With Potassium (Ob odnoy oshibke v znacheniyakh teployemkosti splavov natriya s kaliyem)

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 4, pp 491-491 (USSR)

ABSTRACT: In the books "The Thermophysical Properties of Materials" by N. B. Vargaftik and "High-Temperature-Coolants" by A. V. Chechetkin data concerning the properties of sodium-potassium alloys were obtained from the reference work for liquid metals (Editor: Layon). The errors commited in the 1st edition were taken over in spite of the fact that these errors were corrected in the 2nd and 3rd edition of this work. Soviet authors are even induced to draw wrong conclusions from these errors. There are 1 table and 5 references, 0 of which is Soviet.

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Troyanov, M.F.

2(6) PHASE I BOOK EXPLOITATION SOV/3501

Akademiya nauk SSSR. Energeticheskiy institut

Voprosy teploobmena (Heat-Exchange Problems) Moscow, 1959. 277 p. Errata slip inserted. 2,600 copies printed.

Resp. Ed.: M.A. Mikheyev, Academician; Ed. of Publishing House: G.B. Gershkov; Tech. Ed.: I.F. Ku'ain.

PURPOSE: This collection of articles is intended for scientific workers, engineers, and postgraduate students specializing in thermodynamics.

COVERAGE: The collection reviews problems of heat transfer and explores possibilities of intensifying heat exchange. The heat exchange theory is outlined, and Russian scientists who contributed to its development are mentioned. Thermophysical properties of some molten metals and alloys are analyzed, and methods used to determine them presented. Equipment used for measuring thermal conductivity, heat capacity, and kinetic viscosity of these metals for a water flow in an annular channel are analyzed and the instruments used along with the pilot plant for studying convection heat exchange in contacting nonmiscible fluids are described. Instruments and equipment used for determining the linear expansion of metals, the consumption of a liquid, and the absorption capacity of a surface are also described and illustrated. A number of equations for solving various thermodynamic problems are presented. Each article is accompanied by references, the majority of which are Soviet.

TABLE OF CONTENTS:

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A006/A001

11.3950

Translation from: Referativnyy zhurnal, Metallurgiya, 1960, No. 10, p. 5, # 22408

AUTHORS: Kirillov, P.L., Subbotin, V.I., Suvorov, M.Ya., Troyanov, M.F.

TITLE: Investigation of Heat Transfer in a Tube to a Sodium-Potassium Alloy

PERIODICAL: V sb.: Vopr. teploobmena, Moscow, AN SSSR, 1959, pp. 80 - 95

TEXT: The authors studied heat transfer in a round Cu-tube to an eutectic 22% Na-78% K alloy. It was established that the value of the coefficient of heat transfer from the wall to the liquid metal increased with time and attained a stable value within about 800 hours of operation; this value is in a satisfactory agreement with the Martinella - Lyon (Martinella-Layon) theoretical formula $Nu = 7 + 0.0025\ Pe^{0.8}$.

A.N.

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

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21(9), 24(8)

SOV/89-6-4-2/27

AUTHORS: Kirillov, P. L., Subbotin, V. I., Suvorov, V. Ya., Troyanov, M. F.

TITLE: Heat Transfer in a Tube to a Sodium-Potassium Alloy and to Mercury (Teplootdacha v trube k splavu natriya s kaliyem i k rtuti)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 4, pp 382-390 (USSR)

ABSTRACT: Into a circular tube system made from (Kh18N9T) steel a liquid Na-K-mixture and/or liquid mercury is pumped by means of electromagnetic pumps through a measuring tube (made of brass or nickel, diameter 22-40 mm, wall thickness 4-7 mm, total length 2200 mm, length of heated part of the tube ~1100 mm), and the heat transfer is measured. For this purpose a mobile special thermocouple (a sectional drawing of which is given) is constructed. Further thermocouples of various composition are fitted to the walls of the actual range of measurement. The fact that the thermocouples are composed of different materials and are checked by means of a blank test to a certain extent warrants reproducibility of the measuring results. Moreover, devices for measuring the quantity of heat are connected within the measuring circuit for purposes of

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control. Search thermocouple may be let into the Na-K and Hg current respectively. For the purpose of measuring the electromotive force generated by the thermocouples the potentiometer PPTN-1 is used in conjunction with a mirror galvanometer M-21/4. The NaK circulates through filters and cooling trap, so that the oxygen content in the Na-K-circulation may be reduced down to 0.003 % by weight. On the basis of the experimental data the following conclusions may be drawn: 1) The heat transfer coefficients for Na-K were determined twice, viz.: a) from the wall temperatures of the measuring tube, and b) from the temperature distribution of the flowing Na-K. From both measurements it may be concluded that a contact resistivity to heat exists, which varies with time. The amount of the thermal contact resistivity depends on the oxygen content of the Na-K alloy. It is graphically represented as a function of time (Fig 5). 2) Measurement of the heat transfer coefficients of nickel (measuring tube material) on mercury shows that no thermal contact resistivity exists. Thus, the material of the contact surface influences heat transfer. 3) By using the mobile thermocouple it was possible to find out that the results are not falsified by

Heat Transfer in a Tube to a Sodium-Potassium Alloy and to Mercury

boundary effects and that the length of the heat stabilization for the hydraulically stabilized current is 10 l/d (l/d - the specific length of the heated part of the measured distance). 4) For the case mentioned under 2), the data obtained agree well with the data obtained from references 4 and 5. The heat transfer coefficient may be represented by the equation $Nu = 7 + 0.025 (\varepsilon Pe)^{0.8}$, where $\varepsilon = 1$. There are 9 figures, 1 table, and 10 references, 6 of which are Soviet.

SUBMITTED: June 25, 1958

Card 3/3

USACHEV, L. N.; NEVINNITSA, A. I.; TROYANOV, M. F.

"Some new aspects of adjoint function and perturbation theory applications in reactor and shielding calculations."

report submitted for 3rd Intl Conf, Peaceful Uses of Atomic Energy, Geneva, 31 Aug-9 Sep 64.

L 08344-67 EWT(m) JR

ACC NR: AR6031859 SOURCE CODE: UR/0058/66/000/006/V053/V053

9

AUTHOR: Bazazyants, N. O.; Zaritskiy, S. M.; Troyanov, M. F.

TITLE: Reading of critical experiments on ZPR-III assemblies by means of the FEI constants system

SOURCE: Ref. zh. Fizika, Abs. 6V435

REF SOURCE: Byul. Inform. tsentra po yadern. dannym, vyp. 2, 1965, 247-280

TOPIC TAGS: experiment reading, fast neutron assembly, multiplication factor, indicator fission cross section, fast neutron life, fast neutrons/ZPR III assembly

ABSTRACT: The effective multiplication factor, indicator fission cross-section ratio, reactivity caused by various materials when they are placed in the center of the system and the life of fast neutrons were calculated by means a system of multigroup constants developed at FEI (Obninsk, USSR) for 11 critical assemblies using ZPR-III fast neutrons. Metal, oxide, carbide and cermet uranium fuels were simulated in the assemblies. [Translation of abstract]

SUB CODE: 20, 09/

1/1 nst

ACC NR: AP7000787 (N) SOURCE CODE: UR/0089/66/021/[illegible]/0360/0363

AUTHOR: Lytkin, V. B.; Troyanov, M. F.; Novozhilov, A. I.

ORG: none

TITLE: Use of the method of calculated losses to choose the characteristics of a fast reactor

SOURCE: Atomnaya energiya, v. 21, no. 5, 1966, 360-363

TOPIC TAGS: fast reactor, nuclear reactor characteristic, nuclear reactor operation, plutonium

ABSTRACT: The authors describe a method of using the theoretical fuel-consumption formulas for the analysis of the economics of the fuel cycle of a fast plutonium reactor. The basic formula employed takes care of the initial fuel cost, the efficiency factor, and the fuel component of the cost of electricity generated during the stationary conditions (with credit for fuel reprocessing and for plutonium). The proposed formula also takes into account the prolonged stay of the fissioning material in the full cycle of the active zone and the screens. Results of calculations are presented, in which the dependence of the fuel component of the calculated expenditures on the heat load and on the "compacting" of the active zone of the reactor of 1000 Mw rated power, is made evident. The formula takes into account the change in the cost of the fuel during the time it stayes in the reactor and time delays in the return of the fuel for reprocessing, and also in the exctraction of the plutonium

UDC: 338.4: 621.039.516.4

Card 1/2

ACC NR: AP6000787

from the screens. Plots are presented of the dependence of the amount of plutonium in the fuel cycle of the active zone and the annual consumption in the fuel elements on the energy load of the active zone, of the dependence of the fuel components of the calculated expenditures and the doubling time on the heat rate, and of the dependence of the fuel component on the ratio of the diameter of the active zone to its height. Examples are presented to show that the method yields a good estimate of the relative roles of the initial investiment in the fuel cycle and the running expenses of the fuel cycle, and consequently makes it possible to choose more correctly the optimal characteristics of the reactor. The authors thank A. I. Leypunskiy and V. V. Orlov for interest in the work and useful discussions, and G. S. Filatov for help with the calculations. Orig. art. has: 3 figures and 3 formulas.

SUB CODE: 18/ SUBM DATE: 01Apr66/ ORIG REF: 007

Card 2/2

5

L 5171-66 EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EWP(m)/T/EWP(t)/EWP(b) IJP(c)
ACCESSION NR: AT5022451 JD/WW/JG/GS UR/0000/65/000/000/0001/0030

AUTHOR: Leypunskiy, A. I.; Kazachkovskiy, O. D.; Pinkhasik, M. S.; Krasnoyarov, N. V.; Bagdasarov, Yu. Ye.; Troyanov, M. F.; Milovidov, I. V.; Afrikantov, I. I.; Poydo, M. S. (Deceased); Stekol'nikov, V.V.

TITLE: BN-350 nuclear power plant

SOURCE: Obninsk. Fiziko-energeticheskiy institut. Doklady, 1965. Atomnaya stantsiya BN-350, 1-30

TOPIC TAGS: nuclear power plant, liquid metal cooled reactor, fast reactor, nuclear reactor technology, desalination

ABSTRACT: After a brief discussion of the advantages of using fast neutron reactors for power production, a new 350 Mw fast neutron sodium cooled reactor of BN-350 type is described. At present, a power plant equipped with such reactors and P-50 back pressure steam turbines is under construction in the Mangyshlak peninsula area at the northeastern coast of the Caspian Sea. The dual-purpose plant will generate 150 Mw of electric power and produce 1200 ton/hr of

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090/0419

steam. The steam will be used by a desalting plant designed to supply 120,000 cu m of fresh water per day. It is expected that the power plant will be put into operation in 1968 or 1969. The primary and the secondary intermediate loops of the reactor will be cooled by liquid sodium. The third loop will be of steam-water type. The reactor core carries 211 hexagonal fuel assemblies each containing 169 uranium-dioxide elements. At the beginning, a compound of uranium-dioxide and plutonium will be used in fuel elements. There are 120 inner and 320 outer assemblies placed in concrete shields. The selected essential data on BN-350 reactor are as follows:

Thermal power	1000 Mw
Core Volume	1.67 cu m
Core diameter	1.495 m
Core height	1.06 m
Vessel diameter	6 m
Vessel height	2.2 m
Coolant temperature (inlet)	300 C
Coolant temperature (outlet)	500 C

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ACCESSION NR: AT5022451

Many other details and data are given on reactor core and concrete shielding as well as on the reactor tank made of X18H9 stainless steel. A special chapter is devoted to the discussions of various control systems including power control, measurements, automatic regulation, reactivity compensation, and emergency protection. The replacement and handling of fuel elements is also discussed. The radiation shielding is briefly described. Some information is given on the selection of materials as well as on the experimental investigation of various control and safety systems. An extensive analysis of heat transfer system is also presented dealing with primary and secondary loops, heat exchanger, pumps, piping, emergency heat removal, steam generators and other equipment. In conclusion, some further possible improvements in the design and operation of fast neutron reactors are outlined including a more efficient burn-up of

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L 5171-66

ACCESSION NR: AT5022451

fuel elements, a further increase in temperature and an eventual use of fuel carbides instead of oxides. Orig. art. has: 2 tables and 6 figures.

ASSOCIATION: none

SUBMITTED: 02Mar65 ENCL: 00 SUB CODE: NE, NP

NO REF SOV: 000 OTHER: 000

Card 4/4 mld

TROYANOV, N., leytenant

Testing instrument for tank radios. Voen.sviaz. 16 no.4:43-44 Ap '58. (MIRA 11:4)
(Radio measurements)

TROYANOV, Pavel Mikhaylovich; LAZARIDI, Il'ya Grigor'yevich; FAKTOR, B.S., tekhn. red.

[Mechanization and automatic control at the Mirgalimsay Ore Dressing Plant] Mekhanizatsiia i avtomatizatsiia na Mirgalimsaiskoi obogatitel'noi fabrike. Alma-Ata, TSentr. in-t nauchno-tekhn. informatsii, 1960. 12 p. (MIRA 15:4)
(Mirgalimsay--Ore dressing)
(Metallurgical plants--Equipment and supplies)

L 41223-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS S/0000/64/000/000/0653/0657 39 15 B+1

ACCESSION NR: AT5007945

AUTHOR: Kanunnikov, V. N.; Kolomenskiy, A. A.; Ovchinnikov, Ye. P.; Troyanov, Ye. F.; Fateyev, A. P.; Yablokov, B. N.

TITLE: Some results of the work on starting the symmetrical electron ring-phasotron at FIAN

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SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 653-657

TOPIC TAGS: electron accelerator, synchrotron

ABSTRACT: The Physics Institute im. P. N. Lebedev, AN SSSR, is developing new accellerators of the ring-phasotron type. The principal idea of the development is to replace the growth of the magnetic field in time, which holds true in the case of synchrotron-type accelerators, by its growth in space in correspondence with the growth of the particles' energy. This permits increasing the intensity of the beam of accelerated particles, and also, by utilizing the accumulation of particles in a constant field, realization of the method of counter collisions of relativistic particles. As has been clear from the very beginning of the work, the complexity and novelty of the problem could not permit the work to be limited to theo-

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L 4223-66
ACCESSION NR: AT5007945

retical investigations. It was decided to construct a comparatively small accelerator, the symmetrical 30-Mev electron ring-phasotron, ensuring the simultaneous acceleration of two electron beams moving in opposite directions. This accelerator has to serve as a sufficiently flexible and resourceful basis for experiments on the creation of strong-current accelerators and accumulators. It was planned, in particular, to investigate with it various injection alternatives, accelerator regimes, and also the process of storing one and two counter beams. The principal results of the theoretical and experimental works completed in connection with the development of this accelerator have been published (V. N. Kanunnikov, et. al., Proc. International Conference on High Energy Accelerators, CERN, 1959, p. 89). The present report describes the main difficulties which were overcome in the initial period of starting the installation, and notes the results obtained up to the present moment. The principal parameters of the ring-phasotron are discussed, as well as the measurement and correction of its magnetic field. The characteristics of the beam during static operation are investigated. "The authors wish to thank for their participation workers of various organizations, expecially the associates of the Physics Institute: V. S. Voronin, L. N. Kazanskiy, D. D. Krsil'nikov, A. N. Lebedev, S. S. Semenov, and of the Scientific-Research Institute of Electro-

L 4223-66
ACCESSION NR: AT5007945

Physical Equipment: N. A. Monoszon, B. V. Rozhdestvenskiy, K. M. Kozlov, A. M. Stolov, V. A. Titov, V. B. Zalmanson, Ye. A. Dmitriyev." Orig. art. has: 7 figures.

ASSOCIATION: Fizicheskiy institut imeni P. N. Lebedeva, AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: NP.

NO REF SOV: 004 OTHER: 001

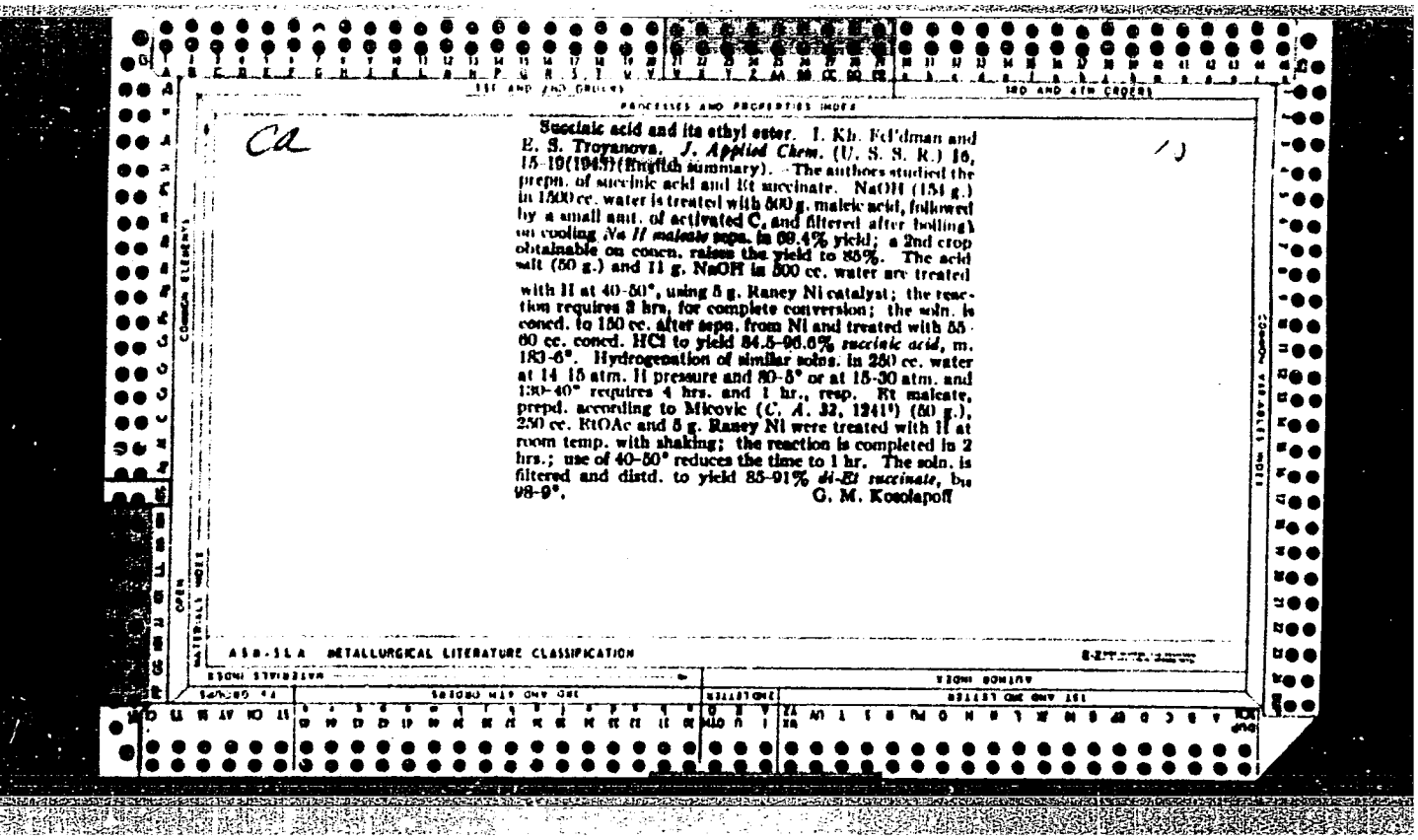
Card 3/3

TROYANOVA, A.G.

Prevention and treatment of nervousness in children. Zdrav. Bel. 7 no.9:41-44 S '61. (MIRA 14:10)

1. Psikhiatricheskaya klinika (zaveduyushchiy kafedroy - prof. M.A.Chalisov) Minskogo meditsinskogo instituta i psikhonevrologicheskiy kabinet 2-oy detskoy polikliniki (glavnyy vrach T.I. Yakovleva) Minska.
(NERVOUS SYSTEM--DISEASES) (CHILDREN--DISEASES)

TROYANOVA, A. G., Candidate Med Sci (diss) -- "The pathophysiology of presenile psychosis". Minsk, 1958. 15 pp (Minsk State Med Inst), 200 copies (KL,No 24, 1959, 153)



Ca

Succinic acid and its ethyl ester. I. Kh. Fel'dman and E. S. Troyanova. *J. Applied Chem.* (U. S. S. R.) 16, 15-19(1943)(English summary). The authors studied the prepn. of succinic acid and Et succinate. NaOH (154 g.) in 1500 cc. water is treated with 500 g. maleic acid, followed by a small amt. of activated C, and filtered after boiling; on cooling *Na H maleate* sepa. in 69.4% yield; a 2nd crop obtainable on concn. raises the yield to 85%. The acid salt (50 g.) and 11 g. NaOH in 500 cc. water are treated with H at 40-50°, using 5 g. Raney Ni catalyst; the reaction requires 8 hrs. for complete conversion; the soln. is concd. to 150 cc. after sepn. from Ni and treated with 55-60 cc. concd. HCl to yield 84.5-96.6% *succinic acid*, m. 183-6°. Hydrogenation of similar solns. in 250 cc. water at 14-15 atm. H pressure and 80-5° or at 15-30 atm. and 130-40° requires 4 hrs. and 1 hr., resp. Et maleate, prepd. according to Micovic (*C. A.* 32, 1241⁹) (50 g.), 250 cc. EtOAc and 5 g. Raney Ni were treated with H at room temp. with shaking; the reaction is completed in 2 hrs.; use of 40-50° reduces the time to 1 hr. The soln. is filtered and distd. to yield 85-91% *di-Et succinate*, b₁₀ 98-9°.

G. M. Kosolapoff

1)

TROYANOVA, M.

Support the heroic struggle of the people against colonialism. Vsem. prof.dvizh.no.11:55 N '56. (MLRA 10:1)

1. Sekretar' TSentral'nogo soveta profsoyuzov Chekhoslovakii.
(Colonies)

MASLIKOV, V.A.; TROYANOVA, N.L.

Boiling points of sunflower oil-benzine miscellas. Trudy KIPP no.16:47-50 '57. (MIRA 12:7)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Mekhanicheskiy fakul'tet, kafedra spetsoborudovaniya i kafedra tekhnologii zhirodobyvaniya.
(Boiling points)

ZELIKMAN, I.F.; TROYANOVA, N.L.

Rate of crystallization of sucrose from a mixture of sugar beet syrup and the unrefined cane sugar solution. Sakh.prom. 36 no.9:21-23 S '62. (MIRA 16:11)

1. Krasnodarskiy institut pishchevoy promyshlennosti.

KOPEYKOVSKIY, V.M.; SHERBAKOV, V.G.; GARBUZOVA, G.I.; IGOL'CHENKO, M.I.; RYAZANTSEVA, M.I.; TROYANOVA, N.L.

Problem of the forced ventilation of sunflower seeds. Izv.vys. ucheb.zav.; pishch.tekh. no.1:20-23 '59. (MIRA 12:6)

1. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra tekhnologii zhirodobyvaniya.
(Sunflower seed--Storage)

TROYANOVA, N.L.

USSR/Chemical Technology - Chemical Products and Their Application. Fats and Oils. Waxes. Soap. Detergents. Flotation Reagents. I-10

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2687

Author : Zarnitskiy, G.E., Kopeykovskiy, V.M., Troyanova, N.L., Shcherbakov, V.G.

Inst : Krasnodar Institute of the Food Industry

Title : Steam Expenditures and Ways of Increasing the Heat-Utilization Coefficient in Oil-Extracting Plants.

Orig Pub : Tr. Krasnodarsk. in-ta pishch. prom-sti, 1956, No 14, 75-80

Abstract : Different operating conditions of distillation columns of oil-extracting plants were studied. It was found that when the rate of miscella feed is increased up to 8.7-9.3 m^3/hour, steam consumption is reduced gy 8%; in this manner, in the extraction department of a plant that

Card 1/2

ZARNITSKIY, G.E., kandidat tekhnicheskikh nauk; KOPEYKOVSKIY, V.M., kandidat tekhnicheskikh nauk; TROYANOVA, N.L., inzhener; SHCHERBAKOV, V.G., inzhener.

Ways of increasing the heat utilization coefficient in oil extraction plants. Masl.-zhir.prom. 21 no.2:26-28 '56. (MLRA 9:7)

1.KIIP.

(Extraction apparatus)

KOPEYKOVSKIY, V.M., kand.tekhn.nauk; SHCHERBAKOV, V.G., kand.tekhn.nauk; Garbuzova, G.I., inzh.; IGOL'CHENKO, M.I., inzh.; RYAZANTSEVA, M.I.; TROYANOVA, N.L., inzh.

Postharvest drying of oil-rich sunflower seeds. Masl.-zhir.prom. 26 no.3:12-14 Mr '60. (MIRA 13:6)

1. Krasnodarskiy institut pishchevoy promyshlennosti.
(Krasnodar Territory--Sunflower seed)

KOPEYKOVSKIY, V.M., kand.tekhn.nauk; SHCHERBAKOV, V.G., kand.tekhn. nauk; GARBUZOVA, G.I., inzh.; IGOL'CHENKO, M.I., inzh.; KYAZANTSEVA, M.I., inzh.; TROYANOVA, N.L., inzh.

Change of the acid number of sunflower seed oil during the period of harvesting and during after-harvest ripening. Masl.-zhir.prom. 25 no.10:15-17 '59. (MIRA 13:2)

1. Krasnodarskiy institut pishchevoy promyshlennosti. (Krasnodar Territory--Sunflower seed oil)

LEYBOVICH, D. M.; ZELIKMAN, I. F.; TROYANOVA, N. L.

Rapid method of determining the coefficient of saturation of solutions in sugar manufacture. Izv. vys. ucheb. zav.; pishch. tekh. no.5:137-143 '62. (MIRA 15:10)

1. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra tekhnologii sakharistykh veshchestv.

(Crystallization—Testing)
(Sugar manufacture)

ACC NR: AP7004766 (N) SOURCE CODE: UR/0413/67/000/001/0081/0081

INVENTOR: Troyanovskaya, G. I.; Bereznikov, V. V.; Grib, V. V.; Alekseyev, N. M.; Mironov, O. G.

ORG: None

TITLE: A method for studying processes of sliding friction in a vacuum. Class 42, No. 190043

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 81

TOPIC TAGS: friction, vacuum technique, surface property

ABSTRACT: This Author's Certificate introduces a method for studying processes of sliding friction in a vacuum. The procedure consists of placing two specimens in a vacuum chamber and moving them against one another under a load. In order to study friction processes between absolutely clean (juvenile) surfaces, the oxide film is sheared from the surfaces of the specimens before and during testing in the vacuum chamber.

SUB CODE: 20/ SUBM DATE: 26Jun65

Card 1/1 UDC: 620.1.05:621.91.071+620.178.162.4;533.5

TROYANOVSKAYA, G. I. PHASE I BOOK EXPLOITATION SOV/6217

Kragel'skiy, Igor' Viktorovich, Doctor of Technical Sciences, Professor

Treniye i iznos (Friction and Wear). Moscow, Mashgiz, 1962. 382 p. Errata slip inserted. 11,000 copies printed.

Reviewer: D. N. Garkunov, Candidate of Technical Sciences; Ed.: V. I. Kumanin, Engineer; Ed. of Publishing House: V. V. Bystritskaya; Tech. Eds.: A. Ya. Tikhanov and T. F. Sokolova; Managing Ed. for Literature on General Engineering: A. P. Kozlov, Engineer.

PURPOSE: This book is intended for scientific workers and engineers engaged in the development of friction and antifriction materials and for designers and specialists in the operation and repair of machines.

COVERAGE: The book deals with the analysis of various types of friction and wear and with calculations relating to certain processes characterizing them. Methods of testing for friction and wear are

Card 1/[illegible]
6

reviewed, and basic data on friction and antifriction materials discussed. The author acknowledges the assistance and cooperation of: V. A. Kudinov; G. I. Troyanovskaya, Candidate of Technical Sciences, who participated in writing Ch. III and Ch. X; N. B. Demkin, Candidate of Technical Sciences, who participated in writing Ch. II; Yu. I. Kosterin, Candidate of Technical Sciences, who participated in writing Ch. VII; and V. A. Kudinov, Candidate of Technical Sciences, who wrote Ch. IX. Each chapter is accompanied by references, mostly Soviet.

TABLE OF CONTENTS:

Friction and Wear

Friction and Wear

Card 10/12 5/6

Card ~~17/12~~ 6/6

L 10709-67 EWT(m)/EWP(j) IJP(c) DJ/RM
ACC NR: AP6025817 (A) SOURCE CODE: UR/0117/66/000/005/0018/0020

AUTHORS: Vaynshteyn, V. E. (Candidate of technical sciences); Troyanovskaya, G. I. (Candidate of technical sciences)

ORG: none

TITLE: Self-lubricating polymeric materials in roller bearings

SOURCE: Mashinostroitel', no. 5, 1966, 18-20

TOPIC TAGS: roller bearing, solid lubricant, organic lubricant, cobalt, chromium, vanadium, molybdenum, high temperature lubricant, steel / ShKh15 steel

ABSTRACT: The use of the following polymeric self-lubricating materials in the construction of roller bearings on the high-temperature and vacuum performance and longevity of the bearings was investigated: polyacetal, MoS_2 + epoxy resin, polyamide + graphite, and teflon + fiber glass. The performance of Cr-Mo-V and steel ShKh15 roller bearings was compared. The experimental results are presented in graphs and tables (see Fig. 1). It was found that the performance of the roller bearings improved considerably if the latter were equipped with a special polyamide ring (see Fig. 2). The most effective lubricant was found to be the combination teflon + fiber glass.

UDC: 621.822.6.002.3:678.5

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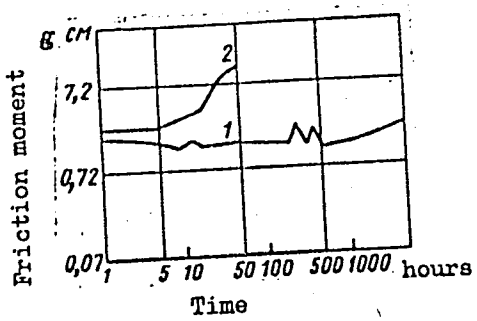

Fig. 1. Time dependence of the friction moment. 1 - epoxy resin + MoS_2; 2 - teflon + fiber glass + MoS_2 lubricant, respectively

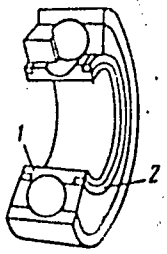

Fig. 2. Modified roller bearing. 1 - inner ring; 2 - polyamide ring

Orig. art. has: 5 tables and 3 graphs.

SUB CODE: 13/ SUBM DATE: none

Card 2/2 bkp

L 2572-66 EWT(m)/EPF(c)/EWP(j) DJ/GS/RM UR/0000/65/000/000/0285/0289

ACCESSION NR: AT5022679

AUTHORS: Akishin, A. I.; Troyanovskaya, G. I.; Isayev, L. N.; Sergeyeva, L. M.; Andreyeva, M. G.; Marchenko, Ye. A.; Alekseyev, N. M.

TITLE: Behavior of friction junctions and some self-lubricating materials in a vacuum under ion bombardment

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya treniya i iznosa (Theory of friction and wear). Moscow, Izd-vo Nauka, 1965, 285-289

TOPIC TAGS: friction, wear, solid lubricant, molybdenum disulfide, polymer, ion radiation effect/ AMAN self lubricating material, AF ZA plastic lubricant

ABSTRACT: The effects of hydrogen ion bombardment on the coefficient of friction and on wear of friction junctions were investigated. Self-lubricating materials containing graphite, MoS_2, WS_2, $MoSe_2$, and various polymeric bonding matrices, and, in particular, material AMAN, bronze-based metallocceramic coated with MoS_2 and plastic AF-ZA were tested in the apparatus shown on Fig. 1 on the Enclosure. The specimens were irradiated with 3-Kev hydrogen ions, and their friction and wear characteristics against a steel shoe (1 kg load, 1.2 m/sec) were measured over a

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ACCESSION NR: AT5022679

9.5-hour period (1 hour run-in, 2 hours in vacuum, 6 hours in vacuum under radiation and 30 minutes without radiation, or 1 hour run-in and 8.5 hours in vacuum without radiation). It was found that the coefficient of friction decreased significantly in vacuum, but that radiation had no measurable effects on friction or wear of any materials tested. Thus the coefficient of friction can be calculated from

$$f = 0{,}35C_s\left(\frac{p_0}{H_0 B}\right)^{\frac{1}{6}} + 0{,}9\beta + \frac{\tau_0}{HB},$$

(where β = adhesion coefficient, C_5 and γ = microstructure characteristics, τ_0 = specific shear adhesion, p_0 = contour pressure) which is suggested by Kragel'skiy and Mikhin. The wear can be calculated from

$$I = k\frac{h\left\{-\ln\left[1-\frac{h_{max}}{R}\left(\frac{p}{bHB}\right)^{\frac{1}{\nu}}-\sqrt{2\frac{h_{max}}{R}\left(\frac{p}{bHB}\right)^{\frac{1}{\nu}}\frac{1-\frac{2\tau}{\sigma_s}}{1+\frac{2\tau}{\sigma_s}}}\right]\right\}^{\nu}}{l(\nu+1)[\ln(1+\delta)]^{\nu}}\frac{p}{HB},$$

(where θ = angle of irregularities on friction surface, δ = elongation in tension, τ_s = yield point). Orig. art. has: 2 formulas, 3 tables, and 2 figures.

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

L 2572-66

ACCESSION NR: AT5022679

SUBMITTED: 18May65 ENCL: 01 SUB CODE: FP, ME

NO REF SOV: 002 OTHER: 001

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L 2572-66

ACCESSION NR: AT5022679

ENCLOSURE: 01

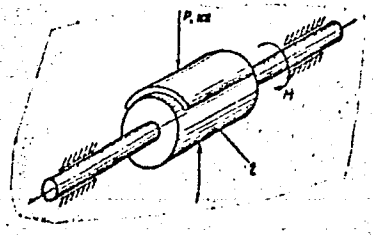

Fig. 1. Experimental apparatus: 1 - ion stream, 2 - specimen

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TROYANOVSKAYA, G.I

PHASE I BOOK EXPLOITATION 225 Rev.

Tomsk. Universitet. Sibirskiy fiziko-tekhnicheskiy institut.

Issledovaniya po fizike tverdogo tela (Research in the Physics of Solids) Moscow, Izd-vo AN SSSR, 1957. 277 p. 4,000 copies printed.

Resp. Ed.: Bol'shanina, M. A., Dr. of Physical and Mathematical Sciences, Prof.; Ed. of Publishing House: Bankvitser, A. L.; Tech. Ed.: Kashina, P. S.

Approved for printing: Akademiya nauk SSSR. Otdeleniye fizikomatematicheskikh nauk.

PURPOSE: This collection of articles is meant for metallurgical physicists and for engineers of the metalworking industry.

COVERAGE: This book contains results of research in the field of failure and plastic deformation of materials, mainly of metals. The work was conducted along two main lines: 1) study of the physical principles of plasticity, study of the effect of temperature, rate of deformation, character of alloys, etc., on the mechanical properties, and 2) the study of the cutting, wear, and friction characteristics of metals and alloys. This collection is

Card 1/13

dedicated to Vladimir Dmitriyevich Kuznetsov, Corresponding Member of the Academy of Sciences of the USSR, Professor, Doctor of Physical and Mathematical Sciences. The physicists of the Tomsk State University Siberian Physics-technical Institute (SFTI) and other scientists participated in this work.

TABLE OF CONTENTS:

Personalities mentioned are Kosenko, I. A., In'shakov, N. N., Seredenko, B. N., Khrushchov, M. M., Professor, Radchik, V. S., and Radchik, A. S. Wear-testing machines used were the type A Ye.-5 and type MI; materials tested, steel 45, bronze BrAZhMts, and plexiglass; lubricant used, type MS plus abrasive. There are 3 figures, 2 tables, and 13 references, 12 of which are Soviet.

Kiselev, G. I. Effect of Scale on the Scratch Test of Metals 49

Personalities mentioned are Davidenkov, N. N., Savitskiy, K. V., and Kudryavtseva, L. A., from SFTI; Gogoberidze, D. B. and Maslov, Ye. N. Materials tested were lead, tin, copper, iron, brass L-62, and aluminum; cutting points used, ShKh 15, hard alloy VK -8, and a diamond point. The testing machine was developed by SFTI. Microscope used was the type MIS -11. There are 5 figures, 2 tables, and 8 references, 7 of which are Soviet.

Personalities mentioned are Kuznetsov, V. D., Rebinder, A. P., Shreyner, L. A., Loskutov, A. I., Boyarskaya, Yu. S., Maslov, Ye. N., Troitskiy, A. V., Kachalov, N. N., Kashcheyev, V. N., and Fersman, A. Ye. Materials studied were the monocrystals of alkali metal halides. There are 2 figures, 4 tables, and 11 Soviet references.

Nikitina, A. K., and Bol'shanina, M. A. Effect of the Rate of Deformation on the Softening of Copper 146

Personality mentioned is Lashko, N. F. Material tested was Ml. There are 3 figures, 1 table, and 7 Soviet references.

Zhdanova, V. N. X-Ray Study of Structural Defects in Metals Due to Tensile Deformation 152

Personalities mentioned are Kurdyumov, G. V., Kritskaya, V. K., Il'ina, V. A., Lysak, L. I., Vasil'yev, L. T., and Umanskiy, Ya. S. Materials tested were alumimum, copper, and nickel. There are 3 figures, 1 table, and 7 Soviet references.

Personalities mentioned are Samoylov, V. N., Obolentsev, A. V., and Vasil'yev, L. I. Materials studied were a total of 13 lead alloys: binary alloys of lead with antimony, tin, cadmium, bismuth, and tellurium; ternary alloys of lead-antimony-tin, lead-antimony-tellurium, lead-antimony-arsenic, lead-antimony-sodium, and lead-antimony-selenium; quaternary alloys of lead-antimony-tin-copper and lead-tin-bismuth-arsenic. Research was done from specifications of the Tomsk Cable Plant "Tomkabel" with the participation of engineers of this plant. There are 4 figures, 3 tables, and 4 Soviet references.

Bol'shanina, M. A., Yelsukova, T. F., Kondrat'yev, P. A., and Fomina, M.A. Vibrational Stability of Certain Lead Alloys Used for Cable Sheathing, Part 2. 242

Personalities mentioned are Zakharov, P. A., Pereslegin, V. A., Dnestrovskiy, N. Z., and Shpagin, A. I. Materials studied included 19 different lead alloys: binary alloys of lead-antimony, lead-cadmium, lead-tin, lead-bismuth, and lead-tellurium; ternary alloys of lead-antimony-tin, lead-antimony-sodium, lead-antimony-arsenic, lead-antimony-tellurium, and lead-antimony selenium; quaternary alloys of lead-antimony-

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Card 13/13

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9-11-58

TROMANOVSKAYA, G. I. and KRAGEL'SKIY, I. V.

"Effect of Temperatures on Friction Characteristics" in book Research in the Physics of Solids, Moscow, Izd-vo AN SSSR, 1957. 277 p. Ed. Bol'shanina, M. A. Tomsk Universitet, Siberskiy fiziko-tekhnicheskiy institut.

The following materials were used in experiments: plastics FK-24A and 6KKh-1 and metal ceramic MK-2, and as the second element of the friction pair cast iron ChNMKh, SCh-21-40, and steel 45. The machine used was type I-47-K-54, THere are 9 figures, and 15 references, 7 of which are Soviet.

This collection of articles is meant for metallurgical physicists and for engineers of the metal-working industry. This book contains results of research in the field of failure and plastic deformation of materials, mainly of metals. Problems of cuting, abrasion, friction, and wear of solid materials. (metals) are discussed.

TROYANOVSKAYA,G.I.; LAZAREV,G.Ye.

"Retinaks" heat resistant friction material. Vest.AN SSSR 25 no.7:71-73 Jl '55. (MLRA8:10)
(Metals at high temperatures)

TROYANOVSKAYA, G. I.

USSR/ Engineering - Materials

Card 1/1 Pub. 124 - 11/30

Authors : Troyanovskaya, G. I., And Lazarev, G. Ye.

Title : Heat resistant friction material "RETINAKS"

Periodical : Vest. AN SSSR 25/7, 71 - 73, Jul 1955

Abstract : The development of a new heat resistant (1000°C) friction material called "RETINAKS", trade name FK-24A, is announced. Results obtained in testing the new material, presently used for mass production of brake-shoes, are described. Composition of the new material is not described but mention is made that one of its components is phenol-formaldehyde resin. The advantages of the Retinaks material over the 6KKh brake-shoe material are listed. It is shown that the addition of brass or soft steel filings to the Retinaks composition increases its frictional and mechanical properties at forced brake conditions.

Institution : .....

Submitted : .....

Troyanovskaya, G. I., Shchedrov, V. S., and Shichenko, ...

"Effect of the Temperature Field on the Friction ... and Simulation of the Friction ..." p. 245

Sukhoye i granichnoye treniye. Friktsionnyye materialy (Dry and Boundary Friction. Friction Materials) Moscow, Izd-vo AN SSSR, 1960. ... p. Errata slip ... ,500 copies printed. (Series: Its: Trudy, v. 3)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya. Resp. Ed.: I. V. Kragel'skiy, Doctor of Technical Sciences, Professor; Ed. of Publishing House: ...; Tech. Ed.: ... Tikhomirova.

The collection published by the Institut mashinovedeniya, AN SSSR (Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines, April 9-15, 1958.

SHCHEDROV, V.S.; TROYANOVSKAYA, G.I.

General analysis of similitude conditions in case of static friction. Tren.i izn.mash. no.15:305-321 '62. (MIRA 15:4)
(Friction)

KRAGEL'SKIY, Igor' Viktorovich, doktor tekhn. nauk, prof. Prinimali uchastiye: TROYANOVSKAYA, G.I., kand. tekhn. nauk; DEMKIN, N.B., kand. tekhn. nauk; KOSTERIN, Yu.I., kand. tekhn. nauk; KUDINOV, V.A., kand. tekhn. nauk; GARKUNOV, V.I., inzh., red.; BYSTRITSKAYA, V.V., red. izd-va; TIKHANOV, A.Ya., tekhn. red.; SOKOLOVA, T.F., tekhn. red.

[Friction and wear] Trenie i iznos. Moskva, Mashgiz, 1962. 382 p. (MIRA 15:3)

(Friction) (Mechanical wear)
(Lubrication and lubricants)

RIVKIN, S.L., kand. tekhn. nauk; TROYANOVSKAYA, G.V., inzh.

Experimental study of unit volumes of water in areas near a critical point. Teploenergetika 11 no.10:72-75 O '64. (MIRA 18:3)

1. Vsesoyuznyy teplotekhnicheskiy institut.

RIVKIN, S.L.; TROYANOVSKAYA, G.V.; AKHYNDOV, T.S.

Experimental study of the specific volume of water from isochors close to the critical value. Teplofiz. vys. temp. 2 no.2:219-229 Mr-Ap '64. (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy teplotekhnicheskiy institut imeni F.E. Dzerzhinskogo.

CHICHINADZE, Avtandil Vissarionovich; TROYANOVSKAYA, Galina Yosifovna; TUCHKOVA, L.K., inzh., ved. red.; KIRNOSOV, V.I., inzh., re..; SMIRNOV, P.M., tekhn.red.

[Temperature range, coefficient of friction, and wear of pairs of sliding surfaces] Temperaturnoe pole, koeffitsient treniia i iznos friktsionnykh par. Moskva, Filial Vses. in-ta nauch. i tekhn. informatsii, 1957. 26 p. (Peredovoi nauchno-tekhnicheskii i proizvodstvennyi opyt. Tema 20, no.M-57-127/6) (MIRA 11:12)

(Friction)

SHAL'NOV, B.V.; TROYANSKAYA, I.Ye.

Certain results of a study of successive arrivals in reverse microseismic logging. Geofiz. razv. no. 15:40-44 '64.
(MIRA 17:7)

TROYANOVSKAYA, N.

"Glues and gluing for the manufacture and repair of footwear." A.B.Kogan. Reviewed by N.Troianovskaia. Leg.prom. 15 no.12:51 D '55. (MLRA 9:5)

(Shoe industry) (Glue)

BERRI, L.Ya., doktor ekon. nauk, prof.; MAKSIMOV, I.S.; BRAGINSKIY, B.I., doktor ekon. nauk; GRIGOR'YEV, A.Ye., doktor ekon. nauk, prof.; ITIN, L.I., doktor ekon. nauk, prof.; LOKSHIN, E.Yu., prof.; KAMENITSER, S.Ye., doktor ekon. nauk, prof.; OBLOMSKIY, Ya.A., kand. ekon. nauk, dots.; SHASS, M.Ye., doktor ekon.nauk, prof.; STEPANOV, A.Ya.; ULITSKIY, L.I., prof., doktor ekon. nauk; PODGORNOVA, V., red.; TROYANOVSKAYA, N., tekhn. red.

[Economics of socialist industry] Ekonomika sotsialisticheskoi promyshlennosti; uchebnik. 3., dop. i perer. izd. Pod red.L.I. Itina. Moskva, Gospolitizdat, 1963. 646 p. (MIRA 16:8)

1. Moscow. Gosudarstvennyy ekonomicheskiy institut. 2. Zaveduyushchiy kafedroy ekonomiki promyshlennosti Moskovskogo instituta narodnogo khozyaystva im.G.V.Plekhanova (for Itin).
(Russia—Industry)

TROYANOVSKAYA, S.P.

My work as a midwife. Zdravookhranenie 2 no.1:52-53 Ja-F '59.
(MIRA 12:7)

1. Patroazhnaya akusherka rodil'nogo doma g.Bel'tsy.
(BEL'TSY--OBSTETRICS)

SOKOLOVA, Ye.B.; SHEBANOVA, M.P.; TAN TSZUN'-TSZE [T'ang TSun-chieh]; TROYANOVSKAYA, Ye.A.

Condensation of an allyl-type bromide of the $C_7H_{13}Br$ composition with carbonyl compounds and Grignard reagents. Zhur. ob. khim. 34 no.9:3085-3087 S '64. (MIRA 17:11)

TROYANOVSKIY, A.A., vrach

Exercise therapy during the postoperative period. Med.sestra 18 no.2:9-15 F '59. (MIRA 12:2)

1. Iz ginekologicheskogo otdeleniya bol'nitsy imeni S.P.Botkina, Moskva.
(EXERCISE THERAPY) (POSTOPERATIVE CARE)

TROYANOVSKII, A. V.

(2)

Losses at the electrode contacts of baths for the electrolytic zinc process. A. V. Troyanovskii (Mech. Machine Tool Inst., Chelyabinsk). *Prom. Energet.* 7, No. 7, 12–13 (1950); *Chem. Zentr.* 1951, II, 295.—Electrodes of sheet Al with Cu rods as lead-in lines underwent corrosion in H_2SO_4 fumes at 40–42°, which resulted in the formation of a surface film consisting of $ZnSO_4$ up to 60, $Al(OH)_3$ up to 31, and Fe up to 7%. Therefore, contacts of uniform metal were installed. The joints between the sheet metal and lead-in lines were welded or soldered. M. G. Moore—

TROYANOVSKIY, A. V.

USSR/Electricity - Industrial Electrolysis May 52
Metallurgy - Electrolysis of Zinc

"Methods for Determining and Measuring Leakage Currents in Zinc Electrolysis Shops," Engr A. V. Troyanovskiy

Prom Energet, No 5, pp 12 - 16

Results of study and measurement of current leakages on basis of author's work at a Zn plant, 1949 - 51 (many verified at other such enterprises), show that high leakage (2-2.5% in some cases) can be reduced, saving metal and power, by use of non-conducting materials ("vinilplast", "faolin") instead of Pb for bath linings, piping. Recommends this procedure for Zn, Cu, Ni electrolysis plants.

248T44

TROYANOVSKIY, A.V.; MASHKOVICH, P.S., inzhener, retsenzent; KOLDASHOV, V.A., redaktor; NAUMOV, V.I., redaktor; MIKHAYLOVA, V.V., tekhnicheskiy redaktor.

[Economizing on electric energy in the electrolysis of zinc and copper; basic electric characteristics of the processes and electric equipment used] Ekonomiia elektroenergii pri elektrolize tsinka i medi; osnovnye elektricheskie kharakteristiki protsessov i elektrooborudovaniia. Moskva, Gos. nauchno-tekhnicheskoe izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1954. 166 p. (MLRA 8:1)
(Electrolysis) (Zinc--Electrometallurgy) (Copper--Electrometallurgy)

TROYANOVSKIY, A. V.

"Determination of Optimum Electrical Parameters and Electrical Equipment for the Purpose of Effecting an Economy in Electric Power in the Electrolysis of Heavy Nonferrous Metals." Cand Tech Sci, Ural Polytechnic Inst imeni S. M. Kirov, Min Higher Education USSR, Chelyabinsk-Sverdlovsk, 1955. (KL, No 16, Apr 55)

SO: Sum. No. 704, 2 Nov 55- Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

ACCESSION NR: AP4041639 S/0114/64/000/006/0039/0040

AUTHOR: Troyanovskiy, B. M. (Candidate of technical sciences, Docent); Zanin, A. I.; Kazintsev, F. V. (Engineer)

TITLE: Higher economy of a stage in which stamped blades were replaced with milled blades

SOURCE: Energomashinostroyeniye, no. 6, 1964, 39-40

TOPIC TAGS: steam turbine, steam turbine blade, stamped turbine blade, milled turbine blade, steam turbine economy

ABSTRACT: The last stage of a VPT-25-4 (Ural Turbomotor Plant) steam turbine was tested under various conditions with (a) stamped nozzle blades and (b) MEI-designed milled varying-thickness blades having the same effective $\sin\alpha_1 = 0.266$. The stage efficiency was 80–81% and 86% for the first and second diaphragms, respectively. The tests were staged with pressure ratios

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ACCESSION NR: AP4041639

corresponding to subsonic speeds in the diaphragms, and with natural Reynolds numbers [$Re = b_1 c_1 / \nu_1 = (1.3-2.0) \times 10^5$]. Orig. art. has: 2 figures.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power-Engineering Institute)

SUBMITTED: 00 ENCL: 00

SUB CODE: PR NO REF SOV: 002 OTHER: 000

Card 2/2

TROYANOVSKIY, B.M., kand. tekhn. nauk

Practical method for calculating three-dimensional flow in a turbomachine stage. Teploenergetika 10 no.10:28-29 0'63 (MIRA 17:7)

1. Moskovskiy energeticheskiy institut.

TROYANOVSKIY, B.M., dotsent, kandidat tekhnicheskikh nauk.

"Working blades and disks of steam turbines." A.V.Levin. Reviewed by B.M.Troianovskii. Vest.mash. 34 no.7:99-100 Jl '54. (MLRA 7:8)

1. Moskovskiy energeticheskiy institut (for Troyanovskiy) (Levin, A.V.) (Steam turbines--Blades)

SAMOYLOVICH, Georgiy Semenovich; TROYANOVSKIY, Boris Mikhaylovich; DEICH, M.Ye., redaktor; SHCHEGLYAYEV, A.V., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor.

[Variable working cycle of steam turbines] Peremennyi reshim raboty parovykh turbin. Pod red. A.V.Shcheglisseva. Moskva, Gos.energ.izd-vo 1955. 280 p. [Microfilm] (MIRA 8:5)

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(Steam turbines)

AID P - 5114

Subject : USSR/Engineering

Card 1/1 Pub. 110-a - 17/18

Authors : Belosel'skiy, B. S., B. M. Troyanovskiy, Kandidats Tech. Sci., A. M. Mostovaya, Librarian.

Title : New books

Periodical : Teploenergetika, 10, 63-64, O 1956

Abstract : Book-reviews discussing 14 new technical books published in the USSR in 1956.

Institution : None

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Author : Troyanovskiy, B. M., Kand. Tech. Sci.

Title : Foreign books

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Abstract : Book review discussing technical books published in the USA, England, Germany, Hungary, France, in 1955-1956.

Institution : None

Submitted : No date

TROYANOVSKIY, B.M.; KIRSANOV, I.N., redaktor; LARIONOV, G.Ye., tekhnicheskiy redaktor.

[Problems in designing and operating steam turbines] Nekotoryye voprosy proektirovaniia i ekspluatatsii parovykh turbin. Moskva, Ges.energ.izd-vo, 1957. 135 p. (MLRA 10:6)
(Steam turbines)

SAMOYLOVICH, Georgiy Semenovich; TROYANOVSKIY, Boris Mikhaylovich; KOSTYUK, A.G., red.; MEDVEDEV, L.Ya., tekhn.red.

[Steam turbines; a collection of problems] Parovye turbiny; sbornik zadach. Izd. 2-oe, dop. i perer. Moskva, Gos. energ. izd-vo, 1957. 274 p. (MIRA 11:2)
(Steam turbines--Problems, exercises, etc.)

AUTHORS: Deych, M.E. (Cand. Tech. Sci.), Samoylovich, G.S. (Cand. Tech.Sci.), Troyanovskiy, B.M. (Cand. Tech. Sci.), Kazintsev, F.V. (Engineer) and Lipatnikov, S.N. (Eng.)

TITLE: Investigation of two-crown regulating stages in an experimental steam turbine. (Issledovaniye dvukhvenechnykh reguliruyushchikh stupeney v parovoy eksperimental'noy turbine).

PERIODICAL: "Teploenergetika" (Thermal Power), Vol.4, No.5, May,1957, pp.35-43 (U.S.S.R.)

ABSTRACT: Operating test results have shown that the regulating stages having two sets of blading on a single runner that are used by steam turbine factories are of low efficiency. Therefore, turbine designers try to avoid the use of such stages in high power turbines. However, hitherto, such stages have not been systematically investigated, the reasons for their low efficiency have not been established and methods of improving the efficiency have not been indicated. This article describes new 2-crown regulating stages that have been developed in the Moscow Power Institute intended for various heat drops and steam consumptions. The explanations of the type of stage and of the experimental conditions are all expressed in terms of Soviet conventional notation which is assumed to be so familiar to the reader as to require no explanation. The experimental set-up is described, the available experimental turbine having the following limiting

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conditions: maximum power 600 kW, maximum speed 12 000 r.p.m.; initial pressure 1 to 5 atm.; maximum initial temperature 150 to 300°C and exhaust pressure 0.1 to 2 atm. The turbine is loaded by a hydraulic brake. The main geometrical characteristic of the stages tested are described with full information about blade profiles and dimensions. The results of the tests are presented in the form of graphs of the internal and blade efficiencies.

The experiments carried out were of a preliminary nature. For a number of operational reasons unstable conditions were obtained with a deep vacuum beyond the stage and it was, therefore, impossible to obtain a reliable efficiency value for certain conditions and particularly for low Reynolds numbers. Moreover, the relative error of the experiment is higher with deep vacuums because the power of the stage is less. However, the test results are of interest in that they give a qualitative picture of the relationship between efficiency and Reynolds number. Graphs illustrating this point are given. Information is also given about changes in the reaction under different conditions and the results of investigations on the stages with partial supply of steam. Some results are also given on a

Investigation of the two-crown regulating stages in an experimental steam turbine. (Cont.)

detailed investigation of the structure of flow in the stages, including graphs of pressure distribution over the profile of the blading.

It is concluded that stage type KS-1A is of high efficiency over a fairly wide range of conditions. With partial supply of steam the blade and internal efficiencies of the stage are reduced. Protective housings and longitudinal glands on the boundaries of the arc of steam supply should be installed to reduce windage losses. General agreement was found between the pressure distributions over the profile determined under static conditions and by calculations. There is reason to think that similarity of pressure fields is observed during tests using steam and air. 11 figures, 1 literature reference (Russian).

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