

L 28873-66 ENT(1)/ENT(m)/ETC(f)/ENG(m)/1 RM/DS/JK
ACC NR: AF6018869 SOURCE CODE: 05/02 0/65/000/004/0012/0016

AUTHOR: Shtannikov, Ye. V. (Candidate of medical sciences); Znamayev, V. A. 61
B

ORG: Academy of Military Medicine Im. S. M. Kirov, Leningrad (Voenno-meditsinskaya akademiya)

TITLE: Purification of water contaminated with botulinum toxin by means of ion-exchange polymers

SOURCE: Gigiyena i sanitariya, no. 4, 1965, 12-16

TOPIC TAGS: water purification, ion exchange, botulism, sorption, polymer

ABSTRACT: The article gives the results of experiments to purify water of Cl. botulinum (type A) with the highly acid cationite KP-2 (4, 6, and 18% divinylbenzol) and the highly alkaline anionite AV-17 (5, 16 and 18% divinylbenzol). The water was filtered through 12-15 cm of ground polymer in a glass column at a rate of 3-5 meters per hour. The effectiveness of the ionites was shown in biological tests. Inactivation is explained by the combined effect of sorption, which is quite important in this process, and the denaturing effect of elements of the medium (the acidic filtrate and alkaline solutions) which are formed because of the ion exchange. The processes are not mutually exclusive but complementary. Orig. art. has: 4 tables.
[JPRS]

SUB CODE: 07, 13, 06 / SUBM DATE: 11May64 / ORIG REF: 00 / OTH REF: 005

Card 1/1 CC

UDC: 614.445.614.48+628.167.56.8.1.553.097.29

ZHURAVLEV, V.A.

Cavernous transformation of the portal vein. Slov.med. 28 no. 18:6-12
Ap '65. (MIRA 18:6)

1. Khirurgicheskaya klinika (rukovoditel' - prof. M.S.Yepifanov)
(dir. N.V.Shestakov) Leningradskogo nauchno-issledovatel'skogo
instituta perelivaniya krovi, Kirov.

ZHURAVLEV, Vasilii-Aleksandrovich; KIYASHKO, Fedor Nikolayevich;
LANINA, L.I., red.

[Basis of crop yields] Nachalo urozhaia. Moskva, Izd-vo
"Znanie," 1965. 45 p. (Novoe v zhizni, nauke, tekhnike.
X Seriya: Molodezhnaia, no.6) (MIRA 18:6)

ZHURAVLEV, V.A.

Creation of vascular organ anastomoses in portal hypertension, Vest.
khir. 92 no.3:67-72 Mr '64. (MIRA 17:12)

1. Iz khirurgicheskoy kliniki (rukovoditel' - prof. N.S.Yepifanov)
filiala Leningradskogo nauchno-issledovatel'skogo instituta pereli-
vaniya krovi v gorode Kirove (dir. - filiala - zasluzennyy vrach RSFSR
N.V.Shestakov). Adres avtora: Kirov obl., Krasnoarmeyskaya ulitsa, 72,
Institut perelivaniya krovi.

ZHURAVLEV, V.A.

Surgical treatment of portal hypertension complicated by ascites.
Vest. khir. 92 no.1:29-33 Ja '64. (MIRA 17:11)

1. Iz khirurgicheskoy kliniki (rukovoditel' - prof. N.S. Yepifanov)
filiala Leningradskogo nauchno-issledovatel'skogo instituta perelivaniya
krovi v gorode Kirove. Adres avtora: Kirov, Krasnoarmeyskaya ulitsa,
72, filial Instituta Perelivaniya krovi.

ACCESSION NR: AR3010279

S/0081/63/010/012/0087/0087

SOURCE: RZh. Khimiya, Abs. 123579

AUTHOR: Zhuraley, Y. A.; Kolosova, L. G.

TITLE: The connection between the catalytic activity of cupric oxide and the distribution of thermoelectromotive force over different points on its surface

CITED SOURCE: Tr. L'vovsk. ned. in-ta, v. 22, 1961, 17-23

TOPIC TAGS: cupric oxide, catalytic activity, thermoelectromotive force

TRANSLATION: The distribution of thermoelectromotive force over different points on the surface of cupric oxide obeys the Gauss distribution function. A connection has been established between the parameters of the distribution function of thermoelectromotive force at different points on the surface of cupric oxide and the catalytic

Card 1/2

ACCESSION NR: AR3010279

points on the catalyst during catalytic decomposition of H_2O_2 over a
cupric oxide catalyst.

SUB CODE: IC, EM

UNCL: CO

BEZDENEZHNYKH, Ye.A.; VERNA, N.Ye.; IGNATOVICH, Yu.V.; RAVINOVICH,
S.D.; CHERNYY, Ye.P.; ZHURAVLEV, V.A., red.; BOIKO, V.P.,
tekhn. red.

[Laboratory manual in physics] Laboratornye raboty po fi-
zike. [By] E.A.Bezdenezhnykh i dr. Kiev, Gosmedizdat
USSR, 1963. 237 p. (MIRA 17:4)

*

S/281/63/000/001/003/004
E191/E155

AUTHOR: Zhuravlev, V.A. (Moscow)

TITLE: The profiling of gas turbine blades with the help of an electronic digital computer

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Energetika i transport, no. 1, 1963, 72-77

TEXT: To use a digital computer for blade design, it must be possible to express the surface as a mathematical relation between the coordinates. Blade profiles of many gas turbines were analysed by drawing the profile in a skew system of coordinates, re-drawing in a rectangular system and plotting the slope of the curve. The actual curves of a number of blades in root, mean and tip sections are illustrated. The curves so obtained are expressed in terms of a polynomial. Five terms are sufficient. The shape and quality of profiles and cascades of blades are determined by characteristic geometric quantities, namely the chord/pitch ratio, several angles, the recess of the trailing edge against the tangent at the throat on the back of the profile, the thickness/chord ratio. Card 1/2

The profiling of gas turbine blades... S/281/63/000/001/003/004
E191/E195

and the leading and trailing edge radii (both in terms of the chord). Recommendations are given in literature on the optimum geometric characteristics. The entry and exit velocities as well as the cross-sectional area must also be known. Further computations are carried out with the help of the electronic computer. Expressions are given, from which the coefficients of the profile polynomial can be found. The position of the center of gravity of the section is also given so that all the profiles can be aligned. The fact that the surface of the profile part of the blade is obtained as an analytical expression makes it possible to carry out flow and stressing analyses. The computing program is so arranged that the blade shape can be corrected as a result of this analysis. There are 3 figures.

SUBMITTED: July 27, 1962

Card 2/2

S/195/03/004/001/007/009
EO75/2436

AUTHORS: Zhuravlev, V.A., Kulitskiy, V.N.

TITLE: Comparison of the catalytic activity of semiconductor catalysts with the values characterizing their photoconductivity and photoconductivity kinetics

PERIODICAL: Kinetika i kataliz, v.4, no.1, 1963, 109-115

TEXT: The catalytic activity was evaluated by studying the decomposition of H_2O_2 at $18^\circ C$ using PbO as catalyst. Samples of PbO having different activities were obtained by their immersion in H_2O_2 for different times followed by drying. Photoconductivity and catalytic activities were measured for samples of PbO . Of the various photoconductivity parameters examined in relation to the catalytic activity of PbO the activity correlated only with the larger values of the photoconductivity relaxation times τ_2 . The correlation was strong with the coefficient $\eta = 0.81$ to 0.89 . It was explained within the framework of the electronic theory of catalysis. The molecules of the reacting material are absorbed by the catalyst and are bound on its surface by the current carriers. Alternately the current carriers are trapped by the absorbed molecules. The catalytic reaction follows the desorption

Card 1/2

Comparison of the catalytic ...

S/195/63/004/001/007/009
EO75/E436

of the molecules from the surface, the rate of desorption being proportional to catalytic activity. The probability w_0 of the liberation of an electron from a trap is connected with the probabilities for other traps, which in turn is connected with the relaxation of the photoconductivity. This applies only to "deep" traps, not "small" traps related to shorter relaxation times τ_1 which do not correlate with the catalytic activity of PbO . There are 3 figures and 3 tables.

ASSOCIATION: L'vovskiy meditsinskiy institut Kafedra fiziki
(L'vov Medical Institute Department of Physics)

SUBMITTED: June 13, 1961

Card 2/2

L 10583-63

FPF(c)/EWC(m)/BDS Pr-1

ACCESSION NR: AP3001489

S/0195/53/004/002/0312/0314

AUTHOR: Zhuravlev, V. A.; Kozak, M. I.; Kuzhelyuk, A. A.

TITLE: Relation of catalytic activity and the yield of semiconductor catalysts in the process of aging

SOURCE: Kinetika i kataliz, v. 4, no. 2, 1963, 312-314

TOPIC TAGS: catalytic activity, catalytic yield, aging processes, Pb sub 2 O, PbO, CuO, NiO, Ni sub 2 O sub 3

ABSTRACT: The investigation of the relation between catalytic activity and the catalyst yield in the process of formation and aging of catalysts indicates that the catalysts used in the investigation can be divided into two groups. The first group includes NiO and Ni sub 2 O sub 3. Their catalytic activity and the yield change symbatically while contact-potential difference changes antipatically. The reverse is observed with Pb sub 2 O, PbO and CuO samples. The observed phenomena can be explained by the electronic theory of catalyst. The type of charge on the surface of catalyst and the indirect change in yield during the adsorption after its immersion in H sub 2 O sub 2 solution and during the drying process was examined. It was found that the adsorbed molecules on the samples

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L 10583-63

ACCESSION NR: AP3001489

which show symbatic relationship between the catalytic activity and yield are the donors and the ones which show antibatic relationship are acceptors. The obtained results agree with one of the main electronic deductions in the catalyst theory that there is a correlation between the catalytic activity and the yield. This relation can be either symbatic or antibatic. Orig. art. has: 1 figure and 8 graphs.

ASSOCIATION: L'vovskiy meditsinskiy institut kafedra fiziki (Lvov Medical Institute, Department of Physics)

SUBMITTED: 26Sep61

DATE ACQD: 10Jun63

BNCL: 00

SUB CODE: 00

NO REF SOV: 011

OTHER: 001

Card

2/2

KEYTEL'GISSER, I.N., kand.tekhn.nauk; PIGOROV, G.S.; ZHURAVEL', V.A.;
RYNDAK, S.A.; PROKUDENKO, N.G.

Improvement of the water-pulp handling operations in the coal
preparation section of the Zaporozh'ye Coke and Coal Chemicals
Plant. Koks i khim. no.2:13-15 '64. (MIRA 17:4)

1. Ukrainskiy proyektno-konstruktorskiy i nauchno-issledovatel'skiy
institut po obogashcheniyu i briketirovaniyu ugley (for
Keytel'gisser, Pigorov, Zhuravel'). 2. Zaporozhskiy
koksokhimicheskiy zavod (for Prokudenko).

ZHURAVLEV, V.A.

Complication of strangulated hernia. Vest.khir. no.5:135 '61.
(MIRA 15:1)

1. Iz khirurgicheskogo otdeleniya (zav. - V.I. Kobetskiy) med-
sanchasti g. Angarska Irkutskoy oblasti.
(HERNIA) (INTESTINES—OBSTRUCTIONS)

ZHURAVLEV, V.A.

Complications following surgery in acute appendicitis in the light
of temporary disability of insured individuals. Khirurgia 37
no.2:92-94 F '61. (MIRA 14:1)

1. Iz khirurgicheskogo otdeleniya (zav. V.I. Kobetskiy) Angar-
skoy bol'nitsy (glavnyy vrach N.V. Shapova) Irkutskoy oblasti.
(APPENDECTOMY) (DISABILITY EVALUATION)

ZHURAVLEV, V.A.; KUZHEL'YUK, A.A. (L'vov)

Electromotive forces in some catalytic reduction reactions.

Zhur.fiz.khim. 34 no.6:1331-1335 Je '60.

(MIRA 13:7)

1. L'vovskiy meditsinskiy institut.

(Electromotive force) (Reduction) (Catalysis)

DRACHEV, V.F., elektromekhanik; ZHURAVLEV, V.A., elektromekhanik

Improvement of an automatic information system. Avtom., telem.
1 ~~svet~~) no.9:37 S '65. (MIRA 18:9)

1. Yaroslavskaya distantziya Severnoy dorogi.

ZHURAVLEV, V.F.

Experimental study of an aerated layer of semolina. Trudy
MTIPP 16:167-172 '60. (MIRA 16:6)

(Semolina) (Pneumatic conveying)

ZAKUTINSKIY, D.I.; ZHURAVLEV, V.F.

Tritium, the radioactive hydrogen isotope. Med. rad. 5 no.1:
80-83 Ja '60. (MIRA 15:3)

(HYDROGEN--ISOTOPES)

GINZBURG, Abram Solomonovich, prof.; MIKHEYEVA, Natal'ya Semenovna;
BAB'YEV, Nikolay Nikolayevich; SYROYEDOV, Viktor Iudevich;
GRACHEV, Yuriy Pavlovich; ZHURAVLEV, Vyacheslav Fedorovich;
DASHEVSKIY, V.I.; FEDOROV, N.Ye., prof., retsenzent;
SEREGIN, P.V., dots., retsenzent; GORBATOV, A.V., dots.,
retsenzent; ROGOV, I.A., dots., retsenzent; KOVALEVSKAYA,
A.I., red.

[Processes and apparatus of the food industry; practical
laboratory work] Protsessy i apparaty pishchevykh proiz-
vodstv; laboratornyi praktikum, [By] A.S.Ginzburg i dr.
Moskva, Pishchevaia promyshlennost', 1964. 270 p.

(MIRA 17:11)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy
promyshlennosti, kafedra protsessov i apparatov (for Fedorov,
Rogov, Gorbatov). 2. Vsesoyuznyy zaochnyy tekhnologicheskii
institut pishchevoy promyshlennosti (for Seregin).

L 34127-65 EWG(3)/ENT(n) -CS

ACCESSION NR: AT5006124

9/0000 6/7000/000/0202/0108

AUTHOR: Zhuravlay, V. P.

TITLE: Toxicity of tritium under experimental conditions

SOURCE: Raspredeleniye biologicheskogo deystviya, iskorenny vyvedeniya radioaktivnykh izotopov (Distribution, biological effect, acceleration of the excretion of radioactive isotopes); sbornik rabot. Moscow, Izd-vo Meditsina, 1964, 202-203

TOPIC TAGS: tritium, radioisotope, radioactivity, radiation sickness, blood

ABSTRACT: Tritium oxide introduced into the stomach of rabbits (by means of a syringe) caused radiation sickness, the severity varying directly with the dose: 0.3 c/kg--mild form, 0.4 c/kg--severe form; 0.5 c/kg--extremely severe form. The 0.3 c/kg dose was followed by gradual regeneration of the blood and disappearance of clinical symptoms. The symptoms of the acute form of the sickness induced by tritium oxide are significantly different from those resulting from external irradiation. The differences are a shorter latent period and earlier manifestation of the clinical symptoms. A feature of tritium oxide behavior is that it is more uniformly distributed in the body compared with many other radioactive substances. The experiments indicate that the development of radiation sickness begins at the time when the

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L 34127-65

ACCESSION NR: AT5006124

experimental animals died varied both with the dose of the isotope used and with the distribution of the tissue dose. Orig. art. has 1 table.

ASSOCIATION: none

SUBMITTED: 10Apr64

ENCL: 00

SUB CODE: 13

NO REF SOV: 000

OTHER: 000

Card 2/2

ZHURAVLEV, V. F.

Review of latest advances in chemistry and technology of cement. V. F. ZHURAVLEV. *Trudy Vsesoyuz. Nauch.-issledov. Zavod. Lit. Tsement. Prom.*, 3, 31-44 (1945). Z. reviews papers on the chemistry and technology of cement published during 1941-1943 in countries outside the Soviet Union. No references. B.Z.K.

L 34130-65 ENG(1)/ENT(h) GS

ACCESSION NR: A15006135

5/0000/000/000/000/0299/0310

AUTHOR: Zhuravlev, V. F.

TITLE: Experimental therapy of rabbits poisoned by tritium oxide

SOURCE: Raspredeleniye, biologicheskoye deystviye, uskoreniye vylucheniya radioaktivnykh izotopov (Distribution, biological effect, acceleration of the excretion of radioactive isotopes); sbornik rabot. Moscow, : zd-vo Meditsina, 1964, 299-310

TOPIC TAGS: tritium, radioisotope, hemopoiesis, radiation sickness, erythrocyte, leukocyte, toxic effect

ABSTRACT: Tritium has adverse effects on various systems of the body--hematopoiesis, vascular permeability, nerves, etc. Thus, combined therapy is indicated for poisoning by this isotope. Rabbits given 0.4 c/kg of tritium oxide developed severe

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L 34130-65

ACCESSION NR: AT5006135

clinical symptoms of radiation sickness were much less pronounced in the treated animals and restoration started sooner in the various organs and systems. Orig. art. has 5 tables.

ASSOCIATION: none

SUBMITTED: 10Apr64

ENCL: 00

SUB CODE: LS

NO REF SOV: 000

OTHER: 000

L 2179-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACCESSION NR: AP5021072

UR/0288/65/000/002/0022/0026

62-50

AUTHOR: Zhuravlev, V. F.

TITLE: A double circuit system of control of objects with distributed parameters

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 2, 1965, 22-26

TOPIC TAGS: control circuit, automatic control equipment, automatic control technology, heat exchanger, circuit design

ABSTRACT: One often encounters systems which are difficult to control because of temporal variations in noncontrolled variables and/or because of large delay times (e.g., chemical technology processes with distributed parameters). The difficulties are due not only to the technical problems but also to theoretical complications. In principle, the quality of control may be achieved either by an appropriate increase in sophistication of the transfer function of the regulator, or by an enlargement of the control circuit. The second approach offers much greater advantages and, consequently, the present author studies the introduction of auxiliary loops for the control of objects with distributed para-

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ACCESSION NR: AP5021072

meters; b) investigates the special features of such an approach, and c) carries out the discussion on the example of the temperature control at the exit end of a heat exchanger described by equation

$$\frac{\partial \theta_1}{\partial t} + w_1 \frac{\partial \theta_1}{\partial x} = \kappa_1 (\theta_2 - \theta_1), \quad \frac{\partial \theta_2}{\partial t} - w_2 \frac{\partial \theta_2}{\partial x} = \kappa_2 (\theta_1 - \theta_2).$$

($\theta_{1,2}$ are the temperature or concentration indexes in the first and second medium, respectively; $w_{1,2}$ are velocities of the two countercurrent media; $\kappa_{1,2}$ are constants characterizing the properties of the medium and of the instrument). Results of computer calculations show that the control system with an auxiliary loop exhibits better qualitative transient-process indexes than its single circuit counterpart. This is most pronounced in the presence of regulator-actuating device circuit delays. Orig. art. has: 6 formulas and 3 figures.

ASSOCIATION: Institut avtomatiki i elektrometrii Sibirskogo otdeleniya AN SSSR, Novosibirsk (Institute of Automation and Electrometry, Siberian Branch, AN SSSR)

SUBMITTED: 05Sep64

ENCL: 00

SUB CODE: IE

NO REF SOV: 005

OTHER: 000

Card 2/2 *dy*

S/138/60/000/008/013/015/XX
A051/A029

AUTHORS: Zhuravlev, V.F.; Aksenov, A.P.

TITLE: New Designs of Vulcanization Press-Dies for Tires and Improvement of Their Production Technology

PERIODICAL: Kauchuk i Rezina, 1960, ¹⁹No. 8, pp. 47 - 50

TEXT: The design and technology of the production of vulcanization press-dies in the Soviet Union are dealt with on the basis of personal experiences of the authors in this field. Until recently the tread design of the press-die was produced on a special copying-milling apparatus (Fig. 1) with its subsequent finishing by the machining process method using cutter blocks, polishing stones and surface-forming stampers (Fig. 2). In May 1959 the design of the press-die was developed including steel sectional inlays. The latter could only be manufactured by means of molding according to wax models. The construction of the press-dies retained the standard size and dimensions of the all-steel press-die, and the fastening of the sectional inlays with screws was replaced by a ring enclosure. The first attempt at producing the inlays for these press-dies was unsuccessful
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A051/A029

New Designs of Vulcanization Press-Dies for Tires and Improvement of Their Production Technology

due to the rather large size of the inlays. As a result of non-uniform cross-sections, the metal cooled in a non-uniform way and this phenomenon caused warping and shrinkage in the thicker parts of the inlay. The purity of the molding was satisfactory. Experiments were conducted on the manufacture of smaller inlays by using the press-die for the vulcanization of treads with a 7.50 - 20 size of 2.44 (Ya-44) model. It was shown that by the molding method the smaller-sized inlays could be mass-produced. 50 units were manufactured in November-December, 1959, and 100 in the first quarter of 1960. A study was further made on the behavior of the new model with the molded small-sized inlays in boiler-autoclaves during its operation. The results were positive after an experimental period of 4 months. The treads manufactured with the new model were good in appearance and had a clear design. At the present time two experimental models having two different sizes are being manufactured: a 260 - 20 model W-202 (I-202) and a 200 - 20 model W-238 (I-238). The development of two press-die models has been completed for the vulcanization of bicycle treads and one model for motor-cycles. The production technology characteristics are briefly given as follows: The steel mold (shell of the press-die) is machined first on a vertical boring machine (rough

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New Designs of Vulcanization Press-Dies for Tires and Improvement of Their Production Technology

processing) and then on a frontal machine (final processing). In the final lathe processing of the part being formed in the press-die, the bed under the inlay is bored into shape. Along the ring of the die a circular protrusion is shaped near the joined end of the press-die. A groove is cut in this protrusion in order to set the inlay into its bed, the width of which is one sector of the inlay. The prepared inlays are then inserted into this groove and moved along the circular recess. The last inlay set opposite to the groove is pressed in with a steel plate which is welded onto the body of the bed by its end plane. The assembled half of the press-die is passed onto the assembly section in order to have the assembly parts welded on (end rings, guiders, clamps, cams, etc.). The technology of the new press-dies requires no special equipment and can be carried out in any metal-processing plant having vertical lathes and frontal-milling machines or a section of exact molding from wax models. The design of the new press-dies is improved by producing the die with a molded design and by further improvement of the technology of metal-cutting equipment. Work is conducted on an all-tread ring with a design molded in an earth mold (Fig. 7). Molding of steel ring inlays with a design is done in cooperation with the NII avtoprom. Success in this respect would

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A051/A023

New Designs of Vulcanization Press-Dies for Tires and Improvement of Their Production Technology

ensure a great saving and would increase the output of the press-dies. Regarding the metal-cutting instruments, special copying-milling semi-automatic appliances of the ЛП-164 (LP-164) model designed by the Leningradskiy stankostroitel'nyy zavod im. Sverdlova (Leningrad Machine Plant imeni Sverdlov) are introduced into the plant. A new vertical boring and copying machine developed at the stankostroitel'nyy zavod im. Sedina (Machine Tool Plant imeni Sedin) has also been introduced. In 1960 the plant will receive a number of frontal turning machines of the PT -45 C -4 (RT-45S-4) type designed and manufactured at the Ryazanskiy stankostroitel'nyy zavod (Ryazan' Machine Tool Plant). It is expected that in the fourth quarter of 1960 a new shop of large-sized press-dies will be opened.

ASSOCIATION: Yaroslavl' zavod khimicheskogo mashinostroyeniya (Yaroslavl' Plant of Chemical Machine Building)

PRESENTED: December, 1959, at the All-Union Conference, called together by the Rubber Section of VKhO imeni D.I. Mandeleylev.

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S/138/60/000/008/013/015

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New Designs of Vulcanization Press-Dies for Tires and Improvement of Their Production Technology

Figure 1:

Milling the Design of the tread portion of the press-die on a special copying-milling semi-automatic machine-ЛП-164 (LP-164)

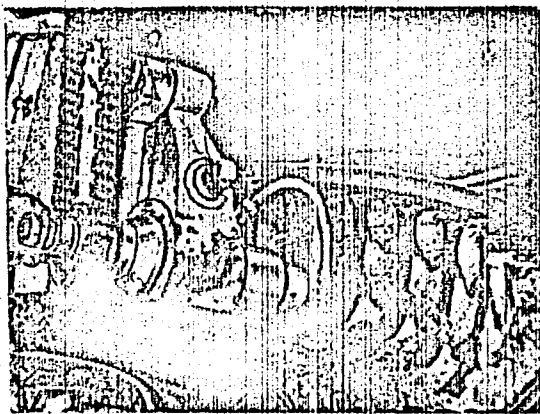


Рис. 1. Фрезерование рисунка протекторной части пресс-формы на специальном копировально-фрезерном полуавтомате ЛП-164.

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A051/A029

New Designs of Vulcanization Press-Dies for Tires and Improvement of Their Production Technology

Figure 2:

Machining the Design after the milling operation (stamping with the use of a pneumatic hammer)

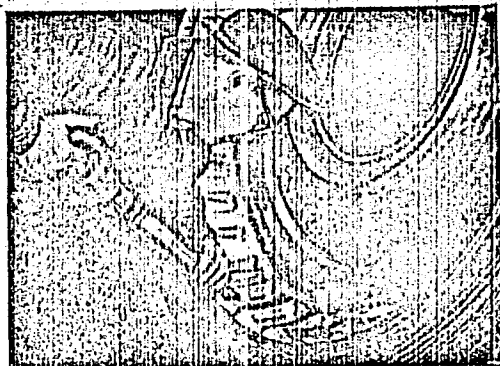


Рис. 2. Слесарная обработка рисунка после фрезеровки (чеканка с помощью пневматического молотка).

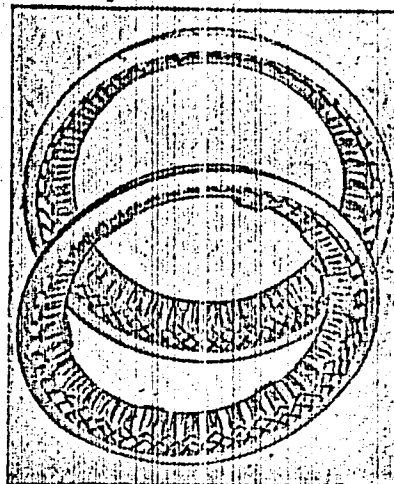
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New Designs of Vulcanization Press-Dies for Tires and Improvement of Their Production Technology

Figure 7:

Aluminum Tread Rings with a design formed in an earth mold with the N-203 model of the 260 - 20 size.



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BENDERSKIY, S.N., kand.tekhn. nauk; BURSIAI, V.R., prof., kand.
 tekhn. nauk; VASIL'YEV, P.N., inzh.; DORFMAN, E.Ye., inzh.;
 ZHURAVLEV, V.F., kand. tekhn. nauk; KESTEL'MAN, V.N.,
 inzh.; KRUGLOV, A.N., dots., kand. tekhn. nauk; KUKIBNYI,
 A.A., dots., kand.tekhn. nauk; LEVACHEV, N.A., dots., kand.
 tekhn. nauk; LEYKIN, A.Ya., inzh.; NAREMSKIY, N.K., dots.,
 kand. tekhn. nauk; PLATONOV, P.N., prof., doktor tekhn.
 nauk; SOKOLOV, A.Ya., prof., doktor tekhn. nauk; KUTSENKO,
 K.I., kand. tekhn. nauk, dots., retsenzent; VEREMENKO,
 Ye.I., inzh., retsenzent; KOVTUN, A.P., inzh., retsenzent;
 SEMENYUK, A.I., retsenzent; KASHCHEYEV, I.P., inzh.,
 retsenzent; PAL'TSEV, V.S., kand. tekhn. nauk, retsenzent;
 KHMEL'NITSKAYA, A.Z., red.

[Conveying and reloading machinery for the overall mechaniza-
 tion of the food industries] Transportiruiushchie i peregru-
 zochnye mashiny dlia kompleksnoi mekhanizatsii pishchevykh
 proizvodstv. Moskva, Pishchevaia promyshlennost', 1964.
 759 p. (MIRA 18:3)

(Continued on next card)

BENDERSKIY, S.N.--- (continued). Card 2.

1. Odesskiy tekhnologicheskii institut imeni M.V.Lomonosova (for Kutsenko, Naremskiy, Veremeyenko, Kovtun).
2. Starshiy ekspert Upravleniya po avtomatizatsii i oborudovaniyu dlya pishchevoy promyshlennosti Gosudarstvennogo komiteta po mashinostroyeniyu pri Gosplane SSSR (for Semenyuk).
3. Glavnyy mekhanik Gosudarstvennogo instituta po proyektirovaniyu predpriyatiy mukomol'nokrupyanoy i kombikormovoy promyshlennosti i elevatorno-skladskogo khozyaystva (for Kashcheyev).
4. Zaveduyushchiy laboratoriyey Vsesoyuznogo nauchno-issledovatel'skogo instituta zerna i produktov ego pererabotki (for Pal'tsev).

ZHURAVLEV, V.F.

Two-circuit control system for units with distributed
parameters. Izv. SO AN SSSR no.6. Ser. tekhn. nauk no.2:
22-26 '65. (MIRA 18:11)

1. Institut avtomatiki i elektrometrii Sibirskogo otdeleniya
AN SSSR, Novosibirsk.

ZHURAVLEV, V.F.

Tritium in biology and medicine. Med. rad. 9 no.2:63-70 D '64.
(MIRA 18:12)

VOSTROKNUTOV, Ye.G.; PORT, B.S.; ZHURAVLEV, V.F.; NIKITINA, A.A.

Provide the rubber tire repair industry with the new type of equipment. Kauch. i rez. 24 no.8:33-35 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i nauchno-issledovatel'skiy i konstruktorskiy institut po oborudovaniyu dlya shinnoy promyshlennosti.

ZHURAVLEV, V.G. (Kishinev)

Permissible error in determining the value included in the optimal
load distribution equation. Izv. AN SSSR. Energ. i transp. no.1:
89-93 Ja-F '65. (MIRA 18:4)

8(6)

SOV/112-59-3-4589

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 44 (USSR)

AUTHOR: Zhuravlev, V. G.

TITLE: Headwater-Control Factor and Its Application to Water-Power Computations (Pokazatel' napornoy kharakteristiki regulirovaniya i yego primeneniye dlya vodnoenergeticheskikh raschetov)

PERIODICAL: Izv. vyssh. uchebn. zavedeniy. Energetika, 1958, Nr 2, pp 94-102

ABSTRACT: Methods are considered for determining the optimum depth of reservoir drawdown at a hydroelectric power plant by using the coefficient A of the headwater-control curve, i. e., the curve of headwater-level variation vs. time. The coefficient A is the ratio of the average drawdown depth to the ultimate depth of the reservoir; this coefficient reflects the remaining head in the upper pool when the control is used. Solution of a number of water-power control problems by means of this coefficient is demonstrated. Influence of the drawdown curves upon this coefficient is explained. Procedure is discussed

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SOV/112-59-3-4589

Headwater-Control Factor and Its Application to Water-Power Computations

of determining the optimum drawdown conditions for a load curve of any form.

Bibliography: 6 items.

Yu.M.S.

Card 2/2

ZHURAVLEV, V. G.: Master Tech Sci (diss) -- "The index of the pressure characteristics of the water-power regulation of hydroelectric power plants".

Moscow-Novosibirsk, 1958. 22 pp (Min Higher Educ USSR, Moscow Order of Lenin Power Engineering Inst), 150 copies (KL, No 17, 1959, 108)

S/147/62/000/002/020/020
E191/E535

AUTHOR: Zhuravlev, V.G.

TITLE: On the optimum number of vanes in a sliding vane pump

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, no.2, 1962, 168-170

TEXT: In a sliding vane type of pump the number of vanes from which the highest output is obtained can be derived from an equation relating delivery to the speed and geometry of the pump, given by the Author in a previous paper (Izv.VUZ, Mashinostroyeniye, no.4, 1961). The expression contains a delivery factor which distinguishes between pumps of the same working volume and the same speed. This factor is plotted against the vane thickness with the number of vanes as a parameter. The same delivery factor can be obtained with different combinations of thickness and number of vanes. This leads to a graph of the optimum number of vanes for each thickness. Thicknesses between 5 and 15% of the pump bore radius, most common in practice, have optimum vane numbers between 4 and 6. A two-vane pump cannot attain its maximum possible delivery. There are 2 figures and 1 table.
Card 1/2

On the optimum number of ...

S/147/62/000/002/020/020
E191/E535

ASSOCIATION: Novosibirskiy elektrotekhnicheskiy institut,
Kafedra mashinovedeniya
(Novosibirsk Electrotechnical Institute,
Department of Science of Machines)

SUBMITTED: October 31, 1961

Card 2/2

ZHURAVLEV, V.G., kand. tekhn. nauk, dotsent

Technical and economic basis for the working capacity of the
reservoir of a low-pressure hydroelectric power station. Izv.
vys. ucheb. zav. energ. 5 no. 8:87-94 Ag '62.
(MIRA 17:7)

1. Novosibirskiy elektrotekhnicheskiy institut. Predstavlena
kafedroy ekonomiki i organizatsii promyshlennogo proizvodstva.

SHCHENBAKOV, V.K., doktor tekhn.nauk, prof., otv. red.; ZHURAVLEV,
V.G., red.; BURTSEV, Yu.F., red.; PUCHKOV, V.S., red.

[Materials for a Scientific and Technical Conference on Problems of the Joint Operation of Young-distance Power Transmission Lines and Intermediate Systems; presented by the workers of the departments of electric power plants and electrical systems and networks of the Novosibirsk Electrical Engineering Institute] Materialy k Nauchno-tekhnicheskomu soveshchaniyu po voprosam sovmestnoi raboty dal'nikh elektropredach i promezhutochnykh sistem; predstavleny sotrudnikami kafedr elektricheskikh stantsii i elektricheskikh sistem i setei NETI. Novosibirsk, 1963. 93 p. (MIRA 17:9)

1. Novosibirsk. Elektrotekhnicheskii institut.

ZHURAVLEV, V.G., kand. tekhn. nauk, dotsent

Moment characteristics of a bladed hydraulic engine. Vest.
mashinostr. 43 no.6:30-32 Je '63. (MIRA 16:7)

(Hydraulic engines)

ZHURAVLEV, V.G., kand.tekhn.nauk, dotsent

Calculation of the suction capacity of a bladed pump. Izv.vys.
ucheb.zav.; mashinostr. no.7:141-147 '63. (MIRA 16:11)

1. Otdel energeticheskoy kibernetiki AN Moldavskoy SSR.

ZHURAVLEV, V.G., kand.tekhn.nauk, dotsent (Kishinov)

Determination of the optimum mode of operation of an electric
power system. Elektrichestvo no.9,88 S '63. (MIRA 16:10)

ZHURAVLEV, V.G.

Use of some statistical-probability relationships in the
determination of anticipated loss level of electric power
in Moldavia. Izv. AN Mold. SSR. no.3:64-72 '63.

(MIRA 17:12)

ZHURAVLEV, V.G., kand.tekhn.nauk, dotsent

Methodology for considering the effect of the decrease of water supply in the reservoir of a hydroelectric power station taking into account the coefficient of power efficiency. Izv. vys. ucheb. zav.; energ. 6 no.10:103-105 0 '63. (MIRA 16:12)

1. Otdel energeticheskoy kibernetiki AN Moldavskoy SSR.

S/147/63/000/001/017/020
EO31/E181

AUTHOR: Zhuravlev, V.G.

TITLE: Calculation of pulsations in the operation of a sliding vane pump

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatcionnaya tekhnika, no.1, 1963, 143-150

TEXT: The expressions for the output of an idealized pump consisting of a single vane can be used to determine the output of a multi-vane pump by taking proper account of the size of the working zone. The pulsation is $(q_{\max} - q_{\min})/q_{\max}$

where $q_{\max} = 2 b_* e_* R^3 \omega_a$ (b_* is the relative width of the pump, e_* is the relative eccentricity of the pump, R is the radius of the stator bore and ω_a is the angular velocity) and $q_{\min}$ is the instantaneous output of the pump when the angle determining the variable position of the operating vane is $\pi \pm \pi/z$ (z is the number of vanes). This assumes that the
Card 1/2

Calculation of pulsations in ...

S/147/63/000/001/017/023
EO31/E181

angle of overlap can be neglected. In the case when it cannot, it is shown that the pulsation increases as it does also when the thickness of the vanes is not infinitesimal. The pulsation falls as the number of vanes increases up to 6, after which the decrease is negligible. There are 5 figures and 1 table.

SUBMITTED: March 9, 1962

Card 2/2

ZHURAVLEV, V.G., kand. tekhn. nauk

Evaluation of the freezing of capital investments in placing into
operation machines with large unit power. Teploenergetika 11
no.9:25-29 S '64. (MIRA 18:8)

1. Akademiya nauk Moldavskoy SSR.

ZHURAVLEV, V.G., kand.tekhn.nauk

Unaccounted relative increment of reactive power losses in
electrical networks. Energ. i elektrotekh. prom. no.4:15-16
O-D '64. (MIRA 18:3)

ZHURAVLEV, V.G., kand. tekhn. nauk, dotsent

Universal model characteristics of the relative increments of
hydraulic turbines. Energomashinostroenie 11 no.5:44-46 My '65.
(MIRA 18:6)

ZHURAVLEV, V.G., kand.tekhn.nauk, dotsent (Kislinev)

Abbreviated statement of an equation of optimum load distribution
between electric power plants interconnected by a uniform electrical
network. Elektrichestvo no.9:62-63 S '65.

(MIRA 18:10)

ZHURAVLEV, V.G., kand. tekhn. nauk

Remarks on B.V. Kolesnichenko's article "Voltage regulation in municipal low-voltage networks assuring minimum total loss coverage to consumers." Izv. vys. ucheb. zav.; energ. 7 no.9:110-113 S '64. (MIRA 17:11)

1. Otdel energeticheskoy kibernetiki AN Moldavskoy SSR.

ZHURAVLEV, V.G., kand. tekhn. nauk

Use of dynamic programming in the optimization of intrastation
modes of hydroelectric power stations. Elek. sta. 36 no.12:
32-36 D '65. (MIRA 18:12)

ALEKSEYEV, V.I., kand.tekhn.nauk; ZHURAVLEV, V.I., inzh.

Evaluation of the dynamic properties of inertial radiation receivers.
Svetotekhnika 10 no.2-21-24 P '64. (MIRA 17:4)

1. ZHURAVLEV, V.I.
 2. USSR (600)
 4. Electric Furnaces
 7. Electric tapping of electric furnaces, Prom.energ. 10 no. 4, 1953.
9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

ZHURAVLEV, V.G.

Investigating the effect of variable load of a hydroelectric power station on the most advantageous discharge regime of the reservoir. Nauch.dokl.vys.shkoly; energ. no.2:97-102 '59. (MIRA 13:1)

1. Rekomendovana kafadroy gidroenergetiki Moskovskogo energeticheskogo instituta.
(Hydroelectric power)

32241

S/145/61/000/004/005/008
D221/D301

26.2/41
AUTHOR:

Zhuravlev, V.G., Candidate of Technical Sciences
TITLE: The graph of output and efficiency of a vane pump

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Mashin-
ostroeniye, no. 4, 1961, 147 - 153

TEXT: Comparison of various equations for the output of vane pumps made at the Moskovskiy aviatsionnyy institut (Moscow Aviation Institute) by M.V. Razdolin (Ref. 3: Agregaty vozdushno-reaktivnykh dvigateley. Zhidkostnyye ob'yemnyye nasosy (Units of Reactive Air Motors. Volume Pumps for Liquids), Oborongiz 1959) reveals contradictory results. The author proposes a simple equation on the basis of investigations, and using the method of M.V. Razdolin. The theoretical delivery of a vane pump is $q = fv$, where f is the area of the vane, and v is its speed of displacement from the center. This is transformed into $q = bh(r + h/2)\omega_a$, where b and h are the width and height of working vane, r the radius of the pump rotor, and ω_a the angular velocity. Geometrical construction

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32241
S/145/61/000/004/005/008
D221/D301

The graph of output and ...

tion (Fig. 1) permits deduction of

$$q = be_*R^2[1 - \cos \alpha \sqrt{1 - e_*^2 \sin^2 \alpha} - e_* \sin^2 \alpha] \omega_{\text{ang. rot. vel.}} \quad (13)$$

where $e_* = e/R$ is the relative eccentricity, and indicates the instantaneous delivery of a single infinitely thin vane pump. The approximate formula is $q = 2be_*R^2\omega_a \sin^2(\alpha/2)$. The output of the pump varies during each revolution from zero to a maximum, $q_{\text{max}} = 2bR^2e_*\omega_a$ when $\alpha = \pi$. The mean delivery of a single-vane pump, Q , is then determined. The mean theoretical output of a unit with z vanes, of thickness δ , is determined by assuming z fluid volumes per each rotation, $Q_t = Wzn/60$, where W is the volume between two adjacent vanes, and n is the rpm of the rotor. The volume can be expressed by $W = bF$, F denoting the cross section of the fluid, and which may be determined from a diagram. The analysis yields

$$F = \frac{\pi}{2} (2e - e^2) + e \sin \frac{\psi}{2} [R + \sqrt{R^2 - \sin^2 \frac{\psi}{2}} + e \cos \frac{\psi}{2}] - \delta$$

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The graph of output and ...

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S/145/61/000/004/005/008
D221/D301

$$[V R^2 - e^2 \sin^2 \frac{\phi}{2} + e \cos \frac{\phi}{2} - R + e]. \quad (30)$$

This allows one to derive the accurate equation for the theoretical delivery of the vane pump, where account is taken of the relative vane thickness, $\delta_* = \delta/R$. After some simplifications the author deduces $Q_t = (b_{nR}/60)e_*K_p$, where K_p is a constant depending on the construction of the pump. The author gives a table of values of K_p for different numbers of vanes. The proposed equations are accurate and may be applied in the design of vane pumps or hydraulic drives. There are 4 figures, 1 table and 3 Soviet-bloc references.

ASSOCIATION: Novosibirskiy elektrotekhnicheskiy institut (Novosibirsk Electrotechnical Institute) ✓

SUBMITTED: September 20, 1960

Card 3/43

ZHURAVLEV, V.G., kand.tekhn.nauk

Feed graph and the performance of a rotary pump. Izv.vys.ucheb.
zav.; mashinostr. no.4:147-153 '61. (MIRA 14:6)

1. Novosibirskiy elektrotekhnicheskiy institut.
(Rotary pumps)

ZHURAVLEV, Vasilii Ivanovich; GLADKOV, V.A., red.

[Automation at the "Severonikel'" Combine] Avtomatizatsiia
na kombinat "Severonikel'". Murmansk, Murmanskoe knizhnoe
izd-vo, 1963. 39 p. (MIRA 18:3)

ZHURAVLEV, V.I., inzhener-kapitan

Detection of ballistic rockets by means of infrared equipment
[as revealed by foreign press data]. Vest. protivovozd. obor.
no.11:25-28 N '61. (MIRA 16:10)

(United States---Ballistic missiles)
(Infrared rays)

ZHURAVLEV, V.I.; KARAPETYAN, S.K.

Load factor of electrolytic cells. TSvet.met. 26 no.4:51-53
Jl-Ag '53. (MIRA 10:10)

(Electrolysis)

L 2845-66 / EMT(1)/EPF(n)-2/ETC(m)

WW/AT

ACCESSION NR: AP5016215

UR/0311/64/000/002/0021/0024
621.38

AUTHORS: Alekseyev, V. I. (Candidate of technical sciences);
Zhuravlev, V. I. (Engineer)

TITLE: Estimate of the dynamic properties of inertial radiation receivers

SOURCE: Svetotekhnika, no. 2, 1964, 21-24

TOPIC TAGS: radiation receiver, thermocouple, frequency characteristic

ABSTRACT: The authors first analyze the transient behavior of a thermocouple, which is the radiation receiver exhibiting the greatest inertia. A differential equation is written for the thermocouple with the radiant flux regarded as the input and with the produced thermal emf regarded as the output. The differential equation is solved in standard fashion and the frequency characteristic is determined from the transient characteristic. The authors then describe a combined

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ACCESSION NR: AP5016215

experimental-analytic method of obtaining characteristics of inertial receivers, similar to the method used to determine the transfer functions of automatic control systems. The experimental part consisted of determining the transient characteristic of the thermocouple placed in the focus of an optical system to which light from a point source, modulated mechanically at 1 cps, was applied. The electric signal from the thermocouple was fed to a broadband amplifier and recorded. The frequency characteristic was then determined analytically by integrating the plot of the output voltage. The method is simple and is claimed to be more accurate than purely experimental methods. Orig. art. has: 3 figures and 6 formulas.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 00

SUB CODE: IE

NR REF SOV: 001

OTHER: 001

BVK
Card 2/2.

3.5150

40238

S/169/62/000/007/098/149
D228/D307

AUTHORS: Zel'manovich, I. L. and Zhuralev, V. I.

TITLE: Sky and sea brightness and night illumination

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 28-29,
abstract 7B167 (V sb. Aktinometriya i atmosfern. op-
tika, L., Gidrometeoizdat, 1961, 133-143)

TEXT: An attempt is made to establish the relation between the night sky's integral brightness and its integral illumination and also between the brightnesses of the sky and the sea. Measurements were made at Ventspils, in the Latvian SSR, in the marine sector in the conditions of the winter-spring period. A photometer with an oxygen-cesium photocathode was used as the measuring equipment. The application of light filters allowed an estimate to be made of the illumination, too, in the region of the sensitivity of the antimony-cesium photocathode and of the response of the eye to day-time vision. The sky brightness was measured in various directions and at different angles to the horizon. The sea brightness in the

Card 1/2

Sky and sea ...

S/169/62/000/007/098/149
D228/D307

same directions and the natural night illumination in the vertical plane were measured in addition. The natural night illumination in the horizontal plane was measured at the end of the cycle. The analysis conducted showed that theoretical regression lines can be described with a degree of accuracy sufficient for practical calculations by the equation: $y = 10^b x^a$, where a and b are the coefficients of the straight line, represented on the coordinate plane lgx, lgy. a and b were calculated by the method of least squares. The author computed values of a and b for the three spectral intervals indicated above. It was, moreover, established that the mean sea brightness depends on the mean sky brightness for the region of the oxygen-cesium photocathode's sensitivity. / Abstracter's note: Complete translation. /

Card 2/2

The luminance of the sky ...

S/196/62/000/008/014/017
E032/E414

The results of measurements are presented graphically in the form $E = f(B)$, where E is the horizontal or vertical illumination in equivalent lux and B is the luminance of the sky (or the sea) in equivalent asb. 10 figures, 9 references.

[Abstractor's note: Complete translation.]

Card 2/2

ZHURAVLEV, V.I. (Moskva)

all-Union classification of clothing. Shvein. prom. no.3:17
Iy-Je '65. (MIRA 18:9)

ZHURAVLEV, V.K., Cand Tech Sci—(diss) "On the thermodynamics of sulfur solutions in liquid iron." Mos, 1958. 10 pp (Min of Higher Education USSR. Mos Order of Labor Red Banner Inst im I.V. Stalin), 120 copies (KL,26-58, 109)

ZHURAVLEV, V.K.; SYNOROV, V.F.

Electric conductivity of semiconductor films exposed to high-frequency currents. Izv. vys. ucheb. zav.; fiz. no.2:85-91 '58. (MIRA 11:6)

1. Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosuniversitete im. V.V. Kuybysheva.

(Semiconductors)

SOV/139-58-5-16/35

AUTHOR: Zhuravlev, V. K.

TITLE: The Effect of Ionising Radiations on Solid Inorganic Dielectrics (A Review) (Deystviye ioniziruyusachikh izlucheniya na tverdye neorganicheskiye dielektriki) (Obzor)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, fizika, 1958, Nr 5, pp 79-83 (USSR)

ABSTRACT: The paper was presented at the Conference of Higher Educational Establishments on Dielectrics and Semiconductors, Tomsk, February, 1958. High-energy radiations may produce the following effects in solids: 1) Deformation of the crystal lattice by formation of vacancies and other defects and by substitution of atoms. 2) Electron effects. 3) Chemical changes. 4) Nuclear transformations. Deformations of the crystal lattice may be produced in any solid: a metal, a semiconductor or a dielectric. Electron effects (change of electrical conductivity etc) are important primarily in dielectrics. Chemical changes occur mainly in organic compounds, but they can take place also in inorganic substances, e.g. formation of hydrogen peroxide on irradiation of ice. Nuclear transformat-

Card 1/4

SOV/139-58-5-16/35

The Effect of Ionising Radiations on Solid Inorganic Dielectrics
(A Review)

ions, such as decomposition of atoms and the consequent effects on the properties of the substances, are usually very small and have not been studied in great detail so far. The present review deals with the following dielectrics: alkali-halide compounds (NaCl, KCl, LiF); quartz; silicate, boron and lead phosphate glasses; ceramics (e.g. BaTiO₃, MgO); mica. The following general conclusions are drawn from the published work. 1) Various kinds of irradiation (particles or photons) do not differ greatly in their effects on solids, especially in the effect of lattice deformation. 2) The most important parameter in irradiation studies is the total (integral) dose given to a sample. 3) The effect of the dose rate has not been studied in great detail. Some authors (Ref. 34) think that the dose rates should be taken into account only when they are very high (10⁹ roentgens/hr). 4) Theory of the radiation damage suggests that variations of the ambient temperature should not affect greatly the results obtained. High temperatures may accelerate the post-irradiation reactions and low temperatures may impede spontaneous annealing of damage. 5) Inorganic dielectrics are more strongly affected by ionising radiations than are metals but they

Card 2/4

SOV/139-58-5-16/35

The Effect of Ionising Radiations on Solid Inorganic Dielectrics
(A Review)

are more stable under irradiation than organic compounds. Mica is recommended in conditions when the apparatus is in the field of strong radiation. 6) Stability under irradiation in crystalline dielectrics obeys the following general rules: a) the higher the energy of the crystal lattice, the greater the stability under irradiation; b) the higher the mobility of electrons and holes in the crystal, the sooner the energy received by irradiation is spread over the whole crystal and therefore the more stable is the crystal; c) stability increases with the density of packing in the lattice; 7) amorphous dielectrics may, under certain conditions, be more stable than the crystalline materials; 8) all these

Card 3/4

SCF/139-58-5-16/35

The Effect of Ionising Radiations on Solid Inorganic Dielectrics
(A Review)

conclusions are of a preliminary nature. There are 34 references; 10 of these are Soviet, 20 English, 2 Japanese, 1 German, 2 Soviet translations from English and 1 other.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskii institut pri Tomskom gosuniversitete imeni V. V. Kuybysheva (Siberian Physico-Technical Institute at Tomsk State University imeni V. V. Kuybyshev)

SUBMITTED: March 10, 1958.

Card 4/4

SOV/137-59-1-114

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 17 (USSR)

AUTHORS: Zhuravlev, V. K., Zhukhovitskiy, A. A.

TITLE: On the Theory of Metalloid Solutions in Metals (K teorii rastvorov metalloidov v metallakh)

PERIODICAL: Sb. Mosk. in-t stali, 1958, Vol 38, pp 226-244

ABSTRACT: The authors studied the thermodynamic activity of S in the systems Fe-S, Fe-C-S, Fe-Si-S, and Fe-P-S by determining the passing of S^{35} from the liquid melt into an adjoining refractory ZrO_2 cylinder. The dependence of γ_S on the S, C, Si, and P content of the melts and on the temperature in the 1550 - 1675°C range was established. On the basis of the experimental findings ΔH , ΔF , and ΔS of sulfur were calculated in the above systems. The cause of the increase of ΔH is explained by the fact that C, Si, and P change the interaction energy of S and Fe owing to a change in short-range order. A great increase in ΔS is attributed to a change in the entropy of the oscillations. Assuming that in the case of a liquid solution the element dissolved forms both interstitial and substitution solutions the following formula was developed for the thermodynamic

Card 1/2

On the Theory of Metalloid Solutions in Metals

SOV/137-59-1-114

activity:

$$a_2' = \frac{N_2 (Z+\omega)}{N_1 (Z+\omega) - N_2} \left(1 - \frac{N_1 N_2 \omega}{[N_1 (Z+\omega) - N_2]^2 + 2 N_1 N_2 \omega} \right),$$

where N_1 is the molecular portion of the solvent, N_2 is the molecular portion of the solute, Z is the number of places in the interstitial solution per atom of solvent, $\omega = p/q$, p is the a-priori probability of the solute atom occupying a node in the lattice, q is the a-priori probability of it occupying an interstitial place. A similar equation was developed for a three-component system. The equations obtained agree well with experimental data of various authors.

N. V.

Card 2/2

POKIN, M.N.; KURTEPOV, M.M.; ZHURAYLEV, V.K.; VINOGRADOV, A.P.

Electronic potentiostat and its use in developing the structural corrosion of stainless steels. Zav.lab. 26 no.2:219-223 '60. (MIRA 13:5)

1. Institut fizicheskoy khimii Akademii nauk SSSR.
(Steel--Corrosion)
(Potentiometric analysis)

PLEKHANOV, G.F.; KOVALEVSKIY, A.F.; ZHURAVLEV, V.K.; VASIL'YEV, N.V.

Geomagnetic effect of the burst of the Tunguska meteorite. Izv.
vys.ucheb.zav.;fiz. no.2:236-237 '60. (MIRA 13:8)

1. Tomskiy gosuniversitet im. V.V.Kuybysheva i Betatronnaya laboratoriya
Tomskogo Medinstituta.
(Tunguska Valley--Meteorites) (Magnetism, Terrestrial)

3.9110

39329
B/035/62/000/007/054/083
A001/A101

AUTHORS: Plekhanov, G. F., Kovalevskiy, A. F., Zhuravlev, V. K., Vasil'yev, N.V.

TITLE: On the effect of Tunguska meteorite explosion on geomagnetic field

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 7, 1962, 81 - 82, abstract 7A585 ("Geologiya i geofizika", 1961, no. 6, 94 - 96)

TEXT: On June 30, 1908, at 0 hr 20.0 1.2 min UT, i.e., 2.8 min after the explosion, the H-component at Irkutsk rose by 23.5 γ during 1 hr 20 min, then decreased by 67 γ and restored during 2-3 hours. A negative bay of the Z-component, up to 25.5 γ deep, lasted from 0 hr 18.6 $\pm$ 1.5 min until 2 hr. The phenomenon was nowhere more noted, according to 18 world observatories. Magnetic disturbance is similar to effects observed during air explosions of nuclear bombs on August 1 and 12, 1958, over the Johnston Island recorded at Honolulu, Palmir, etc. A sudden commencement, H-variation form, and local character are similar features. However, there is no delay at nuclear explosions, and duration of disturbances is less (1 - 1 1/2 hr). The Tunguska disturbance can be explained by a magnetohydrodynamic wave which arose due to an air shock wave in the E layer of the ionosphere and subsequent dynamo currents.

I. Zotkin

[Abstracter's note: Complete translation]
Card 1/1

ZHURAVLEV, Vladimir Konstantinovich

Grigoriĭ Andreevich Il'inskii, 1876-1937. Moskva, Izd-
vo Mosk. univ., 1962. 78 p. (Zamechatel'nye uchenye
Moskovskogo universiteta, no.30) (MIRA 16:9)
(Il'inskii, Grigoriĭ Andreevich, 1876-1937)

ZHURAVLEV, V.K., tekhnik

Device for dismantling and installation of the electric motors
of cooling tower fans of car-mounted electric power plants.

Energetik 10 no.10:26-27 0 '62.

(MIRA 15:12)

(Electric motors—Maintenance and repair)

(Electric power plants—Equipment and supplies)

S/210/63/000/001/003/003
EO12/E314

AUTHORS: Plekhanov, G.F., Vasil'yev, N.V., Desin, D.V.,
Zhuravlev, V.K., Zenkin, G.M., Korolavskiy, A.F.,
Lvov, Yu.A., Tul'skiy, A.S. (Deceased) and
Fast, V.G.

TITLE: Some results of studies of the problem of the
Tunguska meteorite

PERIODICAL: Geologiya i geofizika, no. 1, 1963, 111 - 123

TEXT: A Composite Independent Expedition (CIE) was organized
in 1959 and a number of scientific workers and engineers from
institutions of Tomsk, Moscow, Novosibirsk and other towns
participated in it. The aim of this expedition was to carry out
a composite study of the region of the fall of the meteorite.
Field work was carried out in 1960 together with a Moscow
expedition directed by V.A. Koshelev. There was an expedition
in the summer of 1961 organized by the Komitet po meteoritam
AN SSSR (Committee for Meteorites of the AS USSR) under the
direction of K.P. Florenskiy. The CIE was a part of the latter
expedition. Parallel field work was carried out during 1959-1961
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Some results of

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E032/E314

by the Committee for Meteorites (B.I. Vronskiy - 1959-1960 and A.V. Zolotov - 1959-1961). The present paper reviews briefly the results obtained by the CIE and compares them with those obtained by other workers. A chart is reproduced showing the marsh and woodland distribution and magnetometric profiles in the neighbourhood of the epicentre. It was found that the marshes were apparently natural formations, unaffected by the fall but there were some arboreal features indicating the effect of the fall on trees. A study was made in 1960 of the falling of trees as a result of the fall of the meteorite. Analysis of these data showed that the height at which the meteorite exploded was 10.5 ± 3.5 km. Magnetometric searches revealed the absence of major magnetic losses. Other studies revealed a region with enhanced concentration of Ni, Co and Mo in the soil and Ce, La, Y and Yb in the wood ash. This region was 2-6 km N.W. of the epicentre. A further series of measurements was concerned with the residual radioactivity in the region. Previous conclusions regarding the increase in radioactivity near the epicentre, as compared with greater distances, were not confirmed. It is suggested that the

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EO32/E314

earlier measurements revealed traces of fall-out due to American nuclear tests in 1958. Analysis of these and other published data leads the authors to suggest the following working hypothesis. In the middle of June, 1908, the Earth passed through a cosmic-dust cloud which entered the atmosphere and sedimented between 55 and 65° N. On reaching the lower layers of the atmosphere, dust particles gave rise to anomalous airglow and development of noctil-luscent clouds at isolated points in Europe between June 22 and 29. The amount of dust was not, however, too great and hence the optical anomalies associated with it were localized and there was no change in the polarization of the day sky. In the morning of June 30, the Earth entered the part of the cloud containing large dust-particle clusters and the penetration of these clusters into the lower layers gave rise to a change in the polarization and the appearance of a solar halo and noctiluscent clouds. At the same time, a major meteoritic body entered the atmosphere. The resistance experienced by the body (dense swarm of particles) increased rapidly at the boundary of the troposphere with the result that the body was decelerated and the available magnetic

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energy was converted into the energy of the explosion. This hypothesis is not fundamentally different from that put forward by V.G. Fesenkov (cometary hypothesis). It is suggested that the differences may be of terminological origin. This must be investigated further. There are 1 figure and 1 table.

ASSOCIATIONS:

Tomskiy meditsinskiy institut (Tomsk Medical Institute)
NII Tomskogo politechnicheskogo instituta (NII of Tomsk Polytechnical Institute)
Institut geologii i geofiziki Sibirskogo otdeleniye AN SSSR (Institute of Geology and Geophysics of the Siberian Division of the AS USSR)

SUBMITTED:

April 9, 1962

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ACCESSION NR: AR4039242

S/0269/64/000/004/0073/0073

SOURCE: Ref. zh. Astronomiya, Abs. 4.51.491

AUTHOR: Kovalevskiy, A. F.; Reznikov, I. V.; Snopov, N. G.; Osharov, A.;
Zhuravlev, V. K.

TITLE: Certain data on the distribution of chemical elements in the soils and
plants of the area of falling of the Tunguska meteorite

CITED SOURCE: Tr. Tomskogo otd. Geogr. o-va SSSR, Betatron. labor. Tomskogo
med. in-ta, v. 5, 1963, 125-133

TOPIC TAGS: meteorite, Tunguska meteorite, astronomy, geochemical anomaly,
geobotany

TRANSLATION: The spectral analysis method was used to determine the concen-
tration of a number of elements in order to determine geochemical anomalies
in the distribution of certain chemical elements in the soils and vegetation
at the site of falling of the Tunguska meteorite which could be associated with

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ACCESSION NR: AR4039242

the composition of the meteorite. The article describes in detail the methods of sampling and the techniques used for determining the content of each element. A comparison is made with known abundances and the distribution of elements was determined along radii from the center of falling and also along zones having an accelerated rate of vegetation growth. The Ni, Cr and V in trees was determined by means of layer-by-layer burning of the cross sections of individual species of trees and an analysis of the resulting ash. No sharp variations in the content of these elements were discovered. On the basis of consideration of all the results the conclusion is drawn that in the region of falling of the meteorite there is an increased content of a number of chemical elements both in the soils and in the vegetation; these can be regarded as anomalies of varicous origin. Ni and possibly Co anomalies tend to be found toward the center of the forest flattening and in essence can be associated with the composition of the meteorite. Bibliography of 8 items. M. D'yakonova.

DATE ACQ: 12May64

SUB CODE: AS

ENCL: 00

Card 2/2

PLEKAHNOV, G.F.; VASIL'YEV, N.V.; ZHURAVLEV, V.K.; KOVALEVSKIY, A.F.

Polarization effect caused by the fall of the Tunguska meteorite.
Izv. vys. ucheb. zav.; fiz. no.5:177-179 '63.

(MIRA 16:12)

1. Nauchno-issledovatel'skiy institut pri Tomskom politekhnicheskoye institute imeni S.M.Kirova, Sibirskiy fiziko-tekhnicheskoye institut pri Tomskom gosudarstvennom universitete imeni V.V.Kuybysheva i Tomskiy meditsinskiy institut.

ZHURAVLEV, V.K.

Dielectric constant and loss in oxalates at low frequencies. Fiz.
tver. tela 5 no.8:2374-2375 Ag '63. (MIRA 16:9)

1. Tomskiy politekhnicheskii institut.
(Oxalates--Electric properties)

ACC NR: AT7000586

SOURCE CODE: UR/0000/63/000/000/0195/0197

AUTHOR: Zhuravlev, V. K.

ORG: none

TITLE: On the problem of interpreting the 1908 geomagnetic effect

SOURCE: Tomsk. Meditsinskiy institut. Trudy, v. 5, 1963. Problema Tungusskogo mete-
rita (Problem of the Tunguska meteorite); sbornik statey, 195-197

TOPIC TAGS: high altitude explosion, geomagnetic disturbance, meteorite, *ATMOSPHERIC*
IONIZATION, ATMOSPHERIC CURRENT

ABSTRACT: A review of phenomena common to the Tungus meteorite event of 1908 and high altitude nuclear explosions is given and critically discussed in terms of geomagnetic observations. The primary phenomena, i. e., ionization of large areas in the upper atmosphere, hydrodynamic waves in the ionosphere and shock waves are used to show that the similarity between the two events is sufficient to enable one to substantiate presently evolving theories of the Tungus meteorite. The most important of the above is the role of ionization on alterations in, and creation of new, upper atmosphere currents which in turn lead to pronounced geomagnetic effects. It is noted that large chemical explosions may also lead to geomagnetic disturbances but no such records were taken during tests in Australia [IGY Bulletin, No. 18, December 1958]. It is also

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