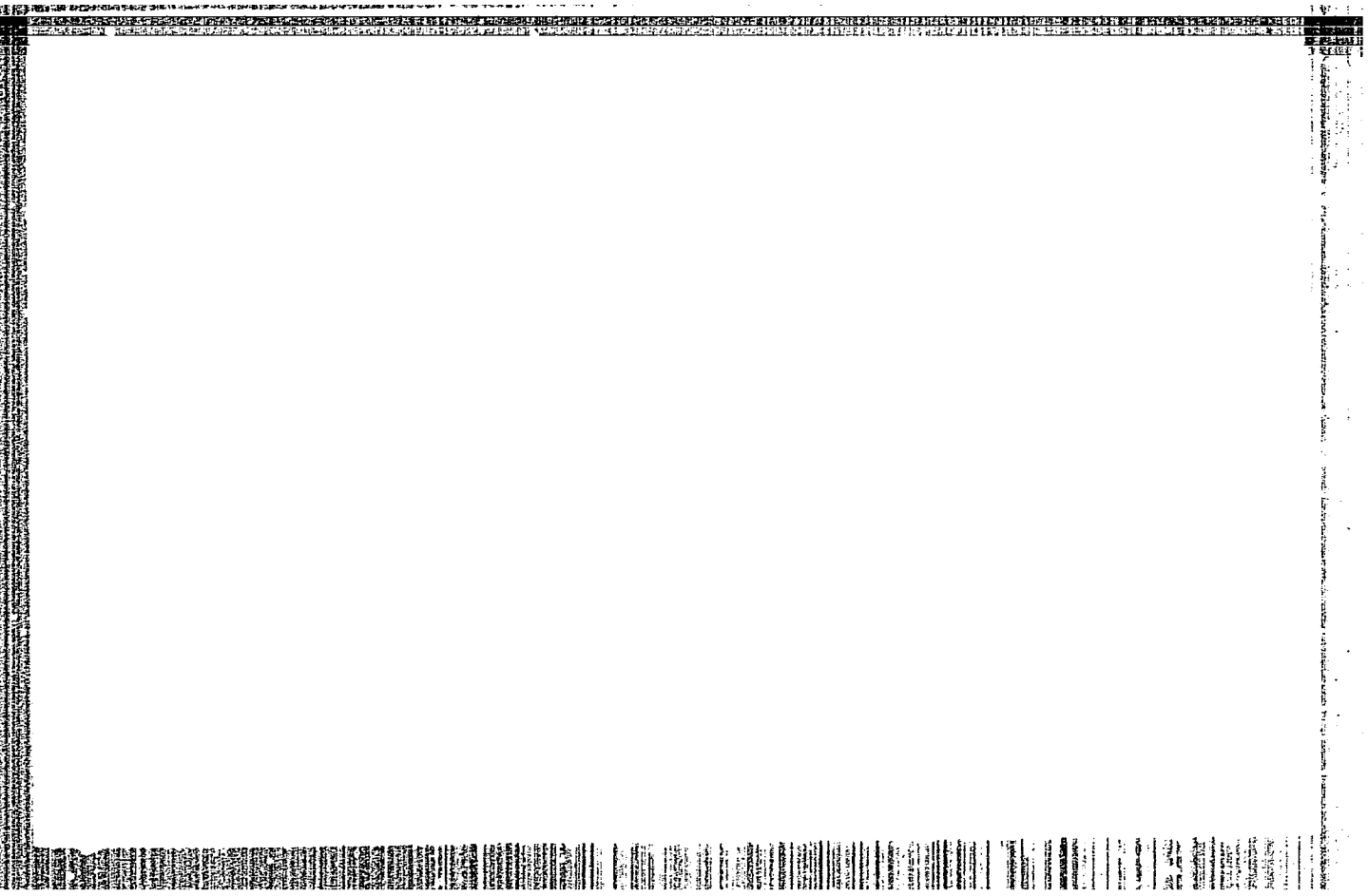

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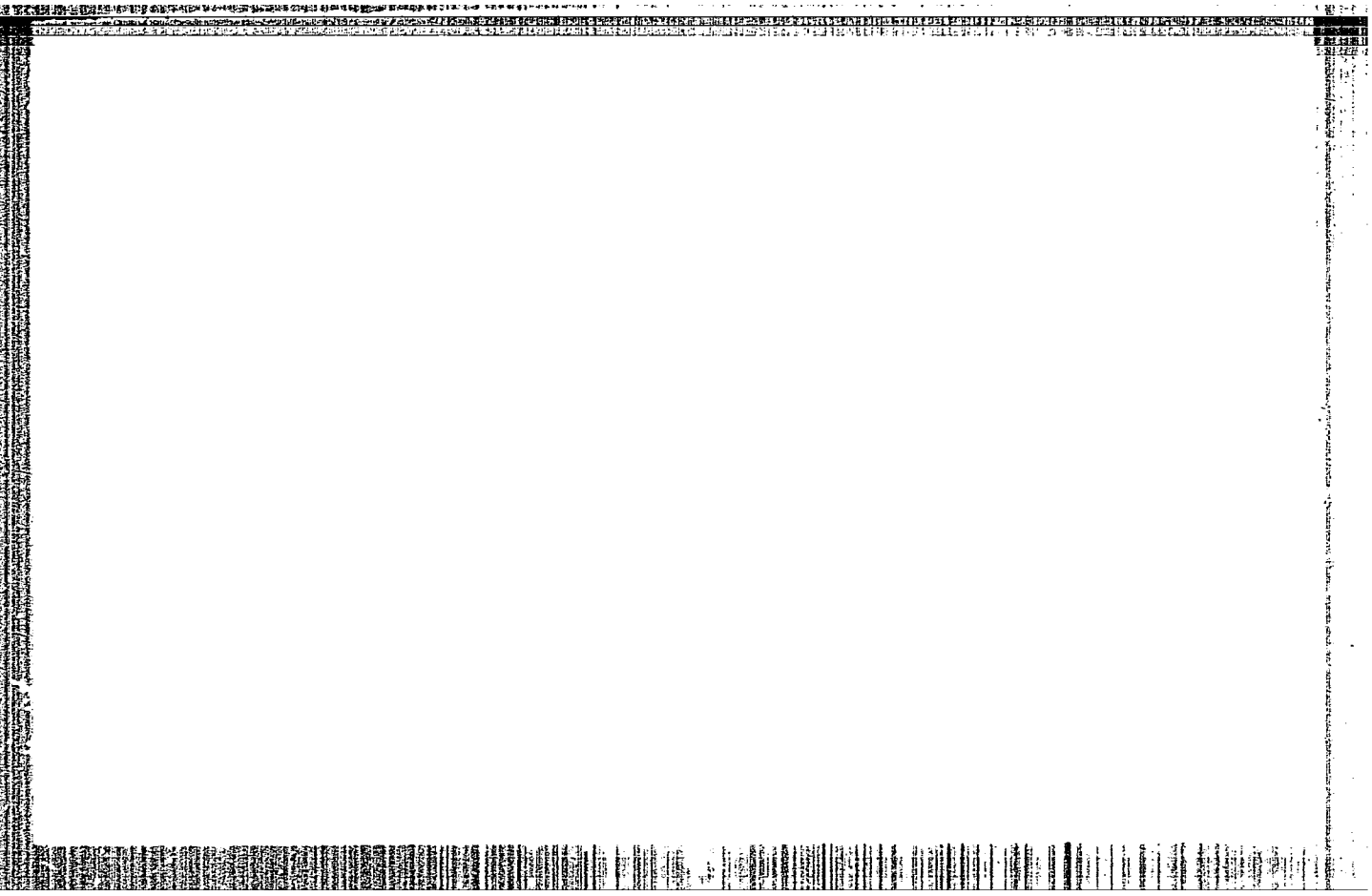

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ZHIDKOV, S.K.; SELEZNEV, Yu.M., inzh. po ratsionalizatsii

Relay for checking the grounding of equipment in electric traction stations. Elek. i tepl. tiaga 7 no.4:22 Ap '63. (MIRA 16:5)

1. Starshiy inzh. Mytishchinskogo uchastka energosnabzheniya Moskovskoy dorogi (for Zhidkov).
(Electric relays) (Electric railroads--Substations)

ZHIDKOV, V.A., inzh.

Open-air plants. Tekh.mol. 31 no.4:19-21 '63. (MIRA 16:6)
(Chemical plants--Design and construction)

PLATONOV, P., kand.tekhn.nauk; ZHIDKO, V., kand.tekhn.nauk; ZELINSKIY, G., kand.tekhn.nauk; LEBADINSKIY, V., kand.tekhn.nauk

Automation of column-type grain dryers. Muk.-elev. prom. 25 no.10:13-14 O '59. (MIRA 13:3)

1. Odesskiy tekhnologicheskiy institut im. I.V. Stalina.
(Grain--Drying) (Automation)

ZHIDKOV, V.A.; KHOMENKO, L.O.

A case of dislocation in germanium. Ukr.fiz.zhur. 2 no.2: suppl.: 65-67. '57. (MIRA 10:7)

1. Institu fiziki AN URSR i Kiivs'kiy dershavniy universitet im. T.G. Shevchenka.
(Germanium) (Dislocations in crystals)

ZHIDKOV, V.A.; LASHKAREV, V.Ye.

New-type thermal acceptors in germanium. Izv.AN SSSR .Ser.fiz. 20 no.12:1521-1525 D '56. (MIRA 10:3)

1. Institut fiziki Akademii nauk USSR i Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.
(Germanium)

ZHILKOV, V. A. , Master Phys-Math Sci — (diss) "Investigation of thermal acceptors in Germany." Kiev, 1957. 11 pp, (AS UkrSSR. Inst of Physics), 100 copies.

(KL, No 40, 1957, 90)

83868
S/112/59/000/016/042/054
A052/A002

9.4300 (1035,1138,1143)

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 16, p. 198 # 34919

AUTHORS: Zhidkov, V. A., Khomenko, L. O.

TITLE: A Case of Origination of Dislocations in Germanium

PERIODICAL: Nauk. shchorichnyk. Radiofiz. fak. Kyivs'k. un-tu, 1957, pp. 492-493 (Ukrainian)

TEXT: The change of electrophysical properties of Ge singlecrystals as a result of heat treatment at temperatures of 840-940°C was investigated. The heat treatment was carried out by induction heating of singlecrystals grown by Chokhral'skiy's method without taking them out of the crystallization furnace. Such a heat treatment did not change the type of conductivity and the specific resistance but reduced sharply (to 1 microsecond and less) the lifetime of the secondary current carriers especially in the upper part of a crystal(even at a considerably increased cooling time of a crystal). It is assumed that a crystal is being deformed under its own weight (30-50 g) during heating whereby the

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A Case of Origination of Dislocations in Germanium

maximum deformation takes place in the upper part of the ingot. This conclusion is confirmed by results of a metallographic study.

A. A. F.

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

86102

S/112/59/000/012/013/097
A052/A001

9.4300 (3203,1043,1143)

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 12, p. 12, # 24004

AUTHORS: Zhidkov, V.A., Lashkarev, V.Ye.

TITLE: Diffusion and Electric State of Thermal Acceptors in Germanium

PERIODICAL: Nauk. shchorichnyk. Radiofiz. fak. Kyivs'k, un-tu, 1956, Kyiv, 1957, p. 493 (Ukrainian)

TEXT: The possibility of purifying Ge of thermal acceptors by heating the samples with direct or alternating current has been studied. The investigations have been carried out on monocrystalline plates of various thickness, fixed during heating between Ta-electrodes. In the process of heating a diffusion from thermal acceptors to the electrodes has been established which prevailed over evaporation up to 700°C in vacuum and at any temperature in the He atmosphere. At 800-850°C thermal acceptors carry a charge of +1 e and can be separated electrolytically by

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ZHIDKOV, V.A.

PA - 3537

AUTHOR: ZHIDKOV,V.A., LASHKAREV,V.Ye.

TITLE: Diffusion and Electric State of Thermal Acceptors in Germanium. (Diffuziya i elektricheskoye sostoyaniye termicheskikh aktseptorov, v germanii, Russian)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 5, pp 877 - 883 (U.S.S.R.)

ABSTRACT: The repetition of the experiments carried out by MAYBURG (Phys.Rev., 95, 38, 1954) with samples of different lengths in the vacuum and in a helium atmosphere by using both alternating- and parallel current showed that the process for the removal of thermal acceptors by heating electric current is much more complicated than was assumed by MAYBURG. Germanium monocrystals of prismatic shape and 6 - 30 mm length and a cross section surface of 2 - 8 mm^2 were used. The construction of the apparatus and the method of thermal treatment were described by the authors already in Ian, ser.fiz., 20, Nr 12, 1956. By hardening by means of switching off the current it is possible to determine the dependence of the concentration of the thermal acceptors N_a on the time of heating for the various stages of heat treatment. There were 4 such stages. It was shown that when passing from heating by means of alternating current to heating by direct current at temperatures of more than 800° C the speed of purification increased considerably. The acceleration of the purification of germanium from thermal acceptors by means of direct current proves the ionized state of the admixture

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Diffusion and Electric State of Thermal Acceptors in Germanium.

under these conditions. The theory of purification is given and compared with the experiment. Experiments showed that the behavior of the acceptors removed from the germanium is similar to that of copper in germanium. Experiments carried out with samples saturated with radioactive Cu^{64} showed that after 1,5 - 3 hours of heating by means of alternating current at 815 - 850° C a considerable activity of the tantalum electrodes sets in. Binding copper to tantalum which is in contact with germanium has for the first time been proved by this work. The dependence of the diffusion coefficient of the thermal acceptors on temperature was found and a dependence of the same on concentration was presumed. (6 illustrations and 2 Slavic references)

ASSOCIATION: Physical Institute of the Academy of Science of the U.S.S.R., Kiev State University.

PRESENTED BY:

SUBMITTED: 5.11.1956

AVAILABLE: Library of Congress

Card 2/2

LEYKIN, I.M., kand.tekhn.nauk; SABIYEV, M.P., inzh.; ZHIDKOV, V.A., inzh.

Production of low-alloy 19G and 14KhGS steels without reduction by silicon in the furnace. Stal' 20 no.3:216-219 Mr '60. (MIRA 13:6)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii i Alchevskiy metallurgicheskiy zavod.
(Steel alloys--Metallurgy)

89285
S/181/61/003/001/024/042
B006/B056

24,7500 (1136, 1143, 1160)

AUTHORS: Belyayev, Yu. I. and Zhidkov, V. A.

TITLE: Diffusion of beryllium in germanium

PERIODICAL: Fizika tverdogo tela, v. 3, no. 1, 1961, 182-184

TEXT: Following a previous paper (Ref. 1), in which the authors studied the electrical and recombination properties of Be-doped germanium, they now report on investigations of diffusion and on the determination of the diffusion coefficient as well as the solubility of Be in Ge. As initial substance, antimony-doped germanium single crystals having a resistivity of 1-8 ohm·cm were used. The 2 × 3 × 10 mm specimens were etched in boiling Perhydrol, after which a 10μ thick Be layer was sputtered in vacuo onto their end surfaces. For the purpose of rendering diffusion easier, the specimens were heated at 920-720°C in evacuated quartz tubes (10^{-3} mm Hg) for 24-150 hr. As the Be layer was visible also after this process, a continuous subsequent supply of Be atoms into the interior of the Ge crystals could be assumed. The distribution of these Be atoms may therefore be

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Diffusion of beryllium in germanium

described by the relation $c(x,t) = c_0(1 - \mathrm{erf}\frac{x}{2\sqrt{Dt}})$, where c_0 is the limiting concentration of Be, and D is the diffusion coefficient. By this diffusion of Be (which is an acceptor impurity in Ge) a p-n junction was formed at a certain depth; the depth of its position could be determined as 15-70μ (error ±2μ). At each temperature, several specimens with different antimony concentration were investigated, and thus the donor concentration and also the p-n junction for each sample differed. By removing layers, by several measurements of the carrier concentration, and by determination of the position of the p-n junction, several points on the curve $c = f(x)$ could be determined at one and the same temperature. Thus, the depth distribution of the carrier density could be determined. In the diagram shown here, curve 1 shows the temperature dependence of the diffusion coefficient of Be in Ge, curve 2 shows the diffusion coefficients of Zn in Ge, and curve 3 shows the temperature dependence of the limiting concentration c_0 (right ordinate) on Be in Ge. c_0 was determined from the solubility of Be in Ge at a given temperature. At the point where the thermal probe determined the p-n junction, $p = n(u_-/u_+)$ was found, where n and p are the electron and hole concentration, respectively, and u_-, u_+ the

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Diffusion of beryllium in germanium

mobilities. As Be is doubly ionized at room temperature, $c = p/2 - nu_-/2u_+$. From the curve it is possible, with satisfactory accuracy, to determine the relation $D = 0.5 \exp(-2.5/kT)$ for D. The maximum solubility depends only slightly on temperature. The error in D-determination was 20%, and in the c_0-determination, 50%. The authors thank I. A. Radziyevskiy for placing the Ge single crystals at their disposal. There are 1 figure and 8 references: 4 Soviet-bloc and 4 non-Soviet-bloc.

ASSOCIATION: Kiyevskiy ordena Lenina gosudarstvennyy universitet im. T. G. Shevchenko (Kiyev "Order of Lenin" State University imeni T. G. Shevchenko)

SUBMITTED: July 20, 1960

Card 3/3

20124

S/181/61/003/002/022/050
B102/B212

9,4300 (and 1035, 1143)
26,2532

AUTHOR: Zhidkov, V. A.

TITLE: Constant concentration of thermal acceptors in germanium under various conditions of heat treatment

PERIODICAL: Fizika tverdogo tela, v. 3, no. 2, 1961, 459-463

TEXT: Although the constant concentration of thermal acceptors in germanium has been repeatedly investigated, no studies have been made over the whole temperature range (550-930°C) where thermal acceptors can be found. Results of such investigations show considerable divergence in the range above 720°C. The author reports on studies which have been made over a wide temperature interval. The samples have been electrically heated in high vacuum, and the current was applied to them over tantalum electrodes. The thermal acceptor concentration (activation energy of 0.04 ev) has been measured in the center of the samples which where kept in vacuum. The measurements were made via the Hall effect at such low temperatures that the concentration of the thermal holes was constant and equal to the difference of thermal acceptor concentration and primary

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donors. If the heat treatment at constant temperature lasted long enough a constant value(N_a^{st}) of the thermal acceptors was reached. The value of N_a^{st} was mainly a function of purity, and copper, especially proved to be disturbing. Besides of quartz the vacuum chamber contained only tantalum and molybdenum which do not react with germanium. In order to avoid contamination from the electrodes, these tantalum electrodes were heated in the vacuum to 1500°C and the samples were etched for ten minutes in boiling perhydrol and after that washed in distilled water. The electrodes and sample were again subjected to the same process after mounting. The heating of the samples with electric current caused removal of thermal acceptors by evaporation, diffusion to electrodes or electrolysis; e.g., at a temperature of 600-700°C (here, evaporation hardly takes place and acceptors are without charge) the samples had to be heated for far above ten hours in order to reach $N_a^{st} \leq 1 \cdot 10^{13} cm^{-3}$. It was not possible at those temperatures to remove thermal acceptors from unpurified germanium, and also the steady state at 700°C for instance is already reached after ten minutes. Fig. 1 shows a comparison of the

author's results (1, 2, 3, 4) with those obtained by V. V. Ostroborodova and S. G. Kalashnikov (full line), Mayburg (dash-dotted line), and Hopkins et al. (dashed line). The unetched samples (data 2) yielded the highest values for N_a^{st}, and under the best teqt conditions the lowest values (4) of N_a^{st} were obtained ($\leqslant 5 \cdot 10^{13}$ cm^{-3} at 940°C). At a given temperature N_a^{st} is only a function of purity. The value and temperature dependence of N_a^{st} are only a function of the degree of copper contamination of the germanium sample. The energy model for producing thermal acceptors as shown in Fig. 2 is used to calculate n, the number of atoms that have left the lattice nodes and Na, the number of atoms which are occupied by copper atoms (in equilibrium state). The following formula is obtained if $N_c \gg N_a$:

$$N_a = \frac{\sqrt{NN_c}\exp(-\frac{E_1}{2kT})}{\sqrt{\frac{N'}{N_c}} + \exp(\frac{E_2}{kT})} \qquad (3)$$

and for $(N_c/N')\exp(E_2/kT) \gg 1$, $N_a = \sqrt{NN_c}\exp(-(E_1-E_2)/2kT)$. For $N_a \ll n$ follows

$$N_a = \frac{N_a}{1+\sqrt{\frac{N'}{N}}\exp\left(\frac{E_1-2E_2}{2kT}\right)}, \quad (6)$$

$$n = \sqrt{NN'}e^{-\frac{E_1}{2kT}}. \quad (7)$$

if $E_1/2 - E_2 \gg kT$ and N and N' of the same order then follows $N_a = N_c\sqrt{N/N'}\exp(-(E_1-2E_2)/2kT)$. The following results have been established experimentally: $E_1 = 4.0$ ev and $E_2 = 1.5$ ev (where E_1 is the energy necessary to displace an atom from its position in a lattice node into an intermediate position, N denotes the number of intermediate positions possible, E_2 is the energy released if one Cu atom is occupying the free space, N is the number of Ge-atoms per unit volume). Finally, the results are discussed, and the temperature which has been obtained for

Constant concentration of thermal... S/181/61/003/002/022/050
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N_a^{st} can be explained with the model (Fig. 2) if it is assumed that Cu in Ge can be in two different states (0.04 and 0.25 ev activation energy).

The author thanks V. Ye. Lashkarev, Academician of the AS UkrSSR, for discussion, Frenkel' is mentioned. There are 2 figures and 15 references: 5 Soviet-bloc and 10 non-Soviet-bloc.

ASSOCIATION: Kiyevskiy ordena Lenina gosuniversitet im. T. G. Shevchenko
Institut fiziki AN USSR
(Kiyev Lenin Order State University imeni T. G. Shevchenko, Institute of Physics AS UkrSSR)

SUBMITTED: May 16, 1960

X

Constant concentration of thermal...

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B102/B212

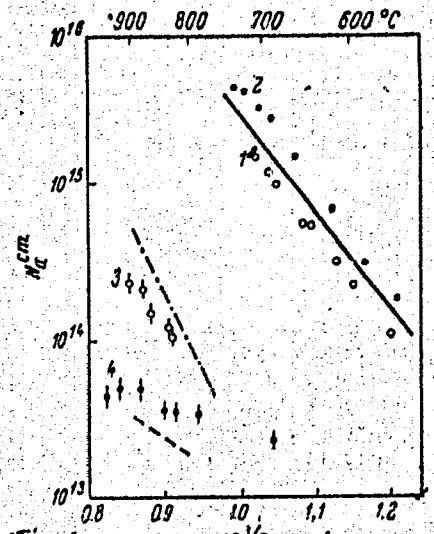

Fig. 1

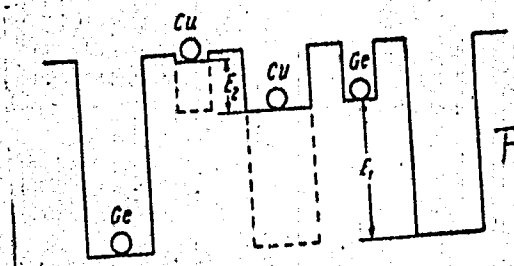

Fig. 2

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20125
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9,4300 (and 1035, 1143)
26,2532

AUTHOR: Zhidkov, V. A.

TITLE: Thermal acceptors with a high deposition in germanium

PERIODICAL: Fizika tverdogo tela, v. 3, no. 2, 1961, 464-475

TEXT: This paper is an addition to the joint effort of the author and V. Ye. Lashkarev, where it had been shown that besides thermal acceptors with a 0.04 ev activation energy, which are produced in germanium by the influence of temperature, (they are called "low-deposition" acceptors) but under certain conditions there might be also such with a 0.25 ev activation energy ("high-deposition" acceptors); here, the author reports on investigations of "high-deposition" acceptors. The kinetics of low-temperature tempering, the condition for production of these acceptors the temperature dependence of the constant concentration and the influence of heat treatment conditions have been studied. The initial Ge single crystals had a donor concentration of $\leqslant 1 \cdot 10^{13}$ cm^{-3} and measured 1.3 · 3.5 · 20 mm^3. Heat treatment was done by electric current passage

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Thermal acceptors with ...

(d.c. and a.c.), electrodes and probes were made of tantalum. The Hall constant and conductivity have been measured in various parts of the samples. N_1, the low-deposition acceptor concentration has been measured at $T < 150^{\circ}K$, i.e., where the high-deposition acceptors had not been ionized. The high-deposition acceptor concentration N_2 had been determined from the temperature dependence of the thermal hole concentration. Special tests which had been performed to determine the upper limit of N_2 furnished the value $N_2 < 4.5 \cdot 10^{11}$ cm^{-3}; after high-temperature treatment and for $N_1 = 1.4 \cdot 10^{14}$ cm^{-3} resulted $N_2 = 5.6 \cdot 10^{13}$ cm^{-3}; the high-deposition acceptor ionization starts at $T = 150^{\circ}K$. High-deposition acceptors had only been found in samples heated to 800-900°C; and their concentration is a function of the purity of the sample surface and that of the tantalum electrodes. Etching in boiling perhydrol and subsequent washing in distilled water made it possible to keep a constant concentration $N_2^{st} < 10^{14}$ cm^{-3}. The following processes have been submitted to a qualitative theoretical investigation: a) Transition of

Thermal acceptors with...

high-deposition acceptors to low-deposition acceptors while under heat treatment and b) diffusion of acceptors to the lateral surfaces of the samples. The investigation is done in two-dimensional approximation (thickness of the probe with respect to width). The following expression is obtained

$$N_1 = N_1^{ст.} + (N_1^0 - N_1^{ст.})\frac{8}{\pi^2}\sum_{k=1}^{\infty}\frac{\exp\left[-\left(\frac{\pi}{7}\right)^2(2k-1)^2 Dt\right]}{(2k-1)^2} +$$

$$+ (N_2^0 - N_2^{ст.})\frac{8}{\pi^2}\sum_{k=1}^{\infty}\frac{\exp\left[-\left(\frac{\pi}{7}\right)^2(2k-1)^2 Dt\right] - \exp\left(-\frac{t}{\theta}\right)}{(2k-1)^2\left[1-\left(\frac{\pi}{7}\right)^2(2k-1)^2 D\theta\right]}, \qquad (7a).$$

$$N_2 = N_2^{ст.} + (N_2^0 - N_2^{ст.})e^{-\frac{t}{\theta}}. \qquad (7б).$$

where D is the diffusion coefficient for low-deposition acceptors and $1/\theta$ is the $N_2 \rightarrow N_1$ transition probability per unit of time and volume; θ is determined by the relation $\ln(N_1^{max} - N_1) = - t/\theta$. D has been found using the formula $D = 300 \exp(-1.6\ ev/kT)$. The results can be explained

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Thermal acceptors with...

by using the energy model shown in Fig. 8a (E_0 = 1.25 ev, E_1 = 0.8 ev, E_2 = 2.0 ev). Taking this model as a basis it is possible to determine the transition probability also by $1/\theta = \nu \exp(-E_2/kT)$, where ν is a coefficient of the order of the atomic vibration frequency in the crystal. The results are compared with those of T. V. Mashovets and S. M. Ryvkin, who have the energy model shown in Fig. 8b. The results of the investigation can be summed up as follows: 1) High-deposition acceptors will occur in germanium at a continuous heating above 800°C; 2) the activation energy which has been determined by the temperature dependence of the constant high deposition thermo-acceptor concentration, amounts to 0.8 ev (the concentration of these acceptors is a function of the purity); 3) an investigation of the heat influence at 400-520°C showed that the processes which occurred had been exclusively caused by influence of the temperature and did not depend on the method of investigation; 4) the theory is based on the assumption that the transition of high-deposition acceptors to low-deposition acceptors will take place under influence of heat; the activation energy of this transition is 2.0 ev;

Thermal acceptors with...

5) an analysis of the energetic structure of the defects with thermal acceptor properties showed that it is very similar to the structure of recombination centers which are formed under heat treatment; 6) all experimental data about high-deposition acceptor properties make them appear as copper atoms which in germanium are in a special energy state. The author thanks Academician of the AS UkrSSR V. Ye. Lashkarev for discussions. Frenkel' is mentioned. There are 9 figures and 11 references: 7 Soviet-bloc and 4 non-Soviet-bloc.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko (Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: May 16, 1960

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Thermal acceptors with...

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Legend to Fig. 5:
Typical dependence of the thermal acceptors on the duration of heating at 500°C; 1) measurement at room temperature; 2) measurement at low temperature.

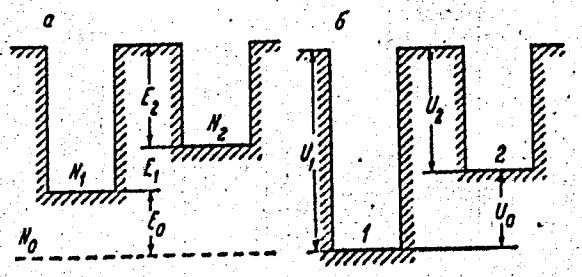

Fig. 4

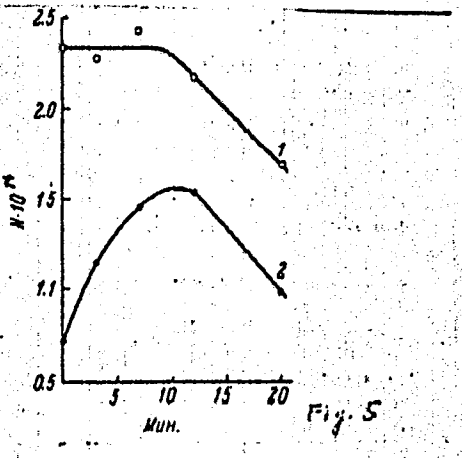

Fig. 5

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ZHIDKOV, V.A.; MAKAROV, V.K.

More about single roller bits. Neft. khoz. 42 no.11:56-60 N '64
(MIRA 18:2)

PIROGOV, A.A.; LEVE, Ye.N.; KRASS, Ya.R.; BELICHENKO, G.I.; KOTIK, P.L.; SIDORENKO, Yu.P.; ZIL'BERG, Ye.S.; DRYAPIK, Ye.P.; VAYNTRAUB, S.S.; ZHIDKOV, V.A.; SHCHEDRINSKIY, L.I.; MOREV, G.P.

Prefabricated blocks of unfired magnesite-chromite brick. (MIRA 17:9)
Metallurg 9 no.4:23-24 Ap '64.

1. Ukrainskiy institut ogneuporov, Nikitovskiy dolomitovyy kombinat i Kommunarskiy metallurgicheskiy zavod.

BABAK, L.G. [Babak, L.H.]; BOCHEK, S.A.; GENKINA, S.M. [Henkyna, S.M.]; DOBROLEZH, S.A. [Dobrolezh, S.O.]; ZHIDKOV, V.A. [Shydkov, V.A.]; SMUSHKEVICH, V.Z. [Smushkevych, V.Z.]

Commercial silicon carbide as a material for point-contact diodes. Ukr. fiz. zhur. 6 no.4:541-548 Jl-Ag '61. (MIRA 14:9)

1. Institut metallokeramiki i spetsial'nykh splavov AN USSR, g. Kiyev.

(Silicon carbide—Electric properties)
(Diodes)

ZHIDKOV, V.A.

Stationary concentration of thermal acceptors in germanium under various conditions of heat treatment. Fiz. tver. tela 3 no.2:459-463 F '61. (MIRA 14:6)

1. Kiyevskiy ordena Lenina gosuniversitet im. T.G. Shevchenko i Institut fiziki AN USSR.
(Germanium)

ZHIDKOV, V.A.

High deposition thermal acceptors in germanium. Fiz. tver. tela 3 no.3:464-475 F '61. (MIRA 14:6)

1. Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko.
(Germanium)

ZHIDKOV, V.A.

27967
S/185/61/006/004/012/015
D274/D303

9,4340

AUTHORS: Babak, L.G., Bochek, S.A., Genkyna, S.M., Dobrolezh, S.O., Zhydkov, V.A. and Smushkevych, V.Z.

TITLE: Commercial silicon-carbide as a material for point contact diodes

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 4, 1961, 541-547

TEXT: The possible use of commercial silicon-carbide (produced by the Tashkent and Zaporozhe plants) for high temperature point contact diodes is considered: This would be economically profitable. Specimens of the black and green modification obtained at the Zaporozhe plant were studied as well as those of the green modification of the Tashkent plant. Spectral analysis showed the presence, in the specimens, of chemical impurities: Fe, Mg, Mn, Al, Ti. It was established that black silicon-carbide crystals have hole-conductivity, and the green - electron conductivity. The resistivity was

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Commercial silicon-carbide...

measured by the four-probe method. A figure shows the resistivity (in statistical %) of the various types of specimens. In studying the rectifying properties of diodes, a low-ohmic contact between metal-electrode and crystal is necessary. Several methods of producing such contacts were investigated. It was found that contacts obtained by cathode pulverization of platinum were most convenient, both with regard to low-ohmic character and temperature stability. The resistance of the contacts with the black crystals was 10^2 - 10^3 ohm, and that of the green crystals - 10^3 - 10^4 ohm. A model of a point-contact diode was constructed and studied. Current voltage characteristics of point-contact tungsten-silicon carbide are then examined. Figures show the characteristics at various temperatures (from 20-520°C). The rectifying factor K is determined. A table shows, for comparison, the rectifying properties of models made of the different types of silicon-carbide. The electrical properties of commercial silicon-carbide were studied with a view to using these materials for high temperature point-contact rectifiers. A study of the temperature dependence of current-voltage character-

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Commercial silicon-carbide...

istics of models showed that the green crystals of the Zaporozhe plant have, at room temperature, a rectifying factor $K = 10^4 - 10^5$ which decreases rapidly with increasing temperature. The black crystals of the Tashkent plant have $K = 10^2 - 10^3$ (at room temperature) which increases with temperature, this increase being the greater, the higher the resistivity of the crystal. The black crystals of the Tashkent plant, with a resistivity exceeding 5 ohm/cm, are the most suitable for point-contact diodes. Diodes, similar to the model ones, could be used for rectifying radio frequency signals of 1-5 volts at temperatures up to 500°C. There are 6 figures, 2 tables and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: Electronics, 74, no. 12, 1960.

ASSOCIATION: Instytut metalokeramiky i spetsial'nykh splaviv AN USSR, Kyyiv (Institute for Metal Ceramics and Special Alloys, AS UkrSSR, Kiyev)

SUBMITTED: November 26, 1960

Card 3/3

BELYAYEV, Yu.I.; ZHIDKOV, V.A.

Diffusion of beryllium in germanium. Fiz. tver. tela 3 no.1:182-184 Ja '61. (MIRA 14:3)

1. Kiyevskiy ordena Lenina gosudarstvennyy universitet im. T.G.Shevchenko.
(Beryillium) (Germanium) (Diffusion)

ACCESSION NR: AT4044289 S/2779/64/000/009/0261/0274

AUTHOR: Zhidkov, V. D. (Engineer) (Moscow)

TITLE: Some three-dimensional structures made of thin aluminum sheet

SOURCE: Raschet prostranstvenny/kh konstruktsiy; sbornik statey, no. 9, 1964, 261-274

TOPIC TAGS: thin aluminum sheet, frame design, arch design, shell, aluminum, sheet aluminum, roof design

ABSTRACT: The author first describes some of the structures erected with various types of shell roof: the American Exhibition in Moscow in 1959; the Hannover Fair in 1962; the building of the International Union of Architects in London, 1961; a hotel in Lagos, Nigeria; a church in Doonstable, England; and a building in Caracas, Venezuela. The main members of such structures are rhombs bent along the long diagonal. These rhombs may be connected either by two or four triangles, by rivets or glue, or by joints. In 1962, D. A. Beylin in the NII po stroitel'stvu Minstroya RSFSR (Scientific Research Institute of Construction of the Ministry of Construction of the RSFSR) designed a saw-tooth thin-shell roof of rhombic members with a 14 m span and 5 m rise for a grain storehouse. The aluminum sheets were 2.5 mm thick (16.5 kg per sq m of floor). The ratio of panel depth to length was given by

$$\frac{h}{b} = \frac{1}{21g\,?} \quad (1)$$

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ACCESSION NR: AT4044289

where b is the length of the longest diagonal. The shell is shown schematically in Fig. 1. of the Enclosure. The author notes that increasing the number of panels to six or eight makes the structure similar to an arch. When the span remains constant and the number of panels increases, the panel depth and moment of inertia of the arch cross section decrease. However, lowering the ratio of panel sheet depth to length increases the longitudinal stiffness of the arch, thus lowering the required number of ties to resist longitudinal thrust. The structure may also be considered as a system consisting of three combined arches located in the planes of the rhombic panels (see Fig. 2, a in the Enclosure) or as a three-dimensional rod system with longitudinal ties (Fig. 2, b). A different way of designing this structure is as an arch limited across the width by vertical planes perpendicular to the arch axis and passing through the concave parts of the rhombic panels at a distance equal to the width of the panel. This is shown in Fig. 2, d. The rod for the system is an angle with variable flange (Fig. 2, c). The determination of the best number of panels for various spans, as well as an investigation of these structures made of thin aluminum sheets, should be the subject of future theoretical and experimental research. Orig. art. has: 10 figures and 5 equations.

Card 2/7

ACCESSION NR: AT4044289

ASSOCIATION: none

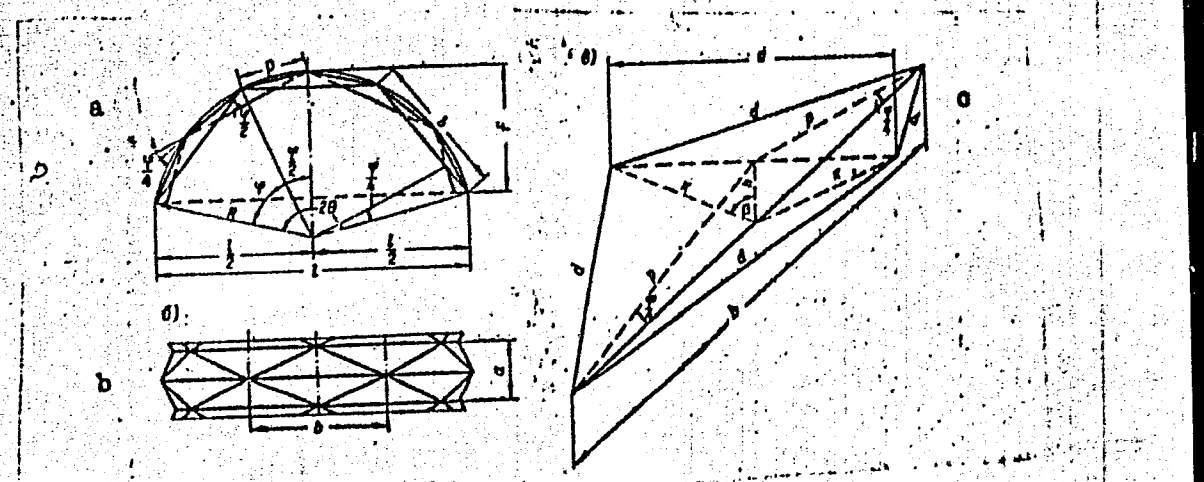
SUBMITTED: 00 ENCL: 04

SUB CODE: AS NO REF SOV: 006 OTHER: 004

Card 3/7

ACCESSION NR: AT4044289

ENCLOSURE: 01



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ACCESSION NR: AT4044289 ENCLOSURE: 02

Fig. 1. Diagram of saw-tooth thin-shell roof: a - geometrics; b - part of top view of shell of width a; c - shell detail - rhombic panel sheet

$$\varphi = \frac{2\theta}{n} = \frac{2\arcsin\frac{l}{2R}}{n},$$

where n is the number of panels along the perimeter of the shell.

$$b = 2R\sin\frac{\varphi}{2} = 2R\sin\frac{\arcsin\frac{l}{2R}}{n},$$

$$g = 2R\sin\frac{2\theta}{4n}; \quad a = 4R\sin\frac{2\theta}{n}\operatorname{tg}\alpha,$$

$$\frac{c}{2h} = \sin\beta$$

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ACCESSION NR: AT4044289

ENCLOSURE: 03

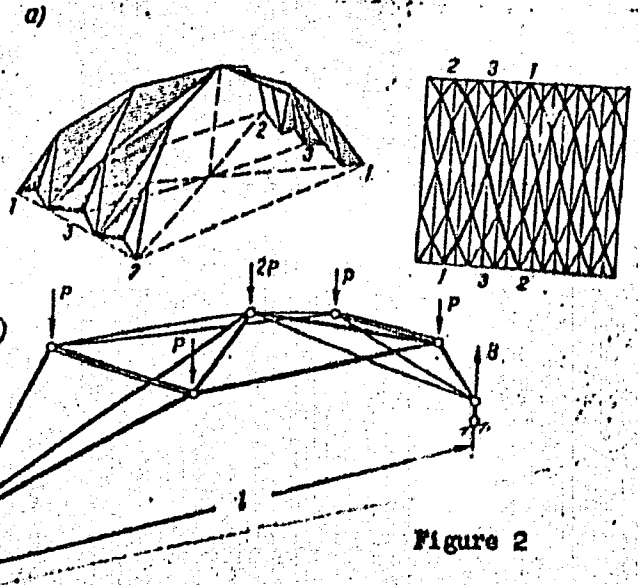

Figure 2

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ACCESSION NR: AT4044289

ENCLOSURE: 04

Figure 2 contd.

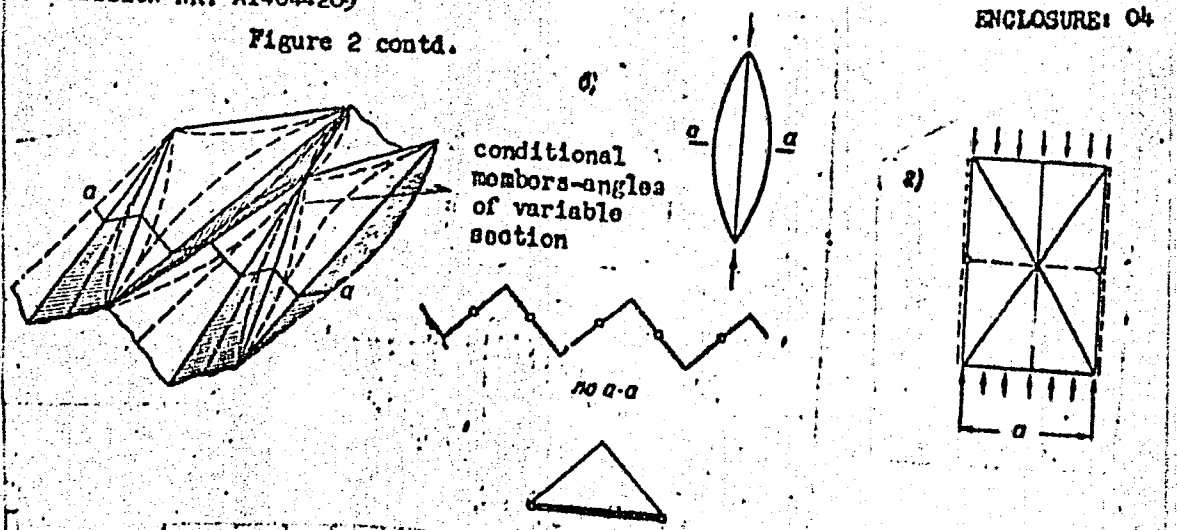

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Fig. 2. Diagram of saw-tooth shell consisting of rhombic panels.

KHANAYCHENKO, N.K.; KHLYSTOV, N.Z.; ZHIDKOV, V.G.

System of equatorial countercurrents of the Atlantic Ocean.
Okeanologiia 5 no.2:222-229 '65. (MIRA 18:6)

1. Morskoy gidrofizicheskiy institut AN UkrSSR.

ZHIDKOV, V.I.

Efficient designs of shops of chemical plants. Prom. stroi. 38 no.5:18-21 '60. (MIRA 14:5)

1. Gosudarstvennyy institut po proyektirovaniyu zavodov kauchukovoy promyshlennosti.

(Chemical plants)

ZHIDKOV, V.I., inzh.

Some problems in designing and building plants producing synthetic rubber and petroleum chemical synthetics. Prom.stroi. 41 no.3:11-15 Mr '64. (MIRA 17:3)

ZHIDKOV, V.I., inzhener; SOSUL'NIKOV, B.V., inzhener.

Efficient grouping of packed columns in chemical plants. Stroi.prom. 32 no.3:17-21 Mr '54. (MLRA 7:5)

1. Giprokauchuk. (Packed towers) (Chemical plants)

ZHIDKOV, V.I.

Some particular features of the planning and design of organic synthesis plants. Khim.prom. no.11:812-816 N '61. (MIRA 15:1)

1. Gosudarstvennyy institut po proyektirovaniyu zavodov kauchukovoy promyshlennosti.
(Chemistry, Organic—Synthesis)

ZHIDKOV, V.I.

Standardization of elements of column apparatus. Prom.stroi. 43 no.12:17-19 '65. (MIRA 18:12)

ZHIDKOV, Ye. P.

ZHIDKOV, Ye. P. -- "Differential Equations of the Parabolic Type With Small Parameter." Sub 17 Jun 52, Sci Res Inst of Mechanics and Mathematics, Moscow State U. (Dissertation for the Degree of Candidate in Physico-mathematical Sciences).

SO: Vechernaya Moskva January-December 1952

ZHIDKOV, Ye. P.

"Mathematical Principles of Digital Differential Analyzer" 1.228

Avtomaticheskoye upravleniye i vychislitel'naya tekhnika, vyp. 1, Moscow, Mashgiz, 1958, 302pp. (Automatic Control and Computing Technique, v. 1.)

The book is a collection of eleven articles presented at a seminar on the theory and technique of automatic control and computing machines. The seminar was organized by the Sci. and Tech. Soc. of Instrument Making, the Moscow Higher Technical School im Bauman, and the Moscow Aviation Inst im S. Ordzhonikidze. The Moscow Physics and Engineering Inst. also participated in the seminar.

24(0) PHASE I BOOK EXPLOITATION SOV/3104

Moscow. Inzhenerno-fizicheskiy institut. Kafedra matematiki

Sbornik nauchnykh rabot (Collection of Scientific Works) [Moscow?]
Atomizdat, 1958. 194 p. 1,000 copies printed.

Tech. Ed. R.A. Negrimovskaya.

PURPOSE: This book is intended for applied mathematicians and theoretical physicists.

COVERAGE: This book contains a collection of articles by leading Soviet mathematicians and physicists on topics in atomic physics. The Thomas-Fermi generalized model of the atom, distributions, compression of an isothermic gas, boundary value problems, etc. are discussed. The book was published under the auspices of the Department of Mathematics of the Moscow Engineering-Physics Institute. No personalities are mentioned. References accompany individual articles.

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Collection of Scientific Works SOV/3104

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AVAILABLE: (Library of Congress (QA3.M72)

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AC/gmp
3-21-60

SOV/123-59-15-60327

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 15, p 200 (USSR)

AUTHOR: Zhidkov, Ye.P.

TITLE: Mathematical Fundamentals of Digital Differential Analyzers

PERIODICAL: V sb.: Avtomat. upravleniye i vychisl. tekhn., Nr 1, Moscow, Mashgiz, 1958, pp 228 - 239

ABSTRACT: A small digital machine for solving differential equations, the digital differential analyzer (DDA), operates on the principle of summing up small increments. The basic elements of the DDA are discreet integrators. The mode of operation of the discreet integrators is described, the adjustment schemes of the DDA for the solution of the most frequent functions are given, and some deliberations for the calculation of scale coefficients are stated. General statements are elucidated by examples. 12 figures, 2 tables, 2 references.

Sh.A.V.

Card 1/1

ZHIDKOV, YE. P.

PHASE I BOOK EXPLOITATION SOV/4651

Moscow. Inzhenerno-fizicheskiy institut

Vychislitel'naya tekhnika; sbornik statey (Computer Technique; Collection of Articles) Moscow, Atomizdat, 1960. 54 p. 2,500 copies printed.

Sponsoring Agencies: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR; Moskovskiy inzhenerno-fizicheskiy institut.

Resp. Ed.: Ya.A. Khetagurov, Candidate of Technical Sciences; Tech. Ed.: S.M. Popova.

PURPOSE: This collection of reports is intended for technical personnel working with computers.

COVERAGE: The collection contains reports dealing with some problems of computer technique. The reports of I.O. Atovmyan, V.I. Zuyev, and S.N. Solov'yev discuss various problems concerning a general-purpose discrete-action computer which was designed and is presently under construction at the MIFI, Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering Physics Institute). The reports of Ya.A. Khetagurov, I.M. Vitenberg and Ye.P. Zhidkov examine other technical problems of computer design. There are no references.

Khetagurov, Ya.A. Circuit for Time Reduction in Multiplication 48

The author states that there are certain circuits permitting a reduction in the time of multiplying operations which use not only more elaborate equipment but also combinations of several elementary multiplying operations. The report analyzes these circuits in detail.

Zhidkov, Ye.P. Problem of a Servointegrator in a Digital Differential Analyzer 53

The author discusses the possibility of using a conventional integrator as a servointegrator in digital differential analyzers and includes some examples of its operation.

AVAILABLE: Library of Congress

Card 4/4

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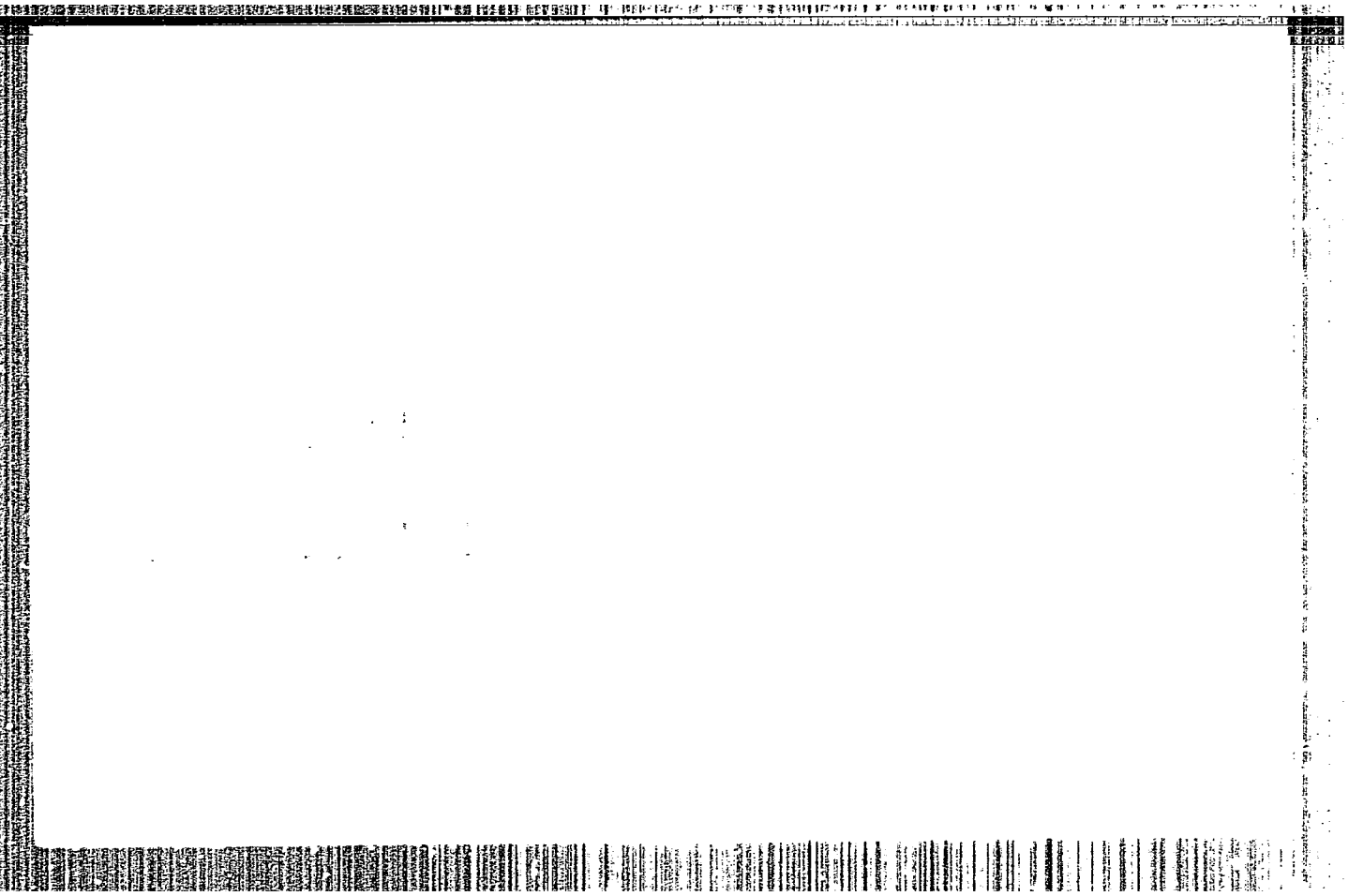
1/5/61

ZHIDKOV, Ye.P.

Problem concerning the tracking integrator of a digital differential analyzer. Vych. tekh. no.1:53-55 '60. (MIRA 15:3)
(Electronic differential analyzers)

ZHIDKOV, Ye.P. (Dubna); SHIRIKOV, V.P. (Dubna)

Boundary value problem for ordinary differential equations of second order. Zhur. vych. mat. i mat. fiz. 4 no.5:804-816 S-O '64. (MIRA 17:12)



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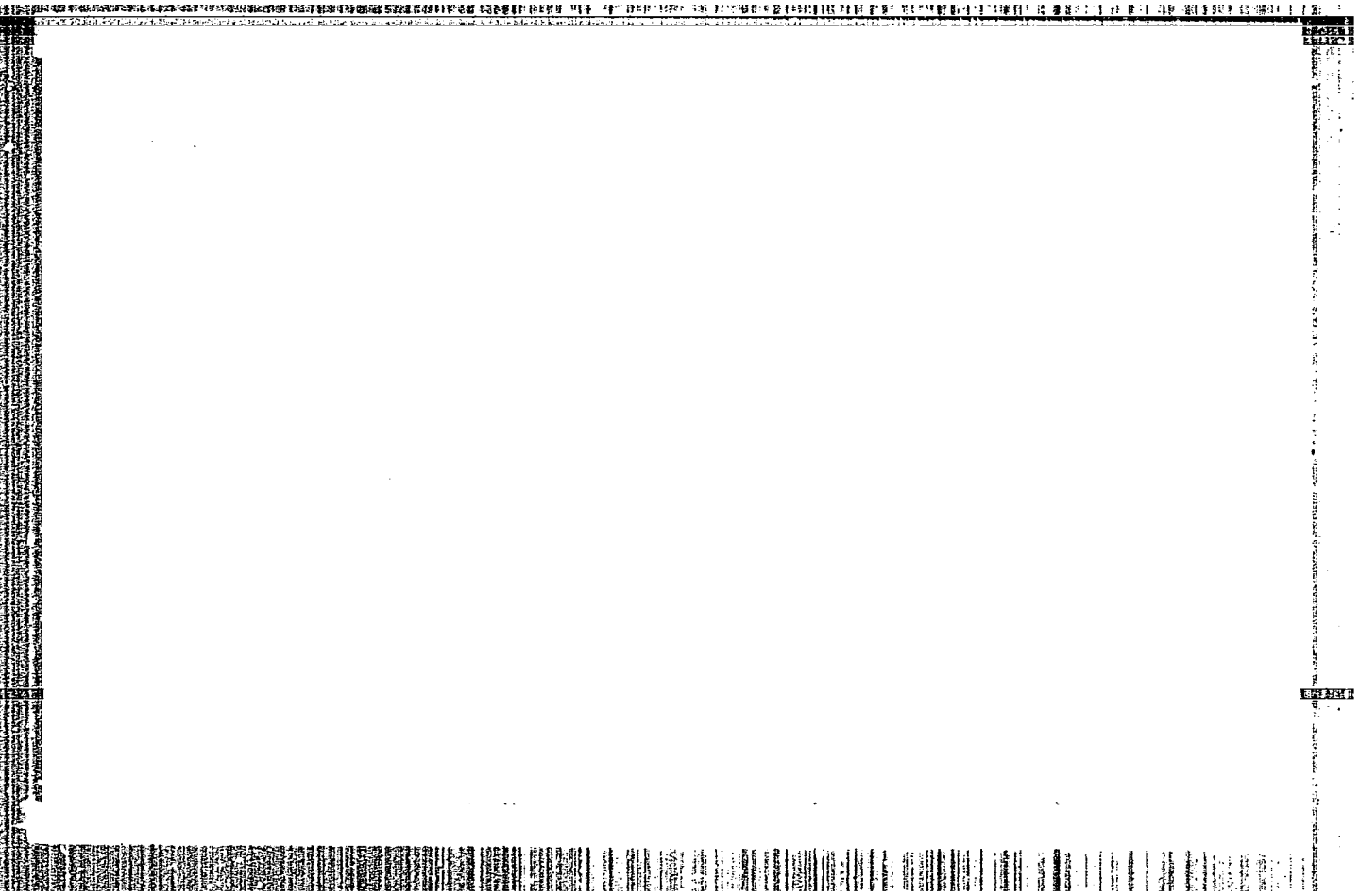
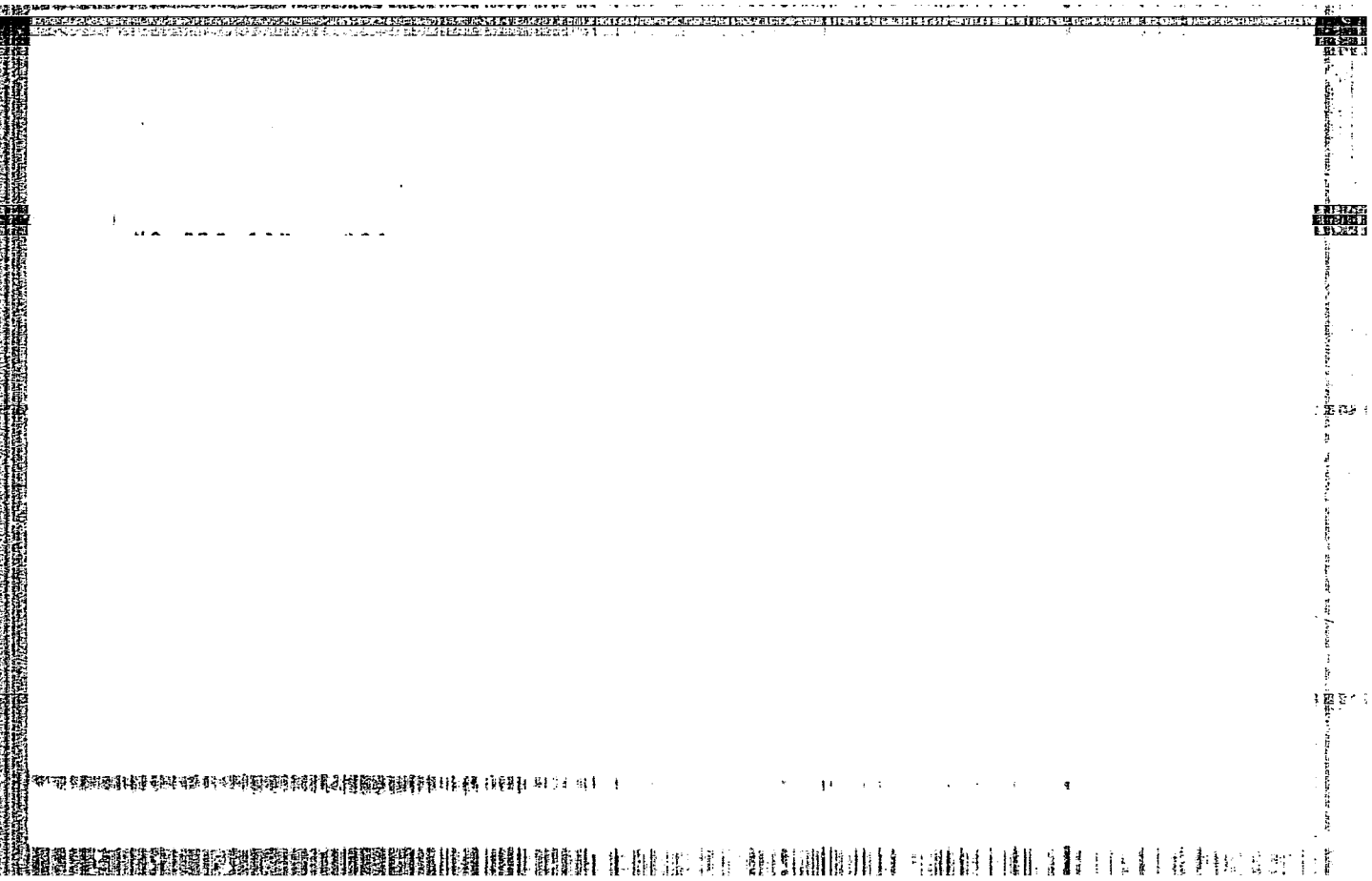


APPROVED FOR RELEASE: 03/15/2001 CIA-RDP86-00513R002064720020-8"



USSR/Pharmacology. Toxicology. Chemotherapeutic Preparations V
A) Antibiotics

Abs Jour : Ref Zhur - Biol., No II, 1958, No 52070

Author : Zhidkova A.A.
Inst : Lvov Scientific Research Institute for the Protection of Motherhood and Childhood
Title : The Effectiveness of Synthomycin Therapy in Gastrointestinal Diseases in Young Children . (Data of the Regional Clinical Hospital).

Orig Pub : Nauchn. tr. L'vovsk. n-i. in-t okhrany materinstva i detstva, 1957, 2, 126-128

Abstract : No abstract

Card : 1/1

EXCERPTA MEDICA Sec.2 Vol.10/11 Phy.Biochem. Nov 57

ZHIDKOVA, A.T.

4873. DMITRIEVA A.S. and ZHIDKOVA A.T. *Influence of length of the school-day on the interdependence of the first and second cortical signal systems (Russian text) Z.VYSC.NERV.DEJATEL. 1956,6/3 (378-386) Tables 5

Fatigue of the cortical cells leads to protective inhibition whereby further exhaustion is prevented and conditions for recuperation are created. This process, which according to Pavlov is manifested daily in the form of sleep, occurs also during intensive work, the conditioned connections of the 2nd signalling system being especially affected. An investigation of these changes in 12 schoolchildren and students aged 12-22 yr. showed that in the scholars whose school-day was 6 hr. long a lengthening of the latent period and increase of the conditioned reflex occurred, together with the shortening of the latent period, to the stimulus which had been concerned at the time of formation of the conditioned reflex in the 2nd signalling system. Similar phenomena were observed with a school-day of 8 hr., but here the conditioned reactions suffered greater and more profound damage. After school-days which had also included physical exercise the formation of conditioned reactions was more easily achieved, but the complex reactions became more difficult. Similar but more marked changes in cortical dynamics are observed after physical training; this is ascribed to effects of muscular activity on conditions in the cortical signalling system. Dimitrijević - Sarajevo

NIKOLAYEV, R.P.; ROMANOVA, A.F.; KONOVALOV, F.V.; ZHIDKOVA, A.V.

Influence of sulfurous anhydride on the preservation of ascorbic acid in dry dog rose. Trudy VNIVI 6:161-164 '59. (MIRA 13:7)

1. Biokhimicheskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo vitaminnogo instituta i Shchelkovskiy vitaminnyy zavod.
(ASCORBIC ACID) (SULFUR DIOXIDE)

NIKOLAYEV, R.P.; ROMANOVA, A.F.; ZHIDKOVA, A.V.; KONOVALOV, F.V.

Preservation of vitamin C in the purified fruit of the dog rose. Trudy VNIVI 6:158-161 '59. (MIRA 13:7)

1. Biokhimicheskaya laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo vitaminnogo instituta i Shchelkovskiy vitaminnyy zavod.

(ASCORBIC ACID)

ZHIDKOVA, E.; ZAMKOVSKAYA, L.

Methodology for planning labor productivity in the alcohol industry. Biul. nauch. inform.: trud i zar. plata 5 no.9: 10-14 '62. (MIRA 15:10)

(Distilling industries—Labor productivity)

ZHIDKOVA, F.T.; POLTEVA, A.G.

Formation of a diphteria toxin in the diffusion cultivation method. Trudy Irk. NIIEM no. 6:63-75 '61. (MIRA 17:7)

1. Iz aerobnogo otdela i otdela pitatel'nykh sred Irkutskogo nauchno-issledovatel'skogo instituta epidemiologii i mikrobiologii.

ZHIDKOVA, F. T.

Zhidkova, F. T. and Pozdnova, Ye. N. "Investigation of optimum conditions for making a diphtheria bacillus toxin," Collection I, in index, 2nd author: Ye. P. Pozdnova, Sbornik nauch. trudov (Irkut. in-t epidemiologii i mikrobiologii), Issue 4, 1948, p. 163-68

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

ZHIDKOVA, G.G.

Forecasting the elements of the spring flood of the Uglegorka River. Trudy TSIP no.129:93-99 '64. (MIRA 17:10)

MOKRUSHIN, S.G.; ZHIDKOVA, L.G.

Effect of electrolytes on the formation and stability of chemical foam. Trudy Ural. politekh. inst. no.94:10-15 '60. (MIRA 15:6)
(Foam) (Electrolytes)

ZHIDKOVA, L.G.

Effect of the concentration of colloidal foaming agent on the surface tension and stability of foams. Trudy Ural. politekh. inst. no.94:16-23 '60. (MIRA 15:6)
(Foam) (Surface tension)

5(4)

SOV/69-21-3-17/25

AUTHORS: Mokrushin, S.G. and Zhidkova, L.G.

TITLE: The Effect of Low Temperature on the Volume and Stability of Foam

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 3, pp 336-339 (USSR)

ABSTRACT: The authors report on a study of the formation and stability of foams obtained from aqueous solutions of calcium chloride within the temperature interval from + 23 to -37°C. To the $CaCl_2$ solution, chalk and finely ground malt sprouts (foaming agent) were added. This carefully-stirred suspension was separately poured into sulphuric acid and hydrochloric acid. The experiments revealed that on interaction between suspension and sulphuric acid, the maximum intensity of foam formation lies in the temperature interval from -5 to -14°C. In the system suspension-

Card 1/2

The Effect of Low Temperature on the Volume and Stability of Foam

hydrochloric acid the maximum intensity could be observed at temperatures from - 4 to - 5°C. At low temperatures foam does not form at once but only after a time interval subsequent to the mixing of the components. The time interval is the longer, the lower the temperature of foam formation is. At the lowering of the temperature, the stability of the foam increases. At temperatures below -15°C, the surface layers surrounding the bubbles assume a brittle structure. The authors mention the Soviet scientists P.A. Rebinder and Ye.M. Savitskaya [Ref Nr 6]. There are 4 graphs and 9 references, 8 of which are Soviet and 1 German.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M. Kirova, Sverdlovsk (Ural Polytechnical Institute imeni S.M. Kirov, Sverdlovsk)

SUBMITTED: 3 July, 1957

"The Formation and Properties of Chemical Foam From Carbon Dioxide Gas." Cand Chem Sci, Ural Polytechnic Inst, Sverdlovsk, 1954. (RZhKhim, No 7, Apr 55)

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

ZHIDKOVA, L.G.; MOKRUSHIN, S.G.

Kinetics of extraction of the disperse phase from hydrosols.
Izv.vys.ucheb.zav.; khim.i khim.tekh. 5 no.1:91-93 '62.
(MIRA 15:4)

1. Ural'skiy politekhnicheskiy institut imeni Kirova, kafedra fizicheskoy i kolloidnoy khimii.
(Colloids)

ZHIDKOVA, M.A.

Precision in the linearization of equations of nonsteady gas flow. Gaz.prom. 10 no.11:24-26 '65.

(MIRA 19:1)

ZHIDKOVA, M.A.

Electric modeling of the production control of a compressor station.
Gaz. prom. 7 no.8:48-51 '62. (MIRA 17:10)

MOKRUSHIN, S.G.; VINIDKOVA, L.G.; BOBKOVA, Ye.F.

Formation of thin films of metal hydroxides on the surface of electrolyte solutions. Izv. vys. uchob. zav.; khim. i khim. tekh. 7 no.3:416-418 '64. (MIRA 17:10)

1. Ural'skiy politekhnicheskiy institut imeni Kirova, kafedra fizicheskoy i kolloidnoy khimii.

KRYLOV, P.N.; MAYYER, V.F.; ZHIDKOVA, M.V.; LAGUTIN, N.S.; KOROVKIN, G.N.; KIRICHENKO, N.Ya.; AGABAB'YAN, E.M.; KUZ'MINA, Ye.I.; GALYNSKIY, V.T.; SKRYLEVA, V.N.; GLYAZER, L.S., red.; RYABOVA, Ye.A., red.; GERASIMOVA, Ye.S., tekhn. red.

[Planning national consumption in the U.S.S.R.; current problems] Planirovanie narodnogo potrebleniia v SSSR; sovremennye problemy. Pod red. V.F.Maiera i P.N.Krylova. Moskva, Izd-vo "Ekonomika," 1964. 134 p. (MIRA 17:1)

1. Moscow. Nauchno-issledovatel'skiy ekonomicheskiy institut.

ZHIDKOVA, L.S.

Petroleum potential of the Paleogene sediments in southern Sakhalin. Trudy VNIGRI no.163:157-177 '60. (MIRA 14:6)
(Sakhalin—Petroleum geology)

ZHIDKOVA, L.S.

Biostratigraphy of Upper Tertiary sediments in the southern part of Sakhalin. Biul. MOIP. Otd.teol. 37 no.4:3-28 Jl-Ag '62.
(MIRA 16:5)
(Sakhalin—Paleontology, Stratigraphic)

KOZYREV, V.D.; GRINBERG, I.G.; KUZINA, I.N.; ZHIDKOVA, L.S.; DVALI, M.F., nauchnyy red; CHIZHOV, A.A., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Geology, and oil and gas potentials of southern Sakhalin] Geologicheskoe stroenie i gazoneftenosnost' iuzhnoi chasti Sakhalina. Leningrad, Gos.nauchn.-tekhn.izd-vo neft.i gorno-topl.lit-ry leningr. otd-nie, 1960. 167 p. (Leningrad. Vsesoiuznyi neftianoi nauchno-issledovatel'skii gologo-razvedochnyi institut. Trudy, no. 156) (MIRA 14:3)

(Sakhalin—Petroleum geology)
(Sakhalin—Gas,Natural—Geology)

VLADIMIROV, A.S.; ZHIDIKOVA, L.S.; KUZINA, I.N.; RATNOVSKIY, I.I.

Comparison of typical stratigraphic cross sections of Neogene sediments in northeastern Sakhalin based on the study of macrofauna. Trudy VNIGRI no.224:195-201 '63. (MIRA 17:2)

ZHIDKOVA, L.S.

Macrofaunal zones in the Neogene classic cross section of northeastern Sakhalin. Trudy VNIGRI no.224:209-222 '63. (MIRA 17:2)

ZHIDKOVA, L.S.; TODOROVSKAYA, V.N.

Interrelationship of the Upper Cretaceous and Paleogene sediments in Sakhalin. Trudy VNIGRI no.224:229-255 '63. (MIRA 17:2)

ZHIDKOVA, L.S.; KUZINA, I.N.

Lower Miocene stratigraphy of the eastern shore of Sakhalin (Gsatellovka series). Trudy VNIGRI no.181:5-24 '61. (MIRA 15:2)
(Sakhalin—Geology, Stratigraphic)

ZHIDKOVA, L. V.

Changes in the dholinesterase activity of the blood serum due to internal irradiation by low doses of radioactive sodium. Radiobiologiia 1 no.3:346-349 '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy institut gigiyeny imeni F.F.Erismana, Moskva.
(CHOLINESTERASE) (SODIUM--ISOTOPES)

ZHIDKOVA, L.V.

State of blood serum proteins in underground coal miners.
Uzh.zap.Mosk.nauch.-issl.inst.san.i gig. no.8:58-60'61.
(MIRA 16:7)

(BLOOD PROTEINS) (COAL MINERS--DISEASES AND HYGIENE)

VYALOV, A.M.; BAGNOVA, M.D.; VASIL'YEV, A.S.; PUSHKINA, N.N.; YUSHKEVICH, L.B.; BULYCHEV, G.V.; BYLOV, I.S.; GENKIN, A.G.; ZHIDKOVA, L.V.; ZHIGULINA, L.A.

Early changes in the state of health of workers in the cumene process of phenol and acetone production. Uch. zap. Mosk. nauch.-issl. inst. san. i gig. no.9:13-16 '61 (MIRA 16:11)

*

ZHIDKOVA, L.V.

Change in skin permeability under the influence of internal irradiation with radioactive sodium. Med.rad. no.5:60-62 '61. (MIRA 14:11)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny imeni F.F. Erismana.

(SODIUM--ISOTOPES) (SKIN--RADIOGRAPHY)

ZHIDKOVA, M.A. (Zhydkova, M.O.] (Kiyev)

Electrical simulation of the dynamics of gas pressure control in municipal gas pipelines. Avtomatyka 7 no.3:57-71 '62. (MIRA 15:6)
(Gas, Natural—Pipelines)
(Gas distribution—Electromechanical analogies)

ZHIDKOVA, M.A. [Zhydkova, M.O.]

Linear electric model of a gas pipeline. Dop.AN URSR no.3: 327-334 '60. (MIRA 13:7)

1. Institut ispol'zovaniya gaza AN USSR. Predstavleno akademikom N.N.Dobrokhotovym.
(Gas--Pipelines)

KATS, V.I., doktor ekon. nauk; KIRICHENKO, V.N., kand. ekon. nauk; IVANOV, Ye.A.; SAID-GALIYEV, K.G.; LUK'YANOV, E.B.; MUSATOVA, V.A.; PLYSHEVSKIY, B.P., kand. ekon. nauk; STOMAKHIN, V.I.; KARPUKHIN, D.N., kand. ekon. nauk; KIRICHENKO, N.Ya.; ZHIDKOVA, M.V., kand. ekon. nauk; ANCHISHKIN, A.I.; KLINSKIY, A.I., kand. ekon. nauk; SOLOV'YEV, N.S.; KLOTSVOG, F.N.; VSYAKIKH, E.P.; LAGUTIN, N.S., kand.ekon. nauk; LEMESHEV, M.Ya., kand. sel'khoz.nauk; KORMNOV, Yu.F., kand. ekon. nauk; SAVIN, V.A.; TEREKHOV, V.F.; KUDROV, V.M., kand. ekon. nauk; AL'TER, L.B., doktor ekon. nauk, red.; KRYLOV, P.N., kand. ekon. nauk; LEPINKOVA, Ye., red.; KOKOSHKINA, I., mladshiy red.; ULANOVA,L., tekhn. red.

[Growth of the social product and the proportions of the national economy of the U.S.S.R.]Rost obshchestvennogo proizvodstva i proportsii narodnogo khoziaistva SSSR. Moskva, 1962. 453 p. (MIRA 16:2)

(Russia--Economic policy)

ZHIDKOVA, N. G.

Vaccine and Serum Inst., NKZdrava, Leningrad, (-1944-)

"The Purified Diptheritic Anatoxin and Its Antigeneous Properties in Experiments on the Animals. Communication IV. Experiment with One-Fold Subcutaneous Immunization of the Rabbits with Purified Diptheritic Anatoxin Followed by the Use of Intranasal Method,"

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 10-11, 1944.

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S/044/62/000/003/092/092
C111/C333

AUTHORS: Cherenin, V.P., Lavrent'yeva, G.A.
Zhidkova, N.V.

TITLE: Experimental information language for the mechanized search of the scientific-technical literature

PERIODICAL: Referativnyy zhurnal., Matematika, no. 3, 1962, 79, abstract 3 V 494. ("Vychisl. matematika", sb. 6, 1960, 118 - 160)

TEXT: It is pointed to the boundedness of the traditional methods for searching the scientific-technical literature, and the pecularities of the new searching methods are analyzed which are constructed without considering the synthetic relations between the characteristics of the object columns (methods of Ranganatan, Moors, Taub) as well as with consideration of the complicated and essential synthetic relations (methods of Perry, Andrew and Newman, Ferradeyn). The foundation of most of these methods is the idea not to operate with the object columns, but with their representations by sets of more general sense units - characteristics synthetically connected with each other.

Card 1/3

Experimental information language ... S/044/62/000/003/092/092
C111/C333

The determination of the similarity and subordination relations between the columns leads to the determination of the same relations between the characteristics from different sets which correspond to the columns, as well as to the comparison of the synthetic relations between the characteristics within the sets. A similar representation is also possible for the obtained characteristics; this leads to characteristics of the second stage, third stage etc, until the characteristics of the considered step are already general such that for the determination of the analytic relations between them a simple standardization, simple cross references or the traditional classification system are sufficient. The application of this idea opens the possibility of determining the relations with the aid of a machine which carries out the simplest logical operations on the standard characteristics; this requires the formation of an "information language" and of a variation of it, the "machine language". The authors propose a method for indexing the "objects" which is more unique than the method of Perry, and for which there exists no danger of mixing the characteristics of different steps (i.e. of mixing analytic with synthetic relations). Demands on an

Card 2/3

ACC NR: AP6029052 (A) SOURCE CODE: UR/0413/66/000/014/0080/0081

INVENTORS: Kuznetsov, Ye. V.; Gusev, V. I.; Zhidkova, T. N.; Andreyeva, I. N.; Semenova, L. S.

ORG: none

TITLE: A method for obtaining copolymers of propylene. Class 39, No. 183938

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 80-81

TOPIC TAGS: polymer, copolymer, propylene, polymerization, ester, phosphoric acid, catalyst, titanium compound, aluminum compound

ABSTRACT: This Author Certificate presents a method for obtaining copolymers of propylene with unsaturated compounds in the medium of an inert carbonaceous solvent at the temperature from 20 to 60C. The process is carried out in the presence of a catalyst consisting of titanium tetrachloride and aluminum alkyls. To impart the property of fire resistance to the copolymers, unsaturated mixed esters of phosphoric acid are used as the unsaturated compounds.

SUB CODE: 11/07/ SUBM DATE: 06Sep62

Card 1/1 UDC: 678.742.3-134.573

ZHIDKOVA, G.V.

Chemical Abstracts
Vol. 48 No. 5
Mar. 10, 1954
Electronic Phenomena and Spectra

Spectrophotometric study of chromatographic rings of colored substances. T. V. Zhidkova, *Issledovaniya v Oblasti Khromatog., Trudy Vsesoyuz. Soveshchaniya Khromatog., Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1950, 137–43(Pub. 1952).—Chromatographic zones were examd. directly by reflected light in comparison with the unaltered adsorbent as a method for simplifying the spectrophotometry of various substances by elimination of the elution step. It was shown clearly that such detns. are possible only if the same adsorbent is used with the following precautions: since solvents alter the shapes of photometric curves, the specimens are best examd. after drying and the temp. used must be relatively low to prevent fading of the colored zones. The concn. effect on the photometric curve of adsorbed material is relatively slight. Rhodamine was adsorbed on Al_2O_3 in 3 distinct zones; each, however, was caused by the dye itself and the new rings were caused by dimerization of the dye. Typical curves are shown for sepn. of an unspecified photosensitizer into its components. G. M. K.

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