

USSR/Human and Animal Physiology. Metabolism. Nutrition.

T-2

Abs Jour: Ref Zhur-Biol., No 12, 1958, 55322.

Author : Belen'kiy, N.G., Krylova, N.N., Chertkov, I.L.,  
Bazarova, K.I., Zuyeva, L.D., Sevost'yanov, B.A.,  
Kel'man, L.F.

Inst : All-Union Academy of Agricultural Sciences.

Title : The Influence of Thermal Treatment on the Assimilation  
of Meat Protein.

Orig Pub: Dokl. VASKhNIL, 1957, No 4, 23-29.

Abstract: During a period of 6 days, 26 rats of 180-200 gr  
body weight each, received daily 10 gr of beef  
meat with methionine-S<sup>35</sup> proteins. Seven control  
rats were given raw ground meat. Nine rats were  
fed ground meat which has been heated in an ultra-  
thermostate at 80° [0] for one hour, and 10 rats

Card : 1/2

SOKOL'SKIY, D.V.; ZUYEVA, L.I.

Hydrogenation of cottonseed oil on palladium catalysts. Trudy  
Inst.khim.nauk AN Kazakh.SSR 8:100-103 '62. (MIRA 15:12)  
(Cottonseed oil) (Hydrogenation)

ZUYEVA, L.I.; SOKOL'SKIY, D.V.

Low temperature hydrogenation of vegetable oils on platinum  
group catalysts on carbon. Trudy Inst. khim. nauk AN Kazakh.  
SSR 13:146-164 '65. (MIRA 18:9)

KHOROZHMANENKO, N.Ya., prof.; USENKO, L.V., kand. med. nauk; ZUYEVA,  
L.N.; NEBOZHINA, Ye.M.

Organization of a specialized department and therapeutic results  
in tetanus cases treated there. Klin. khir. no.3:70-74 '65.

(MIRA 18:8)

1. Kafedra gospital'noy khirurgii I (zav. - prof. N.Ya.  
Khorozhmanenko) Dnepropetrovskogo meditsinskogo instituta  
i anesteziologicheskoye otdeleniye Dnepropetrovskoy oblastnoy  
klinicheskoy bol'nitsy.

ZUYEVA, L.S.; BELOGUROV, O.I.

New species of trematode from the black-bellied plover Squatarola  
squatarola of the Far East. Zool. zhur. 44 no.11:1722-1723 '65.  
(MIRA 18:12)

1. Kafedra zoologii Dal'nevostochnogo gosudarstvennogo universiteta,  
Vladivostok.

ZUYEVA, L.S.

82484

S/131/60/000/008/003/003  
B021/B058

15.2210  
AUTHORS:

Zuyeva, L. S., Codina, N. A., Keler, E. K.

TITLE:

The Properties of Cerium Dioxide and Its Solid Solutions  
With Calcium- and Strontium Oxide

PERIODICAL:

Ogneupory, 1960, <sup>25</sup>No. 8, pp. 368-371

TEXT: The physical and technological properties of the above-mentioned compounds have not been investigated so far. The results of the authors' studies in this field are shown in the paper under review. The conditions of the synthesis of the solid solutions  $\text{CeO}_2$  with  $\text{CaO}$  and  $\text{SrO}$  have been investigated earlier. Chemically pure cerium carbonate and -nitrate as well as calcium- and strontium carbonate were used as basic materials.  $\text{CeO}_2$  was produced first from the cerium salts by annealing. The product obtained contained 98%  $\text{CeO}_2$  and about 2% oxides of other rare-earth elements. Three mixtures of various granulation were prepared from this material: a coarse, medium and fine one, the granular composition of which is mentioned in Table 1. The chemical and granular composition of the masses investigated is shown in Table 2. Samples of the masses investigated were fired in a Kryptol furnace at temperatures of from  $1450^\circ$  to  $1600^\circ\text{C}$  in order to select

The Properties of Cerium Dioxide and Its Solid Solutions With Calcium- and Strontium Oxide

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S/131/60/000/008/003/003  
BQ21/BO58

the optimum temperature. The shrinkage and apparent porosity may be seen from Table 3. The influence of the granulation on the sintering process of cerium dioxide is shown in a figure. The elasticity was determined by the ultrasonic method and the Y3MC(UZIS) instrument. The investigation of deformation under load was conducted according to GOCT(GOST) 4070-48. The investigation results of the fired samples are listed in Table 4. The temperature of the deformation under load of the samples from CeO<sub>2</sub> and solid solutions with CaO is shown in Table 5. The chemical resistance of cerium dioxide and the solid solution CeO<sub>2</sub> with SrO may be seen from Table 6. The authors state in conclusion that sintered highly refractory products with a porosity of up to 0.1% and a compressive strength of up to 2000 kg/cm<sup>2</sup> can be produced from cerium dioxide and its solid solution with calcium- and strontium oxide. In order to obtain well sintered products from pure cerium dioxide, the material must be finely ground. Products from solid solutions of CeO<sub>2</sub> with strontium- and calcium oxide also sinter well with a coarser granulation of CeO<sub>2</sub>. Products from CeO<sub>2</sub> and its solid solutions can be fired at a temperature of 1500°C. Samples from CeO<sub>2</sub> and its solid solution with strontium oxide show a high chemical resistance in contact with other highly refractory oxides at temperatures of from 1600° to 1700° C. The fields for the application of refractories from cerium are to be determined by further studies. There are 1 figure, 6 tables, and

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The Properties of Cerium Dioxide and Its Solid  
Solutions With Calcium- and Strontium Oxide

S/131/60/000/008/003/003  
B021/B058

5 Soviet references.

ASSOCIATION: Institut khimii silikatov AN SSSR  
(Institute of Silicate Chemistry AS USSR)

X

Card 3/3

BURNASHEVA, S.A.; YEFREMENKO, M.V.; CHUMAKOVA, L.P.; ZUYEVA, L.V.

Isolation of contractile proteins from the cilia of *Tetrahymena pyriformis* and the study of their properties. *Biokhimiia* 30 no.4:765-771 J1-Ag '65. (MIRA 18:8)

1. Institut biokhimii imeni A.N. Bakha AN SSSR, Moskva.

KUZ'MINSKIY, A.S.; ABRAMOVA, T.Ya.; ZUYEVA, M.V.

Radiation vulcanization of butadiene-nitrile rubbers. Kauch.  
i rez. 20 no.9:12-15 S '61. (MIRA 15:2)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlemosti.  
(Vulcanization)  
(Rubber, Synthetic)

15.8620

28799

S/138/61/000/009/003/011  
A051/A129

11.2320

AUTHORS: Kuz'minskiy, A. S., Abramova, T. Ya., Zuyeva, M. V.

TITLE: Radiation vulcanization of butadiene-nitrile rubbers

PERIODICAL: Kauchuk i rezina, no. 9, 1961, 12 - 15

TEXT: The Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry) has carried out a laboratory study on conditions for radiation vulcanization of butadiene-nitrile rubber mixes and the properties of the vulcanizates obtained. The best results were achieved with two-component mixes consisting of rubber and carbon black. Channel black proved to be the most efficient filler. The optimum radiation dose was 15 - 20.10<sup>6</sup>r. Increase in the acrylonitrile content in rubber increased the tensile strength and relative elongation of the vulcanizates, but reduced their swelling in gasoline-benzene mixtures. Softeners, such as paraffin and stearin, improved the strength properties of the vulcanizates. Comparison of the properties of irradiation and sulfur vulcanizates of CKH-26 (SKN-26) and SKN-40 rubbers showed that the former have a higher elasticity, a lower melting point and a higher coefficient of low-temperature resistance. The two types of vulcanizates exhibit si-

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milar strength, hardness, swelling and abrasive properties. The laboratory results were confirmed by industrial tests of packing rings made with irradiation vulcanizates. The use of such vulcanizates in the manufacture of industrial rubber products makes possible a temperature range of  $-60$  to  $+120^{\circ}\text{C}$  for the application of butadiene-nitrile rubbers instead of  $-40$  to  $+100^{\circ}\text{C}$ . There are 4 tables, 3 figures and 7 references: 3 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: A. Chapiro, Ind. Plast. Mod., 9, no. 1, 41 (1957); R. Harrington, Rubb. Age, 77, 865 (1955); D. J. Harmon, Rubb. Age, 86, no. 2 (1959); W. Jackson, D. Hale, Rubb. Age, 77, 865 (1955). X

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti (Scientific Research Institute of the Rubber Industry)

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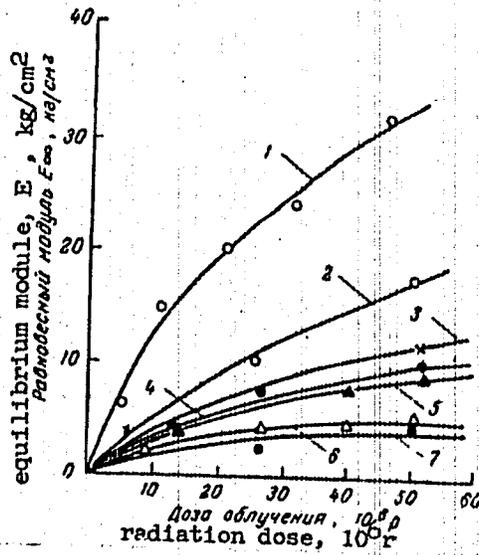
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Radiation vulcanization of butadiene-nitrile rubbers

S/138/61/000/009/003/011  
A051/A129

Fig. 1. Relation of the magnitude of the equilibrium module of various rubbers to the radiation dose

- Legend: 1 - SKN-40  
2 - SKN-26  
3 - SKB  
4 - SKT  
5 - SKS-30  
6 - SKF-32  
7 - NR



Card 3/3

ACCESSION NR: AP4041458

S/0138/64/000/008/0014/0016

AUTHOR: Smagin, Ye. N.; Zuyeva, M. V.; Makhlis, F. A.; Kuz'minskiy, A. S.

TITLE: Some aspects of the technological system for making technical rubber products by the method of radiation vulcanization

SOURCE: Kauchuk i rezina, no. 6, 1964, 14-16

TOPIC TAGS: resin, rubber product, rubber, synthetic rubber, vulcanization, radiation vulcanization, dimethylsiloxane, fluororubber, butadiene-nitrile, cobalt 60, Gamma radiation

ABSTRACT: One of the promising variants of the technological system for making technical rubber products by radiation vulcanization is to use a flat irradiator containing Co<sup>60</sup> as a  $\gamma$ -ray emitter. This technique is discussed in general terms and some preliminary data are presented. Data on the capacity of the irradiator for molds of various materials (iron, aluminum) and dimensions are tabulated. The advantages of the new device, having lighter weight and smaller dimensions compared to those used previously, are discussed. Radiation vulcanates based on rubbers for special purposes (dimethylsiloxane, fluororubbers, butadiene-nitrile, etc.) have a higher thermal stability than the chemical vulcanates, but a lower strength. Since no vulcanizing agents or catalysts and no other ingredients

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ACCESSION NR: AP4041458

are added for radiation vulcanization, the consumption of raw material is reduced and the preparation of the mixtures is simplified. Molding is carried out at 100-200C (depending on the type of rubber) for 5-10 min., with subsequent cooling under pressure to remove the expansion stresses. The calculation of the irradiation dose in the mold is discussed, and it is concluded that special molds must be developed for radiation vulcanization to increase the capacity of the irradiator. Orig. art. has: 1 figure and 2 tables.

ASSOCIATION: Nauchno-issledovatel'skiy institut rezinovoy promy\*shlennosti (Scientific Research Institute of the Rubber Industry).

SUBMITTED: 00

DATE REC: 175.101

ENCL: 00

SUB CODE: MT

NO REF SOV: 008

OTHER: 001

Card 2/2

SMAGIN, Ye.N.; ZUYEVA, M.V.; MAKHLIS, F.A.; KUZ'MINSKIY, A.S.

Some elements of the technological flow sheet for the production of industrial rubber goods with the method of radiation vulcanization. Kauch. i rez. 23 no.6: 14-16 Je '64. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.

L 10659-63  
EWT(m)/BDS--AB

S/0078/63/008/006/1307/1313

ACCESSION NR: AP3001210

AUTHOR: Devyatykh, G. G.; Ezhelova, A. Ye.; Zorin, A. D.; Zuyeva, H. V.

TITLE: Solubility of volatile hydrides of group III-VI elements in certain solvents

SOURCE: Zhurnal neorganicheskoy khimii, v. 8, no. 6, 1863, 1307-1313

TOPIC TAGS: solubility, hydrides, group III-VI elements, gas-liquid partition chromatography, separating mixtures, extractive rectification, distribution coefficient, B; C, Si, Ge, Sn, P, As, Sb, S, Se

ABSTRACT: Gas-liquid partition chromatography was used to determine the solubility of B, C, Si, Ge, Sn, P, As, Sb, S and Se hydrides in a variety of solvents. Since some of the solvents are selective in regard to the series of hydrides, this affords a method for separating mixtures of these volatile hydrides by extractive rectification. Work was done to determine dependence of the distribution coefficient of the hydrides and their molecular weight, element-hydrogen bond length, boiling and critical temperatures. Orig. art. has: 1 figure, 4 tables, 4 equations.

Card 1/2

L 10659-63

ACCESSION NR: AP3001210

0

ASSOCIATION: none

SUBMITTED: 100ct62

DATE ACQD: 01Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 030

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Card 2/2

PRATUSEVICH, R.M.; ZUYEVA, M.Ya.; KUTINA, L.S.; MAYKOVA, L.P.;  
RODSHTEYN, O.A.; CHERNOVA, E.A.

Data for the study of the epidemic outbreak of serous meningitis  
in Monchegorsk in Murmansk Province during 1960. Trudy Len.  
inst. epid. i mikrobiol 26:199-210 '64. (MIRA 18:12)

1. Iz Nauchno-issledovatel'skogo instituta detakikh infektsiy,  
Instituta epidemiologii i mikrobiologii imeni Pastera, Leningrad  
i Gorodskoy bol'nitsy goroda Monchegorska.

KOZLOV, N.S.; BRITAN, Ye.A.; ZIYEV, N.D.

Catalyzed condensation of azomethines with aliphatic-aromatic ketones.  
Zhur.ob.khim. 34 no.1:298-303 Ja '64. (MIRA 17:3)

AMIROVA, S.A.; PECHKOVSKIY, V.V.; PROKHOROVA, V.G.; ZUYEVA, N.D.

Investigating the conditions for chlorination of converter slag.  
Uch.zap. Perm. gos. un. 17 no.1:73-82 '60.

(MIRA 14:11)

(Chlorination)  
(Slag)

ALMAZOYEVA, V. V.; BATAYEV, P. S.; STAVROVSKAYA, V. I.; AKSEYENKO, G. R.;  
BEZZUBOVA, V. P.; VOROB'YEVA, Z. G.; GLADKIKH, V. F.; ZHUKOVA, L. I.;  
ZUYEVA, N. K.; KOROGODINA, Yu. V.; KLIMOVA, L. P.; KRYLOV, A. S.;  
MASLOV, A. V.; PEYKRE, A. E.; SADOVSKAYA, G. Yu.; SPERANSKAYA, V. N.;  
SOLOVEY, V. Ya.; TURCHINS, M. Ye.; SHAMRAY, A. F.; SHIP'TSINA, N. K.;  
SHINKEVICH, M. A.

Field trials of new repellents. Med. paraz. i paraz. bol. no. 4:  
457-464 '61. (MIRA 14:12)

1. Iz entomologicheskogo otdela i otdela sinteticheskikh preparatov  
Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni  
Ye. I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (dir. -  
instituta - prof. P. G. Sergiyev, zav. otdelami - prof. V. N.  
Beklemishev i prof. V. I. Stavrovskaya)

(INSECT BAITS AND REPELLENTS)

ZUYEVA, N.M.; MIKHAYLOVA, M.S.; MOROZOV, A.I.

Example of the structure of a magnetic field with disintegrating magnetic surfaces. Dokl. AN SSSR 153 no.4:801-803 D '63. (MIRA 17:1)

1. Predstavleno akademikom M.A. Leontovichem.

S/020/63/148/006/009/023  
B112/B186

AUTHORS: Gel'fand, I. M., Corresponding Member AS USSR, Grayev, M. I.,  
Zuyeva, N. M., Mikhaylova, M. S., Morozov, A. I.

TITLE: The structure of a magnetic toroidal field having no  
magnetic surfaces

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 6, 1963, 1286-1289

TEXT: A large number of force lines of the field

$$\psi_3 + \psi_0 = H_0 z + h_3 I_3(3r) \sin 3(\varphi - z) + h_0 I_0(3r) \sin 3z$$

have been calculated numerically for  $H_0 = 1$ ,  $h_3 = 3$ ,  $h_0 = 0.120, 0.125, 0.130$ . From their plots a series of qualitative and quantitative properties of fields with collapsing magnetic surfaces are derived. There are 3 figures.

SUBMITTED: October 30, 1962

Card 1/1

L 5225-66 EWT(1)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(c) AT  
ACC NR: AP502692h SOURCE CODE: UR/0373/65/000/005/0003/0006

AUTHORS: Brushlinskiy, K. V. (Moscow); Zuyeva, N. M. (Moscow); Morozov, I. I. (Moscow)

ORG: none

TITLE: Establishment of quasi-one-dimensional flow of plasma in variable cross section channels

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 5, 1965, 3-6

TOPIC TAGS: plasma flow, Mhd, magnetic pressure, perfect gas, supersonic flow, electric conductivity

ABSTRACT: The problem of stationary flow establishment in a variable cross section, planar channel (see Fig. 1) with plasma as the working fluid is studied theoretic-



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L 5225-66

ACC NR: AP5026924

3

cally. The magnetic field is applied in the  $x$ -direction, and the plasma is assumed to obey the perfect gas law. The time-dependent, inviscid flow equations are given as functions of the  $x$ -coordinate only along with the magnetic induction equation. The following three boundary conditions are satisfied

$$\rho = 1, \quad p = 0.3, \quad s = 0, \quad H = H_0 = H_0/H_0 \quad \text{at} \quad x = 0,$$

together with the initial conditions

$$\rho = 1, \quad s = 0, \quad v = 0 \quad \text{at} \quad t = 0.$$

The equations are solved numerically for  $t \geq 0, 0 \leq x \leq 1$  with the following additional condition in the supersonic regime of the flow  $\partial(H)/\partial x = 0$  at  $x = 1$ . The channel cross section was varied according to the law  $f(x) = 0.3 - 0.8x(1-x)$  and the solution was obtained for three values of  $H_0$ , the magnetic field, and two laws of electric conductivity as a function of the temperature. The stationary-flow state is found to depend inversely on the velocity and directly on the electric conductivity  $\sigma$ . For large values of  $\sigma$  the flow is established very quickly. The authors thank M. G. D'yakonikhina for carrying out the numerical computations in this work. Orig. art. has 6 equations and 4 figures.

44,55

Card 2/3

L 5225-66

ACC NR: AP5026924

SUB CODE: OP, MR/

SUBM DATE: 09Oct64/

ORIG REF: 002/

0

Card 3/3 *md*

GEL'FAND, I.M.; GRAYEV, M.I.; ZUYEVA, N.M.; MIKHAYLOVA, M.B.; MOROZOV, A.I.

Structure of a magnetic toroidal field having no magnetic surfaces.  
Dokl. AN SSSR 148 no.6:1286-1289 F '63. (MIRA 16:3)

1. Chlen-korrespondent AN SSSR (for Gel'fand).  
(Magnetic fields)

ZUYEVA, N.M.; MOROZOV, A.I.; SOLOV'YEV, L.S.

Existence of magnetic surfaces of a periodic magnetic field  
having a large longitudinal component, shown with an accuracy up  
to the fourth order. Zhur.tekh.fiz. 32 no.7:897-899 J1 '62.  
(MIRA 15:8)

(Magnetic fields) (Approximate computation)

10.2000

28769

S/057/61/031/010/002/015  
B111/P112

26-7321

## AUTHORS:

Gel'fand, I. M., Grayev, M. I., Zuyeva, N. M., Morozov, A. L.,  
and Solov'yev, L. E.

## TITLE:

Magnetic surfaces of a trigly twisted helical magnetic field  
perturbed by a corrugated field

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 10, 1961, 1164 - 1169

TEXT: The authors investigated a magnetic field described in cylindrical  
coordinates by the scalar potential  $\psi = H_0 z + \frac{h_2}{r^2} I_3(3\alpha r) \sin 3(\varphi - \alpha z)$  (1),  
where  $H_0$  is a "longitudinal" homogeneous field;  $h_2$  is the amplitude of a  
helical magnetic field;  $I_3$  is a modified third-order Bessel function;

$\alpha = (2\pi)/L$ ;  $L$  is the pitch of the helix. This type of field is of great  
interest for thermonuclear systems. The magnetic equipotential surfaces  
may be of two types: telescopic tubes or surfaces which do not enclose  
the axis of the system and are far away from it. The aim of this article  
was to give a general description of the effect of a corrugated field,

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B111/B112

Magnetic surfaces of a triply twisted ...

i.e., a perturbation of the form  $\psi_{\text{corr}} = \frac{h_0}{a} I_0(kar) \sin kaz$  (4) on magnetic surfaces at different  $h_0$  and  $k$ . Since the total field (1) - (4)

is not symmetric, magnetic surfaces can only be calculated numerically. The dependence of the angle of climb of the lines of force on a certain characteristic radius must usually be investigated separately. Calculations are made for  $\psi = z + h_3 I_3(3r) \sin 3(\varphi - z) + h_0 I_0(kr) \sin kz$ .  $k = 1$  and  $k = 3$ ,  $h_3 = 3$  at different  $h_0$ . The interval in which one line of force was considered, was taken as  $0 \leq z \leq Nl$  ( $N = 25$  and  $50$ ,  $l = 2\pi$ ). Integration was performed by the Runge-Kutta method with the steps

$\frac{2\pi}{40}$ ,  $\frac{2\pi}{80}$ , and  $\frac{2\pi}{160}$ . In particular, the following cases were discussed:

1)  $k = 1$ ,  $h_0 = 0.3$  and  $0.6$ . The magnetic surfaces approach one another with increasing  $h_0$ , and tubes not enclosing the  $z$ -axis are formed at  $h_0 = 0.6$ . 2)  $k = 3$ ,  $h_0 = 0.05$ ,  $h_0 = 0.1$ , and  $h_0 = 0.125$ . A periodicity in  $z$  with the period  $2\pi/3$  was found in these cases. For  $k = 3$ ,  $h_0 = 0.1$  the magnetic surfaces coincide with those obtained at  $k = 1$ ,  $h_0 = 0.6$ .

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S/057/61/031/010/002/015  
Magnetic surfaces of a triply twisted ... B111/B112

Inside the fully developed surfaces there occurs a new surface with a three-leaved cross section. This configuration does not rotate but merely vibrates. The magnetic surfaces disappear under the action of strong perturbations, and the points lie on curves with helical cross sections (Fig. 9). The figures indicate the succession of the curve points. There are 10 figures and 5 Soviet references.

SUBMITTED: November 17, 1960

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3

35660

8/020/62/143/001/014/030  
B104/B108

24.6750

24.2300

AUTHORS: Cel'fand, I. M., Corresponding Member AS USSR, Grayev, M. I., Zuyeva, N. M., Mikhaylova, M. S., and Morozov, A. I.

TITLE: Example of a toroidal magnetic field having no magnetic surfaces

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 1, 1962, 81-85

TEXT: The existence of magnetic surfaces can be proved and their exact equations derived only if the relevant magnetic field has some symmetry. In unsymmetric magnetic fields, the equations of these surfaces can only be approximated. An unsymmetric magnetic field with the scalar potential

$$\psi = z + h_3 J_3(3r) \sin 3(\varphi - z) + h_0 J_0(3r) \sin 3z,$$

has been calculated numerically in a previous study (ZhTF, 31, no. 10 (1961)). The magnetic surfaces of such a field were shown to decompose at  $h_3 = 3$ ,  $h_0 = 0.125$ . In the present study, this phenomenon is investigated in detail. The course of the lines of force is calculated  
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Example of a toroidal magnetic ...

S/O20/62/143/001/014/030  
B104/B108

and it is shown that the lines of force which should form the magnetic surfaces do not lie on a closed curve. Accordingly, no magnetic surface exists in this case. There are 3 figures and 3 references: 2 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: M. Spitsner, Proc. of the II. Geneva Conference on the Peaceful Uses of Atomic Energy, 1958.

• SUBMITTED: December 11, 1961

Card 2/2

24,2300

S/057/62/032/007/012/013;  
B1Q4/B102

AUTHORS: Zuyeva, N. M., Morozov, A. I., and Solov'yev, L. S.

TITLE: Existence of magnetic surfaces of a periodic magnetic field having large longitudinal components, accurate to terms of the 4th order

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 7, 1962, 897-899

TEXT: Magnetic surfaces are shown to exist, in fourth approximation, in the general case of a periodic field which has large longitudinal component  $H_{||}$ . Magnetic surfaces not found by numerical methods either occur in higher approximation, or their effects are exponentially small. The equations averaged according to N. N. Bogolyubov for the lines of force of a magnetic field have unique integrals when terms of the order  $(H_{\perp}/H_{||})^4$  are taken into account.

SUBMITTED: March 5, 1962

Card 1/1

JB

GEL'FAND, I.M.; GRAYEV, M.I.; ZUYEVA, N.M.; MIKHAYLOVA, M.S.;  
MOROZOV, A.I.

Example of a toroidal magnetic field lacking magnetic  
surfaces. Dokl. AN SSSR 143 no.1:81-83 Mr '62.

1. Chlen-korrespondent AN SSSR (for Gel'fand) (MIRA 15:2)  
(Magnetic fields)

BRUHLINSKIY, K.V. (Moskva); ZUYEVA, N.M. (Moskva); MOROZOV, A.I. (Moskva)

Establishment of a quasi-one-dimensional plasma flow in a shaped channel. Izv. AN SSSR. Mekh. no.5:3-6 S-O '65. (MIRA 18:10)

L 06977-67 EWT(1) IJP(c)

ACC NR: AP6018349

SOURCE CODE: UR/0089/66/020/005/0396/0401

AUTHOR: Zuyeva, N. M.; Solov'yev, L. S.

ORG: none

TITLE: Helical magnetic configurations with minimum B

SOURCE: Atomnaya energiya, v. 20, no. 5, 1966, 396-401

TOPIC TAGS: helical magnetic field, magnetic mirror machine

ABSTRACT: The authors present general equations for magnetic screw-symmetrical configurations with minimum B (i.e., fields in which the specific volume is maximal on the system axis). An approximate analytic expression is obtained for the specific volume  $V'(\phi)$  in the vicinity of the helical magnetic axis. Exact formulas for the specific volume  $V'(\phi)$  and for the average twist angle of the force lines  $\chi'(\phi) = 2\pi\chi'(\phi)$  are expressed in terms of single integrals. Plots of  $V'(\phi)$  and  $\chi'(\phi)$  up to the separatrices of the magnetic surfaces are obtained on the basis of numerical evaluation of these integrals. The calculations demonstrate that a magnetic configuration with a region of minimum B can be produced, at least near the separatrix, if the distance from the axis of the helical windings to the edge of the

28  
B

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UDC: 533.9

L 06977-67

ACC NR: AP6018349

separatrix are smaller than the distance to the magnetic axis. The feasibility of realizing such a magnetic configuration is thus connected with the three-dimensional nature of the magnetic axis and with the ellipticity of the normal sections of the magnetic surfaces. Orig. art. has: 8 figures and 47 formulas.

SUB CODE: 20/

SUBM DATE: 14Aug65/

ORIG REF: 002/

OTH REF: 001

Card 2/2 *lh*

ZUYEVA, N.N.

Case of metastases of pheochromoblastoma in the bones. Vest.  
rent. 1 rad. 40 no.2:62-63 Mr-Apr '65. (MIRA 18:6)

1. Fakul'tetskaya khirurgicheskaya klinika (zak. prof. V.I.  
Kukosh) Gor'kovskogo meditsinskogo instituta imeni Kirova 1  
Gor'kovskaya gorodskaya klinicheskaya bol'nitsa.

2  
TOIMACHEV, A.M.; ERDOLCHV, V.L.; PANIKERKOV, G.B.; ZAYEVA, I.I.

Calculation of height equivalent of a theoretical plate in ion-exchange chromatography according to the mobilities of ions. Zhur. fiz.khim. 39 no.7:1780-1783 JI '65.

(MIRA 18:8)

ZUYEVA, N. U.

USSR / Weeds and Weed Control.

N

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58823

Author : Moysseeva, P.; Zueva, N.; Matviyevskiy, O.  
 Inst : Sumy Agricultural Station, Masev Exper. Station,  
 Ukrainian Agricultural Inst.  
 Title : Weed Control with Herbicides

Orig Pub : Kolgospnik Ukrainy, 1957, No 6, 28

Abstract : These are papers by three authors under the same title. In the first paper, (author-Zueva) the results of experiments carried out at the Sumy Agricultural Station to test isopropyl-3-chlorophenyl carbamate (CIPC) for the control of weeds in sowings of carrots, sunflower and sugar beet are given. The treatment was very effective for the first two crops. However, the herbicide (4-8 kg/ha) had a negative effect on the sugar beet. The sprouts became less dense and the yield

Card 1/2

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58823

of roots diminished by 62-89 cwt/ha. In the second paper, (author-Matviyevskiy) the experiments carried out by the Masev Experimental Station on the use of herbicides 2,4-D, sodium pentachlorophenolate and isopropylphenylcarbamate (IPC) and (CIEU) are described. The best results for the control of weeds in gardens were obtained with a mixture of IPC (1.6 kg) and 2,4-D (1.5 kg/ha). In the third paper, (author-Moysseeva) the results of experiments on the testing of 2,4-D and 2M-4X for the control of weeds in flax, carried out by the Ukrainian Institute of Agriculture in 1956, are given. The best results were obtained with 2M-4X in doses of 0.9 kg/ha. In this case, the yield of fiber was higher than in the case of manual weeding. --  
 R. A. Safra

Card 2/2

USSR / Weeds and Weed Control.

X

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 1950

Author : Zuyova, N. O.

Inst : Not given

Title : Control of Annual Grass Weeds

Orig Pub : Sad 1 ogorod, 1958, No 4, 28

Abstract : In 1956-1957 the Sumsk Agricultural Station studied the influence of chloro-PC (I) and TGA (II) on weeds of grass families in sowings of carrots of the Gornad variety. I in doses of 4 and 8 kg/hectare and II in doses of 12 kg/hectare of active ingredients were applied prior to the sowing of the carrots with a fixed harrow. The standard output of liquid was 500 liter/hectare. I influenced the growth of the carrots, and II inhibited germination of

Card 1/2

ZUYEVA, N.P.

Microdetermination of citric acid and malic acid in plants.  
Fiziol.rast. 1 no.1 91-93 S-0 '54. (MIRA 8:10)

1. Nauchnyy institut po udobreniyam i insektofungisudam,  
Moscow.

(Plants--Chemical analysis)

ZUYEVA, N., inzh.

Rapid method for determining the moisture content of feathers  
and down. Mas. ind. SSSR 29 no. 4:16-17 '58. (MIRA 11:8)  
(Feathers)

USSR/Weeds and Their Control.

H.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 68485

Author : Zuyeva, N.P.

Inst : Sumy State Agricultural Testing Station.

Title : A New Preparation for Annual Grass Weeds Control.

Orig Pub : Byul. nauchno-tekhn. inform. Sumsk. gos. s.-kh. opyt. st., 1957, No 3, 51-55.

Abstract : In 1956 the Sumy Agricultural Testing Station tested the effect of the herbicide, isopropyl-N-3-chlorphenylcarbamate, for use against green foxtail and chicken panic grass in sowings of Gerand carrots and Saratovskiy 169 sunflower. The herbicide was applied, in dosages of 4 and 8 kilograms of the agent (per hectare), to carrots before harrowing, and to sunflower in the presowing cultivation on the day of sowing with a portable sprayer.

Card 1/2

- 15 -

MAGNITSKIY, Konstantin Pavlovich, doktor sel'skokhozyaystvennykh nauk;  
SHUGAROV, Yu.A., starshiy nauchnyy sotrud.; MALIKOV, Y.E., nauchnyy  
sotrud.; prinimali uchastiye: ZUYEVA, N.P., nauchnyy sotrud.;  
GOSUDAREVA, A.G., laborant; FEDORHENKO, M.G., laborant; KAVUN, P.K.,  
red.; BACHURINA, A.M., tekhn.red.; PROKOP'YEVA, I.N., tekhn.red.

[New methods of plant and soil analysis] Novyye metody analiza  
rastenii i pochv. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1959.  
239 p. (MIRA 14:5)  
(Soils--Analysis) (Botanical research)

ZUYEVA, N. P.

"The Effect of Various Forms of Nitrate and Potassium Fertilizers on the Accumulation of Alkaloids in Plants." Cand Agr Sci, All-Union Sci Res Inst of Fertilizers, Agricultural Engineering and Soil Science; All-Union Order of Lenin Academy of Agricultural Sciences imeni V. I. Lenin, Moscow, 1955. (KL, No 12, Mar 55)

SO: Sum No. 670, 29 Sep 55, - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

ZUYEVA, O.

Vadim Aleksandrovich Kondakov, obituary. Geog.v shkole 22  
no.5:73 S-O '59. (MIRA 13:2)  
(Kondakov, Vadim Aleksandrovich, 1886-1959)

KHOKHLOVA, A., konstruktor; PONOMAREVA, T. [Ponomareva, T.],  
master; BUBEN, Antonina [Buben, Antanina], kontroler; ZUYEVA, O.,  
[Zuieva, Vol'ga Danilovna], master; KUR'YANOVA, Nina

We work at the tractor plant. Rab. i sial, 34 no. 11:7-8 N '58.  
(MIRA 11:12)

1. Minskiy traktorny zavod (for all). 2. Chugunolitseynyy tsekh (for Ponomareva).
3. Traktorny tsekh No. 2 (for Buben, Kur'yanova).
4. Pressovyy tsekh (for Zuyeva).

(Minsk Tractor Industry) (Women's Employment)

ACC NR: AP6035960	SOURCE CODE: UR/0129/66/000/010/0069/0070
AUTHOR: <u>Bernshteyn, M. L.; Zuyeva, O. M.</u>	
ORG: <u>Moscow Institute of Steel and Alloys</u> (Moskovskiy institut stali i splavov)	
TITLE: <u>Recrystallization of manganese and nickel steels in high-temperature thermomechanical treatment</u>	
SOURCE: <u>Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1966, 69-70</u>	
TOPIC TAGS: metal recrystallization, <del>recrystallization</del> recrystallization temperature, steel thermomechanical treatment, high temperature thermomechanical treatment, manganese steel, nickel steel, <i>MECHANICAL HEAT TREATMENT</i>	
ABSTRACT: The effect of manganese (2, 4, 6 and 8%) and nickel (4, 8, 12 and 16%) on the <u>recrystallization</u> of steels containing 0.01—0.8% carbon during high temperature thermomechanical treatment (HTMT) has been investigated. Prior to HTMT, <u>manganese steel</u> specimens were fully annealed at 800—850C for 1.5—2 hr, and nickel steel specimens were tempered at 500—550C for 7—10 hr. HTMT consisted of heating to a temperature 70—90C above the $A_c3$ point, holding for 20 min, rolling with a reduction of 50% and subsequent water quenching. It was found that	
Card 1/2	UDC: 669.24'74:621.977:620.186.5

ACC NR: AP6035960

manganese and nickel delay the recrystallization, particularly in steels with a very low carbon content. Increased carbon content contributes to the development of recrystallization. Manganese steels containing 0.01% C and 6—8% Mn may be subjected to HTMT, since these steels exhibit a considerable delay of at least 10 sec in recrystallization with 50% deformation. Orig. art. has: 2 figures.

SUB CODE: 13, 11/      SUBM DATE: none/      ORIG REF: 002

Card 2/2

ACC NR: AP6035960 SOURCE CODE: UR/0A29/66/000/010/0069/0070

AUTHOR: Bernshteyn, M. L.; Zuyeva, O. M.

ORG: Moscow Institute of Steel and Alloys (Moukovskiy institut stali i splavov)

TITLE: Recrystallization of manganese and nickel steels in high-temperature thermomechanical treatment

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1966, 69-70

TOPIC TAGS: metal recrystallization, ~~metal~~ recrystallization temperature, steel thermomechanical treatment, high temperature thermomechanical treatment, manganese steel, nickel steel, *MECHANICAL HEAT TREATMENT*

ABSTRACT: The effect of manganese (2, 4, 6 and 8%) and nickel (4, 8, 12 and 16%) on the recrystallization of steels containing 0.01—0.8% carbon during high temperature thermomechanical treatment (HTMT) has been investigated. Prior to HTMT, manganese steel specimens were fully annealed at 800—850C for 1.5—2 hr, and nickel steel specimens were tempered at 500—550C for 7—10 hr. HTMT consisted of heating to a temperature 70—90C above the  $A_c$  point, holding for 20 min, rolling with a reduction of 50% and subsequent water quenching. It was found that

Card 1/2 UDC: 669.24'74:621.977:620.186.5

ACC NR: AP6035960

manganese and nickel delay the recrystallization, particularly in steels with a very low carbon content. Increased carbon content contributes to the development of recrystallization. Manganese steels containing 0.01% C and 6—8% Mn may be subjected to HTMT, since these steels exhibit a considerable delay of at least 10 sec in recrystallization with 50% deformation. Orig. art. has: 2 figures.

SUB CODE: 13, 11/      SUBM DATE: none/      ORIG REF: 002

Card 1/2

ESTRIN, E.I.; ZUYEVA, O.M.; MAKSIMOVA, O.P.; FIGUZOV, Yu.V.

Effects of internal friction connected with direct and reversible  
martensite transformations. Fiz. met. i metalloved. 11 no. 2:252-  
260 F '61. (MIRA 14:5)

1. Institut metallovedeniya i fiziki metallov Tsentral'nogo  
nauchno-issledovatel'skogo instituta chernoy metallurgii.  
(Internal friction) (Phase rule and equilibrium)

20213

S/126/61/011/002/012/025  
E193/E483

18750b  
AUTHORS:

Estrin, E.I., Zuyeva, O.N., Makal'mova, O.P. and  
Piguzov, Yu.V.

TITLE:

On the Problem of Internal Friction Effects  
Associated With the Direct and Reverse Martensitic  
Transformation

PERIODICAL:

Fizika metallov i metallovadeniye, 1961, Vol.11, No.2,  
pp.252-260

TEXT: The object of the present investigation was to study the phenomena of "phase work-hardening", i.e. the structural changes brought about in the  $\gamma$ -phase of the 73.5 Fe-23.7 Ni-2.8 Mn alloy during the martensitic transformation. To this end, the variation of the kinetics of the martensitic transformation during cooling was studied as well as the character of the temperature dependence of internal friction of specimens, subjected to one of the following heat treatments: (1)  $\gamma \rightarrow \alpha$  transformation, carried out to various degrees of completion; (2)  $\gamma \rightarrow \alpha \rightarrow \gamma$  transformation carried out to attain various degrees of stability of austenite; (3)  $\gamma \rightarrow \alpha \rightarrow \gamma$  transformation, followed by annealing under conditions

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20213

S/126/61/011/002/012/025  
E193/E483

On the Problem of Internal ...

ensuring the maximum supplementary stabilization of the  $\gamma$ -phase (1 h at  $525^{\circ}\text{C}$ ). The kinetics of the martensitic transformation were studied by the magnetostriction measurements, the torsional vibration method having been used to determine the temperature dependence of internal friction. In both cases, wire specimens (0.7 mm in diameter) preliminarily vacuum-annealed at  $1100^{\circ}\text{C}$  were used, extra precautions having been taken to avoid any plastic deformation of the specimens during handling. Specimens, containing various proportions (11, 24, 28 and 48%) of martensite, were prepared by rapid quenching in liquid nitrogen, followed by heating to room temperature at various heating rates. The  $\alpha \rightarrow \gamma$  transformation was carried out by immersing the specimens for 10 sec in a salt bath at  $540^{\circ}\text{C}$  and water quenching. The results of the study of the kinetics of the  $\gamma \rightarrow \alpha$  transformation in wire specimens confirmed the results obtained earlier on standard specimens (Ref.2 and 4): with increasing degree of "phase work-hardening" the stability of austenite increased after both  $\gamma \rightarrow \alpha$  and  $\gamma \rightarrow \alpha \rightarrow \gamma$  transformation. The stability of martensite was further increased by annealing at  $525^{\circ}\text{C}$ . The

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On the Problem of Internal ...

S/126/61/011/002/012/025  
E193/E483

results of the study of the temperature dependence of internal friction can be summarized as follows: (i) no anomalies were observed on the internal friction curves for the fully annealed specimens; (ii) curves for specimens that had undergone partial  $\gamma \rightarrow \alpha$  transformation had the following specific features: a peak (A) at 170°C, the magnitude of which increased with increasing proportion of martensite in the specimens; a peak (B) at 290°C, a ledge (C) at 580°C, a ledge (D) at 730°C, a sharp peak (E) at 810°C; (iii) after the  $\gamma \rightarrow \alpha \rightarrow \gamma$  transformation, the specific features (A) and (C) disappeared completely and the ledge (D) almost completely, peak (B) becoming more pronounced and shifted to a lower temperature (approx 250°C); (iv) after a supplementary annealing, the height of peak (B) decreased. Since the specific features (A), (D) and (E) have no direct bearing on the problem under investigation, peaks (B) and (C) are discussed in detail. It is shown that the internal friction peak at 250°C is associated with the re-orientation of pairs of carbon atoms which takes place as a result of stresses, set up in the alloy, it being postulated that the relaxation processes leading to the appearance of peak (B) cannot take place in the absence of

Card 3/4

On the Problem of Internal ...

S/126/61/011/002/012/025  
E193/E483

lattice distortions. Regarding the peak (C), the fact that it was observed only in specimens containing martensite and that it occurred in the temperature range of the reverse martensitic transformation indicated that this peak is due to the increase in the internal friction, caused by the  $\alpha \rightarrow \gamma$  transformation. K.M.Rozin, B.N.Finkel'shteyn, T.Ke and Ch.Taxen are mentioned for their contributions in this field. There are 4 figures, 1 table and 20 references: 13 Soviet and 7 non-Soviet.

ASSOCIATION: Institut metallovedeniya i fiziki metallov  
TsNIICHM (Institute of Science of Metals and Physics  
of Metals, TsNIICHM)

SUBMITTED: March 12, 1960

Card 4/4

KOZLOV, P.V.; ZUYEVA, P.V.

Structure and properties of films made from ether cellulose.  
Trudy NIKFI no.7:5-12 '47. (MIRA 11:6)

1. Laboratoriya tekhnologii plenok Nauchno-issledovatel'skogo kino-  
foto-instituta, Moskva. (Photography--Films)

ROMANENKO, N.I., kand.tekhn.nauk; ZUYEVA, R.M., inzh.

Activity of tripolilike rocks as hydraulic additives. Stroi.mat.  
8 no.7:35-37 J1 '62. (MIRA 15:8)  
(Binding materials)

GRIGOR'YEVA, N.Ye; ZUYEVA, R.M.

Structure and color of *p*-phenylazo substituted anils of glutaconic dialdehyde. Zhur.ob.khim. 26 no.1:107-111 Ja '56. (MLRA 9:5)

1. Khar'kovskiy gosudarstvennyy universitet.  
(Azo compounds) (Glutaconaldehyde) (Schiff bases)

DONSKOV, Vasily Yefimovich, dotsent, kand.ekon.nauk; ZUYEVA, Raisa Vasil'yev-  
na, kand.ekon.nauk; KRUIZHKOVA, Raisa Vasil'yevna, kand.ekon.nauk; KISH-  
KOV, Yuriy Konstantinovich, dotsent, kand.ekon.nauk; MOISEYEV, Petr  
Nikitich, dotsent, kand.ekon.nauk; PONOMAREVA, Irina Andreyevna, kand.  
ekon.nauk; KHINKIS, Lev Akimovich, starshiy prepodavatel'; KAMENITSER,  
S.Ye., kand.ekon.nauk, retsenzent; nauchnyy red.; BULGAKOV, G.V., kand.  
ekon.nauk, retsenzent; SHVARTS, V.M., inzh.ekonomist, retsenzent; PRI-  
TYKINA, L.A., red.; SOKOLOVA, I.A., tekhn.red.

[Production organization and planning in food industry enterprises]  
Organizatsia i planirovanie proizvodstva na predpriatiiskh pishchevoi  
promyshlennosti. Moskva, Pishchepromizdat, 1959. 605 p. (MIRA 12:9)  
(Food industry)

MASIK, A.Kh., kand. tekhn. nauk; ZUYKVA, R.M.

Corrosion of steel in lime-tripoline binder. Strol. mat. 10 no. 8:12-19  
Ag '64. (MIRA 17:12)

ZHBANKOV, R.G.; ZUYEVA, R.V.; KOZLOV, P.V.; SAVEL'YEVA, L.V.

Molecular interactions in polymers. Part 1: Application of infrared spectroscopy to the study of acetylcellulose fibers. Vysokom. soed. 2 no.8:1270-1279 Ag '60. (MIRA 13:9)

1. Institut fiziki AN BSSR i Nauchno-issledovatel'skiy kino-fotoinstitut.

(Cellulose--Spectra)

ZUYEVA, R.V.

ZUYEVA, R.V., kand. ekon. nauk.

Status of production standards in the food industry. Trudy MTIFF  
no.7:276-282 '57. (MIRA 10:12)  
(Food industry--Production standards)

KARGIN, V. A.; KOSLOV, P. V.; ZUYEVA, N. V.

"A Study of the Structures and Properties of Cellulose-Ester Films - II. The Change of the Structure of Nitro-Cellulose Films at the Time of their Relaxation." Zhur. Fiz. Khim., Vol. 17, No. 5-6, 1943

BR-52059019

ZUYEVA, R.V.

Kozlov, P.V. and Zuyeva, R.V. "Structure and composition of cellulose-ether  
films," report 55, Trudy NIKFI (Nauch.-issled. kino-foto-in-t), Issue 7,  
1947, (column title: 1944), p. 5-12 - Bibliog: 14 items

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

*ZUYEVA, T.*  
ZUYEVA, T., zootekhnik

A letter to N. Smirnov. Zhivotnovodstvo 19 no.11:91 N '57.  
(MIRA 10:12)

1. Kolkhoz imeni Sverdlova, selo Inkino, Kolpashevskogo rayona,  
Tomskoy oblasti. (Swine)

LOPUSHANSKAYA, A.I. (Chernovitsy); ZUYEVA, T.S. (Chernovitsy); PAMFILOVA, L.A.  
(Chernovitsy); PAMFILOV, A.V. (Chernovitsy).

Absorption spectra of Cr(III) complexes. Zhur. fiz. khim. 39 no. 1:  
68-71 Ja '65 (MIRA 19:1)

1. Chernovitskiy universitet. Submitted January 29, 1964.

DONSKOV, Vasilii Yefimovich, prof.; ZUYEVA, Raisa Vasil'yevna, kand.  
ekon. nauk; KRUSHKOVA, Raisa Vasil'yevna, kand. ekon. nauk;  
MESHKOV, Yuriy Konstantinovich, kand. ekon. nauk; PONOMAREVA,  
Irina Andreyevna, kand. ekon.nauk; KHINKIS, Lev Akimovich,  
st. prepodavatel'; SHAMIN, Andrey Nikolayevich, st. prepoda-  
vatel'; KAMENITSER, S.Ye., doktor ekon. nauk, prof., retsenzent;  
SHVARTS, V.M., inzh.-ekon., retsenzent; FUKS, V.K., red.;  
PECHENKINA, O.P., tekhn. red.

[Production organization and planning in food industry enter-  
prises] Organizatsiia i planirovanie proizvodstva na predpri-  
iatiakh pishchevoi promyshlennosti. [By] V.E.Donskov i dr.  
Moskva, Pishchepromizdat, 1963. 454 p. (MIRA 17:2)

L 35903-66 EWT(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD

ACC NR: AP6007351

SOURCE CODE: UR/0126/66/021/002/0228/0234

AUTHORS: Peyzulayev, Sh. I.; Konovalov, E. Ye.; Uznadze, O. P.; Zuyeva, T. F.

ORG: none

TITLE: Methods for the determination of the effective distribution coefficient of additives during alloy crystallization. 2. Zone melting.

SOURCE: Fizika metallov i metallovedeniye, v. 21, no. 2, 1966, 228-234

TOPIC TAGS: zone melting, metal zone melting, bismuth alloy, DISTRIBUTION COEFFICIENT, PHASE TRANSITION

ABSTRACT: Two methods for the determination of the effective distribution coefficient of additives during zone melting of alloys are presented. This paper supplements the results of an earlier publication by Sh. I. Peyzulayev, E. Ye. Konovalov, and L. I. Kondrat'yeva (FIZI, 1965, 19, 707). The first method consists in determining the distribution coefficient from the position of the transition point. The position of the transition point  $x_1$  after  $n$  transitions was calculated after I. Braun and S. Marshall (Brit. J. appl. Phys., 1957, 8, 157).

$$C_n(x) = C_n(r) e^{-k(x-r)} + ke^{-kx} \int_r^{1+x} C_{n-1}(t) e^{k(t-1)} dt$$

for  $0 \leq x < (N-1)$ ;

$$C_n(x) = (N-x)^{n-1} C_n(N-1) \text{ при } (N-1) < x < N,$$

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UDC: 532.78.518.53

L 35903-66

ACC NR: AP6007351

where  $r$  is the distance to the initial zone point  $m$  and  $N$  is the ingot length in units of the zone length. A graph for the estimation of errors in  $k$  (the distribution coefficient) is presented. It is concluded that as the number of zone passages  $n$  increases the position of the transition point tends to the limiting position of V. Dzh. Pfann (Zonnaya plavka, M., Metallurgizdat, 1960). The second method, which is called the integral method, is based on the determination of the coefficient of impurities concentration  $K_I$  after Sh. I. Peyzulayev and E. Ye. Konovalov (Zhurnal analit. khimii, 1963, 18, 1155)

$$K_I = 1 - \frac{1}{NC_0} \int_0^{N-s} C_n(x) dx = \frac{s}{N} + \frac{1-k}{kN} [1 - e^{-k(N-s)}]$$

and

$$\frac{1}{k} = 1 + \frac{(N-s) \left[ 1 - \left( \frac{C_p}{C_1} \right)^{1/(p-1)} \right]}{1 - e^{-k(N-s)}}$$

The methods were tested on the distribution of Ag, Pb, Cu, Al, and Cd in Bi during zone melting. A schematic of the zone refining apparatus is presented. The experimental results are presented in graphs and tables (see Fig. 1).

Card 2/3

L 35903-66

ACC NR: AP6007351

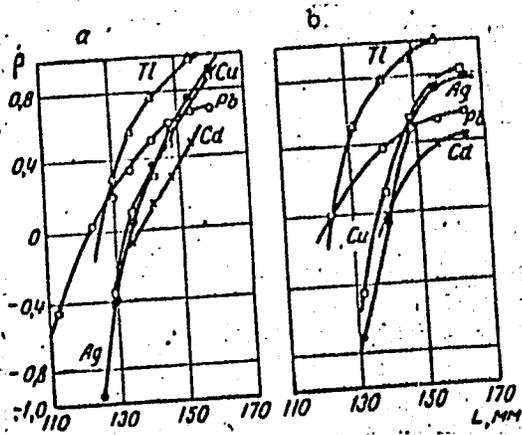


Fig. 1. Graphs for the determination of transition points;  $f = 0.84$  mm/sec, length of ingots 170 (a) and 172 mm (b);  $l = 14.7$  mm ( $l$  - length of zone).

Orig. art. has: 3 tables, 4 figures and 10 equations.

SUB CODE: 11/

SUBM DATE: 16Jan65/

ORIG REF: 007/

OTH REF: 002

Card 3/3 *llb*

ZUYEVA, T. F.

ZUYEVA, T. F.: "Pneumonia among newborn children" (Morphological investigation). Sverdlovsk, 1955. Sverdlovsk State Medical Inst. (Dissertations for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya letopis', No. 52, 24 December, 1955. Moscow.

PAMFILOV, A.V.; LOPUSHANSKAYA, A.I.; ZUYEVA, T.S.

Spectrophotometric study of (ammonium) tetrathiocyanodiam-  
minochromate (III). Ukr. khim. zhur. 30 no.12:1339-1344 '64  
(MIRA 18:2)

1. Chernovitskiy gosudarstvennyy universitet.

MATVEYEV, M.A., doktor tekhn. nauk; ZUYEVA, V.F., inzh.

Structure and properties of alkali-resistant filter ceramics  
made of serpentinite. Stek. i ker. 20 no.12:17-20 D '63.  
(MIRA 17:1)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.  
Mendeleeva (for Matveyev). 2. Gosudarstvennyy nauchno-issle-  
dovatel'skiy institut stroitel'noy keramiki Gosstroya SSSR  
(for Zuyeva).

MATVEYEV . M.A., prof., doktor tekhn. nauk, otv. red.; BUDNIKOV  
P.P., akademik, red.; TOROPOV, N.A., red.; GLUSHKOVA,  
V.B., kand. khim. nauk, red.; ZUYEVA, V.F., nauchn. red.

[Silicates and oxides in the chemistry of high temperatures]  
Silikaty i okisly v khimii vysokikh temperatur. Moskva, In-  
t khimii silikatov im. I.V.Grebenshchikova. 1963. 382 p.  
(MIRA 17:12)

1. Akademiya nauk Ukr.SSR (for Budnikov). 2. Chlen-  
korrespondent AN SSSR (for Toropov).

15016-66 EWT(m)/EWT(e) W

ACC NR: AP6008264

SOURCE CODE: UR/0080/66/039/002/0289/0293

AUTHOR: Matveyev, M. A.; Zuyeva, V. F.

ORG: none

TITLE: Serpentinite alkaline filters

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 2, 1966, 289-293

TOPIC TAGS: ceramic material, sintered filter, chemical agent filter

ABSTRACT: The properties of roasted alkaline serpentine rock are investigated with a view to its use in ceramic filters. The determined properties are used in designing a technique for manufacturing ceramic filters from serpentine rock. Upon roasting, serpentine rock becomes highly porous. A clay filler consisting of either bentonite, argillite or an argillo-bentonite combination is added to the serpentine. Graphs are presented of the % porosity and the density of the resulting mixture as a function of the roast temperature with the various clay fillers as parameters. The optimum roasting temperature is set at 1250°C. Desired properties after roasting include: alkalinicity, up to 99%; porosity, up to 36-45%; mechanical stability upon deflection, 160-180 kg/cm<sup>2</sup>, and upon compression, 250-650 kg/cm<sup>2</sup>. Experimentation reveals that heating at 1200-1250° increases the mechanical stability upon deflection by 6-8 times and also increases the air and water permeability threefold. Results of x-ray analysis of

UDC: 552.47+542.67

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ACC NR: AP6008264

the roasted products, with optimum temperatures producing two crystalline phases of forsterite ( $2\text{MgO}\cdot\text{SiO}_2$ ) and enstatite, with quartz as an insignificant impurity are presented. The effectiveness of the product as a filter for acid and base solutions is plotted. The mixture of serpentine rock prior to roasting has a plastic number of 1-3 but is easily molded into tubes of 300 mm with an outer diameter of 120 mm. This elasticity, however, is lost upon roasting. A rough step-by-step method for the development of serpentine rock as filter material is given. Orig. art. has: 7 figures, 1 table.

SUB CODE: 07,11 1

SUBM DATE: none

*ms*  
Card 2/2

MATVEYEV, M.A., doktor tekhn. nauk; ZUYEVA, V.F., inzh.

Structure and properties of alkali-resistant filter ceramics  
made of serpentinite. Stek. 1 ker. 20 no.12:17-20 D '63.

(MIRA 17:1)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.  
Mendeleeva (for Matveyev). 2. Gosudarstvennyy nauchno-issle-  
dovatel'skiy institut stroitel'noy keramiki Gosstroya SSSR  
(for Zuyeva).

GURVICH, L.S., doktor med.nauk; ZUYEVA, V.I.; KIBAL'CHICH, I.A., kand.med.  
nauk (Moskva)

Sanitary conditions of the Volga River and measures for its  
purification. Sov.med. 25 no.1:142-145 Ja '61. (MIRA 14:3)  
(VOLGA RIVER---WATER---POLLUTION)

KOROBOVA, I.A.; ZUYEVA, V.L.

Conference on Analytical Chemistry at Chelyabinsk. Zav. lab.  
31 no.11:1424 '65. (MIRA 19:1)

1. Zaveduyushchiy kafedroy analiticheskoy khimii Chelyabinskogo  
politeknicheskogo instituta (for Korobova). 2. Zaveduyushchiy  
khimicheskoy laboratoriyey Chelyabinskogo nauchno-issledovatel'-  
skogo instituta metallurgii (for Zuyeva).

ZUYEVA, V.S.; SOLOV'YEV, V.N.

Comparative studies on physiological properties of microbes isolated  
from various inflammatory foci. Antibiotiki 10 no.5:438-442 My '65.

(MIRA 18:6)

1. Laboratoriya mikrobiologii otdala khimioterapii (rav. - prof.  
A.M.Chernukh) Instituta farmakologii i khimioterapii AMN SSSR,  
Moskva.

PAVLOV, E.I., ZUYEVA, V.S.

Modification of cerebral cholinesterase activity in certain bacterial intoxications. [with summary in English] *Biol. eksp. biol. i med* 45 no.3:60-63 Mr'58 (MIRA 11:5)

1. Iz otdela eksperimental'noy khimioterapii (sav. - chlen-korrespondent AMN SSSR Kh.Kh. Planel'yes) Instituta farmakologii i khimioterapii (dir.-deystvitel'nyy chlen AMN SSSR V.V. Zakusov) AMN SSSR, Moskva. Predstavlena deyatvitel'nyy chlenom AMN SSSR V.V. Zakusovym.

(BRAIN, metabolism,  
cholinesterase, eff. of Clostridium tetani & Shigella  
dysenteriae toxins (Rus))  
(SHIGELLA DYSENTERIAE,  
toxin, eff. on cerebral cholinesterase (Rus))  
(CLOSTRIDIUM TETANI,  
same)  
(CHOLINESTERASE,  
in brain, eff. of Clostridium tetani & Shigella  
dysenteriae toxins (Rus))

VYSHEPAN, Ye.D.; ZUYEVA, V.S.

Effect of chlortetracycline on enzymatic hydrolysis of adenosinteri-  
phosphoric acid. Biokhimiia 24 no.5:833-837 8-0 '59. (MIRA 13:2)

1. Otdel eksperimental'noy khimioterapii Instituta farmakologii i  
khimioterapii Akademii meditsinskikh nauk SSSR, Moskva.  
(ADENILPYROPHOSPHATE chem.)  
(CHLORTETRACYCLINE chem.)  
(EDATHAMIL chem.)

SOLOV'YEV, V.N.; ZUYEVA, V.S.

Significance of heterogeneous cell sensitivity in the weakening  
of the antimicrobial action of penicillin in the presence of an  
increase in the number of microbes. Antibiotiki 6 no.10:930-936  
0 '61. (MIRA 14:12)

1. Otdel eksperimental'noy khimioterapii (zav. - prof. A.M.Chernukh)  
Instituta farmakologii i khimioterapii ANU SSSR.  
(PENICILLIN) (CELLS)

SOLOV'YEV, V.N.; KON'HEV, G.A.; FUYEVA, V.S.; BELYKH, I.R.; CHUMACHENKO, N.V.;  
SOROLOVA, E.M.; KUCHEROV, V.F.; GUSEV, E.P.

Antibacterial activity of the synthetic derivatives of capillens  
(agropyrene) and capillin. Antibiotiki 10 no.2:156-159 P '65.

(MIRA 18:5)

1. Otdel khimioterapii (zav. - prof. A.M.Chernukh) Instituta  
farmakologii i khimioterapii AN SSSR i laboratorii tonkogo  
organicheskogo sinteza (zav. - prof. V.F.Kucherov) Instituta  
organicheskoy khimii AN SSSR, Moskva.

SOLOV'YEV, V.N.; ZUYEVA, V.S.

Mechanism of the depression of vital activity of microbes during  
development in purulent inflammatory foci. *Bur. Mikrobiol. epid.  
i immun.* 12 no.3:70-74. M: '65. (MIRA 1816)

1. Institut farmakologii i khimioterapii ANU SSSR, Moskva.

ZUYEVA, V.S.

Effect of the physicochemical conditions of the medium of  
the antimicrobial action of colimycin. Antibiotiki 8 no.5:  
438-444 My'63 (MIRA 17:3)

1. Otdel eksperimental'noy khimioterapii (zav. - prof. A.M.  
Chernukh) Instituta farmakologii i khimioterapii AMN SSSR.

SOLOV'YEV, V.N.; ZUYEVA, V.S.

Change in the sensitivity of microbes developing in an animal organism to mycerin. Antibiotiki 8 no.6:516-520 Ja'63  
(MIRA 17:3)

1. Otdel khimioterapii ( zaveduyushchiy - prof. A.M. Chernukh)  
Instituta farmakologii i khimioterapii ANW SSSR.

ZUYEVA, V.S.

Mechanism of the weakening of the bactericidal action of colimycin on infectious purulent foci. Antibiotiki 7 no.9: 804-809 S '62. (MIRA 15:12)

1. Otdel eksperimental'noy khimioterapii (zav. - prof. A.M. Chernukh) Instituta farmakologii i khimioterapii AMN SSSR.  
(ANTIBIOTICS) (FOCAL INFECTION)

ZUYEVA, V.S.

Therapeutic effect of colimycin in suppurative foci in rats.  
Antibiotiki 7 no.1:60-65 Ja '62. (MIRA 15:2)

1. Otdel eksperimental'noy khimioterapii (zav. - prof. A.M.Chernukh)  
Instituta farmakologii i khimioterapii AMN SSSR.  
(ANTIBIOTICS) (SUPPURATION)

SOLOV'YEV, V.N.; ZUYEVA, V.S.

Significance of the functional condition of microbes for the anti-bacterial action of tetracycline. Antibiotiki 6 no.6:508-513 Ja '61.  
(MLHA 15:1)

1. Otdel eksperimental'noy khimioterapii (zav. - prof. A.M.Chernukh)  
Instituta farmakologii i khimioterapii AMN SSSR.  
(BACTERIA, EFFECT OF DRUGS ON) (TETRACYCLINE)

SOLOV'YEV, V.N.; ZUYEVA, V.E.

Changes in the sensitivity of Mycobacterium tuberculosis in  
animal organisms to chemotherapy. Probl. tub. no. 62:86-88 '64.  
(MIRA 1964)

1. Laboratoriya mikrobiologii otдела khimioterapii (zav. prof.  
A.M. Chernukh) Instituta farmakologii i khimioterapii (dir.-  
deystvitel'nyy chlen AMN SSSR prof. V.V. Zakusev) AMN SSSR, Moskva.

L 26723-66 EWT(m)/EWP(j)/T IJP(c) WA/RM

ACC NR: AR6011876

SOURCE CODE: UR/OD/1/65/000/016/S030/S031

AUTHOR: Vyakhirev, D. A.; Zabolin, K. P.; Zayeva, Ye. M.; Troitskiy, B. H.;  
Vyshinskiy, N. N.; Nikolayeva, M. V.; Pogrebnaya, T. I.; Romichova, L. V.TITLE: Gas chromatography study of impurities in methylmethacrylate and analysis of  
their effect on the process of polymerization

SOURCE: Ref. zh. Khimiya, Abs. 168214

TOPIC TAGS: methanol, methylmethacrylate, glycol, polymerization rate, molecular  
weight, monomer

ABSTRACT: With the use of the gas chromatography method on an INZ-600 brick with a selective liquid phase of polyethylene glycol 1000, it has been determined that the basic admixtures in industrial methylmethacrylate are dimethyl ether, methylformate, methylpropionate, methanol, methyl- $\beta$ -methoxypropionate, and three unidentified substances. An investigation was made of the effect of supplementing the detected admixtures to methylmethacrylate on the polymerization rate and the molecular weight of the polymer obtained by standard methods in emulsion at 40C. It was shown that up to 2% methanol increases the polymerization rate and the molecular weight. Above 1% methylformate decreases the molecular weight and above 5% decreases the polymerization rate. Methylpropionate sharply decreases the molecular weight and the polymerization rate at a concentration of 0.5 to 1%. Acetaldehyde has no effect on the

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ACC NR: AR6011876

polymerization rate, but it decreases the molecular weight. The addition of poly-  
methylmethacrylate to a monomer causes an increase in the polymerization rate and a  
decrease in the molecular weight. Hydroquinone, added to the monomer as the inhibi-  
tor, causes a sharp drop of the polymerization rate and the molecular weight. V. Kopylov.  
[Translation of abstract] (NY)

SUB CODE: 11,07/      SUBM DATE: none/

Card 2/2 *RV*

CHECOSLOVAKIA

SEDLACEK, B; VAVRIKOVA, J; ZVOLANKOVA, K.

Institute for Nutritional Research (Ústav pro výzkum  
výživy lidu), Prague (for all)

Prague, Czechoslovakian Hygiene, No 1, 1965, pp 18-26

"Problems of Excessive Heating of Fats in Commercial  
Catering."

BISHA, T.; ZUYEVA, Ye.S.; PROSKURYAKOV, N.I.

Cystine reductase of wheat embryos. Nauch.dokl.vys.shkoly;  
biol.nauki no.1:153-156 '59. (MIRA 12:5)

1. Rekomendovana kafedroy biokhimii rasteniy Moskovskogo  
gosudarstvennogo universiteta im. M.V.Lomonosova.  
(CYSTINE REDUCTASE) (WHEAT)

ZUYEVA, Ye.S.; IVANOVA, V.P.; PROSKURYAKOV, N.I.

Glutathione reductase in pea seeds. Biokhim.zerna no.5:248-255 '60.  
(MIRA 14:5)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta.  
(Glutathione reductase) (Peas)

ZUYEVA, Ye.S.; MARKOSYAN, L.S.; PROSKURYAKOV, N.I.

Chromatography of proteins on a calcium phosphate gel. *Biokhimiia*  
26 no.2:209-211 Mr-Apr '61. (MIRA 14:5)

1. Chair of Plant Biochemistry, State University, and Institute of  
Biochemistry, Academy of Sciences of the U.S.S.R., Moscow.  
(PROTEINS) (CHROMATOGRAPHIC ANALYSIS)