

FEDOROV, Al.A., doktor biol. nauk, prof., red.; ZOTOVA, A.P.,  
red.; SHERMUSHENKO, T.A., tekhn. red.

[Useful and noxious plants of Leningrad Province] Polez-  
nye i vrednye rasteniia Leningradskoi oblasti. Leningrad,  
Lenizdat, 1963. 172 p. (MIRA 17:3)

"APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065510007-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065510007-5"

ANTONOVA, Tat'yana Sergeevna; ZOTOVA, A.P., red.; LEVONEVSKAYA, L.G.,  
tekhn. red.

[High cabbage yields] Vysokie urozhai kapusty. Leningrad, Lenizdat,  
1960. 18 p. (MIRA 14:8)

(Cabbage)

LAPROV, Aron Il'ich; ZOTOVA, A.P., red.; ONOSKO, N.G., tekhn. red.

[Asparagus] Sparzha. Leningrad, Lenizdat, 1961. 16 p.  
(Asparagus) (MIRA 14:7)

ZOTOVA, "APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065510007-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065510007-5"

Inst. Vaccines and Sera, Leningrad, (-1944-).

"Purification of tetanus and anatoxin by means of dialysis and electro-dialysis."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 1-2, 1944.

GLAZUNOV, P.D., starshiy inzh.; DANILENKO, N.M., starshiy inzh.; ZHUKOV, V.K., starshiy inzh.; ZUYEV, A.I., obshchiy red.; ZOTOVA, A.P., red.; TIKHONOVA, I.M., skhn.red.

[Efficiency-improving suggestions from agricultural machinery operators; practices of machinery operators on collective farms and state farms and at repair and improvement stations] Ratsionalizatorskie predlozhenia mekhanizatorov sel'skogo khoziaistva; iz opyta raboty mekhanizatorov kolkhosov, sovkhosov, remontno-tekhnicheskikh i melliiorativnykh stantsii Leningradskoi oblasti. Leningrad, Lenizdat, 1959. 119 p. (MIRA 13:3)

1. Leningradskoye oblastnoye upravleniye sel'skogo khozyaystva (for Glazunov, Danilenko, Zhukov). 2. Glavnyy inzhener Leningradskogo oblastnogo upravleniya sel'skogo khozyaystva (for Zuyev).  
(Agricultural machinery)

RADA, Boris Frantsevich; IHDENBOM, Pavel Borisovich; ANEIN,  
Andrey Nikolayevich; ZOIOVA, A.P., red.

[Carrots and parsley] Morkov' i petrushka. Leningrad,  
Lenizdat, 1965. 41 p. (MIRA 13:10)

QAVRILOV, I.S.; ZOTOVA, A.P., red.

[Home processing of vegetables, fruits, and berries]  
Pererabotka ovoshehei, plodov i jagod v domashnikh us-  
loviakh. Leningrad, Lenizdat, 1965. 158 p.  
(MIRA 18:12

YAKOVLEVA, G.A., inzh.; ZOTOVA, A.S., inzh.

Selecting an efficient type of cement concrete plant. Avt.dor.  
25 no.1:15-16 Ja '62. (MIRA 15:2)  
(Concrete plants)



MEYERSON, A.B., kand. ekonom. nauk; ZOTOVA, A.S., inzh.; KARIKH, Yu.S., inzh.

Longterm organization of a motortruck unit. Avt. dor. 28 no.9;  
23-24 S '65. (MIRA 18:10)

SFERANSKIY, N.I.; GLAGOLEVA, N.A.; ZOTOVA, A.T.; LEONOVA, V.M.; ROZENBLIT,  
Ye.I.; STUDNITSYNA, L.A.

Result of using aeration therapy in hypertension and stenocardia.  
Vop.kur., fizioter. i lech. fiz. kul't. 28 no.2:130-135 Mr-Apr'63.  
(MIRA 16:9)

1. Iz terapevticheskogo otdeleniya (zav. - prof. N.I. Speranskiy)  
kliniki Tsentral'nogo instituta kurortologii i fizioterapii  
(dir. - kand. med.nauk G.N.Pospelova)  
(HYPERTENSION) (AIR, IONIZED-THERAPEUTIC USE)  
(ANGINA PECTORIS)

SPERANSKIY, N. I.; GLAGOLEVA, N. A.; ZOTOVA, A. T.; LEONOVA, V. M.;  
ROZENBLIT, Ye. I.; STUDNITSYNA, L. A. (Moskva)

Treatment of stenocardia with novocaine electrophoresis in  
Zakharin-Head' zones. Klin. med. no.9:103-106 '61.  
(MIRA 15:6)

1. Iz terapevticheskoy kliniki (zav. - prof. N. I. Speranskiy)  
TSentral'nogo instituta kurortologii i fizioterapii (dir. G. N.  
Pospelova)

(ANGINA PECTORIS) (NOVOCAINE)

MINKINA, V.A.; ZOTOVA, A.V.; KRASHODYMSKAYA, G.N.

Experience in therapeutic and prophylactic work in the school.  
Pediatria no.8:8-11 '62. (MIRA 15:10)

1. Iz otdela organizatsii detskogo zdruvookhraneniya (zav. -  
prof. A.G.Tseytlin) Gosudarstvennogo nauchno-issledovatel'skogo  
pediatricheskogo instituta (dir. - kandidat meditsinskikh nauk  
V.P.Spirina).

(SCHOOL HYGIENE)





APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065510007-5  
APPROVED FOR RELEASE: Thursday, September 26, 2002 CIA-RDP86-00513R002065510007-5

USSR / General Problems of Pathology. Immunity.

U

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51485.

Author : Zotova, E. E., Nikitina, V. A., Sluchevskiy, I. F.  
Inst : Not given.  
Title : On the Problem of Immunity in Psychic Disorders.

Orig Pub: Sb. Psikhiatr. klinika i probl. patol, vyssh.  
nervn. deyat-sti, Vyp. 2, L., 1957, 220-235.

Abstract: The immunological reaction to typhoid vaccination was studied in 29 patients with schizophrenia, paraphrenia, cyclothymia etc. The original agglutination (AT) titer in 21 patients was 1:50-1:200. The increase of AT as a result of vaccination was insignificant and reversible. (For inst.: AT prior to vaccination, 1:100, - after the third and fourth - 1:400, 1:50).

Card 1/1



DORTMAN, Nina Borisovna, ~~MASHAYEVA~~, Valentina  
Ivanovna; VEYNBERG, A.K.; DUBINCHIK, E.Ya.; ZHDANOV, V.V.;  
ZOTOVA, I.F.; ILAVEV, M.G.; TRUNINA, V.Ya.; KEOREVA, B.Ya.;  
SHOLPO, L.Ye.; G/PEYEVA, G.M., red.; KALMYKOVA, I.A.,  
ved. red.

[Physical properties of rocks and minerals in the U.S.S.R.]  
Fizicheskie svoistva gornykh porod i poleznykh iskopaemykh  
SSSR. Moskva, Nedra, 1964. 325 p. (MIRA 18:1)

1. Leningrad. Vsesoyuznyy geologicheskii institut.

MOSKALEVA, S.V.; ZOTOVA, I.F.

Magnetic properties of ultrabasic rocks. Dokl. Akad. Nauk SSSR 162 no.1:70-73  
My '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
Submitted August 6, 1964.

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R002065510007-5

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R002065510007-5

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L 1585-66 EWT(1)/EWA(h) GW

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BOOK EXPLOITATION

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Dortman, Nina Borisovna; Vasil'yeva, Valentina Ivanovna; Veynberg, A. K.; Dubin-  
chik, E. Ya.; Zhdanov, V. Ya.; Kotova, I. F.; Il'arov, M. G.; Irutina, V. Ya.;  
Knozeva, B. Ya.; Sholpa, L. Ye.

Physical properties of rocks and mineral resources of the USSR (Fizicheskiye svoystva gornyykh porod i poleznykh iskopayemykh SSSR) Moscow, Izd-vo "Nedra", 1964. 325 p. illus., biblis. (At head of title: Gosudarstvennyy geologicheskii komitet SSSR. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut). 3000 copies printed. Under the editorship of G. M. Gapeyeva and N. B. Dortman; Principal editor: I. A. Kalaykova; Technical editor: A. S. Palosina; Proofreaders: K. S. Teroptseva

TOPIC TAGS: magmatic rock, metamorphic rock, mineralogy, petrology, seismology

PURPOSE AND COVERAGE: This book is the result of the generalization of materials collected primarily by geophysical trusts and geologic agencies, as well as by the institute named (VSEGEI). Principal attention is paid to the basic laws governing variations in the physical properties of rocks, various petrographic groups, and useful minerals of diverse mineralogic composition. The physical parameters to

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which special attention is given include the density, the magnetic susceptibility, the specific electrical resistance, and the rate of propagation of longitudinal and transverse waves. The compilers of the book are colleagues of the Laboratory of Physical Properties of Rocks of the USSR Academy of Sciences. They express their gratitude to B. A. Andreyev, A. A. Logachev, G. I. Martynova, B. V. Moskvaleva, A. S. Semenov, T. M. Simonenko, K. G. Bogdanova, Ye. A. Bulakova, V. F. Dybkov, K. I. Ivanov, V. I. Moskvaleva, I. A. Petrova, Yu. Ye. Ryzhkov, Yu. A. Shchegolev, A. T. Solov'yev, and A. D. Shchegolev.

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SUB CODE: ES

SUBMITTED: 22Sep64

MR REF SOV: 180

OTHER: 044

DATE ACQ: 22Sep64

Card *dg* 3/31

GOFMAN, I.L.; ZOTOVA, K.S.; ALEKSASHINA, L.M.; Prinsipali uchastiye: VINNIK,  
M.M.; LYSENKO, M.G.; BAKARINOVA, N.M.; NIKITINA, N.A.

Preparation of a tetrasodium pyrophosphate decahydrate food product  
based on phosphoric acid obtained by the extraction method. Khim.-  
prom. no.9:630-632 S '62. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut po udobreniyam i insekto-  
fungisidam imeni Samoylova i Opytnyy zavod Nauchno-issledovatel'skogo  
instituta po udobreniyam i insektofungisidam imeni Samoylova.  
(Phosphoric acid) (Sodium pyrophosphate)

5 (4)

AUTHORS:

Trapeznikov, A. A., Zotova, E. V.

SOV/20-128-2-32/59

TITLE:

The Formation of Thixotropic Structure in an OT Aerosol-  
sucrose Solution and in Bilateral Films Formed by It, and the  
Effect of This Structure on the Stability of Foams

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 2, pp 337-340 (USER)

ABSTRACT:

The viscosity and elasticity of bilateral films (shortly called film in the following) was investigated by means of the method of horizontal concentric rings as described in reference 2. The aerosol OT used (dioctylester of sulfosuccinic acid) forms stable films. To study the effect of the sucrose, which is used to raise the stability of foams, OT-solutions (0.045 mol/l) were treated with 1.4 mol/l of sucrose. The results show (Table 1) that the property of the film greatly depends on an aging process. In newly prepared solutions no effect of sucrose on the viscosity is noticed, whereas viscosity increases by 300 times in about 100 days. If the measurement of the film property of an aged solution is repeated several times, the viscosity of the film decreases to the original amount of the fresh solution (Table 2). This was also confirmed by direct measurement of the solution viscosity (Table 3). After some

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The Formation of Thixotropic Structure in an OT  
Aerocol-sucrose Solution and in Bilateral Films Formed by It, and the Effect  
of This Structure on the Stability of Foams

SO7/20-128-2-32/59

rest of the film viscosity increases again (Table 4). A similar fact was observed when investigating foam stability. Whereas foams produced by careful stirring proved a stability depending on the age of the solution, the foam of a violently stirred solution collapses as fast as the foam of a newly prepared solution (Fig 1). Therefore a thixotropic structure of the solution mixed with sucrose is assumed, which is again destroyed by mechanical action. The stabilization of the foam and the film of an aged solution is reached by retarding the outflow of the fluid from the film. Therefore the films of aged solutions are colorless and about  $1\mu$  thick, while films with disturbed structure become thin quickly and show interference colors. There are 1 figure, 4 tables, and 4 references; 3 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of  
Physical Chemistry of the Academy of Sciences, USSR)

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"APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R002065510007-5

APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R002065510007-5"

ZOTOVA, K.V.; TRAPEZNIKOV, A.A.

Two-sided films formed from solutions of aerosol MA with  
gelatine additions. Koll. zhur. 27 no.2:197-202 May '65.  
(MIRA 1886)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

AUTHORS: Zotova, K. V., and Trapeznikov, A. A. 20-117-5-30/54

TITLE: Shear Strength of Two-sided Films and Surface Layers in Saponin Solutions (Sdvigovaya prochnost' dvustoronnikh plenok i poverkhnostnykh sloyev v rastvorakh saponina).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 5, pp. 833-836 (USSR).

ABSTRACT: The simultaneous investigation of the mechanical properties of mechanical films and of surface layers at differing concentrations presents a new method for the study of the properties and of the composition of two-sided films. The present paper employs the method of shear strength of surface layers and of two-sided films. Two concentric rings consisting of platinum wire with a diameter of 0,1 cm and with the radii  $R_1 = 2,738$  cm and  $R_2 = 2,995$  cm were mounted in a horizontal position. The further set-up of the experimental arrangement is described. The authors investigated various saponines, which obviously display widely differing abilities for the formation of films and of foam and different mechanical properties. Here, imported and Sovietic saponines were examined. The present paper investigates the data of one of the imported saponines, that is to say Kahlbaum (Kahlbaum), which formed films of a comparative stability and with good

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Shear Strength of Two-sided Films and Surface Layers in Saponin Solutions.

mechanical properties between the rings. A diagram illustrates the curves of the dependence of the deformation  $\Sigma$  on the shear strength for the two-sided films, which were produced from solutions with varying concentrations. If  $P$  reaches a certain value  $P = P_r$ , then  $\Sigma$  increases particularly quickly. This speaks in favour of a flowing, which is connected with a destruction of structure. A further diagram illustrates the curves of the dependence of  $\Sigma$  on  $P$  of surface layers in identical saponine solutions. In general, they resemble the curves of the films, they show, however, a less marked transition to the vertical domain, which characterises the destruction of structure and the flowing process. The quantity  $P_r$  of the surface layers increases continuously with an increasing concentration, the quantity  $P_r$  of the films produced from the same solutions passes through a sharp maximum in the range of comparatively low concentrations of the solution. The strength of the adsorption layer of the film reaches only half the amount of the strength of the surface. Without doubt, even saponines carefully purified contain components with a differing surface activity, even the more the cheaper varieties, which are differing by their molecular structure. The results found here permit the expla=

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! Shear Strength of Two-sided Films and Surface Layers in Saponin Solutions. 20-117-5-30/54

nation of numerous peculiarities of the stability of foams.  
There are 4 figures, and 6 Slavic references.

ASSOCIATION: Institute for Physical Chemistry AS USSR (Institut fizicheskoy khimii Akademii 'nauk SSSR).

PRESENTED: June 11, 1957, by P. A. Rebinder, Academician.

SUBMITTED: June 1, 1957.

Card 3/3

ZOTOVA, K.V.; TRAPEZNIKOV, A.A.

Structural and mechanical properties of surface layers in  
solutions of saponins and of two-sided films formed by them.  
Koll.zhur. 26 no.2:190-197 Mr-Ap '64. (MIRA 17:4)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

ZOTOVA, K.V.; TRAPEZNIKOV, A.A.

Stability of films and foams and mechanical properties of  
films from solutions of saponins, alkaryl sulfonates, and  
esters of sulfosuccinic acid. Koll. zhur. 26 no.3:312-317  
My-Je '64 (MIRA 1.7:9)

1. Institut fizicheskoy khimii AN SSSR, Moskva.

ZOTOVA, K.V.; TRAPEZNIKOV, A.A.

Shear strength of two-sided films and surface layers in saponin solutions. Dokl. AN SSSR 117 no.5:833-836 D '57. (MIRA 11:3)

1. Institut fizicheskoy khimii Akademii nauk SSSR. Predstavleno akademikom P.A.Rebinderom.  
(Saponins) (Film coefficients (Physics))



ТРАПЕЗНИКОВ, А.А.; ЗОТОВА, К.В.

Mechanical properties of the adsorption layers of styrene at  
the interfaces of aqueous solution - solvent and aqueous  
solution - toluene rubber solution. Koll. zhur. 27 no.4:  
614-618 (1965). (MIRA 18:12)

I. Institut Khimicheskoy fiziki AN SSSR, Moskva. Submitted  
July 9, 1965.

ZOTOVA, L., aspirantka.

Cost of aeronautical chemical work. Grazhd.av. 14 no.1:34 Ja '57.  
(MIRA 10:4)

1. Moskovskiy inzhenerno-ekonomicheskij institut imeni Sergo Ordshonikidze.

(Aeronautics in agriculture) (Spraying and dusting)

SHALIMOV, Fedor Andreyevich; ZOTOVA, L.A., red.

[Winged assistants of agriculture] Krylatyya pomoshchniki  
zemledel'tsa. Moskva, Znanie, 1964. 24 p. (Novoe v zhizni,  
nauke, tekhnike. V Seriya: Sel'skoe khoziaistvo, no.23)  
(MIRA 17:11)

TARNOVICH, Nikolay Konstantinovich; ZOTOVA, L.A., red.

[Mechanization of the chemical protection of plants]  
Mekhanizatsiia khimicheskoi zashchity rastenii. Mo-  
skva, Znanie, 1964. 32 p. (Novoe v zhizni, nauke,  
tekhnike. V Serii: Sel'skoe khoziaistvo, no.22)  
(MIRA 17:11)

KOROVKIN, Ivan Petrovich; ZOTOVA, L.A., red.

[Suburban agricultural factories] Sel'skokhoziaistvennye  
fabriki prigoroda. Moskva, Znanie, 1964. 46 p. (Novoe v  
zhizni, nauke, tekhnike. V Seria: Sel'skoe khoziaistvo,  
no.21) (MIRA 17:11)

GAR, Konstantin Arkad'yevich; BOBNEVA, N.P., red.; ZOTCVA, L.A.,  
red.

[Chemistry protects crops] Khimii zashchishchaet uro-  
zhai. Moskva, Izd-vo "Znanie," 1964. 27 p. (Novos v  
zhizni, nauke, tekhnike. V Serii: Sel'skoe khoziaistvo,  
no.12) (MIRA 17:7)

GAYDUKEVICH, Leonid Inokent'yevich; KUTOVA, L.A., red.

[Nutrition of legumes] Pitaniye bobovykh. Moskva, Izd-vo "Znanie," 1965. 31 p. (Novoe v zhizni, nauka, tekhnika. V Serii; Sel'skoe khozizlstvo, no.1)

(MIRA 18:1)

KOROLEV, Boris Aleksandrovich; ZOTOVA, L.A., red.

[Let us intensify our agriculture] Vesti khoziaistvo intensivno.  
Moskva, Izd-vo "Znanie," 1964. 32 p. (Novoe v shizni, nauke,  
tekhnike. V Seria: Sel'skoe khoziaistvo, no.11) (MIRA 17:7)



BALYURA, Vladimir Ivanovich, kand. sel'khoz. nauk; ZOTOVA, L.A.,  
red.

[Breeding of early ripening types] Sel'khoz. na skom-  
rcspelost'. Moskva, Izd-vo "Znanie," 1964. 44 p. (Novoe  
v zhizni, nauke, tekhnike. V Seria: Sel'skoe khoziaistvo,  
no.9) (MIRA 17:6)

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ENT(17)/EC(R)-2/T/EN(A)(h) LJP(G)

ACC NR: AT6008782

SOURCE CODE: UA/2557/65/000/01A/0003/0019

AUTHOR: Nikolayevskiy, I. F., Perel'man, B. L., Skorik, K. I., Zetova, L. G.

ORG: none

TITLE: Low-temperature parameters of transistors

25-44

24  
21

SOURCE: Poluprovodnikovyye pribory i ikh primeneniye; sbornik statey, no. 14, 1965, 3-19

TOPIC TAGS: germanium, transistor, parameter

ABSTRACT: Theoretical and experimental data regarding current amplification and input and output impedance of various types of the transistors in the low-temperature ranges are considered. An experimental liquid nitrogen refrigeration chamber is described; this chamber keeps the temperature of the medium within the low temperature range, down to -160C, with deviations not exceeding + 2C. The aim of the study was to fill the existing gap in the theoretical and experimental data on the low-frequency operation of germanium transistors in the low-temperature range down to -140C. Graphs and data presented in the original article on temperature dependences of transistor electric parameters are based on measurement results from 10-40 transistors of each type tested. Orig. art. has: 14 figures, 1 table, and 23 formulas. [KP]

SUB CODE: 09/      SUBM DATE: none/      ORIG REF: 003/      CCH REF: 002/

Card 1/1 *fv*

UDC: 621.382.342.029.45

ACC NR: AP7003850

(A)

SOURCE CODE: UR/0122/67/000/001/0068/0070

AUTHORS: Zotova, L. K. (Candidate of technical sciences, Docent); Shashkin, A. S.  
(Candidate of technical sciences); Gel'fond, A. S. (Engineer)

ORG: none

TITLE: New chip-breaking mechanisms for turning lathes

SOURCE: Vestnik mashinostroyeniya, no. 1, 1967, 68-70

TOPIC TAGS: lathe, cutting tool, high speed metal cutting, alloy, steel/ T5K10 alloy,  
1K62 lathe, 1Kh18N9T steel, 2Kh13 steel, 4OKh steel, 3OKhGSNA steel

ABSTRACT: Gear-and-lever chip-breaking mechanisms for lathes are described. The  
breaking method used here was described earlier by L. K. Zotova, A. S. Shashkin, and  
A. S. Gel'fond (Universal'nyye struzhkolomatel'nyye mekhanizmy dlya tokarnykh stankov.  
M., COSINTI, No. 21-64-763/8, 1964). The mechanisms provide diverse and controllable  
rules for cutting-tool feed (see Fig. 1). Control tests were performed with T5K10  
hard alloy and with 1Kh18N9T, 2Kh13, 4OKh, and 3OKhGSNA steels. It was found that  
intermittent cutting ensured reliable and stable chip breaking over a fairly wide  
range of machinable materials, cutting conditions, and tool geometry. High-speed  
turning with the use of the described mechanisms provides safer operating conditions,  
since the chips are obtained in the form of short, coiled spirals. The mechanism  
permits the lathe to be switched from intermittent to continuous cutting. Application

Card 1/2

UDC: 621.941.014.8

ACC NR: AP7003850

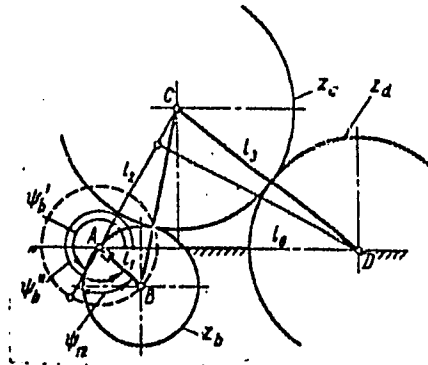


Fig. 1.

of these mechanisms does not interfere with the general-purpose operation of a lathe when properly designed. Orig. art. has: 2 formulas, 2 diagrams, and 3 graphs.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 005

ZOTOVA, L. K.

"Investigation fo the Process of the Curlign of Shavings in the Presance of High-Speed Cutting." Min Heavy Machine Building USSR, Central Sci Res Inst of Technology and Machine Building (TsNIITMash), Moscow 1953  
(Dissertation for the Degree of Candidate of Technical Sciences)

SO: Knizhnaya Letopis', No. 32, 6 Aug 55

ZOTOVA, L.K., LAZAREV, G.S., DEBUSHENKO, N.I.

Investigating the performance of cutting tools having multifaced  
hard-alloy bits. Stan. i instr. 36 no.6:33-35 Je '65.  
(MIRA 18:8)

SOV/124-57-4-4752

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 4, p 126 (USSR)

AUTHOR: Zotova, L. K. (*Zimol. Tekh. Sci*)

TITLE: On the Process of Curling of Metal Shavings (O protsesse struzh-  
kozavivaniya)

PERIODICAL: Sb. statey. Ural'skiy politekhn. inst., 1956, Nr 63, pp 63-69

ABSTRACT: The problem of controlled chipping is discussed as one of the aspects brought into foreground by the adoption of high-speed metal-cutting methods. Hot, sharp-edged shavings present a hazard for the operator and are unwieldy in transportation; it is, therefore, desirable that safe, curled shavings be produced in the course of machining. Certain considerations are presented permitting rational selection and design of attachments to induce the curling of shavings. On the strength of his own experimental data, the author concludes that a reduction in the width of contact between the cutting tool and the shaving results in a reduction of the curvature of the latter. See also RZhMekh, 1957, Nr 4, abstract 4743.

G. S. Shapiro

Card 1/1

ZOTOVA, L.M., kand.ekonom.nauk

Estimating the operations of furniture enterprises. Der. prom.  
11 no.4:1-3 Ap '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy ekonomicheskiy institut  
Gosekonomsoveta SSSR.  
(Furniture industry)





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USSR / General and Special Zoology. Insects. P

Abs Jour: Ref Zhur-Biol., No 3, 1958, 11706

Author : Zotova L. M.

Inst : Not given

Title : The Effectiveness of the Use of Aviation in the  
Control of Pests.

Orig Pub: Sakharnaĭa svekla, 1957, No 2, 37-39.

Abstract: No abstract.

Card 1/1

13

YAGUPOL'SKAYA, L.N.; GRABIN, V.F.; ZOTOVA, L.M.

Effect of isothermal holding at 70° C on the corrosion  
resistance of welded joints in the AMg6 alloy. Avtom.  
svar. 17 no.8:31-35 Ag '64.

(MIRA 17:11)

1. Institut elektrosvariki imeni Patona AN UkrSSR.

L 35871-66

EWI(m)/ENP(t)/ETI IJP(c)

JH/JD/WH/JG/AG

SOURCE CODE: UR/0413/66/000/011/0128/0128

ACC NR: AP6021486

INVENTOR: Rabkin, D. M.; Yagupol'skaya, L. N.; Langer, N. A.; Dovbishchenko, I. V.;  
Nikitina, A. V.; Zotova, L. M.; Martynova, N. A.; Yelagin, V. I.; Ishchenko, A. Ya.;  
Bondar', V. V.

ORG: none

TITLE: Filler-wire for argon-shielded arc welding of aluminum.<sup>27</sup> Class 49, No. 182487  
[announced by the Electric Welding Institute im. Ye. O. Paton (Institut elektrosvarki)

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 128

TOPIC TAGS: welding, aluminum ~~welding~~, arc welding, argon, ~~shielded arc welding~~,  
welding wire, aluminum wire, ~~chromium containing wire, zirconium containing wire~~  
~~corrosion resistance, chromium containing alloy, zirconium containing alloy~~

ABSTRACT: This Author Certificate introduces a filler-wire for argon-shielded arc  
welding of aluminum. To improve the weld corrosion resistance, the wire contains  
0.8-1.2% chromium and 0.7-1.2% zirconium.<sup>16</sup> [ND]

SUB CODE: 11, 13/<sup>27</sup> SUBM DATE: 25Dec53/<sup>16</sup> ATD PRESS: 503/16

UDC: 621.751.753.93.042

Cord 1/2 11/16

ZOTOVA, L.P.; YASTRZHEMSKIY, A.L.

Floating valves of flush tanks and their principal technical  
characteristics. Sbor. trud. NIIST no.11:133-145 '62  
(MIRA 18:1)

AKOVBYAN, A.A., professor; ZOTOVA, M.E.; FILATOVA, A.A.; TIKHONOV, V.F.

Ekmovocillin in the treatment of syphilis. Vest. ven i dorn. no.4:  
46-48 J1-Ag '54. (MLRA 7:8)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. prof. A.A. Akovbyan) Tashkentskogo meditsinskogo instituta imeni V.M.Molotova.

(PENICILLIN, derivatives,

\*procaine penicillin, ther. of syphilis, with ekmolin)

(SYPHILIS, therapy,

\*penicillin, procaine, with ekmolin)

(ANTIBIOTICS, therapeutic use,

\*ekmolin in syphilis, with procaine penicillin)

12

Electrochemical method for the detection of lead in foodstuffs. At. J. Zuzovsk. *Voprosy Fizich. Khim.* 1948, No. 1, 71-9. To 100 g. substance in a porcelain dish add 5 ml. of the nitrate mixt. (40 g.  $\text{Al}(\text{NO}_3)_3 \cdot 9\text{H}_2\text{O}$  + 20 g.  $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ ) in 100 ml. dist. water. Carbonize over a small flame, then completely ash in a muffle at 450-500°. Treat the ash with 10 ml.  $\text{HNO}_3$  (1:1) and boil the mixt. for 10-15 min. Transfer to a 200-ml. beaker, add 8 ml. 20%  $\text{Cu}(\text{NO}_3)_2$  soln. and 200 ml. hot dist. water. Place on a hot water bath, and electrolyze for 2 hrs. at 1.5 amp. and 5-6 v. A spiral Pt wire surrounding a glass stirrer serves as cathode; Winkler's electrode, a wire-mesh cylinder, is the anode. After the electrolysis is finished, wash the anode with water and stop the current. Dissolve the  $\text{PbO}_2$  from the anode with 10-15 ml.  $\text{HNO}_3$  (d. 1.4) together with 3-5 drops  $\text{H}_2\text{O}_2$ . Evap. the soln. to dryness on the water bath, dissolve the residue in 0.5 ml.  $\text{HNO}_3$  (1:1) and det. the Pb colorimetrically. By this method 0.05-1.0 mg. Pb can be detd. The analysis requires 8-9 hrs. The results are correct to 93% of the actual Pb content. The presence of Sn does not interfere. 4 tables, 25 references. S. Machebau

ASB-51-A METALLURGICAL LITERATURE CLASSIFICATION

GROUP	SECTION	SUBSECTION	CLASSIFICATION	INDEX
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J-3

USSR/Soil Cultivation. Mineral Fertilizers.

Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1256.

Author : Kodanov, I., Zotova, M.

Inst : Gor'kovskiy Combination Station.

Title : Experiments of the Gor'kovskiy Combination Station.

Orig Pub: Udobreniye i urozhay, 1956, No 8, 56-57.

Abstract: It has been established that nitrogen fertilizers have a favorable effect on cover crop (barley) yields and a negative one on the clover-timothy combination. When applied to a lucerne-grass mixture, the grass harvest increases; but the reaction of the lucerne upon nitrogen fertilizers is less favorable, as is the growth of the lucerne in combination with the grass element. Phosphorous-potassium fertilization of the cover crop increased the yield of clover

Card : 1/2

-26-

Mineral Fertilizers.  
Abs Jour: Ref Zhur-Biologiya, No 1, 1958, 1256.

J-3

and lucerne, especially in the first year of its application. These grasses are recommended for use in field rotations in regions where grass can be sown successfully.

Card : 2/2

-27-

ZOTOVA, M.E.

USSR / Pharmacology, Toxicology. Chemotherapeutic Agents.

U-7

Abs Jour : Ref. Zh.-Biol., No 2, 1958, No 8135



ZOTOVA, M. G. Cand Biol Sci -- "Curative effect of unithiole in radiation sickness caused by <sup>administration</sup> ~~introduction~~ of polonium." Mos, 1961 (Acad Med Sci USSR).  
(KL, 4-61, 192)

5/205/63/003/001/005/029  
E026/E185

AUTHOR: Zotova, N. A.  
TITLE: water-soluble adenosinetriphosphatase in the organs of rats irradiated with polonium

PERIODICAL: Radiobiologiya, v. 3, no. 1, 1963, 21-23

The adenosinetriphosphatase activity during acute radiation sickness was studied. Acute radiation sickness was induced in rats by the subcutaneous injection of polonium in a dose of 1.5 mcu/kg, and the adenosinetriphosphatase activity of the internal organs was determined in animals killed at intervals of 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 days after irradiation. A 500 mg sample of each organ was homogenized in 10 ml of water. The suspension was centrifuged at 1000 rpm for 10 minutes. The supernatant was used for the determination of adenosinetriphosphatase activity. The activity was expressed in micromoles of phosphate liberated per 100 mg of fresh tissue. In control determinations with normal rats the mean activity of the kidney was 43, the liver 72, spleen 69 and brain 56. In the experimental rats a fall of up to 60% in these values set in during the first  
Card 1/2

Water-soluble adenosinetriphosphatase. S/205/63/003/001/005/029  
EC220/E105

... days after exposure to radiation, after which the activities rose but did not return to normal levels. These results agree with those previously obtained by the author on the acute decrease of the number of SH-groups during poisoning induced radiation sickness. The fact that the enzyme activity increases after internal irradiation and decreases after external could be explained by the type of radiation. Acute in the first case and re-particulate in the second. The duration of irradiation is a single high dose irradiation of short duration in the first case and constant internal one in the second. There are 4 tables.

5 pages. April 20, 1962

ZOTOVA, M.G.

Water-soluble adenosinetriphosphatase in the organs of rats  
affected by polonium. Radiobiologia 3 no.1:21-23 '63.

(ADENOSINETRIPHOSPHATASE) (POLONIUM--PHYSIOLOGICAL EFFECT) (MIRA 16:2)

"A Description of the Medicinal Effect of Unithiole in Polonium Injury."

report presented at the 146th meeting of the Pharmacology and Toxicology Section  
of the Moscow Society of Physiologists, Biochemists and Pharmacologists, 25 Mar. 1958.

II Moscow Medical Institute

(Farmakologiya i Toksikologiya, 21, no 6, Nov-Dec 58, p. 617)

ZOTOVA, M.G. (Moskva)

Effect of unithiol in the secretion of polonium ( $Po^{210}$ ) from the  
body. Med.rad. 3 no.6:67-68 N-D '58. (MIRA 12:1)  
(POLONIUM IN THE BODY)  
(PROPANESULFONIC ACID)

L 1937-66 EWT(1)/EWT(m)/EWA(b)-2 RC  
ACCESSION NR: AP5024175

UR/0290/43/000/002/0111/0119  
633.88.03+615.32

AUTHOR: Zotova, M. I.; Krylov, G. V.; Saratikov, A. S.

TITLE: Golden root - a new stimulant and adaptogenic drug

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya biologo-meditsinskikh nauk, no. 2, 1965, 111-119

TOPIC TAGS: plant growth, pharmacognosy, experimental animal, nervous system drug, drug effect, bodily fatigue, psychophysiology, Eleutherococcus, Rhodiola rosea

ABSTRACT: Rhodiola rosea (golden root) is described in detail and its pharmacological effects are compared with those of Eleutherococcus. Literature data on the effects of Rhodiola rosea are contradictory, largely because of different drying and extraction methods. In the present study, Rhodiola rosea roots gathered in the Altai region were dried at 60° and extracted by a supercolation method using the following as solvents: 0.5% aqueous chloroform, 20° ethyl alcohol, 40° ethyl alcohol, and 70° ethyl alcohol. The stimulant effect of the extract was determined by changes in the lengths of time white mice were able to cling to a vertical rod before and after administration of the extract. Findings show that all the root extracts reduce body fatigue, but to different degrees: the 40° alcohol extract by

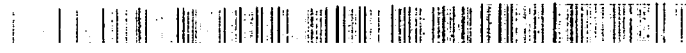
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L 1937-66

ACCESSION NR: AP5024175

4  
350%, the 20° alcohol extract by 99%, the aqueous chloroform extract by 95%, and the 70° alcohol extract by 51%. The antihypnotic effect of *Rhodiola rosea* extract was investigated in white mice by injecting it subcutaneously 1 hr before administering medinal (0.15 mg/g dose). *Rhodiola rosea* extract did not change the time elapsed before the animal fell asleep, but did reduce the duration of sleep considerably. The sleep period was reduced by 64 min by the 40° alcohol extract, and by 21 to 28 min by the other extracts. In testing the adaptogenic effects of *Rhodiola rosea*, the extract was found comparable to *Eleutherococcus* and other adaptogens in inhibiting the development of certain pathological hematological reactions. Considering the similarity of the stimulant and adaptogenic effects of *Rhodiola rosea* and *Eleutherococcus*, and the abundance of *Rhodiola rosea* in the USSR (Altai, Ural, Irkutsk, Zabaykal, Primorskiy Krai, Kamchatka, and Chukhotsk Peninsula), *Rhodiola rosea* liquid extract is recommended for widespread clinical testing. Orig. art. has: 5 figures and 3 tables. [(06)]

ASSOCIATION: Tomskiy meditsinskiy institut (Tomsk Medical Institute); Biologicheskiy institut SSSR, Gornolivnaya Promyshlennaya Institut, Ural'skiy Institut





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APPROVED FOR RELEASE: Thursday, September 26, 2002  
APPROVED FOR RELEASE: Thursday, September 26, 2002

CIA-RDP86-00513R002065510007-5  
CIA-RDP86-00513R002065510007-5"

**KODANEV, I.M.; ZOTOVA, M.L.**

**Effect of cultivation methods on barley productivity and brewing  
qualities in Gorkiy Province. Trudy VNIIPP no.5: 159-176 '55.**

**(Gorkiy Province--Barley)**

**(MLBA 9:1)**

ZOTOVA, I.

Development of Armenia's export resources and import requirements,  
Vostok. torg. 41 no. 2:39-44, '51. (MIRA 14:2)  
(Armenia--foreign economic relations)

ZOTOVA, N

Standardization of (writing) ink N. Zotova, *Materialy Vsesoyuz. Nauch. Issledovatel. Inst. Bumazh. Tselluloz. Prom. (Trans. All-Union Sci. Research Inst. Paper Cellulose Ind.)* 1932, No. 3, 11-20. --The study of standard foreign and domestic inks led to the following conclusions: The electrically pos. action of Fe salts in ink can be entirely counteracted by a large content of an acid; with the right proportion of Fe and acid in ink, an addn. of a negatively charged dye will cause ink penetration of even the best sized paper. The compn. of inks must be changed with reduction of mineral and tanning acidity, and some reduction of Fe salts, which are oxidized in time with the destruction of paper. The best results were obtained with recipes contg. positively charged basic dyes, easily adsorbed by cellulose with the formation of insol. compts. The quantity and quality of thickening and preserving materials have no noticeable effect on the ink penetration of paper, though an increased proportion of the former and the reduction to a min. of the latter is advisable. Chav. Blanc

ASS. S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

SECTION	SUBSECTION	CLASSIFICATION	REMARKS
1	2	3	4
5	6	7	8
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93	94	95	96
97	98	99	100



ZOTOVA, N

PROCESSES AND PROPERTIES NOTED

Manufacture of the artificial leather "permin." 1) Bernshstein and N. Zotova. *Arkhiv Khimicheskoye Proc.* 13, 736-42(1934).—This leather substitute used in the manuf. of the insoles is prepd. from ground vegetable matter and leather waste. The latter must be obtained before disintegration to produce on milling the required type of tissue. The operation is facilitated by adding more than 1% caustic; this requires, however, a tanning of the finished sole with chrome, alum and hyposulfate (various formulas are given). The binder consists of latex and  $Al_2O_3$  or an acid for coagulation. The effects of the ionization of various components on the setting properties of the binder are discussed. The processes are described in detail.

A. A. Buchtnick

AS & S L A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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ZOTOVA, N. A.

Dissertation defended for the degree of Candidate of Economic Sciences  
at the Institute of Economics

"Foreign Trade of the Rumanian People's Republic with the Soviet Union  
and Its Role in Building the Socialist Economy of Rumania."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

SERGEYEV, V.P.; TARNOVSKIY, O.I.; MITROFANOVA, N.M.; SHMELEV, N.P.;  
SHABUNINA, V.I.; SKVORTSOVA, A.I.; VASIL'TSOV, V.D.;  
KRASNOGLAZOV, B.P.; BELYAYEV, Yu.N.; KURAKIN, V.A.; YUMIN,  
M.N.; SERGEYEV, V.P.; ZOTOVA, N.A.; MATVIYEVSKAYA, E.D.;  
STUPOV, A.D., *otv. red.*; LISOV, V.Ye., *red. izd-va*;  
NOVICHKOVA, N.D., *tekhn. red.*

[Economic cooperation and mutual aid in socialist countries]Eko-  
nomicheskoe sotrudnichestvo i vzaimopomoshch' sotsialisticheskikh  
stran. Moskva, Izd-vo Akad. nauk SSSR, 1962. 272 p.

1. Akademiya nauk SSSR. Institut ekonomiki mirovoy sotsialisti-  
cheskoy sistemy. (MIRA 16:2)

(Communist countries--Foreign economic relations)  
(Communist countries--Industries)

13-1-7

BC

Application of internal electrolysis to determination of cadmium and magnesium in cadmium bromide. H. J. Kocova (Metall. Lab., 1938, 7, 870-872). A solution of 1 g. of bromide in 12 ml. of HNO<sub>3</sub> is diluted to 50 ml. and heated at 100° to complete pptn. of H<sub>2</sub>SO<sub>4</sub>, which is collected, washed, ignited, and weighed. Cd is removed electrolytically, and 2-3 drops of H<sub>2</sub>SO<sub>4</sub> are added to the residual electrolyte, which is then evaporated to constant evaporation of H<sub>2</sub>O. The residue is treated with 150 ml. of H<sub>2</sub>O to a test, and is neutralized with 10% NaOH (lit. orange), 1-20 ml. of 10% NaOH, 5-9 g. of NaOAc, and H<sub>2</sub>O to 200 ml. are added, and Cd is determined by Lunge's internal electrolysis method (B., 1927, 59). A solution of 1 g.

of alloy in 10 ml. of HNO<sub>3</sub> and 5 ml. of 60% H<sub>2</sub>SO<sub>4</sub> is evaporated to eliminate HNO<sub>3</sub>, and the residue is dissolved in 50 ml. of H<sub>2</sub>O. Cu, Sn, and Cd are removed electrolytically (Pt anode, Hg cathode), and Mg is determined in the residual electrolyte by 8-hydroxyquinoline pptn. B. T.

13-1-7 METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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LIST AND INDEX PROCESSES AND PROPERTIES INDEX

CA

Determination of magnesium by titration and cadmium by internal electrolysis in cadmium bronzes. N. I. Zolova. *Zhurnal Khim. 7, 870-2 (1965).* In the analysis of Cu bronzes Sn is detd. as SnO<sub>2</sub> with HNO<sub>3</sub> and Cu in the filtrate by electrolytic pptn. as usual. In the detn. of Cd (0.12-0.13%) by the Lurie and Trotskaya method of internal electrolysis (C. A. 31, 64, 7780) satisfactory results can be obtained only in a H<sub>2</sub>SO<sub>4</sub> soln. freed from all traces of nitrate. Mg is detd. in a sep. sample. Evap. a soln. of 1 g. of turnings in 10 ml. HNO<sub>3</sub> (d. 1.12) and 3 ml. of 50% H<sub>2</sub>SO<sub>4</sub> to fuming, add 50 ml. of hot water and electrolyze with a Pt-spiral anode and Hg cathode at 3-4 amp. for 1-1.5 hrs. Decant the Mg electrolyte and wash the amalgam of Cu, Cd and Sn with hot water. (If the united solns. are slightly turbid, add 10 ml. of 25% NH<sub>4</sub>Cl and 10 ml. excess NH<sub>4</sub>OH, boil, filter and wash the ppt. with hot water.) Treat the united solns. with a slight excess of NH<sub>4</sub>OH, ppt. Hg with 7-8 ml. of 3% alc. 8-hydroxyquinoline at 60-60°, wash the filter with 30 ml. NH<sub>4</sub>OH and hot water, dissolve it in the filter with 30 ml. of 8% HCl and wash the filter with hot water. Introduce into the filtrate 3 drops of 1% indigo carmine and excess of KBr-KBrO<sub>3</sub> soln., add to the yellow soln. 5 ml. of 20% KI and titrate with 0.1 N Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> and a starch soln. Chem. Abstr.

A13-51A METALLURGICAL LITERATURE CLASSIFICATION

CHARACTERISTICS

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PRIVES, M.G.; ZOTAYA, M.I.

Effect of external and internal factors on the formation of  
collateral pathways of the lymph flow. Arkhiv. anat. hist. i  
embr. 43 no.10:102-108 0'62. (MBA 116)

1. Kafedra normal'noy anatomii (zav. - prof. M.G. Priveal) i-go  
Leningradskogo meditsinskogo instituta imeni akademika Pavlova.

ZOTOVA, N.I.

Effect of the disturbance of the integrity of the optic thalamus  
on the arterial collateral blood supply to the stomach. Arkh.  
anat., gist. i embr. 49 no.8:45-50 Ag '65. (MIRA 18:9)

1. Kafedra normal'noy anatomii (zav.- sasluchennyy deyatel'  
nauki prof. M.G. Prives) 1-go Leningradskogo meditsinskogo  
instituta imeni akademika I.P. Pavlova.

BABIN, Ye. P.; KUZ'MENKOV, A. A.; ZOTOVA, N. I.

Boron fluoride as catalyst in reactions promoting the removal of sulfur from coke chemical benzenes. Zhur. prikl. khim. 38 no. 6:1253-1256 Je '65. (MIRA 18:10)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.

ZOTOVA, N. N. (USSR)

"Biochemical Processes in the Conditioning of Wheat."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

ZOTOVA, N.N.; KRETOVICH, V.L.; LYUBIMOVA, N.V.

Effect of wheat moistening on the glutamic decarboxylase activity. Dokl. AN SSSR 160 no.5:1194-1196 F 165. (MIRA 18:2)

1. Moskovskiy tekhnologicheskii institut pishchevoy promyshlennosti. 2. Chlen-korrespondent AN SSSR (for Kretovich).







L 3631-66 EWT(1)/EWT(m)/EMP(t)/EWP(b) IJF(c) JD  
ACCESSION NR: AP5024049

UR/0057/65/035/009/1672/1674  
621.382.61

AUTHOR: Zotova, N. V.; Nasledov, D. N.; Sreseli, O. M.

TITLE: n-type gallium arsenide Hall transducers

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 9, 1965, 1672-1674

TOPIC TAGS: Hall effect, Hall constant, electron mobility, gallium arsenide, magnetic field measurement, high temperature instrument

ABSTRACT: The authors have constructed and tested Hall transducers of highly purified GaAs. The preparation, purification, and doping (if any) of the materials is not discussed. Materials were obtained having Hall constants from 300 to over 1000 cm<sup>2</sup>/C and electron mobilities from 3500 to 5000 cm<sup>2</sup>/V sec. Materials with electron concentrations above 10<sup>17</sup> cm<sup>-3</sup> were unsuitable because of their low Hall constants. The greatest difficulty in fabricating the transducers was encountered in securing adequate metallic contacts. The contacts were of tin and were fused to the semiconductor in vacuum at 400-450 °C for 5 min. These contacts could be used at temperatures up to 210 °C, but the contact resistance was some 30% of the total resistance of the instrument. The eight transducers tested varied slightly in size, a typical one measuring 8.6 x 2.5 x 0.23 mm. For each transducer the current-voltage characteristic was determined, the Hall emf was measured by an open-circuit

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ACCESSION NR: AP5024049

3

cuit compensation method as a function of magnetic field strength for a fixed value of the current (ranging from 50 to 300 mA), and the temperature coefficient of the Hall emf was measured at a constant magnetic field strength of 10 900 Gs at temperatures from 30 to 210 °C. The temperature coefficient is given for only one of the transducers; this transducer had a sensitivity of  $h \times 10^{-2}$  V/Gs and a temperature coefficient of 0.029 % per degree. The principal advantage of the GaAs Hall transducers is that they combine a low temperature coefficient over a wide temperature range with a reasonable sensitivity. Development of better metallic contacts will make it possible to increase the temperature range over which the instrument can be used and also to increase the current and thereby the sensitivity. Orig. art. has: 3 formulas, 2 figures, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskii institut im. A.F.Ioffe AN SSSR, Leningrad  
(Physico-technical Institute, AN SSSR)

SUBMITTED: 21Jan65

ENCL: 00

SUB CODE: IM, TD

NO REF SOV: 004

OTHER: 000

BVK  
Card 2/2

L 16796-63

ELT(1)/EMG(n)/ENP(m)/EWC(m)/BDS/EEC(n)-2

ASPTC/ASU/HSO-3/

TITLE: p-n junctions made from InAs

SOURCE: Radiotekhnika i elektronika, v. 8, no. 9, 1963, 1602-1606

INDEX TERMS: indium arsenide p-n junction, p-n junction, tunnel p-n junction, indium arsenide

ABSTRACT: Properties of diffused p-n junctions made from InAs are discussed. Single-crystal, native indium arsenide with a Hall coefficient of  $10^4$  cm<sup>3</sup>/ohm-cm and a carrier mobility of approximately  $10^5$  cm<sup>2</sup>/v-sec was used as the initial material. Following the diffusion process, the samples of  $10 \times 10 \times 1$  mm were placed together with a batch of samples in a quartz tube, where the diffusion process took place at 700°C. Saturated vapor pressure was fixed by the lowest temperature of the system (i.e., 600°C). After diffusion, the average carrier density of acceptors in the p-layer was between  $0.5 \times 10^{17}$  and  $1.5 \times 10^{17}$  cm<sup>-3</sup>; the n-region thickness

Card 1/2



Country : USSR U  
Category : General Problems of Pathology. Pathophysiology  
of Infectious Process  
Abs. Jour. : Ref Zhur-Biol, 1959, No 4, 19179  
Author : Zotova, N. Ye.  
Institut. : Uzbekistan Scientific Research Dermatovenereo-  
Title : Antitoxic Liver Function in Patients with  
Syphilis Treated According to the Plans for  
1949-1951  
Orig Pub. : Sb. tr. Uzbekist. n.-l. kozhno-venerol. in-ta,  
1957, 6, 257-261  
Abstract : The antitoxic function of the liver (AFL) was  
studied in 101 patients with syphilis. The quan-  
tity of hippuric acid excreted in the urine,  
in the amount equivalent to 3.7 g. of sodium  
benzoate, was taken as 100%; the range between  
70% and 100% was considered normal. Before  
treatment, the AFL of 51 out of 101 patients  
was normal or close to normal (100%-60%); in 24  
\* Logical Institute

Card: 1/2

L 04785-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6024467

SOURCE CODE: UR/0181/66/008/007/2074/2076

AUTHOR: Zotova, N. V.; Lebedev, A. A.; Nasledov, D. N.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSSR, Leningrad (Fiziko-  
tehnicheskiy institut AN SSSR) 38  
3

TITLE: Diffusion of cadmium in indium arsenide

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2074-2076

TOPIC TAGS: cadmium, physical diffusion, indium compound, arsenide, pn junction, semi-conductor impurity

ABSTRACT: In view of the limited amount of systematic data concerning the diffusion of impurities in indium arsenide, the authors present some new results on the diffusion of Cd in InAs of n-type. The donor content was  $4 \times 10^{16} - 6 \times 10^{19} \text{ cm}^{-3}$ . The tests were made on single-crystal indium arsenide, both pure and doped with tellurium and selenium. The diffusion was in saturated cadmium vapor at 750 - 780C and  $10^{-6} \text{ mm Hg}$ . The depth of the p-n junction was determined by the removal of layer method and determination of the sign of the charge from the thermal emf. The results show that the diffusion of Cd in InAs depends on the initial concentration of the donor impurity but not on the nature of the donor; the diffusion coefficient decreases with increasing impurity concentration in the initial substance. The decrease in the diffusion coefficient in strongly doped material is shown to be connected with the formation of donor-acceptor pairs which diffuse more slowly than free acceptors. Orig. art. has: 2

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L 04785-67

ACC NR: AP6024467

figures, 2 formulas, and 2 tables. 0

SUB CODE: 20/    SUBM DATE: 07Dec65/    ORIG REF: 001/    OTH REF: 001

Card 212 *pla*

ZOTOVA, N.I.

Effect of disruption of unity of the premotor zone on collateral circulation of the stomach. Biul. eksp. biol. i med. 40 no.12: 55-59 D '55 (MIRA 9:3)

1. Iz kafedry normal'noy anatomii (sav.-prof. M.G. Prives) i Leningradskogo meditsinskogo instituta imeni I.P. Pavlova (dir. -dotsent A.I. Ivanov)

(CEREBRAL CORTEX, physiology,

eff. of exper. lesions on collateral circ. of stomach in cats)

(STOMACH, blood supply,

eff. of exper. lesions of cerebral cortex on collateral circ. in cats)



Biochemistry of wheat conditioning. Izv. AN SSSR. Ser. biol. 26 no.5:  
708-716 S-0 '61. (MIRA 14:9)

1. Technological Institute of Food Industry and Institute of Biochemistry,  
Academy of Sciences of the U.S.S.R., Moscow.  
(GRAIN HANDLING)

66273

SOV/181-1-11-8/27

~~24 (6)~~ 24,7600

AUTHORS: Zotova, N. V., Nasledov, D. N.

TITLE: Hall Generators From Indium Arsenide for the Measurement of the Magnetic Field Strength

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 11, pp 1690-1694 (USSR)

ABSTRACT: From the stoichiometrically composed source materials the indium arsenide is prepared by vacuum melting at 1000°C. The melt was subjected to a zone purification which made possible the examination of the final monocrystalline and polycrystalline samples of the n-type, having an impurity concentration of  $1.6 \cdot 10^{16}$  to  $10^{10}/\text{cm}^3$ , as to their most important properties. The temperature dependence of the electrical conductivity is shown in figure 1 for 3 different values of n and a temperature range -196°C - +400°C. The dependence of the Hall constant R on temperature is illustrated in figures 2 and 3. At an impurity concentration of  $2 \cdot 10^{17}/\text{cm}^3$  R varies by 0.02% per 1°C and at a concentration of  $3 \cdot 10^{16}/\text{cm}^3$  only by 0.08%. It was established that R does not depend on H up to 21000 Oe. Primary elements were

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Hall Generators From Indium Arsenide for the  
Measurement of the Magnetic Field Strength

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prepared from the samples with the properties described. They consist of platelets (length = 8-5 mm, width 4-3 mm, thickness 0.2-0.1 mm), with 4 or 5 electrodes: 2 current and 2 or 3 Hall electrodes. The platelets are glued on mica and are sometimes placed into small metallic boxes, for better cooling. The contacts are prepared with special care so that only ohmic contacts can occur. The following characteristic properties of the primary elements are measured by the usual method: a) Hall EMF (3 different samples) versus field strength in the temperature range +20 - +55°C (Fig 8), b) Hall EMF versus control current (Fig 9). In a sample of  $n = 3 \cdot 10^{17}/\text{cm}^3$  the optimum current density is  $j = 90\text{a}/\text{cm}^2$ , in a sample of  $n = 2 \cdot 10^{16}/\text{cm}^3$ , however, it is  $60\text{a}/\text{cm}^2$ . c) the sensitivity of the primary element is measured for 5 different samples (see Table). d) The influence of the shape of the sample on the EMF occurring in the Hall electrode is investigated (Fig 10). e) The accuracy of the H measurements was

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Hall Generators From Indium Arsenide for the  
Measurement of the Magnetic Field Strength

66273

SOV/181-1-11-8/27

0.8, 0.6 and 0.5% for 300, 1000, and 3000 Oe, respectively.  
After a continuous 7-hour operation the values of the  
primary elements can all be reproduced with an accuracy of  
0.5%. There are 10 figures, 1 table, and 9 references.

ASSOCIATION: Fiziko-tehnicheskii institut AN SSSR, Leningrad  
(Physico-technical Institute of the AS USSR, Leningrad)

SUBMITTED: March 4, 1959

4

YESINA, N.P.; ZOTOVA, N.V.; NASLEDV, D.N.

P-n junctions in indium arsenide. Radiotekh. i elektron. 8  
no.9:1602-1606 S '63. (MIRA 16:9)  
(Semiconductors) (Transistors) (Indium arsenides)

20084

S/105/61/000/003/001/001  
B116/B206

9,4300 (and 1035, 1143, 1150)

AUTHORS: Nasledov, D. N. and Zotova, N. V.

TITLE: Instrument for measuring direct currents of up to 40 ka

PERIODICAL: Elektrichestvo, no. 3, 1961, 70-73

TEXT: This is the description of an instrument similar to those developed by the Siemens-Schuckert Plants in the Federal German Republic (Refs. 2,3). It was developed by the authors for the purpose of measuring direct currents of up to 40 ka with an error of measurement of about 0.7%. The instrument is based on measuring the magnetic-field strength, the field being produced by the direct current by means of Hall generators developed by the authors. These Hall generators are made from indium arsenide (semiconductor) (Ref. 1). The new instrument differs from those used in the USSR for measuring direct currents by the following facts: it can easily be placed on a conductor rail and measure the current in any section of the rail; the instrument has a millivoltmeter of the class of accuracy of 0.5 and a linear scale in the entire measuring range; the instrument indications do not depend on outside effects of

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20084

Instrument for measuring direct ...

S/105/61/000/003/001/001  
BT16/B206

foreign magnetic fields, foreign steel masses etc; the instrument has a sufficiently low error of measurement; the indications do not depend on the temperature up to + 50°C (the lower limit is unrestricted); the measuring process and calibration of the instrument are very simple; the Hall generators used in the instrument are exchangeable and reliable; the instrument is not sensitive to overloads and consumes a maximum of 1.5 w. The basic circuit diagram for connecting the two Hall generators is shown in Fig. 1. The rails conducting the direct current to be measured are gripped by the steel yoke consisting of two U-shaped parts. The Hall generators are placed in the two air gaps formed between these parts. It is shown that the sum of the magnetic-field strengths  $H_1$  and  $H_2$  in the two gaps of the width  $l_1$  and  $l_2$  respectively will only be proportional to the measured current  $I$ , if  $H_{Fe} l_{Fe} \ll I$ .  $H_{Fe}$  is the magnetic-field strength along the path  $l_{Fe}$  in the steel. This condition is only fulfilled in a material with steep magnetization curve and narrow hysteresis loop. Such a material is cold rolled silicon sheet steel

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SECRET

Instrument for measuring direct ...

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B116/B206

$\chi_{\text{BN}}$  (KhVP), which shows a high saturation induction, making it possible to obtain great magnetic-field strengths in the air gaps. The neglect of  $H_{\text{Fe}} l_{\text{Fe}}$  in comparison to  $I$  is the only fault of this direct-current measuring method. The instrument is described in short with the aid of Fig. 2. The yoke is made from KhVP steel and consists of thin lamellas, in order to prevent heating owing to eddy currents. Between the two yoke parts there are very exactly machined calibrated copper cups. The yoke dimensions are: 114 x 87 x 30 cm. The surface of the recess for the rail is 37 x 34 cm. The air gap is 3 cm. The weight of the yoke is 1600 kg. The Hall generators were made from indium arsenide and showed a sensitivity of about 100  $\mu\text{v}/\text{G}$ . It was possible to reduce the potential drop at the Hall contacts to from 0.05 to 0.2 mv for  $H = 0$ . The control panel consists of two indicating instruments of precision class 0.5 (a milliammeter for measuring the control currents of both transmitters and a millivoltmeter calibrated in kiloampere) and a circuit for separate transmitter feeding, compensating the foreign emf and measuring the Hall emf. Each Hall generator has its own, accurately selected load resistance, since not only the Hall emf, but also the linearity of the scale depends on it.

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Instrument for measuring direct ...

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Provision is made for a recording device to be added on the panel. Fig. 3 shows the basic circuit diagram of the panel. In this circuit the microammeter with the resistor connected in series serves as recording apparatus. The instrument scale is strictly linear for measurements of up to 40 ka and remains so up to 50 ka, if the air gap is increased to 4 cm. The great weight of the instrument is mentioned as a drawback. Experiments to reduce it have led to a reduction of the measuring accuracy. At present the authors are developing a direct current measuring instrument for currents of up to 100 ka, based on the same principal described here. There are 6 figures and 3 references: 1 Soviet-bloc.

ASSOCIATION: Fiziko-tehnicheskij institut AN SSSR (Physicotechnical Institute of the AS USSR)

SUBMITTED: December 8, 1956

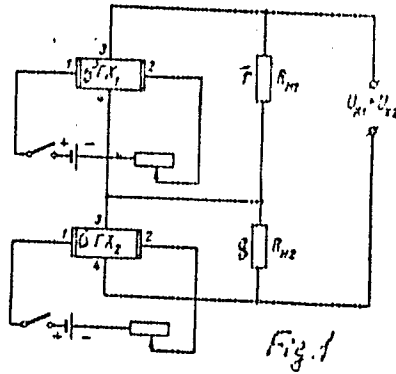
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20084

Instrument for measuring direct ...

8/103/61/000/003/001/001  
B116/B205

Legend to Fig. 1:  
Basic circuit diagram for  
connecting the Hall generators.  
1) and 2) current contacts of  
the Hall generators, 3) and 4)  
Hall contacts, 5) and 6) Hall  
generators, 7) and 8) their  
corresponding load resistances  
~ 10 Ohm.



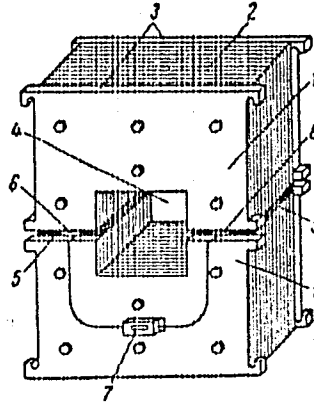
Card 5/7

20004

Instrument for measuring direct ...

S/105/61/000/003/001/001  
B116/B206

Legend to Fig. 2: General view of the measuring instrument for high direct currents.  
1) U-shaped parts of the magnetic conductor, 2) steel yoke, 3) bracket plates from duralumin, 4) recess for the conductor rail, 5) calibrated copper cups, 6) Hall generators, 7) wedge connecting the Hall generators with the control panel.



Card 6/7

Instrument for measuring direct ...

3/101/61/000/002/001/001  
B116/B206

Legend to Fig. 3: Basic circuit diagram of the control panel. 1) and 2) accumulators feeding the Hall generators;  $R_1=R_2 \approx 60$  Ohm variable resistances permitting the generators to be supplied with the necessary control current. 3) and 4) load resistances of the Hall generators.  $r_1 = 100$  Ohm,  $r_2 = 3$  Ohm,  $r_3 = 100$  Ohm resistance for compensating the foreign emf.

