ACCESSION NR: AP4016079 Z/0037/64/000/001/0034/0045

AUTHOR: Misek, Karel

TITLE: Internal friction of ferromagnetic substances in alternating magnetic field

SOURCE: Ceskosl. casopis pro fysiku, no. 1, 1964, 34-45

TOPIC TAGS: internal magnetic friction, friction as induction function, torsion pendulum, Wiedemann effect, ferromagnetic meterial, alternating field

ABSTRACT: A review of the literature is given. There is no theory to explain adequately all aspects of internal friction in an alternating field. It is a structurally sensitive phenomenon, depends on the condition of the sample, and is found at medium and high induction rates when there are sudden changes in structure that are difficult to express mathematically. It may be followed by a torsion pendulum; however little is known about changes of magnetic state in torsional stress, not even Wiedemann's effect has been fully clarified. The same applies to the mechanism of alternating magnetization, mainly as far as

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ACCESSION NR: AP4016079

Barkhausen's effect is concerned. Experimental investigation is not yet completed. All the measurements made were concerned with the intensity of the field, not with the induction, and polycrystalline material of limited purity was used. The conditions of the experiments with a torsion pendulum are restricted by the fact that the sample has to undergo magnetorestrictive swings in an alternating field. At its end a weight is located that has inertia even for longitudinal swings, and the alternating axial stress is increased with the amplitude of the alternating field. It is not yet clear whether internal friction can be used to determine some microscopic parameters characteristic for magnetic states. The behavior of ferromagnetic materials in alternating fields must be clarified. Work with ferroelectric materials may yield analogous behavior that is easier to follow than the movements of walls in metals. Orig. art. has: 7 figures.

ASSOCIATION: Ustav fyziky pevuých látek CSAV, Prague (Institute of Solid State Physics)

SUBMITTED: 31Jul63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 003 OTHER: 028

Card 2/2

MISHEK, K. [Misek, K.]

Internal friction of ferromagnetic materials in a changing magnetic field. Fiz. met. i metalloved. 18 no.3:373-384 S '64. (MIRA 17:11)

1. Institut fiziki tverdogo tela Chekhoslovatskoy Akademii nauk, Pragu.

L 60295-65 EPF(c)/EPF(n)-2/EWG(c)/EEC(k)-2/EWT(1)/EWT(m)/EWP(b)/T/EWP(t)
Pr-4/Pu-4/Peb IJP(c) WW/RM/JD/JG
ACCESSION NR: AT5009447 Z/0000/64/000/000/0110/0115 51 46 B+1

AUTHOR: Misek, K.

TITLE: The residual resistivity of quenched platinum 27

SOURCE: Conference on Low Temperature Physics and Techniques. 3d, Prague, 1963. Physics and techniques of low temperatures; proceedings of the conference. Prague, Publ. House of the Czechosl. Academy of Sciences, 1964, 110-115

TOPIC TAGS: platinum, residual resistivity, low temperature measurement, size effect, vacancy formation, vacancy migration, vacancy annealing, activation energy

ABSTRACT: The author studied the formation of vacancies and the annealing-out of vacancies in polycrystal line platinum wire of 0.05 mm diameter. The measurements were made at liquid-helium temperature, when the accuracy of the residual-resistivity measurements need not be as high as at room temperature, and much lower concentrations of vacancies can be detected compared with room-temperature measurements,

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L 60295-65
ACCESSION NR: AT5009447

5

so that much lower quenching temperatures can be used. The samples were quenched in air from 600 -- 900C. A standard potentiometer technique was used to measure the resistance. A value of 1.7 eV was obtained for the activation energy of vacancy migration, but some doubts are cast on the reliability of this result. The value obtained for the activation energy of vacancy formation is 1.24 eV, and agrees with results of previous measurements by others. The error due to the size effect is estimated to be about 5 per cent. All the results are compared to researches by others. 'I thank Mr. V. Orel for measurements of the quenching rate, Miss A. Proskova for calculating some curves, and members of the Low Temperature Department for help.' Orig. art. has: 4 figures, 3 formulas, and 1 table.

ASSOCIATION: Institute of Solid State Physics, Czechoslovak Academy of Science, Prague

SUBMITTED: 0000064 ENCL: 00 SUB CODE: SS, MM

NR REF SOV: 000 OTHER: 011

Card 2/2 4/0

L 20210-66 EWT(l)/ETC(f)/EWG(m)/T IJP(c)

ACC NR: AP6010315 SOURCE CODE: CZ/0037/65/000/006/0466/0475

AUTHOR: Bodnar, Jan; Smrcka, Ludvik; Misek, Karel

ORG: Institute of Solid State Physics, CSAV, Prague (Ustav fyziky pevnych latek CSAV); [Smrcka] Faculty of Technical and Nuclear Physics, CVUT, Prague (Fakulta technicke a jaderne fysiky CVUT)

TITLE: Exact measurement of changes in the density of solids

SOURCE: Ceskoslovensky casopis pro fysiku, no. 6, 1965, 466-475

TOPIC TAGS: specific density, metal physical property, hydrostatics

ABSTRACT: The article describes a method of determining small changes in the density of metallic samples by differential hydrostatic weighing. High sensitivity was achieved by placing the comparison and investigated samples in the same bath; the influence of variation of the equilibrium position of the balance was suppressed by interchanging the samples. The method permits the determination of the relative change in density of a sample 1 cu cm in volume with an accuracy of up to $\pm 2 \times 10^{-6}$. Improved sensitivity can be achieved by using larger samples. Orig. art. has: 2 figures and 6 formulas. [JPRS]

SUB CODE: 20, 11 / SUBM DATE: 17Aug64 / ORIG REF: 001 / OTH REF: 007

Card 1/1

L 21331-66 T/EWP(t) IJP(c) JD/JG

ACC NR: AP5015929 SOURCE CODE: CZ/0055/65/015/006/0418/0424

AUTHOR: Smrcka, L.; Misek, K.; Bednar, J.

ORG: [Smrcka] Faculty of Technical and Nuclear Physics, formerly of Czech Technical University, presently of the Institute of Solid State Physics, Prague; [Misek; Bednar] Institute of Solid State Physics, Czechoslovak Academy of Sciences, Prague

TITLE: The density of quenched gold (Short report read at the conference on Point defects in quenched metals, ANL, June 1964)

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 6, 1965, 418-424

TOPIC TAGS: gold, platinum, silver, copper, aluminum, specific density, metal oxidation, annealing, quenching, differential method

ABSTRACT: A precision hydrostatic differential method for measuring small density differences of solid bodies was used for the determination of the activation energy of vacancy formation and migration in quenched gold. The authors believe that precise density measurement can be used to study the imperfection in metals. The desirable higher sensitivity can be achieved with larger specimens. The method is laborious and time consuming. Special precautions had to be taken even with gold and platinum which have a stable surface. In other metals (J. Bernar; L. Smrcka; K. Misek; Cs. cas. fys. A 15, 1965), such as copper, silver, or aluminum, it is difficult ot prevent the oxidation of the surface and the dissolution of oxygen and of other elements in the specimen during annealing and quenching. According to Jeannotte

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L 21331-66

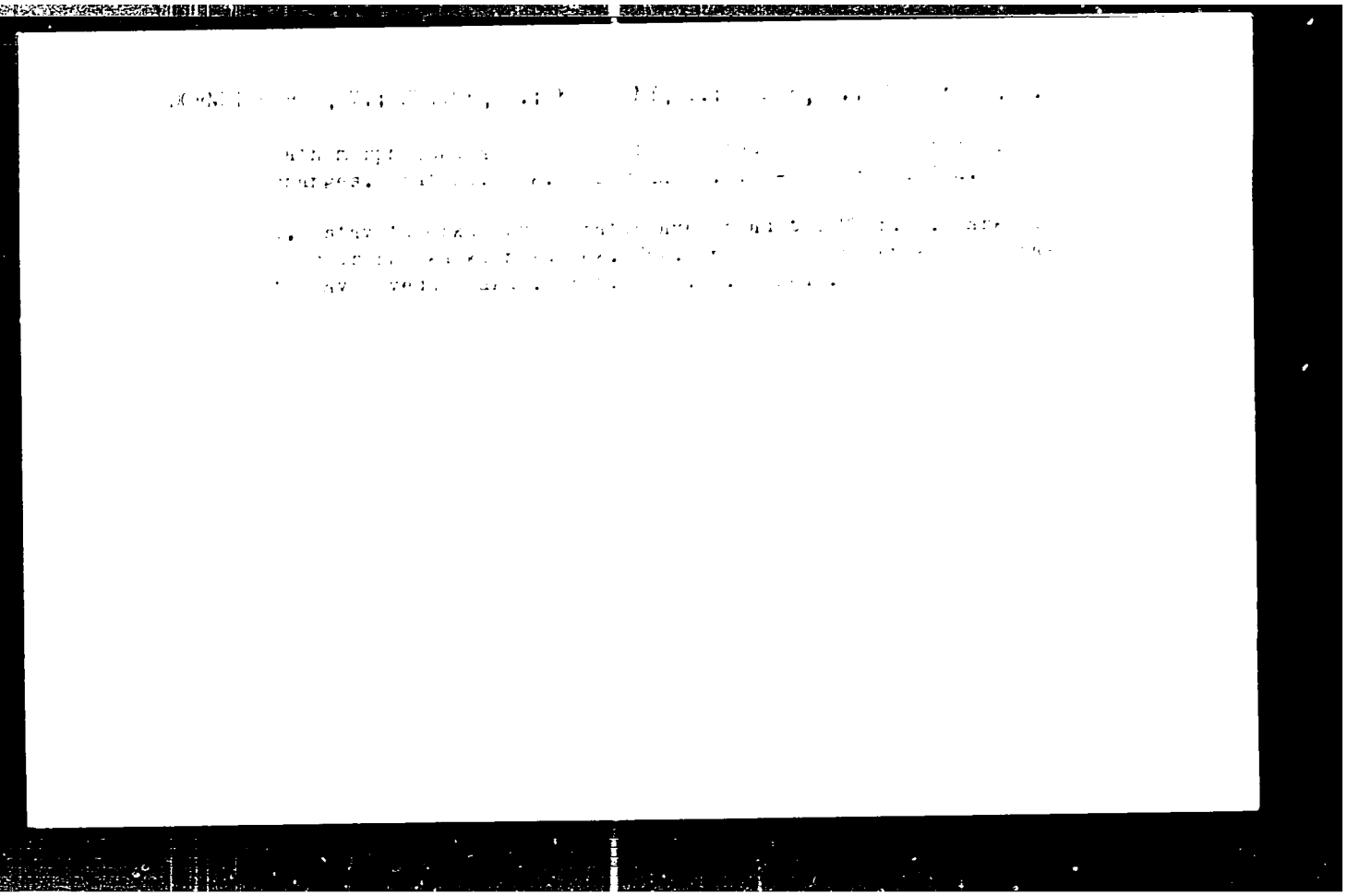
ACC NR: AP5015929

C

and Machlin (Phil. Mag. 8, 1835, 1963), it is probable that the annealing of vacancies in gold is influenced by the presence of minor traces of oxygen. It seems that in order to get significant results, it will be necessary to avoid gas contamination in applying any method. Density measurement do not give the same precision in determining relative changes of vacancy concentration as conventional methods (for example, electrical resistance measurements). The author L. Smrcka thanks the Institute of Solid Physics for the facilities put at his disposal during the work on his diploma thesis in the academic year 1962/63 (this paper being a part of it). Orig. art. has: 3 figures, 4 formulas, and 1 table. [NT]

SUB CODE: 11, 20/ SUBM DATE: 07Dec64/ OTH REF: 010/

Card 2/2



CZECHOSLOVAKIA

MISEK, P; SCHRAMM, A

Second Surgical Clinic, Faculty of Medicine, Komenskeho University (2 chir. klinika Lek. fak. University Komenskeho), Bratislava - (for both)

Bratislava, Bratislavske lekarske listy, No 2, January 1966, pp 84-89

"The use of antienzyme in the treatment of acute pancreatitides clinical experiences."

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Applications. Nitrogen Industry. H

Abs Jour: Ref Zhur-Khimiya, 1959, No 6, 12338.

Author : Baumann, Mirko; Misik, Tomas.
Inst : Not given.
Title : Ammonia Synthesis Columns.

Orig Pub: Chem. prumysl, 1958, 8, No 5, 229-233.

Abstract: A graphic method is cited for calculating the contact area of a synthesis column (SC), for a method of calculating the kinetics, material and thermal equilibrium. SC of different types are compared; the work of SC is described with several layers of a catalyst and the influence of different parameters of synthesis on the production as a whole is considered. Bib. 13 titles. -- From the authors' resume.

Card 1/1

24

MISEK, T

CZECHOSLOVAKIA

MISEK, T.

Research Institute, Kralovo Pole Machine Building Plant (Kralovopolska Strojirna), Prague

Prague, Collection of Czechoslovak Chemical Communications, No 2, 1963, pp 426-435

"Breaking of Drops by a Rotating Disc"

MICEK, T. [illegible]

Research Institute, Machine [illegible] Praha, [illegible]
Prague

Prague, Collection of Czechoslovak Chemical Communications, [illegible], [illegible],
pp [illegible]-[illegible]77

"V[illegible] [illegible] of [illegible] in [illegible] state systems"

(1)

[redacted], T.

[redacted] Research Institute, Krakow[illegible]

[redacted] Chemie, Collection of Czechoslovak Chemical Communications, No 7, 1963, pp 1641-1645

"Hydrodynamic Behavior of Agitated Liquid Extractors."

MISEK, T.

Breakup of drops by a rotating disc. Coll Cz Chem 28 no.1:426-435 F '63.

1. Research Institut, Kralovopolska strojirna, Prague.

MISEK, T.

Vertical motion of drops in agitated systems. Coll Cz Chem 28 no.3:570-577 Mr '63.

1. Research Institute, Kralovopolska strojirna, Prague.

MISEK, T.

Hydrodynamic behaviro of agitated liquid extractors. Coll Cz Chem 28 no.7:1631-1644 Jl '63.

1. Research Institute, Kralovopolska strojirna, Praha.

M[illegible]SE[illegible], T.

The hydrodynami[illegible] behavi[illegible] of pulsed liquid liquid extractors.
[illegible] Cz chem 29 no.8:[illegible]-[illegible] Ag [illegible]

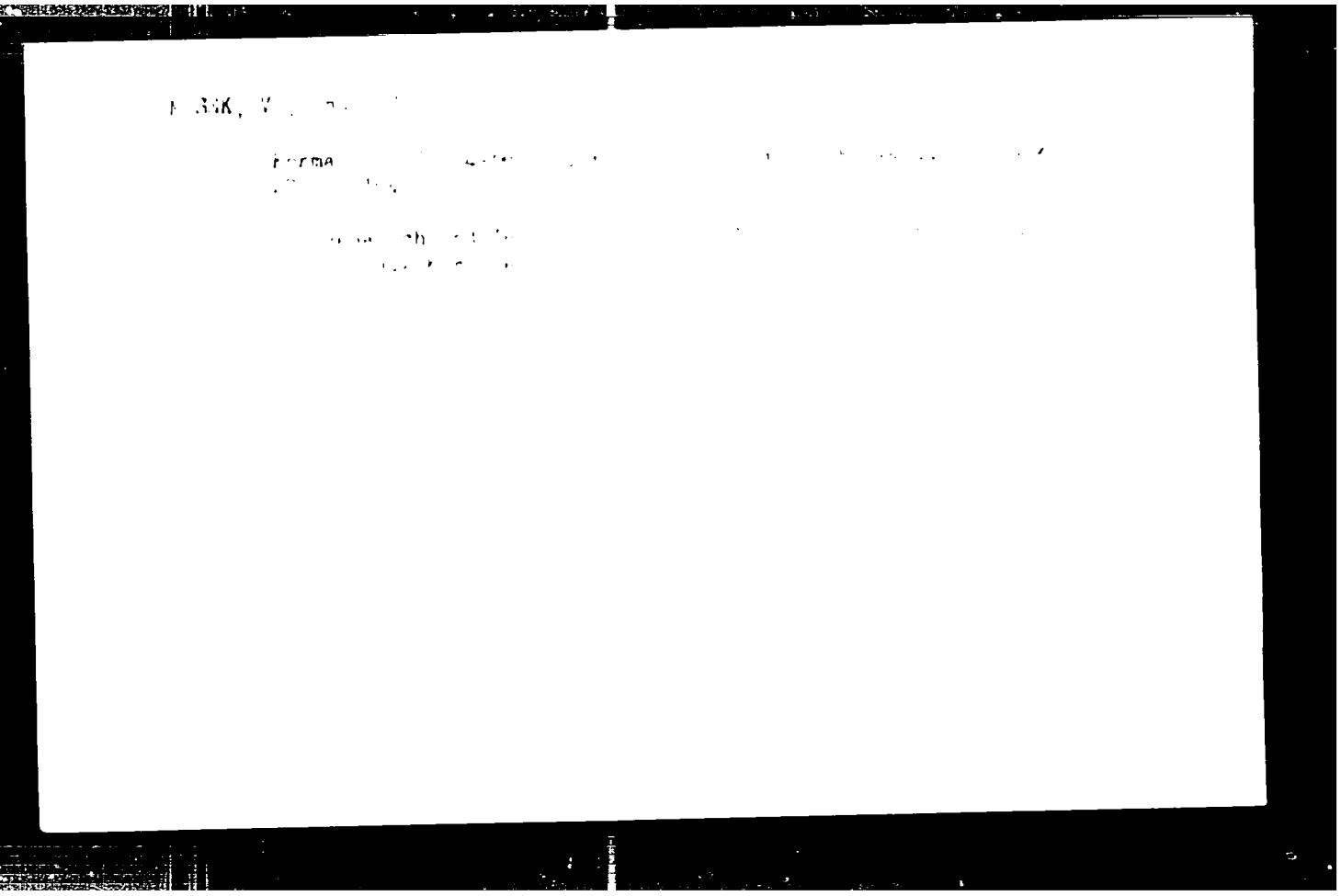
Po[illegible] consumption of d[illegible] agitat[illegible]. Ib[illegible]

[illegible]. Research Ins[illegible], Kr[illegible], Prague.

MISEK, T.

Coalescence of drops in an agitated [illegible].
Cz Chem 29 no. 9:2086-2093 S '64.

1. Research Institute, [illegible].



L 13586-66

ACC NR: AP6006067 SOURCE CODE: CZ/0053/65/014/004/0306/0306

AUTHOR: Muhlbachova, E.; Schusterova, D.; Miaskova, D.; Elisova, K.

ORG: Institute of Pharmacology, Faculty of General Medicine, Charles University, Prague (Farmakologicky ustav Fak. vseob. lek. KU)

TITLE: Indirectly acting sympatotropic substances in lipid metabolism [This paper was presented during the Twelfth Pharmacologic Days, Smolenice, 26-29 Jan 65.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 306

TOPIC TAGS: biologic metabolism, pharmacology, drug effect, nervous system drug

ABSTRACT: Study of effect of ephedrine, amphetamine and tyramine on the epididymal fatty tissue metabolism in vitro reveals that the "sympatolytic" effect is dose-dependent. Ephedrine even competitively antagonized the norepinephrine lipo-mobilization. Guanethidine, bretylium and phentolamine were used in the study. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 002

Card 1/1 HW

L 13224-66

ACC NR: AP6006080 SOURCE CODE: CZ/0053/65/014/004/0311/0312

AUTHOR: Schusterova, D.; Misekova, J.

ORG: Institute of Pharmacology, Faculty of General Medicine, Prague (Farmakologicky ustav fak. vseob. lek.)

TITLE: Effect of sympathotropic substances of the alpha and beta types of spontaneous activity of rabbit duodenum [This paper was presented during the Twelfth Pharmacologic Days, Smolenice, 27 Jan 65.]

SOURCE: Ceskoslovenska fysiologie, v. 14, no. 4, 1965, 311-312

TOPIC TAGS: digestive system, rabbit, nervous system drug, drug effect, pharmacology

ABSTRACT: Study of the effect of epinephrine, norepinephrine and isoprenaline with or without phentolamine or DCI on spontaneous activity of rabbit dueodenum in vitro. There was a dose-dependent relationship. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06 / SUBM DATE: none / OTH REF: 004

Card 1/1

MISEL, Henryk; TRUMBOWLER, Paulina

Toxic non-hemolytic antigens in Clostridium sordellii cultures.
Med. dosw. mikrob. 6 no.2:141-150 1954.

1. Z Panstwowego Zakladu Higieny w Warszawie.
(CLOSTRIDIUM,
*sordellii, culture, tox. non-hemolytic antigens in)

SKOBTSOV, Yevgeniy Aleksandrovich; IZOTOV, Anatoliy Dmitriyevich; TUZOV, Leonid Vasil'yevich; SELIVANOV, K.I., inzh., retsenzent; MISELEV, M.A., inzh., red.; ONISHCHENKO, R.N., red. izd-va; PETERSON, M.M., tekhn. red.

[Methods for reducing the vibration and noise of diesel engines] Metody snizheniia vibratsii i shuma dizelei. Moskva, Mashgiz, 1962. 191 p. (MIRA 15:12)
(Diesel engines) (Damping (Mechanics))

MISELHORN, Dariusz, inz.

Operation of an electric network and technical service for consumers in the Power Administration ot the Central District; also, remarks by L.Gorski. Energetyka Pol 14 no.1:14-20 '60. (EEAI 9:6)

1. Zaklady Energetyczne Okregu Centralnego.
(Poland-- Electric networks)

MISELHORN, Dariusz, inz.

Practical use of the Mole 88 ZC ground-drilling machine. Energetyka (EEAI 10:1)
Pol 14 no.7:214 Jl '60.
(Building machinery)

MISELHORN, Dariusz, inz.

Electric power demand of rural consumers in the Central Area Electricity Board. Energetyka Pol 15 no.7:217-219 Jl '61. (EEAI 10:9/10)

1. Zaklady Energetyczne Okregu Centralnego.

(Electric power)

MISELYUK, I.G.[Myseliuk, I.H.]; PALIYENKO, G.D.[Paliienko, H.D.]; SKRIPNIK, P.S.[Skrypnyk, P.S.], red.; NEMCHENKO, I.YU. [Niemchenko, I.IU.], tekhn. red.

[Collective farm chairman's note book] Zapysna knyzhka holovy kolhospu. Kyiv, Derzhsil'hospvydav URSR, 1963. 318 p. (MIRA 17:3)

[illegible]V, V. [illegible], [illegible] -- [illegible] "[illegible] [illegible] irrigation c[illegible]s." Mos, [illegible], [illegible] with gr[illegible] ([illegible] (Min of Agr USSR. [illegible] Inst of Engineers of Water Management [illegible] V. [illegible]. Vi[illegible]) [illegible]

[illegible], [illegible], [illegible])

99-[illegible]

AUTHOR: Visenev, V. ., Engineer

TITLE: The Application of Air-Hydraulic Regulators in Pressure-Pipe Heads (Primeneniye vozdushno-gidravlicheskikh regulyatora na trubchato-napornykh pereradakh

PERIODICAL: Gidrotekhnika i melioratsiya, [illegible], Nr 7, pp [illegible]

ABSTRACT: As a result of laboratory and field research it has been established that the pressure regime in pipe heads of irrigation systems is usually accompanied by negative pressure in the inlet of the pipe. Consequently, the principle of air regulation can be applied here, for which the author presents a series of formulas. Figure gives experimental data obtained from a model shaft-pressure head with a diameter of 10 cm, a [illegible] cm canal width at the bottom, and a single slope ratio. Analyzing these results, the author comes to the following conclusions: as proven by experience, the pulsation of the pressure in the head pipe is 5 to [illegible] times smaller when regulated air supply is being provided than when the air is arbitrarily sucked, and differs only a little from the pulsation of the pressure in the pipe under pressure conditions. When calculating pressure in canals it is desirable to eliminate the pressure drop in front of the construction, which is achieved either by a specially

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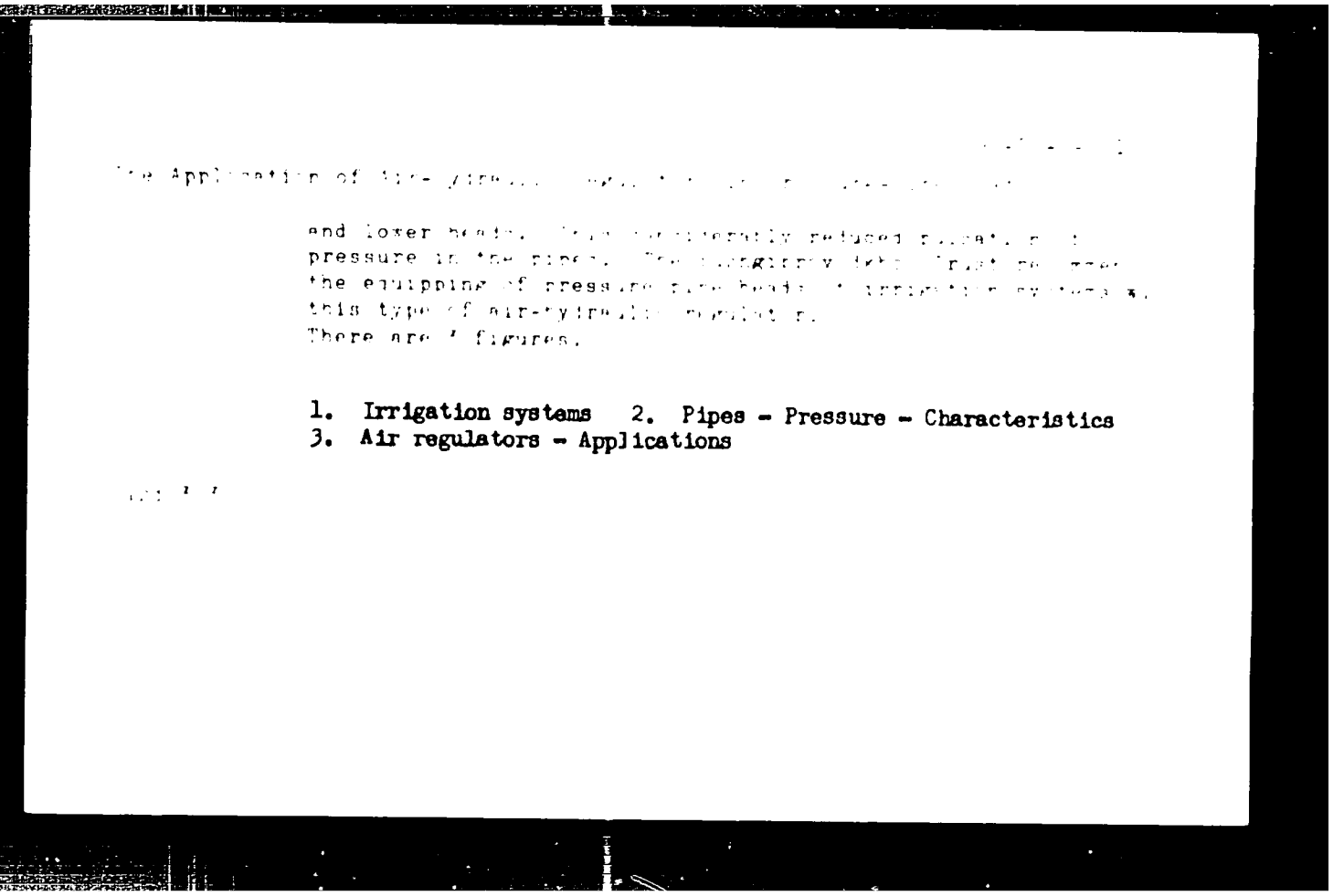
designed inlet (slit-type inlet) or by means of gates. In this respect the pressure pipe heads do not operate satisfactorily. By utilizing regulators these shortcomings are overcome. It is recommended to install air-hydraulic regulators in the zone of the greatest vacuum for the most favorable water inflow into the structure. The cross section of the pipe should be up to 4 % of the cross section of the shaft. The regulator might be installed in connection with or without gates. With regard to the capability of the regulator to maintain a given water level with great accuracy, it is possible to utilize it for automatic water metering and for the control of public water supply rates. According to the orders of the Glavvodkhoz of the MSKh SSSR (Main Administration of Water Resources of the USSR Ministry of Agriculture), the Yuzhgiprovodkhoz Trust (South State Planning Administration for Water Supply) tested air-hydraulic regulators in several irrigation systems of the Rostov oblast'. The performance of the regulators was satisfactory. They insured a smooth transition from the pressureless hydraulic system to the head pressure system, whereby there were no fluctuations of the water level in both the upper



and lower heads. [illegible] pressure in the pipes. [illegible] the equipping of pressure pipe heads [illegible] this type of air-cylinder regulators.
There are [illegible] figures.

1. Irrigation systems 2. Pipes - Pressure - Characteristics
3. Air regulators - Applications

MISENEV, V.S., inshener

Regulating the work of pipe chutes in irrigation canals.
Mauch.zap. MIIVKH 21:249-262 '59. (MIRA 13:8)
(Irrigation canals and flumes)

KOZ[illegible], N.[illegible]; M[illegible]EH[illegible]NIKOV, V.V.

[illegible]s of derivatives of [illegible]-pheny[illegible]-[illegible],[illegible]-benz[illegible]line. Synthesis of quaternary salts of 4-styryl derivatives of [illegible]-pheny[illegible]-[illegible],[illegible] [illegible]line. Izv.vys.ucheb.zav.; khim. i khim.tekh. [illegible] no.[illegible]3[illegible]-3[illegible]9 [illegible] (MIRA 18:[illegible])

[illegible] [illegible]skiy Institut, kafedra [illegible].

MISES, R.

Mises, R. Ueber Aufteilungs- und Besetzungs-Wahrscheinlichkeiten. Acta [Trudy] Univ. Asiae Mediae. Ser. V-a. Fasc. 27, 21 pp. (1939). (German. Russian summary)

The author introduces his problem by considering the probability that out of a group of k people, three will have the same birthday. He assumes that the chance that a particular person will have a specific birthday is $1/n$, where $n=365$. If x_i denotes the number of days on which there are exactly i of the k birthdays for a given group of people, then the numbers $x_0, \cdots, x_k$ constitute a frequency distribution satisfying the relations $\sum x_i=n$, $\sum ix_i=k$. The author computes the probability of obtaining a given distribution and also finds the most probable distribution. He shows that the expected values of $x_0, \cdots, x_k$ approach the normal distribution if k becomes infinite while n remains fixed whereas they approach the Poisson distribution if n and k simultaneously become infinite in such a manner that k/n^2 approaches zero. The above frequency distribution arises in connection with quantum theory and the results are applicable there. *A. H. Copeland* (Ann Arbor, Mich.).

Source: Mathematical Reviews, 1948, Vol 9, No. 1

MISES, R.

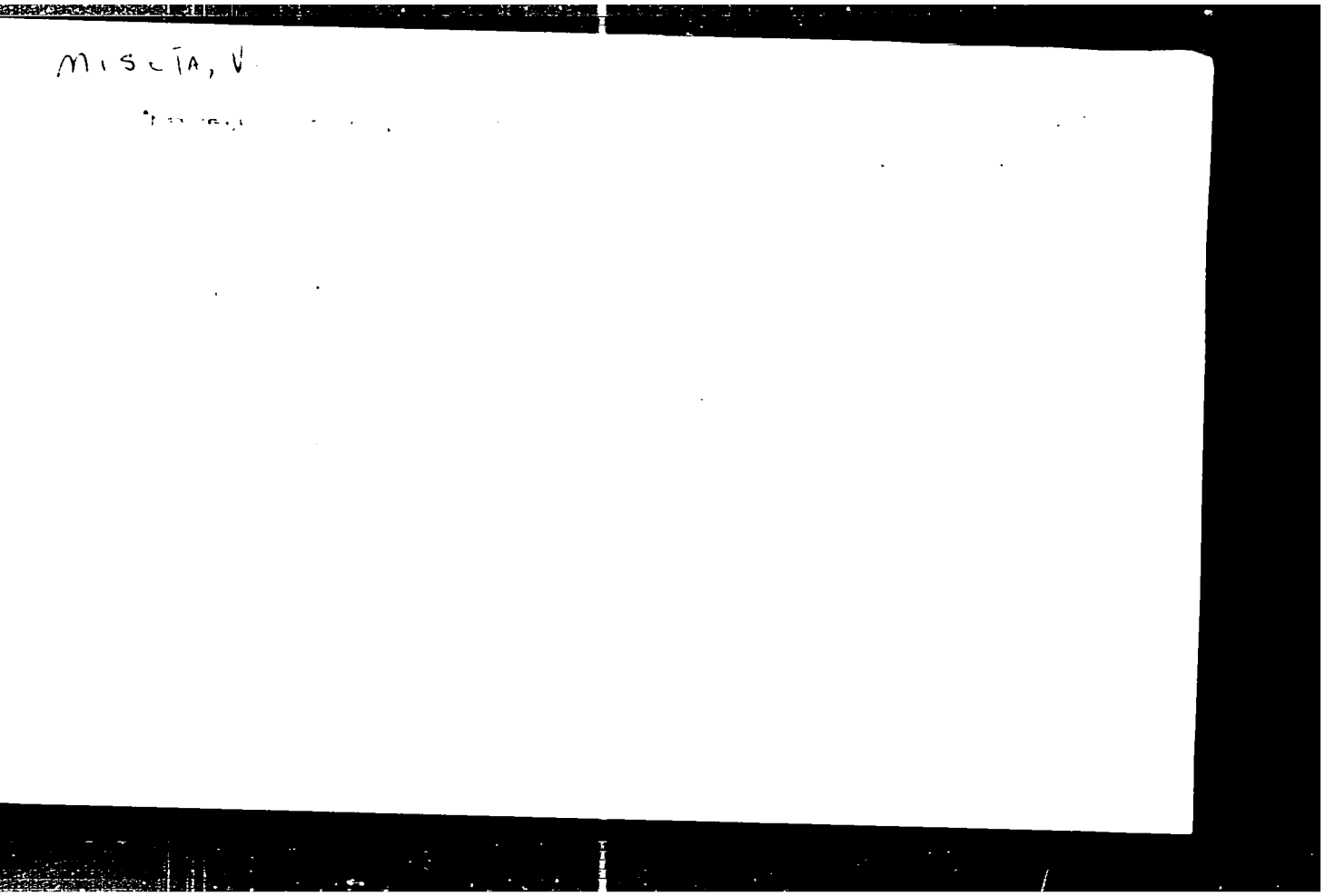
Differentialgl

V. Mises, R. Die Grenzschichte in der Theorie der gewöhnlichen Differentialgleichungen. Acta Sci. Math. Szeged 12, Leopoldo Fejér et Frederico Riesz LXX annos natis dedicatus, Pars B, 29–34 (1950).

The equation (*) $y' = f(x, y) + \nu g(x, y)y'^2$ is considered for $x_1 \leqq x \leqq x_2$ with f and g continuous and uniformly bounded and $g > 0$. It is assumed that $u' = f(x, u)$, $u(x_1) = y_1$, and $v' = f(x, v)$, $v(x_2) = y_2$ have unique solutions $u(x)$ and $v(x)$ for $x_1 \leqq x \leqq x_2$. The author proves that if (*) has a solution for small ν satisfying $y(x_1) = y_1$ and $y(x_2) = y_2$ then, as $\nu \to 0+$, $\lim y(x) = u(x)$ uniformly for $x_1 \leqq x \leqq x_2 - \epsilon$, $\epsilon > 0$, and similarly for $v(x)$ when $\nu \to 0-$.

N. Levinson.

Source: Mathematical Reviews, Vol 12, No. 2



MISETSKAYA, I. B.

USSR/Chemistry - Lead, Thorium Systems Jan/Feb 52

"Physicochemical Analysis of Systems of Importance to Analytical Chemistry. XX. The Solubility of Precipitates in Complex (Really Existing) Analytical Systems," I. V. Tananayev, I. B. Misetskaya, A. D Vinogradova, Inst of Gen and Inorg Chem, Acad Sci USSR

"Zhur Analit Khim" Vol VII, No 1, pp 14-20

Studied soly in the system $PbSO_4$ - $Th(NO_3)_4$ - Li_2SO_4-H_2O at 25°C. The Debye-Hueckel formula for calcg the soly of $PbSO_4$ is not suitable for this system, because of the marked chem interaction accompanied 209T8

USSR/Chemistry - Lead, Thorium Systems (Contd) Jan/Feb 52

by formation of ions of the type $ThSO_2^{2+}$. Considers the importance of physicochem analysis for theory and practice of ppt reactions, and a diagram shows the following types of ternary systems: ppt - electrolyte with common ion - water, embracing all possible systems with ppts in dependence on the ion type of the components and the character of the process of interaction in the system.

209T8

MITSETSKIY, YA.S.

June bug

Removal of May beetle grubs from pine plantins in forest nurseries. Les. [illegible]

9. Monthly List of Russian Accessions, Library of Congress, August 1953. Unclassified.

M[illegible]V, Kiril (Mishev, Kiril), dr.

Development, [illegible], and tasks of [illegible] in Bulgaria [illegible] zem [illegible]

1. Institute of Geography, Bulgarian Academy of Sciences, Sofia, Benkovski 3.

MISEV, P.

Cutting the tails of lambs. p. 52

POLJOPRIVREDA, Beograd, Vol 4, No. 2, Feb., 1956

SO: East European Accessions List, Vol 5, No. 10, Oct., 1956

MISEVICH, A. A.

MISEVICH, A. A. and YAROVAYA, V. M. "Rosette-like Disease of Winter Wheat," Sovetskaia Agronomiia, vol. 4, no. 10, 1946, pp. 95-96. 20 Sov

So: Sira-Si-90-53, 15 Dec. 1953

MISEVICH, G.M.

Pentoxy in the treatment of agranulocytosis. Vest. otorinolar., Moskva 14 no. 3:46-48 May-June 1952. (CLML 22:4)

1. Of the Department for Diseases of the Ear, Throat, and Nose (Head -- Honored Worker in Science Prof. K. L. Khilov), Leningrad Sanitary-Hygienic Medical Institute.

PHILIPPIS, I.A.; MISEVICH, P.V.

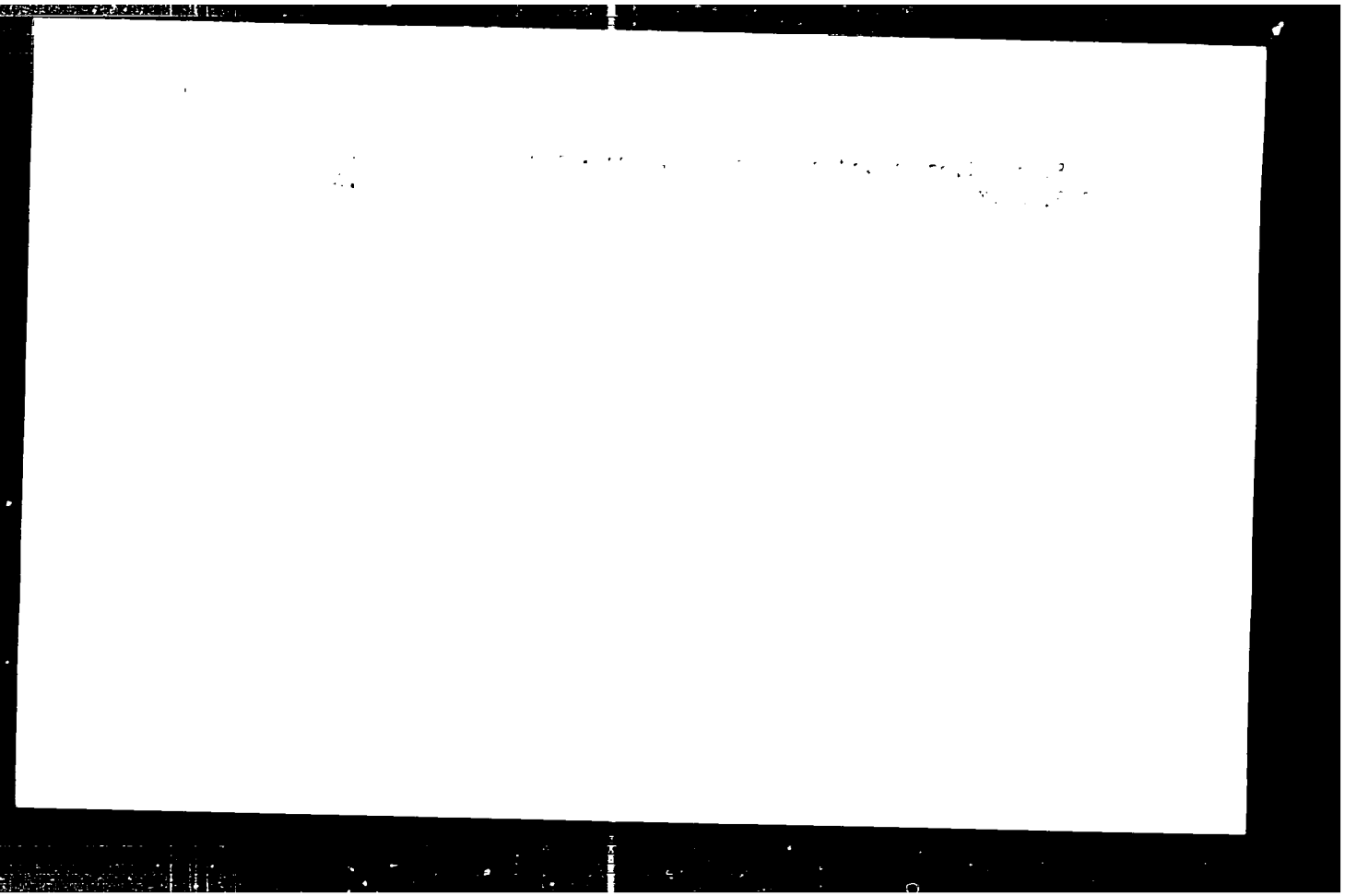
Efficiency in the development of the Vygoda oil pool in the Orlina oil field with maintenance of reservoir pressure. Neft. i gaz. prom. no.2:45-47 Apr-Jun '58. (MIRA 18:6)

STEFANKOV, M.V.; MISEVICH, V.S.

Determining engagement forces of multiple-disk oil clutches. Stan.i instr. 34 no.3:33-34 Mr '63. (MIRA 16:5)
(Clutches (Machinery))

MISEVICH, Vladimir Stanislavovich, tokar' novator; SMAGORINSKIY, B., red.

[Speeds and precision] Skorosti i tochnost'. Volgograd, Nizhne-Volzhskoe izd-vo, 1964. 31 p. (MIRA 17:11)



APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134620002-2"

MISEVICH, E. A.

MISEVICH, E. A. and ZAKHARCHENKO, A. I. "Downy Mildew of Sugar Beets," Sakharnaia Promyshlennost' vol. 20, no. 7, 1947, pp. 31-34. 65.8 Sa2

Sira-Si-90-53, 15 Dec. 1953

1. MISEVICH, Z.A.

2. USSR (600)

7. "Research on Peronosporosis of the Sugar Beet", 50 Let Verkhnyachskoy Opytno-Selektsionnoy Stantsii (50 Years of the Verkhnyach Experimental Selection Station), 1950, pp 303-313.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

1. MISEVICH, Z.A.

2. USSR (600)

7. "Bacteriosis of Barley", 50 Let Verkhnyachskoy Opytno-Selektsionnoy Stantsii (50 Years of the Verkhnyach Experimental Selection Station), 1950, pp 314-316.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

1. MISEVICH, Z.A.

2. USSR (600)

7. "Virus Diseases of Winter Wheat", 50 Let Verkhnyachskoy Opytno-Selektsionnoy Stantsii (50 Years of the Verkhnyach Experimental Selection Station), 1950, pp 317-320.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

MISEVICH, Z.A.

Best times for sowing winter wheat. Dop. UN URSR no.2:172-176 '56. (MLRA 9:12)

1. Verkhnyats'ka ordena Trudovogo Chervonogo Prapora doslidno-selektsiyna stantsiya. Predstavleno akademikom Akademii nauk USSR i Vsesoyuznoy Akademii sel'skokhozyaystvennykh nauk imeni Lenina P.A. Vlasyukovm.

(Ukraine—Wheat)

MISEVICHYUS, L.

Misevichyus, L. "Treatment of laryngeal tuberculosis with ultra-violet rays" Trudy med. fak. Kaunassk. un-ta, Vol. I, 1948, p. 221-40. In Lithuanian, Russian abstract - Bibliog: 23 items

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

LUKOSEVICIUS, A.; STARAS, I.; DAGYS, J., red.; IVANAUSKAS, T., prof.red.; KRIAUCIUNAS, J., red.; MACYS, J., red.; MINKEVICIUS, A., red.; MISEVICIUTE, A., red.; STARAS, I., red.; TUINYLA, V., red.; URBONAS, A., red.; GLEBAVICIENE, S., red.; ANAITIS, J., tekhn. red.

[Lithuanian pomology] Lietuvos pomologija. Red.V.Tuinyla. Vilnius, Valstybine politines ir mokslines literaturos leidykla, 1962. 43 p. (MIRA 16:8)

1. Lietuvos sodininkystes draugija.
(Lithuania--Fruit--Varieties)

MISEYUK, K.

Issuing long-term credit to collective farms under the new conditions of agricultural administration. Den. i kred. 21 no.7:14-20 Jl '63. (MIRA 16:8)
(Agricultural credit) (Collective farms--Finance)

[redacted], V.A.

Agriculture

Extension of credit in collective farms. Moskva, Gos. izd-vo sel'khoz lit-ry, [redacted].

Monthly List of Russian Accessions, Library of Congress, June 1962 UNCLASSIFIED.

NOSYREV, S.; SIDNL'NIKOV, M.; MISHYUK, K.

[Extension of credit to collective farms by the Agricultural Bank] Kreditovanie kolkhozov sel'skhozbankom. [Leningrad] Gosfinizdat, 1953. 154 p.
(MLRA 6:11)

(Collective farms) (Agricultural credit)

MISEYUK, K. P.

Issuing long-term credit to collective farms under the new working conditions of the State Bank. Den.i krod. 17 no.6: 55-59 Je '59. (MIRA 12:10)
(Agricultural credit)

MISEYUK, K.

Control over the issue of long-term credit and financing capital investments in agriculture. Den. i kred. 18 no.10:9-12 O '60.
(MIRA 13:10)

(Agricultural credit)

BARKOVSKIY, N.D.; CHERNYSHOVA, T.A.; MORSIN, V.I.; VSESVYATSKAYA, N.V.; MEZHIBORSKAYA, S.B.; MISEYUK, K.A.; BORZDIN, B., red. NADEZHDINA, A., red.; TELEGINA, T., tekhn. red.

[The organization and planning of credit]Organizatsiia i planirovanie kredita. Moskva, Gosfinizdat, 1962. 298 p. (MIRA 16:3)

(Credit)

KIRILLOV, Yevgeniy Aleksandrovich; MISEYUK, K.A., red.; TELEGINA,T., tekhn. red.

[Financing and issuing credit to agriculture] Finansirovanie i kreditovanie sel'skogo khoziaistva. Moskva, Gosfinizdat, 1963. 222 p. (MIRA 16:12)

(Agriculture—Finance)

YUNIK, Isaak Borisovich; MISEYUK, Kornely Antonovich; [illegible], A., otv. red.

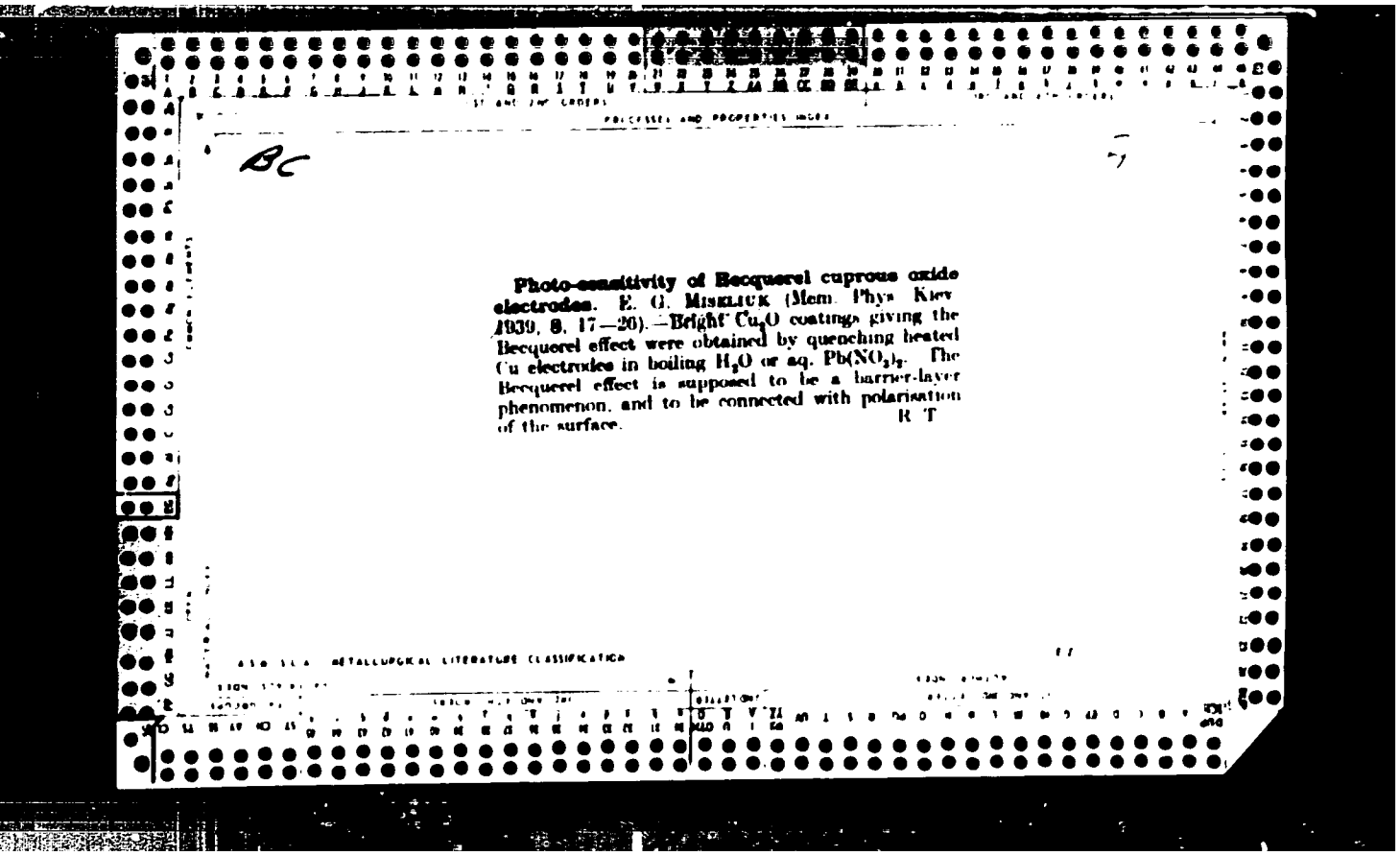
[Financing and issuing credit for capital investments in agriculture] Finansirovanie i kreditovanie kapital'nykh vlozhenii v sel'skoe khoziaistvo. Moskva, Finansy, [illegible]. 206 p.

[illegible] (for Yunik, [illegible]

MISHYUK, Ol'ga Antonovna; BAYBAKOV,A.B., inzhener, redaktor; GUL'KO,M.M., retsenzent; ZALOGIN,N.S., redaktor; RUDNITSKIY,Ya.V., tekhnicheskiy redaktor

[Clamp couplings] Klemmovye soedineniia. Kiev, Gos.nauchno-tekhn. izd-vo mashinostroitel'noi lit-ry, 1955. 61 p. (MLRA 9:3)
(Couplings)

MIGEYUK, O. A. Cand Tech Sci -- (diss) "Clamp couplings." Odessa, 19 --. 12 pp (Min of Higher Education UkSSR. Odessa Polytechnic Inst), 150 copies (KL, 13-58, 97)



BC

Photo-sensitivity of Becquerel cuprous oxide electrodes. E. O. MISELICK (Mem. Phys. Kiev 1939, **8**, 17—20).—Bright Cu_2O coatings giving the Becquerel effect were obtained by quenching heated Cu electrodes in boiling H_2O or aq. $Pb(NO_3)_2$. The Becquerel effect is supposed to be a barrier-layer phenomenon, and to be connected with polarisation of the surface. R. T.

USSR/Physics Sep/Oct 48
Photometry
Photoelectric Cells

"Silver Sulfide Photoelements and Their Use in Photometry," Ye. O. Kiselyuk, V. Ye. Kosenko, Phys Inst, Acad Sci Ukrainian SSR, 3/4 p

"Iz Ak Nauk SSSR, Ser Fiz" Vol XII, No 5

Investigations of silver sulfide photoelements show that they have high selective sensitivity in vide spectrum interval, especially in red and infrared zones. They are also distinguished by great stability in spectrum characteristics.

19/49783

USSR/Physics (Contd) Sep/Oct 48

Discusses aging of such photoelements and desirability of producing them for photometric purposes.

19/49783

MISEYUK, YE. G.

PA 19/49783

USSR/Physics
Photoelectric Cells
Red Light

Nov 48

"Physical Properties of Silver Sulfide Photoelements," V. Ye. Kosenko, Ye. G. Miselyuk, Inst of Phys, Acad Sci Ukrainian SSR, Kiev, 9 pp

"Zhur Tekh Fiz" Vol XVIII, No 11

Silver sulfide photoelements are very sensitive to red rays and rays close to the infrared bands. However, their use has been somewhat limited due to lack of information on their properties. Also noticed that actual performance of silver sulfide

18/49T107

USSR/Physics (Contd)

Nov 48

photoelements differs greatly from theoretical performance data. Authors present results of tests conducted on present-day photoelements manufactured in USSR. Submitted 15 May 48.

18/49T107

MISELYUK, Ye. G.

USSR/Physics - Photoeffect Jan/Feb 52

"Negative Photoeffect in Silver Sulfide," Ye. G. Miselyuk, E. B. Mertens

"Iz Ak Nauk SSSR, Ser Fiz" Vol XVI, No 1, pp 115-120

Investigates the effect of light and of elec field on the formation of neg photoeffect in silver sulfide and other substances. Studies experimentally the spectral distribution of sensitivity and the dependence of cond on temp. Indebted to V. Ye. Lashkarev.

218T93

MISELYUK, Ye. G.

USSR/Physics - Photoelements, AgS Mar/Apr 52

"Some Technical Applications of the Silver-Sulfide Photoelements FESS-U," Ye.G. Miselyuk, M.B. Gokhman; Inst of Phys, Acad Sci Ukrainian SSR

"Iz Ak Nauk, Ser Fiz" Vol XVI, No 2, pp 227-229

Authors developed a photo-relay for remote control of safety equipment for presses with half-open dies and for automatic equipment cutting clay masses for production of ceramic objects.

220T98

GLINCHUK, K.D.; MISELYUK, Ye.G.

Photoelectric method for measuring the length of diffusion displacement of secondary current carriers in semiconductors. Ukr. fiz.zhur. 1 no.1:44-58 '56. (MLRA 9:11)

1. Institut fiziki Akademii nauk URSR.
(Semiconductors) (Photoelectric measurements)

~~KISELYUK~~ KISELYUK, YE. G.

SUBJECT USSR / PHYSICS
AUTHOR GLINČUK, K.D., KISELJUK, E.G., RASBA, E.I. CARD 1 / 2 PA - 1814
TITLE The Measuring of the Recombination Velocity of Carriers by Conductivity Modulation.
PERIODICAL Žurn.tech.fis, 26, fasc.12, 2607-2613 (1956)
Issued: 1 / 1957

Though the photoelectric method of measuring the life τ of non-basic carriers is today mostly used, it has considerable disadvantages, as e.g.: difficulties when measuring too short diffusion lengths L; the method is applicable only if the local concentration of carriers changes only little; insufficient accuracy; not practicable when measuring τ in the hole-material. A much more serviceable method of measuring τ is that by conductivity modulation on the occasion of the illumination of the sample. Unlike the first method, life is here determined by one single measurement. The geometric criteria are considerably more simple and the method may also be applied for the hole material. At first the theory of the method is dealt with. A homogeneous semiconductor sample of cylindrical form is investigated. Formulae for the modulation of the conductivity of the semiconductor on the occasion of illumination and in consideration of surface- and volume recombination are derived. If the volume life τ is short and if the velocity of surface recombination is not too high, so that $\frac{sL}{\delta} \ll 1$, then $\tau_{eff} = \tau$, and it is possible by this method to measure τ_p (s is the velocity of surface recombination, δ is the diffusion coefficient, p - hole concentration). If it is true that $\frac{sL}{\delta} \gtrsim 1$, it is possible to find τ_p, if s is known. Inversely, if τ_p is known it is

specific resistance ϱ of the germanium. Therefore the maximum L_p are determined by the ϱ values. The minimum τ_p are determined by the intensity of the light probe, by the specific resistance of the material, and by the minimum modification of voltage. Measurements of τ_{eff} in dependence of the current used for the sample [illegible] τ_p was at first determined by the method of conductivity modulation on a surface warranting a small s. Hereafter, the surface was roughly ground and etched. On the occasion of this treatment

Žurn.tech.fiz,26, fasc.12, 2607-2613 (1956) CARD 3 / 3 PA - 1814

s was determined according to the formula $s = \frac{\tau_p - \tau_{eff}}{\tau_{eff}} \frac{b}{L_p}$ and compared with the result obtained by means of the photoelectric method. Values of from ~ 600 ÷ 2500 cm/sec were obtained for s. The same method was applied on other surfaces, on which occasion values of from 10 000 to 30 000 cm/sec were obtained for s.

INSTITUTION: Physical Institute of the Academy of Science of the Ukrainian SSR, Kiev.

MISELYUK, Ye.G.; OOKHMAN, M.B.

Photoelectric automatic blocking device for presses with open and half-open PEB-1 dies. Avtomatyka no.1:94-95 '57. (MLRA 10:5)

1. Institut fiziki AN URSR.
(Automatic control) (Power presses)

GLINCHUK, K.D. [Hlynchuk, K.D.]; IVANOVA, O.K.; MISELYUK, Ye.O. [Miseliuk, O.H.].

Effect of minority current carrier lifetime on germanium point triodes [with summary in English]. Ukr. fiz. zhur. 2 no.4:338-346 '57. (MIRA 11:3)

1. Institut fiziki AN URSR.
(Triodes)

MISELYUK, YE. G.

Laboratory apparatus for growing and alloying of germanium monocrystals. L. R. Mertens, E. G. Miselyuk, G. P. Ryabchuk, and [illegible]. *Priborostroenie* 1957, No. 4, 26-7.—The authors describe an app. permitting the growth of germanium monocrystals by pulling them from the melt with built-in controls for the speed of pulling crystals, the rotation of crucible and crystal, and temp. conditions. Simultaneous introduction of different admixts. at any stage of crystn. is possible. The essential parts of the app. are enclosed in a glass vacuum compartment connected to an oil-diffusion pump. The melting pot consists of a quartz cylinder in the upper part of which room is provided for a graphite crucible which can be rotated by a quartz shaft. A thin W wire wound around the cylinder is fed a.c. through a ferroresonance stabilizer and transformer. To grow crystals of 10 and 300 g., 400 and 600 w. are required. Operating conditions are: pressure 1-2 × 10^{-4} mm. Hg, temp. about 20° above the m.p. of germanium. To grow a 100-g. crystal the app. requires 1.5-2.0 hrs. at a pulling speed of 0.8-1.0 mm./minute. B. Kr[illegible]

CARD 1 / 2 PA - 1943

SUBJECT USSR / PHYSICS
AUTHOR BUGAJ,A.A., KOSENKO,V.E., MISELJUK,E.G.
TITLE The Diffusion and the Solubility of Iron in Germanium.
PERIODICAL Žurn.techn.fis.27,fasc.1, 210-211 (1957)
Issued: 2 / 1957

For the experiments concerning the determination of the diffusion coefficient and the solubility of iron in germanium which were discussed here, iron with the radioactive isotope Fe^{59} was used. For the purpose of counting γ-rays a scintillation counter with a photomultiplier FEU-19 and with a NaJ-crystal were constructed. Pulses were transferred to a counting scheme and then to an electromechanic counter. Samples were cut out of monocrystalline germanium with the specific resistance $\varrho \geq 40$ ohm.cm in form of plane-parallel disks of 20 mm diameter and from 3 to 6 mm thickness. For the determination of the utmost solubility of iron in germanium the germanium samples were electrolytically covered with iron on their flat sides, and after a sufficiently long diffusion annealing (by which uniform saturation of the germanium with iron is warranted), the excess iron was ground away from the samples. The concentration of iron in germanium was determined by radioactive counting (by comparison with the counting result obtained in the case of an exactly weighed radioactive iron preparation).
A graph illustrates the curve of the utmost solubility of iron in germanium in the temperature interval of from 750 to 940° C. As seen from the graph, the utmost solubility of iron in germanium changes at these temperatures from 5.10^{14}

Žurn.tech.fis.27,fasc.1,210-211 (1957) CARD 2 / 2 PA - 1943

to $1,5.10^{15}$ cm^{-3}, on which occasion there is a weak marked maximum at 9[illegible]° C. The coefficient of the diffusion of iron in germanium was determined by the method developed by W.SEITZ and J.C.LAIRD, Zs.f.Metallkunde, 24, 133 (1932) in consideration of the finity of the sample. The method chosen here requires the constancy of the concentration limit c_o which, in the case of the investigation, was found to be the utmost solubility of iron in germanium at a given temperature. A table contains the values of the diffusion coefficients of iron in germanium at temperatures of from 775 to 930° C. The activation energies E and D_o of diffusion in the formula for the diffusion coefficient $D = D_o e^{-E/RT}$ amounted to E = 25 000 cal/mol = 1,1 eV(D_o = 0,13). The high velocity and the low activation energy of diffusion speak in favor of the assumption that the iron diffuses in the lattice of the germanium along the spaces between the nodes. Thus, iron behaves in germanium with respect to the activation energy of diffusion, the amount of the diffusion coefficient, the solubility as also with respect to the amount of the segregation coefficient, in a similar manner as copper, nickel, lithium, and partly also gold. However, iron differs considerably from all other invested admixtures in germanium with respect to the aforementioned signs.

INSTITUTION: Physical Institute of the Academy of Science of the Ukrainian SSR, Kiev.

AUTHOR KVASNITSKAYA,A.N., MERTENS,E.B., MISELYUK,E.B., PA - 2530
SKOPENKO,A.I.

TITLE: Germanium Point Triodes with Low Lifetime of Minority Carriers. (Tochechnyye triody iz germaniya s malym vremenem zhizni neosnovnykh nositeley toka, Russian)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol 27, Nr 3, pp 437 - 440 (U.S.S.R.)
Received: 4 / 1957 Reviewed: 5 / 1957

ABSTRACT: Investigations for the development of Germanium point triodes which are suited for fast acting impulse-schemes are described. The duration t_c of the process (reduction of the collector-current after the end of the impulse of the emitter current from the value which corresponds to the saturation state, to the value corresponding to the final state of the triod) can by a manyfold exceed the duration t_a of the process of the increase of the collector current up to the value corresponding up to the state of saturation. The factors whcih influence t_c were determined in order to find ways for the reduction of t_c, the relations between t_c and t_a were investigated, as well as other relations between factors which influence the frequency characteristics and the actual life of the unreal (minority) current carriers τ_{eff}. Life was measured by means of the photoelectric method. The samples were of n-germanium with the specific resistance

Card 1/2

PA - 2530

Germanium Point Triodes with Low Lifetime of Minority Carriers of 2 - 4 Ohm.cm and τ_{eff} of from ≈ 10 - 15 to ≤ 0,5 - 0,5 sec.

The measurements were carried out in an impulse- scheme of the amplifier with earthed triode-basis in the case of small and in the case of great injection-levels. The process of decrease of the collector-current is in these two cases determined by various physical factors. Whereas t_c in the case of small injection-levels is chiefly determined by the scattering of the times of flight and in the case of small l (distance between emitter and collector) practically does not depend on the quantity τ_{eff} in the germanium, t_c in the case of great injection-levels is essentially determined by τ_{eff} and i_e (emitter current) and depends only to a very small extent on l. Analogous results were obtained in the case of measurements in the impulse amplifier with an earthed emitter of the triode. The characteristic data for this case are shown in a table.(2 illustrations and 1 table)

ASSOCIATION: Institute for Physics of the Academy of Science of the [illegible], Kiev
PRESENTED BY:
SUBMITTED: 17.7.1956
AVAILABLE: Library of Congress
Card 2/2

57-8-6/36

AUTHORS Bugay,A.A.,Kosenko V.Ye.,Miselyuk Ye.G.,

TITLE Diffusion and Solubility of Silver in Germanium.
(Diffuziya i rastvorimost' serebra v germanii - Russian)

PERIODICAL Zhurnal Tekhn.Fiz.,1957,Vol 27, Nr 8,pp 1671-1675 (U.S.S.R.)

ABSTRACT The experiments were carried out for the purpose of supplementing the data on the admixtures in Germanium and for the purpose of a comparison between the experimental results and the diffusion theory. The investigation of the diffusion and the solubility of silver in Germanium was carried out according to the radioactive method using the silver isotop Ag^{110}. The experiments showed that the maximum solubility is reached at 875°C and that it amounts to 1.10^{15} at/cbm. The authors show that, as regards the magnitude of the diffusion coefficient, silver takes the place between copper and gold, being much nearer to copper,nickel and iron. Therefore we can assume that the diffusion process of silver is the same as with these other elements.The comparison between the experimental results and the diffusion theory shows a good coincidence of Li,Ag and Fe with an exactness to the constant multiplicand $\gamma = \frac{1}{25}$ (depends on the kind of lattice of the solvent).The point for Ni in the experiments happened to be situated exactly on the theoretical straight line.
(3 illustrations and 2 Slavic references).

Card 1/2

Diffusion and Solubility of Silver in Germanium. 57-8-5/36

ASSOCIATION Kiyev Institute for Physics of the Academy of Sciences of the Ukrainian SSR. (Institut fiziki AN USSR, Kiyev).

SUBMITTED February 21, 1957
AVAILABLE Library of Congress.

Card 2/2

AUTHORS: [redacted], K. D., Miselyuk, Ye. G., Fortunatova, L. N. 57-11-4/33

TITLE: Investigation of Recombination of Current Carriers in Germanium with the Admixture of Iron (Issledovaniye rekombinatsii nositeley toka v germanii s primes'yu zheleza).

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 11, pp. 2451-2457 (USSR).

ABSTRACT: The influence of the glowing on the states of the two acceptor levels (see W. E. Tyler and H. H. Woodbury, Phys. Rev., 96, 874, 1954) and the recombination lifetime of the carriers in n-germanium with iron admixture were investigated as well as the capture cross section of the non-equilibrium current carriers in these levels. It is shown that an acceptor level occuring in such a germanium which lies at 0,27 eV of the conductivity zone is eliminated by glowing at t= 450 ÷ 500°C. This becomes obvious in the first great increase of the lifetime of the non-equilibrium current carriers. It is assumed that the observed glow effect is due to the deactivation of the iron atoms in consequence of the elimination of the latter from the germanium lattice. The capture cross section for holes in the mentioned local level is determined and the value $S \approx 1.10^{-14}$ cm^2 obtained.

Card 1/2 There are 1 table, 2 figures, 5 Slavic references.

Investigation of Recombination of Current Carriers in Germanium with the Admixture of Iron. 57-11-4/33

ASSOCIATION. Institute for Physics of the AN of the Ukrainian SSR., Kiyev (Institut fiziki AN USSR.,Kiyev).

SUBMITTED. April 23, 1957.

AVAILABLE. Library of Congress.

Card 2/2

Miselyuk, K.B.

AUTHORS: Grinchuk, K.B., Miselyuk, Ye.G., Fortunatova, N.N.

TITLE: Influence of Annealing of Local Levels and the Life-time of Non-equilibrium Current Carriers in Germanium with Iron on Its Photosensitivity. (Vliyaniye otzhiga na lokal'nyye urovni i vremya zhizni neravnovesnykh nositeley toka v germanii s primes'yu zheleza.) Letter to the Editor)

PERIODICAL: Zhurnal Tekhn. Fiz., 1957, Vol. 27, Nr 11, pp. 2566-2567 (USSR)

ABSTRACT: W.W.Tyler and R.N.Wood-Bury showed that the insertion of iron into germanium leads to the development of two acceptor-levels with great ionization-energy in the energy structure of the germanium. The existence of these levels highly reduces the recombination-life-time of the current-carriers in the germanium. Here the influence of the annealing on the condition of these levels and on the recombination-life of iron was investigated. Also the capture cross-section of the non-real current-carriers were determined. It is shown that during the annealing a de-activation of the admixture-level with an activation energy of 0,2o e.V. took place. Consequently the current-carrier concentration within the area of the admixture conductivity increased at the expense of a supplement of carriers, which before the annealing were situated at the levels developed from iron. Besides, as a consequence of the annealing the recombination time τ rose from 2 sec. before the annealing to 60 sec. after the annealing. In some cases even up to a hundred times and more. For the trap cross-

Card 1/2

Influence of Annealing on Local Levels and the Life Time of Non- [illegible]
equilibrium Current Carriers in Germanium with Irons as Impurity.

sections of the holes at the acceptor-levels of 0,27 eV [illegible] the conductivity area bottom in of 0,34 eV of the valent zone the values $S_p \approx 1,0 \cdot 10^{-14}$ sq cm and $S_p \approx 5,0 \times 10^{-15}$ sq cm respectively were found according to W.Shockley and W.Read.
There are 1 figure and 2 Slavic references.

ASSOCIATION: Institute for Physics of the AN of the Ukrainian SSR, Kiyev (Institut fiziki AN USSR, Kiyev)

SUBMITTED: January 26, 1957

AVAILABLE: Library of Congress

Card 2/2

30V/58-59-12-27499

Translation from: Referativnyy zhurnal, Fizika, 1959, Nr 12, p 170 (USSR)

AUTHORS: Miselyuk, Ye.G., Baranskiy, P.I., Kosenko, V.Ye.

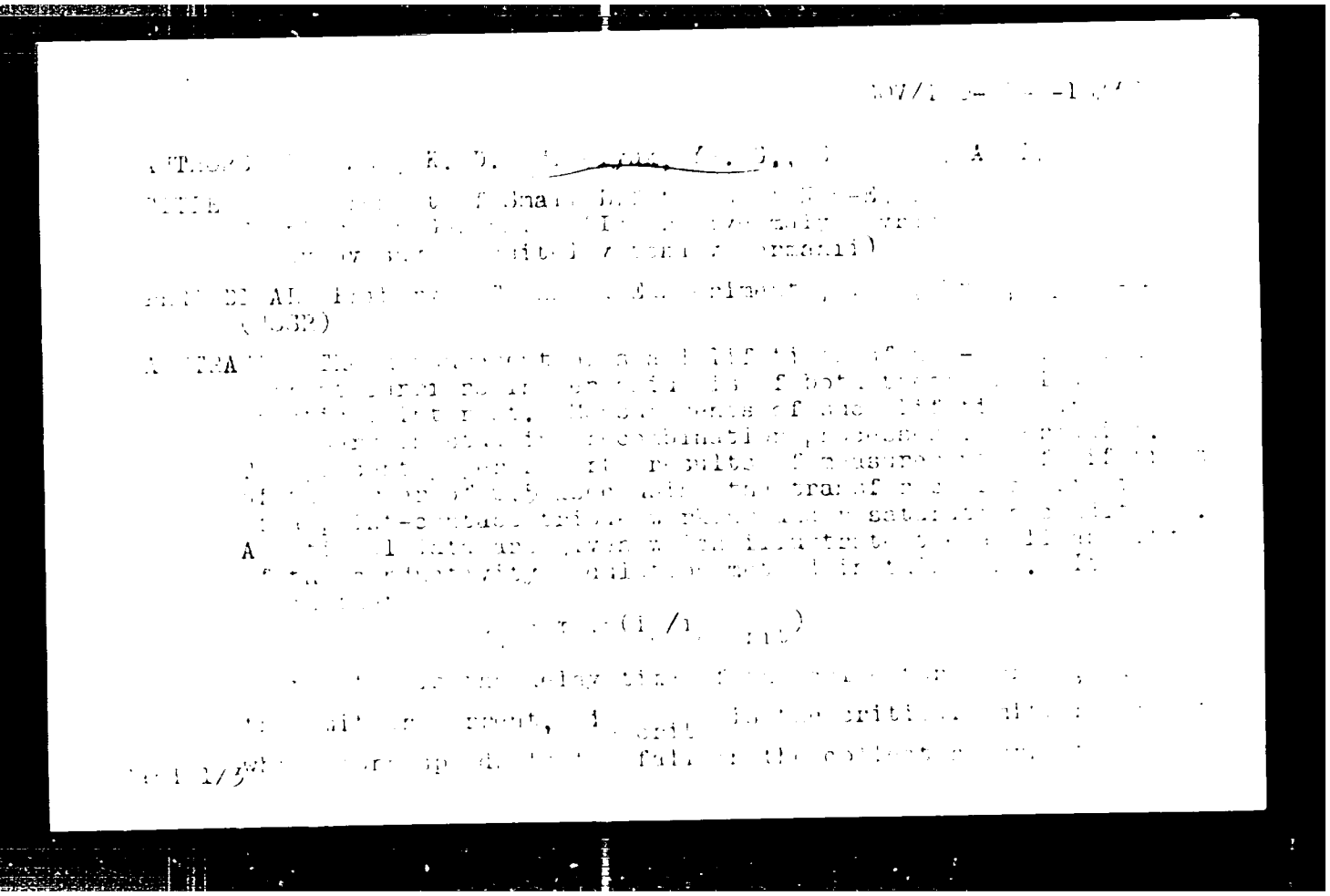
TITLE: On the Application of Radioactive Isotopes for the Study of the Condition and Distribution of Admixtures in Germanium

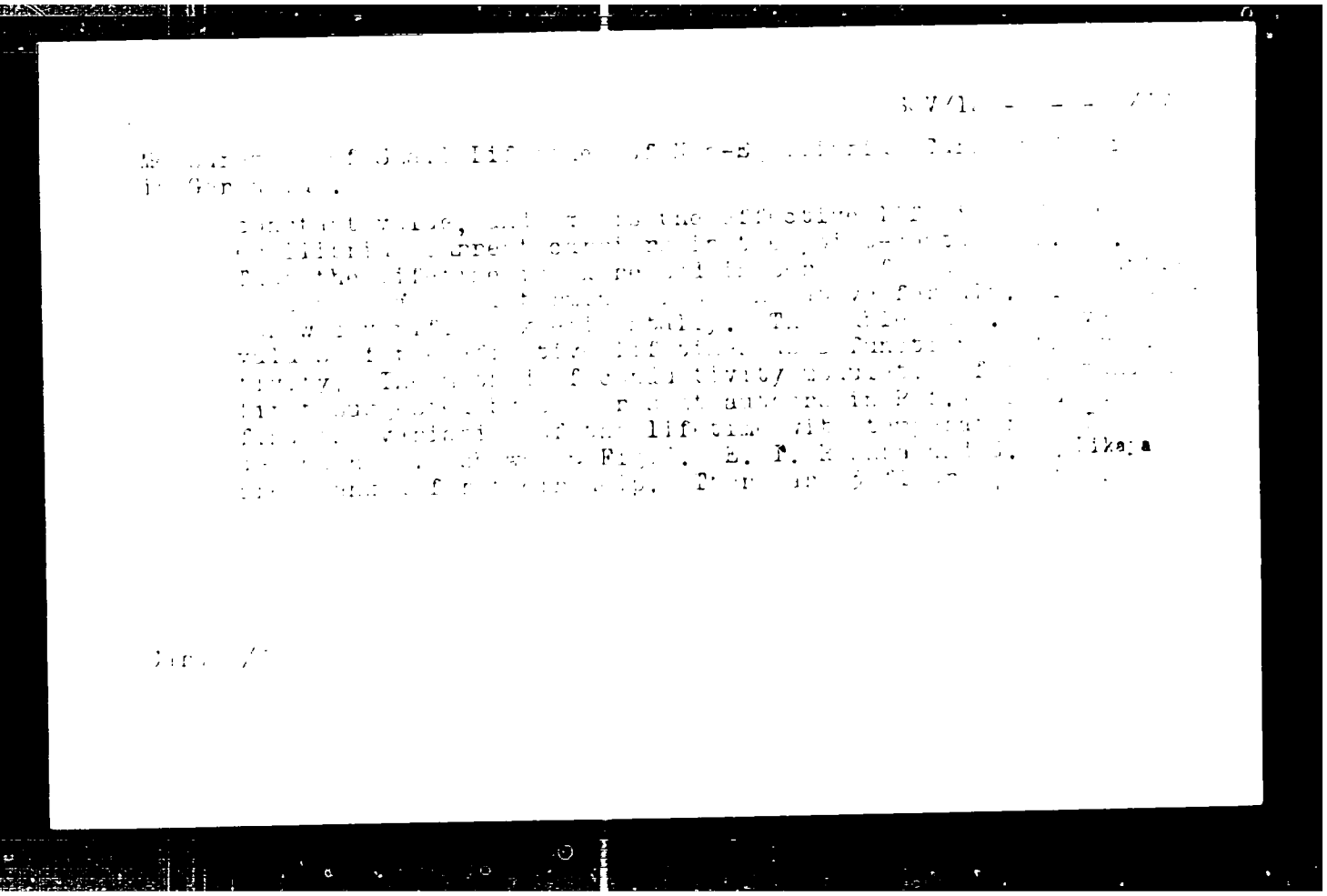
PERIODICAL: Tr. Sessii AS UkrSSR po mirn. ispol'zovaniyu atomn. energii Kiyev, AS UkrSSR, 1958, pp 140 - 142

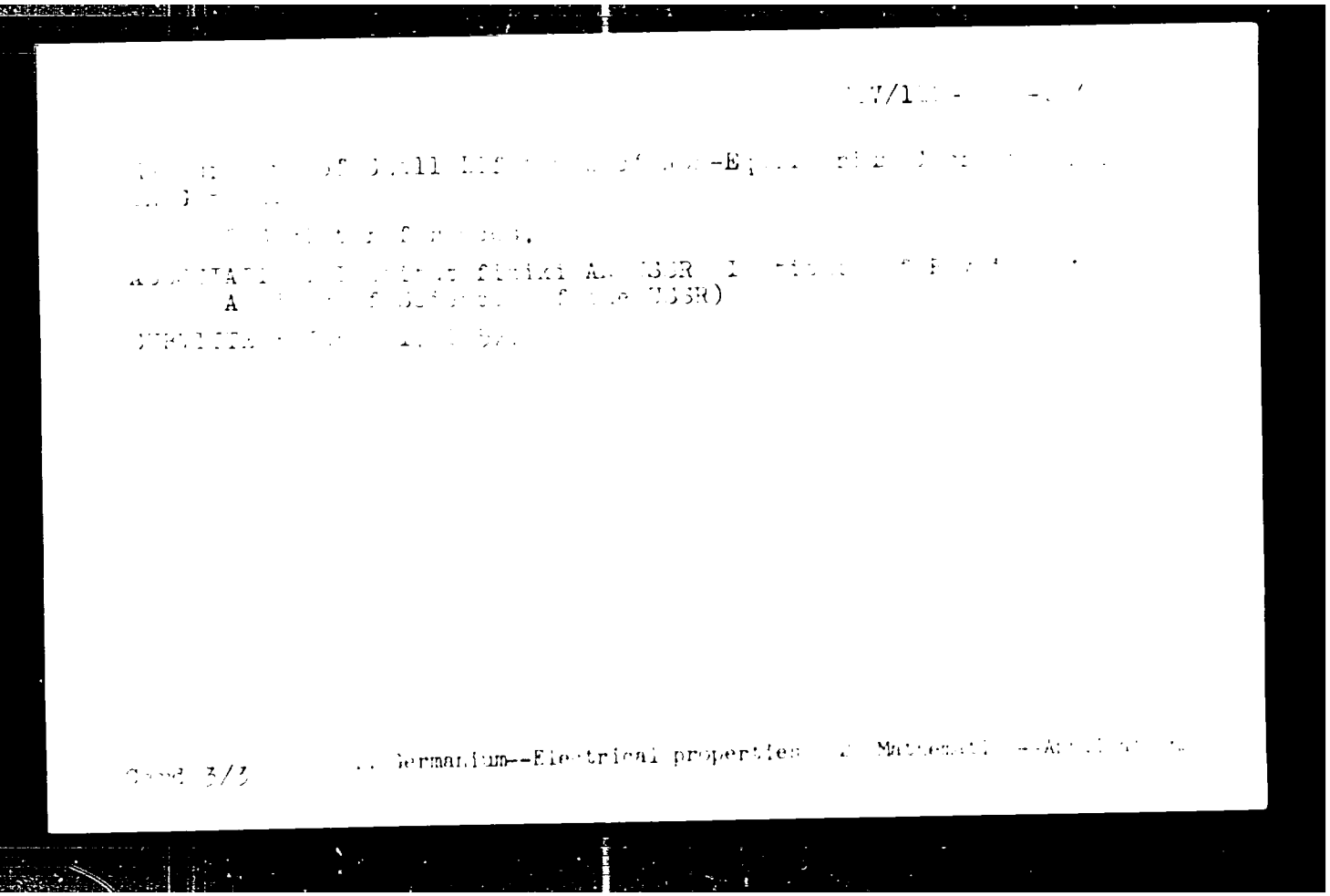
ABSTRACT: The distribution of Sb^{124}, P^{32}, Ag^{110}, Sn^{113}, Zn^{65} and Fe^{59} admixtures in Ge, their condition in a Ge volume, and their effect on the magnitude and the type of conductivity, were studied by means of the tagged atom method. The diffusion of the vaporous Sb^{124} and Zn^{65} in Ge was also studied at various temperatures. Empirical formulae are derived

A.I. Mosharov

Card 1/1







Card 3/3 .. Germanium--Electrical properties .. Mathemati --Ap

VASIEVSKAYA, V.N. [Vasyleva'ka, V.M.]; MISELYUK, Ye.G. [Miseliuk, O.H.]

Segregation and solubility of iron and tin impurities in germanium on crystallization [In Ukrainian with summary in English]. Ukr.fiz. zhur. 3 no.1:71-78 Ja-F '58. (MIRA 11:4)

1.Institut fiziki AN URSR.
(Germanium--Metallography)

MISELYUK O G

Translation from: Referativnyy zhurnal Meta ... SSR

AUTHOR: Vinetskiy Miselyuk Vinetskiy R M Miselyuk O H

TITLE: On the Determinat ... M ... Carriers ... German ... Ha ... Effect (O ... oprede ... Kholla kontsentratsii ... podvizhnost nositelei toka ... Ukrainian

PERIODICAL: Ukr fiz zh 1958 Vol Nr pp

ABSTRACT: The authors examined the range of app ... 8R the determination of the ... (1) and of their mobility ... 8R ... of the Hall constant R and ... An analysis ... cability of the (1) and (2) formulae is given ... presence of current carriers ... signs ... two types of holes differing ... current carriers The results ... cally in the form of relat... ps between ... mobilities and the values ... by means ... is found that ... the case ... Ge with ...

Card 1/2

On the Determination of the Concentration and Mobility of Current Carriers

Ge with ρ ≥ 20 ohm cm, the application of formulae (1) and (2) [illegible] for the high-resistance Ge mentioned cases produces an error of [illegible] room temperature [illegible] specimens in which the intrinsic conductivity [illegible] or even greater than the impurity conductivity [illegible] application [illegible] leads to very great errors. For such specimens it is recommended that the measurement of R and [illegible] be carried out at temperatures [illegible] 90° K at which the impurity conductivity is saturated. Bibliography [illegible] references.

Card 2/2

BELYAYEV, A.D. [Bieliaiev, A.D.]; GLINCHUK, K.D. [Hlynchuk, K.D.];
MISELYUK, Ye.G. [Miseliuk, O.H.]

Investigation of the recombination of current carriers in germanium with some impurities. Part 1: Germanium, pure and with Sb or Ga impurities. Ukr.fiz.zhur. 3 no.5:624-631 S-O '58. (MIRA 12:?)

1. Institut fiziki AN USSR.
(Germanium--Electric properties)

AUTHORS: Glinchuk, K. D., Kis-lyuk, ?. ?., Fortunatova, N. N.

57-28-5-24/36

TITLE: Influence of Annealing on the Local Levels and the Life of Current Carriers Not in Equilibrium in p-Type Germanium With Iron Impurities (Vliyaniye otzhiga na lokal'nyye urovni i vremya zhizni neravnovesnykh nositeley toka v germanii p-tipa s primes'yu zheleza

PERIODICAL: Zhurnal Tekhnicheskoy Fiziki 1958, Vol. 28, Nr 5, pp. 1053-1053 (USSR)

ABSTRACT: In the previous paper (Ref 1) the recombination of the current carriers in p-type germanium with iron impurities was investigated. In this letter to the editor the authors communicate the results of similar investigations A figure shows the curves representing the temperature dependence of the Kholl' constant ln R = f(1/T) for one of the samples of p-type germanium. As can be seen from the figure, the level is situated at 0,33 eV from the valence zone It can also be seen that this level is removed by the annealing. This becomes manifest by the modification of the kind and the magnitude of conductivity as well as in a marked increase of the life τ in the sample. This modification of the kind and the magnitude of conductivity due to annealing is ex-

Card 1/2

Influence of Annealing on the Local Levels and the Life of Current Carriers Not in Equilibrium in p-Type Germanium With Iron Impurities 57-28-5-24/36

plained by the fact that the electrons, which previous to the annealing partly fill up the local level 0,35eV (at T = 0°K), passed into the conduction zone after annealing. The increase of τ is also explained by the dislocation of the level during annealing. As a conclusion it may be mentioned that values of τ_e = 1,20 microseconds at ρ = 1 50 ohm.cm were observed in monocrystalline germanium samples of the p-type with iron impurities. The minimum τ_e which could be observed in such a germanium, had the value of 0,15 microseconds at ρ = 4 Ohm.cm.
The authors express their gratitude to V.Ye Lashkarev, Member, AS, UkrSSR and K.B. Tolpygo for suggestions. There are 1 figure and 1 Soviet reference.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Kiyev Physics Institute AS UkrSSR)

SUBMITTED: July 4, 1958

Germanium, p-type - Properties

Card 2/2

PHASE I BOOK EXPLOITATION SOV/4966

Soveshchaniye po poluprovodnikovym materialam. Moscow, 1957

Voprosy metallurgii i fiziki poluprovodnikov; trudy 3-go soveshchaniya. (Problems in the Metallurgy and Physics of Semiconductors; Transactions of the Third Conference) Moscow, Izd-vo AN SSSR, 1959. 129 p. Errata slip inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Resp. Ed.: N. Kh. Abrikosov, Doctor of Chemical Sciences, Ed. of Publishing House: P. P. Zolotov.

PURPOSE: This collection is intended for technical and scientific personnel concerned with the investigation and production of semiconductor materials. It may also be used by students in schools of metallurgy.

COVERAGE: The collection contains reports submitted at the Third Conference on Semiconductor Materials, held at the Institute of Metallurgy imeni A. A. Baykov, AS USSR, Moscow, in May 1957. The reports deal with problems of obtaining and investigating germanium, silicon, and semiconductor compounds. The collection was first edited by D. A. Petrov, Doctor of Technical Sciences. References accompany most of the reports.

AVAILABLE: Library of Congress

Card 1/5 JP/dfk/ec [illegible]

Miszlyuk, Ya G.

24(4) PHASE I BOOK EXPLOITATION [illegible]

Akademiya nauk Ukrainskoy SSR. Institut fiziki

Fotoelektricheskiye i opticheskiye yavleniya v poluprovodnikakh; trudy pervogo vsesoyuznogo soveshchaniya po fotoelektricheskim i opticheskim yavleniyam v poluprovodnikakh, g. Kiyev, 20-26 noyabrya 1957 g. (Photoelectric and Optical Phenomena in Semiconductors; Transactions of the First Conference on Photoelectric and Optical Phenomena in Semiconductors...) Kiyev, 1959. 403 p. 4,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Prezidium. Komissiya po poluprovodnikam.

Ed. of Publishing House: I. V. Klaina; Tech. Ed.: A. A. Matveychuk; Resp. Ed.: V. Ye. Lashkarev, Academician, Ukrainian SSR, Academy of Sciences.

PURPOSE: This book is intended for scientists in the field of semiconductor physics, solid state spectroscopy, and semiconductor devices. The collection will be useful to advanced students in universities and institutes of higher technical training specializing in the physics and technical application of semiconductors.

COVERAGE: The collection contains reports and information bulletins (the latter are indicated by asterisks) read at the First All-Union Conference on Optical and Photoelectric Phenomena in Semiconductors. A wide scope of problems in semiconductor physics and technology are considered: photoconductivity, photoelectromotive forces, optical properties, photoelectric cells and photoresistors, the actions of hard and corpuscular radiations, the properties of thin films and complex semiconductor systems, etc. The materials were prepared for publication by E. I. Rashboy, O. V. Snitko, K. D. Tolpygo, A. F. Lubchenko, and M. K. Sheynkman. References and discussion follow each article. [illegible]

Photoelectric and Optical Phenomena (Cont.) SOV/3140

THE ACTION OF HARD AND CORPUSCULAR RADIATIONS ON SEMICONDUCTORS

Card 14/16

S/058/62/000/004/059/160
A058/A101

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AUTHORS: Bugay, A. A., Miselyuk, Ye. G.

TITLE: Large-area germanium phototubes with diffusion p-n junctions

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 22-23, abstract 4G186 (V sb. "Fotoelektr. i optich. yavleniya v poluprovodnikakh". Kiev, AN USSR, 1959, 367-370)

TEXT: The authors describe the preparation methods and the characteristics of germanium phototubes in which p-n junctions are formed through impurity diffusion out of the vapor phase. Such transitions are sufficiently homogeneous (in case of homogeneity of the starting material) and can be set up at a sufficiently low depth from the surface of the specimen to make it possible to decrease the sluggishness of the phototube.

[Abstracter's note: Complete translation]

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AUTHORS: Glinchuk, K. D., Miselyuk, Ye. G., Fortunatova, N. N.

TITLE: Investigation of the State of Local Silver and Gold Levels in Germanium

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 9, pp 1345 - 1350 (USSR)

ABSTRACT: The present paper investigates the influence exerted by medium-temperature annealing (T = 400 - 600°C) on the state of local gold and silver levels in germanium. As already shown by other authors (Refs 1-8), Cu, Fe, Co, and Ni in germanium can be deactivated by medium-temperature annealing, i.e. these impurities pass over from an "active" to a "passive" state. The aim of the present paper was to investigate this phenomenon more closely. Also the temperature dependence of the carrier concentration and of the lifetime of the minority carriers τ was measured. The method of preparing the samples and of conducting the investigation is described in references 2 and 15. The paper consists of two parts: the first deals with the influence of annealing on the state of the acceptor levels of silver in germanium, and the second on those of gold in germanium. Figure 1 shows the temperature

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