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Reel #485

Saliychuk, Yek.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

ACCESSION NR: AP4032560 S/0190/64/006/004/0605/0607

AUTHORS: Bezuglyy, V. D.; Saliychuk, Ye. K.

TITLE: Application of the polarographic method to the determination of the molecular weight of some polymers

SOURCE: Vysokomolek. soyedin., v. 6, no. 4, 1964, 605-607

TOPIC TAGS: polymer, polystyrene, polyvinyltoluene, polymethylmethacrylate, molecular weight determination, polarographic method, electrode, LP SSA light

ABSTRACT: Separate fractions of polystyrene, polyvinyltoluene, and polymethylmethacrylate were isolated, and their molecular weights were determined by the polarographic method. The determinations were conducted on a LP-55A mercury drop cathode polarograph. Two ml of a 0.1 molar solution of KI in a 1:3 benzene-methanol solution were placed in the electrolyzer, and its oxygen peak was recorded. To this solution were added 0.2 ml of a 0.04% solution of the polymer fraction, and the polarogram was obtained again. The polarographic peaks diminished with the molecular weight of the sample. Calibration curves were

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ACCESSION NR: AP4032560

prepared from the molecular weights of the same polymer fractions obtained by the standard viscosimetric techniques. It was found that the error of the polarographic method did not exceed 8.3%. It is imperative to avoid impurities if reproducible results are to be obtained. Orig. art. has: 2 charts and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov (All-Union Scientific Research Institute of Monocrystals)

SUBMITTED: 06Apr63 DATE ACQ: 11May64 ENCL: 00

SUB CODE: GC NO REF SOV: 002 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

ACCESSION NR: AP4043327 S/0191/64/000/008/0047/0049

AUTHOR: Bezugly*y, V. D.; Saliychuk, Ye. K.

TITLE: The use of a polarographic method to study the resistance of polymers to the action of solvents

SOURCE: Plasticheskiye massy*, no. 8, 1964, 47-49

TOPIC TAGS: polymer, polymer solubility, polarography, polystyrene, polyvinyltoluene, polyvinylxylene, benzene, methanol, LP-55A polarograph, dropping mercury electrode, copolymer, polymer aging

ABSTRACT: In order to determine the solubility of polymers (polystyrene, polyvinyltoluene, polyvinylxylene) in solvent, polarographic investigations were carried out with the LP-55A polarograph using a dropping mercury cathode. The period of drop formation in the electrolyte was 3 seconds and the sensitivity was 1/500 of the total sensitivity of the galvanometer, = 2.7×10^{-9} amp./mm. The electrolyte was 0.1 MKI solution in a chemically pure benzene-methanol (1:3) mixture. The change in the height of the polarographic maxima with the amount of polymer dissolved during periods varying from 12 hours to 10 days was plotted. The data obtained by the study of the rate of dissolution of polystyrene in benzene-methanol mixtures (35:65) by gravimetric and polarographic methods

Card 1/2

OTHER: 001

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

BEZUGLYY, V.D.; SALIYCHUK, Ye.K.

Use of the polarographic method in the determination of the molecular weight of some polymers. Vysokom. soed. 6 no.4: 605-607 Ap '64. (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

L 31363-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP4048043 S/0020/64/158/006/1390/1392

23
21
B

AUTHOR: Bezugly*y, V. D.; Saliychuk, Ye. K.

TITLE: Application of a polarographic method for determining the molecular weight of polyvinyl alcohol

SOURCE: AN SSSR. Doklady*, v. 158, no. 6, 1964, 1390-1392

TOPIC TAGS: molecular weight determination, polarography, polyvinyl alcohol, polymer molecular weight determination

ABSTRACT: The extent to which the polarographic maximum was suppressed by polyvinyl alcohol (PVA) molecules of different size was examined using an LR-55A polarograph with a dropping mercury electrode with $CuSO_4$ as the depolarizer. The magniture of the change in height (Δh) of the type I maximum (at -0.4 to -0.5 v) on the copper wave was almost independent of the decrease in PVA molecular weight since the PVA is adsorbed at more negative potentials. The Δh of the type II maximum (-0.6 to -1.7 v), i.e., the adsorption of the polymer

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L 31363-65

ACCESSION NR: AP4048043

2

molecules, increased as the molecular weight of the PVA decreased. A ah molecular weight curve was drawn which could be used as a calibration for molecular weight determination. Mixtures of different molecular weight fractions of PVA gave readings equivalent to their average molecular weight. The most sensitive adsorption region of each polymer can be determined by the proper combination of the type I and II maxima. The simplicity and the speed of this polarographic method for determining molecular weight of polymers were pointed out. "The authors sincerely thank L. N. Veselovskaya for supplying the individual fractions of PVA for the investigation." Orig. art. has: 1 table and 2 figures

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionny*kh materialoye i osobo chisty*kh veshchestv, Khar'kov (All Union Scientific Research Institute of Single Crystals, Scintillating Materials and Especially Pure Materials)

SUBMITTED: 15May64 ENCL: 00 SUB CODE: OC, NP

NR REF SOV: 005 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYE, R.N.

Generalized Lorentz transformations. Soob. AN Gruz. SSR 38 no.1:45-52 Ap '65. (MIRA 18:12)

1. Tbilisskiy gosudarstvennyy universitet. Submitted Sept. 21, 1964.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

L 20664-66 EWT(d)/EWT(m)/T IJP(c)

ACC NR: AR5028215 SOURCE CODE: UR/0044/65/000/008/B068/B069

AUTHOR: Saliyev, A.

ORG: none

31

B

19

TITLE: Integration of equations of a meson field in a transient non-relativistic case

SOURCE: Ref. zh. Matematika, Abs. 8B364

REF SOURCE: Tr. Samarkandsk. un-ta, vyp. 151, 1964, 87-92

TOPIC TAGS: meson, integration, Cauchy problem, differential equation system, function, distribution coefficient, approximation convergence

16

TRANSLATION: The Cauchy problem is examined for a differential equation system which, after certain substitutions of unknown functions and independent variables, assumes the form of

$$\frac{\partial^2 u}{\partial \tau^2} = \frac{\partial^2 u}{\partial \rho^2} - \frac{\alpha}{\rho}\frac{\partial v}{\partial \rho};$$

$$\frac{\partial^2 v}{\partial \tau^2} = \rho\frac{\partial u}{\partial \rho} - u + \frac{v}{\rho}\left(\frac{\partial u}{\partial \tau} - \frac{1}{\rho}\frac{\partial^2 v}{\partial \tau \partial \rho}\right),$$

$$u|_{\tau=0} = \varphi(\rho),\ \frac{\partial u}{\partial \tau}\Big|_{\tau=0} = \Psi(\rho),\ v|_{\tau=0} = f(\rho).$$

Card 1/2 UDC: 517.9:530.145.6

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

L 20664-66

ACC NR: AR5028215

A parameter is introduced in the system and with the aid of this parameter the solution of the Cauchy problem is presented in the form of a formal distribution in powers of the parameters. Explicit expressions are obtained for the expansion coefficients. The problems of convergence are not investigated. Yu. Pyt'yev.

SUB CODE: 12 SUBM DATE: none

Card 2/2 BK

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEV, A.A.; KOBAKHIDZE, T.; PLOTNIKOV, K.I.; KUZNETSOVA, V.; KORUNCHIKOV, P.G.

Information and brief news. Veterinariia 38 no.10:93-96 O '61. (MIRA 16:2)

(Veterinary medicine) (Veterinary research)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEV, A.A., veterinarnyy vrach

Development of hemosporidiosis in cattle. Veterinariia 40 no.8: 34-35 Ag '63. (MIRA 17:10)

1. Severo-Osetinskiy sel'skokhozyaystvennyy institut.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

KOLIYEV, M.F.; SALIYEV, A.A., assistent

Development of veterinary service in North Ossetia. Veterinariia, 41 no.8:4-6 Ag '64. (MIRA 18:4)

1. Nachal'nik veterinarnogo otdela Ministerstva proizvodstva i zagotovok sel'skokhozyaystvennykh produktov Severo-Osetinskoy ASSR (for Koliyev). 2. Severo-Osetinskiy sel'skokhozyaystvennyy institut (for Saliyev).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEV, I.M.

Mineral waters of Soviet Tajikistan. Zdrav. Tadzh. 8 no.3:6-8 My-Je '61. (MIRA 14:6)

(TAJIKISTAN--MINERAL WATERS)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEV, M.

Saliyev, M. "The battle for economy in the republic MTS's", Bol'shevik Kazakhstana, 1949, No. 1, p. 2227.

SO: U-3261, 10 April 53, (Letopis 'zhurnal 'nykh Statey No. 12, 1949)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYA, R.N.

Interpretation of the difference between the probabilities of the reaction $\pi^{\pm} \rightarrow e^{\pm} + \nu$, $\pi^{\pm} \rightarrow \mu^{\pm} + \nu$. R N. Saliia. Izv.vys.ucheb.zav.; fiz.no.2:72-74 '63.

(MIRA 16:5)

1. Tbilisskiy gosudarstvennyy universitet.
(Nuclear reactions) (Probabilities)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEV, S.

Socialist competition of Uzbekistan textile workers during the first years of the fourth five-year plan (1946-1947). Izv.AN Uz.SSR no.11:93-102 '56. (MIRA 14:5)

(Uzbekistan--Textile industry)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEV, Sh.S., Cand Med Sci -- (diss) "Pathomorphology of the umbilical cord in the stillborn." Stalinabad, 1958. 13 pp (Stalinabad State Med Inst im Abuali Ibn-Sino (Avicenna)), 200 copies (KL, 31-59, 116)

-44-

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEVA, N.V.

SARISHVILI, I.F.; URUSHADZE, G.K.; SALIYEVA, N.V.

Using fertilizers for corn. Pochvovedenie no.12:38-47 D '56.
(MLRA 10:2)

1. Sel'skokhozyaystvennyy institut Gruzii, Kafedra agrokhimii.
(Corn (Maize)) (Fertilizers and manures)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

BALIYEVA, R.B.

Considering structural characteristics of wind conditions in calculating water supply capacities of wind powered pumping units. Izv. AN Uz.SSR. Ser. tekh. nauk no. 3:33-52 '58. (MIRA 11:8)

1. Institut energetiki i avtomatiki AN UzSSR.
(Wind power)
(Soviet Central Asia--Wells)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEVA, R. B., Candidate Tech Sci (diss) -- "Water-economy computations of wind pumps for flooding the pastures for pasture animal husbandry in the Uzbek SSR". Tashkent, 1959. 21 pp (Acad Sci Uzbek SSR, Inst of Power Engineering and Automatics), 175 copies (KL, No 22, 1959, 117)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIYEVA, R.B.

Certain problems in water management calculations for wind-driven pumps for irrigation of seasonal pastures in Uzbekistan. Izv. AN Uz. SSR. Ser. tekh. nauk no.4:37-48 '59. (MIRA 13:1)

1. Institut energetiki i avtomatiki AN UzSSR.
(Usbekistan--Irrigation) (Wind mills)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALIZON, M.I., inzhener.

On introducing the use of three winding transformers with a voltage of 35/10/6 kv. Prom.energ. 12 no.10:23-24 O '57. (MIRA 10:10)

1. Teploelektroproyekt.

(Electric transformers)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALJNIKOV, V.

Transfer of the Gortler series to the computation of boundary layers in rotating bodies. Bul sc Youg 8 no. 1/2: 21 F-Ap '63.

1. Masinski fakultet, Univerzitet, Beograd.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALJNIKOV, Viktor, dr ing., docent, (Beograd, Cubrina 10)

The boundary layer on a sphere during steady streaming.
Tehnika Jug 17 no.4:621-624 Ap '62.

1. Masinski fakultet Univerziteta u Beogradu, Beograd.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KAYEVA, R.Kh.

SAL'KAYEVA, R.Kh.: "The teaching significance of an evaluation of the knowledge of pupils in the fifth class". Leningrad, 1955. Leningrad State Pedagogical Inst imeni A.I. Gertsen. (Dissertations for the Degree of Candidate of Pedagogical Sciences).

SO: Knizhnaya letopis' No 45, 5 November 1955. Moscow.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALKAZANOVA, T.M., vrach

On motorcycles along the roads of our country. Zdorov'e 2 no.9:24 S '56. (MLRA 9:10)

(MOTORCYCLE)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALKLAWSKA-SZYMONOWA, O.

POLON

Aspartate α-ketoglutarate transaminase in Mycobacterium phlei. M. Kański, O. Salkławska-Szymonowa, and M. Szymonowa (Akad. Med., Lublin). *Acta Biochim. Polon.* 1, 277-84(1954).—Aspartic-glutamic acid transaminase (I) activity was found in intact cells and acetone powders of *Mycobacterium phlei*. The amino acids were detd. chromatographically. Oxygen did not inhibit I and boiled aq. beef heart ext. did not stimulate it. I. Z. Roberts

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

AKIMOV, V.I., kand.tekhn.nauk (Gomel'); ZAYTSEV, P.F., kand.tekhn.nauk (Gomel'); POTAPENKOV, Z.I., kand.ekonom.nauk (Gomel'); SHUL'PENKO, V.M., inzh. (Gomel'); SALKO, L.I., inzh. (Gomel')

Preparing a railroad line for high-speed traffic. Zhel.dor.transp. 47 no.10:55-57 O '65. (MIRA 18:10)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

KOSTENKO, M.P.; ZHEBOKRITSKIY, V.A. [Zhebokryts'kyi, V.A.], kand. ist. nauk, otv. red.; SALKO, V.Yu., red.; MATVIICHUK, O.A., tekhn. red.

[Under Bulgarian stars] Pid zoriamy balkans'kymy. Kyiv, 1961. 38 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.4, no.12) (MIRA 15:1)
(Bulgaria—Economic conditions)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

AKIMOV, V. I., kand. tekhn. nauk; SALKO, L. I., inzh.

"Principles of railroad design" by A. E. Gibshman.
Reviewed by V. I. Akimov, L. I. Salko. Transp. stroi. 13 no.4:
Ap '63. (MIRA 16:4)

(Railroad engineering)
(Gibshman, A. E.)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SERISHCHEV, Yakov Matveyevich; KOSUKHA, P.I., otv. red.; SALKO, V.Yu., red.

[Our youth manfully struggles for communism] U borot'bi za komunizm muzhniie iunist'. Kyiv, 1961. 49 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.10) (MIRA 14:11)

(Youth—Employment)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

YEGOROV, Yuriy Yevgen'yevich[IEhorov, IU.IE.]; OSKOMA, O.Ya., otv. red.; SALKO, V.Yu., red.; MATVIICHUK, O.A., tekhn. red.

[Foreign visitors on the Soviet Ukraine]Zarubizhni hosti pro Radians'ku Ukrainu. Kyiv, 1962. 54 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Seriia IV, no.7) (MIRA 15:12)
(Ukraine--Visitors, Foreign) (Ukraine--Description and travel)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

VEPRIK, D.I., inzh.; IZRAILEV, M.S., inzh.; RISS, L.O., inzh.; SAL'KOV, B.L., inzh.

Features of relay protection of traction substation feeding lines. Elektrichestvo no.1:15-22 Ja '61. (MIRA 14:4)

1. Leningradskoye otdeleniye Teploelektroproyekta.
(Electric railroads—Current supply)
(Electric protection)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

GERSHTEYN, A.R., inzh.; ANIKEYEVA, A.F., inzh.; LEYBOVICH, I.R.; SAL'KOV, B.L., inzh.

Concerning S.T.Ivanov's article "Mistakes in designing the electrical section of electric power plants and substations." Elek. sta. 36 no.2:83-85 F '65. (MIRA 18:4)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SOLKOV, E. A.

The Form of Spectral Distribution of Photoconductivity in Single Crystals of CdS. V. P. Lashkarev, E. A. Salkov, G. A. Fedorus & M. R. Sheinkman (C. R.

[illegible]

in the experimental range [illegible] Å. The causes of the [illegible] photocurrent were [illegible]

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, E.A.

Distr: 4E4j/4E4c

Decrease of the photosensitivity of cadmium sulfide monocrystals in the region of their natural absorption. V. E. Lashkarev, E. A. Sal'kov, G. A. Fedorus, and M. K. Sheinkman. Ukrain. Fiz. Zhur. 2, 281-7(1957).—The spectral dependence of the photocurrent, the photocurrent output, the mobility and the lifetime of the photocarriers, and the coeffs. of reflection and transmission of CdS monocrystals were studied. It was found that in the range from 4000 to 5200 A. the carrier mobility was independent of the wave length of the exciting light. The reflection coeff. in the range of natural absorption does not exceed 20%. The spectral function of the lifetime $\tau(\lambda)$ of the photocarriers upon transition from the short-wave part of the spectrum to the max. of the photocurrent is different for the different samples; it can increase, remain const., or decrease, and in this latter case reaches its min. at the max. of the photocurrent. This finds its explanation in that $\tau(\lambda)$ is a concn. function. The photocurrent output, detd. according to several methods, is similar in the shape of its curve to the shape of the spectral function of the photocurrent, and this is why the photosensitivity decreases in the range of natural absorption. An explanation is furnished by the hypothesis of nonphotoactive exciton annihilation at the crystal surface when absorbing the strongly absorbed light. The photoefficiency β at the max. of the photocurrent is 0.4, but in the short wave-length region, β will drop to 0.02. It is shown that if such functions are measured by aid of photocurrent equalization as recommended by Rube (C.A. 50, 9856e) er-

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, I.I.

Mechanism for opening and closing ice-maker cover. Khol. tekh. 38 no.3:46 My-Je '61. (MIRA 15:1)
(Ice—Manufacture)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, Leonid Safronovich

[Where the virgin lands used to be] Tam, gde ran'she byla tselina. [Moskva] Profizdat, 1956. 62 p. (MIRA 10:11)
(Kazakhstan--Reclamation of land)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

PROCESSES AND PROPERTIES INDEX

21

The use of Moscow smoky coal in power plants. P. G. Salkov. *Izvestiya Teplotekh. Inst.* 1933, No. 5, 14-22.—The coal had the following characteristics: total moisture 30.24-39.91, ash 29.37-40.66, S 1.70-3.97, volatile substances 41.77-51.74, C 62.77-67.62, S (inorg.) 1.33-2.15, S (org.) 1.68-3.26, H 4.42-4.80, O 20.93-28.06, N 1.05-1.26%, calorific value (lower) 5.393-6.054. The ash was composed of SiO_2 41.22-53.18, Al_2O_3 24.52-40.19, Fe_2O_3 9.00-14.59, CaO 4.23-5.41, MgO traces —0.35, SO_3 3.45-4.77%. Its use in power plants is analyzed. A. A. Boehtlingk

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

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CA

21

Separation of ash by coagulation. P. Sal'kov. *Novosti Tekhniki* 1940, No. 2, 15-16.—The speed of settling of ash in water was accelerated 10-12 times by the use of a coagulant contg. 14 kg. NaOH and 200 kg. acidol per ton of coagulant. Results of tests are tabulated. B. Z. K.

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OPEN

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Fe GROUPS

3RD AND 4TH ORDERS

2ND LETTER

1ST AND 2ND LETTER

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1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

21

Removal of fly ash by washing and filtration. P. G. Salkov and A. I. Kravchenko. *Izvest. Vsesoyuz. Teplotekh. Inst.* 14, No. 3, 13–15(1941); *Chem. Zentr.* 1943, I, 1737.—Sieve analysis showed that 82.4% of the ash was 0 to 74 microns, 12.0%, 74–104 microns, and 2.8%, 104–147 microns. The efficiency and rate of ash removal is dependent on the sp. gr. as well as the particle size of the ash, on the viscosity of the medium, and on the d. of the ash-water suspension. With liquid:solid ratios of 10:1, 20:1 and 30:1, an ash-liquid suspension temp. of 35° and a flow rate of 2.25 m. per hour, the amounts of ash recovered in 24 hrs. per sq. m. were about 5, 2.5 and 1.75 tons, resp. Filtration was carried out with a liquid:solid ratio of 3:1. The filter surface amounted to 0.01 sq. m., and filtration was carried out at 400–500 mm. Hg. The filtration rate increased with increasing vacuum and decreased with time. R. W. Ryan

COMMON ELEMENTS

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Fe GROUPS

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, P. G.

Coal

Resistance of coal to pulverization, N. V. Sokolv, Izv. VTI, 21, No. 2, 1952. Reviewed by P. G. Sal'kov.

Monthly List of Russian Accessions, Library of Congress, May 1952. UNCLASSIFIED

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, P.G., kandidat tekhnicheskikh nauk; BULANKIN, gornyy inzhener.

Remarks on F.S.Novikov's article "Problem of determining the specific weight of loose material" (Ugol', 1953, No. 9). Ugol' 29 no.11:43-44 '54. (MLRA 7:11)

1. Trest Vostokugol'. (for Bulankin)
(Coal) (Specific gravity)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SALKOV, P.G.

104-3-28/45

AUTHOR: Sal'kov, P.G., Candidate of Technical Sciences.

TITLE: Drum type ball mills without reduction gears. (Bezreduktornyye sharovyye barabannye mel'nitsy)

PERIODICAL: "Elektricheskiye Stantsii" (Power Stations), 1957, Vol. 28, No.3, pp. 76 - 77 (U.S.S.R.)

ABSTRACT: This short note points out that ordinarily the reduction gearing of drum type ball mills forms an important part of the cost, but that since 1947 - 49, ball mills have been operating in Soviet power stations driven by 250 - 330 kW motors running at 296 r.p.m. They are driven by simple gearing consisting of a pinion on the motor shaft and gear teeth on the drum. Full particulars and a sketch are given and advantages are claimed for the system, which should be used more widely. Thereis 1 figure.

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DRUY, M.M., inzh.; YELANTSEV, V.V., inzh.; SAL'KOV, P.G., kand.tekhn.nauk

Studying two-stage pulverized coal combustion in connection with a new air regulation system. Elek.sta. 29 no.8:12-16 Ag '58. (MIRA 11:11)

(Coal, Pulverized) (Boilers--Furnaces)

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SAL'KOV, P.G., kand.tekh.nauk.

Relationship between the ash content and moisture holding capacity of peat. Torf. prom. 35 no.6:18-19 '58. (MIRA 11:10)

1.Vsesoyuznyy teplotekhnicheskiy institut.
(Peat)

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SAL'KOV, P.G., kand.tekhn.nauk

Effect of ash content on the volumetric weight and shrinkage of peat. Torf.prom. 36 no.3:30-33 '59. (MIRA 12:7)

1. Vsesoyuznyy teplotekhnicheskiy institut im. F.Dzerzhinskogo.
(Peat)

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SAL'KOV, Petr Georgiyevich; SHUKHER, S.M., red.; BORUNOV, N.I., ~~tekhn. red.~~

[Ekibastuz coal as power fuel] Ekibastuzskii ugol' kak energeticheskoe toplivo. Moskva, Gosenergoizdat, 1963. 109 p. (MIRA 17:3)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

MASLOV, V.Ye., kand.tekhn.nauk; SAL'KOV, P.G., kand.tekhn.nauk; PROTSAYLO, M.Ya., inzh.; SMORGUNOV, M.P., inzh.; KROTOV, V.I., inzh.; OSTROMOV, A.M., inzh.; SHESTAKOV, V.M., inzh.

Experience in burning brown coals in wet-bottom furnaces with shaft-type impact mills. Teploenergetika 10 no.2:15-19 F '63. (MIRA 16:2)

1. Vostochnyy filial Vsesoyuznogo teplotekhnicheskogo instituta, Chelyabinsk, Krasnoyarskenergo i Vsesoyuznyy nauchno-issledovatel'skiy teplotekhnicheskiy institut.
(Boilers) (Furnaces) (Lignite)

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SAL'KOV, YeA.

LASHKAR'EV, V.Ye.; SAL'KOV, Ye.A.; FEDORUS, G.A.; SHEYNKMAN, M.K.

Study of the decrease in the photosensitivity of single CdS crystals in the self-absorption range [in Ukrainian with summaries in Russian and English]. Ukr.fiz.zhur. 2 no.3:261-273 Jl-S '57. (MIRA 10:10)

1.Institut fiziki AN URSR.
(Phosphors)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

20-114-6-18/54

AUTHORS: Lashkarev, V. Ye., Member of the Academy of Sciences of the Ukrainian SSR, Sal'kov, Ye. A., Fedorus, G. A., Sheynkman, M.K.

TITLE: The Shape of the Spectral Distribution of Photoconductance by Single Crystals of CdS (O forme spektral'nogo raspredeleniya fotoprovodimosti monokristallov CdS)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol.114, Nr 6, pp.1203-1205 (USSR)

ABSTRACT: The experiments were carried out with monocrystals of Cd which were obtained by a synthesis of Cd vapors and sulfur. The electrodes were produced by vaporizing of indium in vacuo. A UM-2 monochromator with a special incandescent lamp (340 Watt) served as light source. The spectral characteristic of the photocurrent was determined at stationary illumination of the sample. The investigation of the spectral dependence of the proper time of the photocarrier is also described here. The authors shortly discuss the measurements of the following quantities: momentary proper time τ^{o} of the decrease of the photocurrent at the moment of the emission of light, the yield of the photocurrent a_o, the mobility of the photocarrier.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

20-114-6-18/34

The Shape of the Spectral Distribution of Photoconductance by Single Crystals of CdS

The measurements of the reflection coefficient showed that on transition to a strongly absorbable light the reflection coefficient does practically not change at all and that its value in the range of proper absorption does not exceed 20 %. At a maximum of the photocurrent the curve $\tau^{o}(\lambda)$ has a minimum. The spectral dependences $a_o(\lambda)$ and $a_d(\lambda)$ (the latter apparently means the differential yield) have a character analogous to the dependence of the photocurrent $I_{\Phi}(\lambda)$, where the maximum is most clearly marked off at $a_d(\lambda)$. The here obtaind dependences $a_o(\lambda)$ and $a_d(\lambda)$ can be explained on the basis of the exiton mechanism of photoconductivity in CdS monocrystals. The cause of the decrease of the photocurrent within the range of main absorption of the lattice in the CdS monocrystals is the decrease of the yield of the photocurrent, but not the decrease of the eigen time of the carrier. There are 3 figures and 10 references, 2 of which are Slavic.

ASSOCIATION: Institute for Physics of the AS Ukrainian SSR (Institut fiziki Akademii nauk USSR)

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The Shape of the Spectral Distribution of Photoconductance by Single Crystals of CdS 20-114-6-18/54

SUBMITTED: February 21, 1957

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

LASHKAREV, V.Ye. [Lashkar'ov, V.IE]; SAL'KOV, Ye.A. [Sal'kov, IE.A.]; FEDORUS, G.A. [Fedorus, H.A.]; SHEYNKMAN, M.K.

Study of the spectral characteristics of cadmium selenide crystals [in Ukrainian with summary in English]. Ukr. fiz. zhur. 3 no.2: 204-215 Mr-Ap '58. (MIRA 11:6)

1.Institut fiziki AN URSR.
(Cadmium selenide--Spectra) (Photoelectricity)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, YE. A.

24(4) PHASE I BOOK EXPLOITATION SOV/3140

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. Kisina; 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. B. Tolpygo, A. F. Lubchenko, and M. K. Sheynkman. References and discussion follow each article.

Gross, Ye. F., and M. A. Yakonson. Luminescence of CdS 51

Photoelectric and Optical Phenomena (Cont.) SOV/3140

Crystals at the Edge of the Main Adsorption [Spectrum] (Theses) 63

Gross, Ye. F., A. A. Kaplyanskiy, and B. V. Novikov. Structure of Spectral Photoconductivity Curves of Crystals at Low Temperatures (Theses) 66

Vishchakas, Yu. K. Some Optical and Photoelectric Properties of Polycrystalline CdSe Layers* 74

Pivtoradnyy, N. I., and G. A. Fedorus. Peculiarities of Photoconducting $CdS_x CdSe_{1-x}$-Single Crystals (x<1) 85

Khanaevarov, R. Yu., S. M. Ryvkin, and I. N. Ageyev. Dependency of the Width of the "Forbidden" Zone on Composition of CdS-CdSe Solid Solutions* 95

Sal'kov, Ye. A., and G. A. Fedorus. The Generation of an Oscillating Photoelectric Current in CdS- and CdSe Single-Crystal Photoresistors 96

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Sal'kov, Ye. A., and G. A. Fedorus. Photoresistors of CdSe Single Crystals With Low Relaxation Time 373

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S/058/62/000/008/082/134
A062/A101

24.2600,
9.4177

AUTHORS: Sal'kov, Ye. A., Fedorus, G. A.

TITLE: On the generation of photocurrent oscillations in monocrystalline CdS and CdSe photoresistors

PERIODICAL: Referativnyy zhurnal, Fizika, no. 8, 1962, 30, abstract 8E220 (In collection: "Fotoelektr. i optich. yavleniya v poluprovodnikakh", Kiyev, AN USSR, 1959, 96 - 98)

TEXT: It has been found that on monocrystalline CdS and CdSe photoresistors the photocurrent is modulated by periodical oscillations whose amplitude oscillates from a fraction of one per cent to 60% of the general level of the photocurrent. The shape and the frequency of the oscillations greatly depend on the magnitude of the voltage applied to the specimen, on the intensity and on the spectral composition of the illuminating light. The frequencies of the observed oscillations depend on the material of the specimen, are correlated with the volume relaxation time of photoconductivity and comprised in the range from a fraction of a cps to 100 kc. A necessary (but not sufficient) condition of the

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A062/A101

generation of oscillations is the presence of a non-linear voltage dependence of the photocurrent. The shape and the frequency of the oscillations do not depend on the electrical parameters of the measuring circuit. It is supposed that the oscillation generation phenomenon is connected in the first place with the processes occurring on the metal-semiconductor contact, although volume properties play therein a rather important part.

O. Shustova

[Abstracter's note: Complete translation]

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39614
S/194/62/000/004/041/105
D201/D308

9.4160

AUTHORS: Sal'kov, Ye. A. and Fedorus, G. A.

TITLE: CdSe monocrystal photoresistances having a short relaxation time

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-4-6K (V sb. Fotoelektr. i optich. yavleniya v poluprovodnikakh, Kiev, AN UkrSSR, 1959, 373-376)

TEXT: The properties of CdSe monocrystals, subjected to various methods of thermal processing producing short relaxation times of the photocurrent (I_p), were investigated. The annealing was carried out for 30 min. at 650°C, in a continuously evacuated (10^{-4} mm Hg) quartz cylinder. Specimens having dark resistance 0.1 - 100 ohm.cm and not noticeably photo-sensitive were subjected to annealing. The annealed crystals, with average dimensions 8 x 2 x 0.2 mm, were glued with БФ-4 (BF-4) glue onto a mica base. The electrodes were

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of fused Ga deposited at opposite sides of the crystal. The specimen thus prepared had a specific dark resistance of 10^9 - 10^{10} ohm. cm and a photosensitivity of 0.3 - 0.5 A/lum at a voltage of 35 V applied to the specimen. No maximum, characterizing the given type of crystals, was observed at the curve of spectral photosensitivity response. A super-linearity of I_p was observed at an illumination of annealed specimen less than 25 lux. At 25 - 100 lux the I_p increased linearly, reaching a value of 30 μA at 100 lux. The frequency characteristics of photoresistances were taken at sinusoidally varying white light illumination within a frequency range 0 - 10^6 c/s. The frequency at which the amplitude of the alternating signal dropped by 50% was 10^4 c/s for annealed CdSe photocells and 10^2 c/s for CdS ones. The specific time of the photoeffect is less than 10^{-4} sec for annealed CdSe photocells. This is about 100 times less than the same for CdS photocells and 10 times less than that of the non-annealed CdSe photocells. No fundamental dependence of the I_p.

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relaxation time on light intensity was observed in annealed CdSe photocells. It followed that the frequency response did not deteriorate at small light fluxes (10^{11} quant/sec), the effect observed in CdS and CdSe photocells not specially processed. It is noted that changes, introduced by the described thermal processing into the photoelectric properties of CdSe monocrystals, are irreversible. The CdSe photoresistances with short relaxation time may find an application in quick response installations of photoelectric automation. 5 references. [Abstracter's note: Complete translation.]

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SAL'KOV, Ye.A.; FEDORUS, G.A.; SHEYNKMAN, M.K.

Effect of surface processing on some photoconductivity characteristics of CdS monocrystals. Fiz. tver. tela 1 no.4:579-582 '59. (MIRA 12:6)

1. Institut fiziki AN USSR, Kiyev.
(Cadmium sulfide crystals) (Photoconductivity)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, YE. A.

82549

S/181/60/002/007/029/042
B006/B060

24.7700

AUTHORS: Sal'kov, Ye. A., Fedorus, G. A.

TITLE: Investigation of the Lux-ampere Characteristics of CdS Single Crystals

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 7, pp. 1576-1580

TEXT: In order to clarify the causes of linearity of lux-ampere characteristics, the authors examined lux-ampere characteristics of various types (sublinear, linear, and superlinear curves). The experiments were made with CdS single crystals. The photocurrent yield, a_d, was measured by means of light pulses of a duration of 30 μsec and dark intervals of 10 msec. The maximum intensity of illumination was $\simeq 10^{13}$ quanta/sec with $\lambda = 5300$ A. In addition to the lux-ampere characteristic $I_{ph}^{st}(L)$, the authors measured $a_d(L)$ and the dependence of the photocarrier lifetime on the intensity of illumination $\tau^{o}(L)$, for more than 30 samples. Five of these samples subjected to a special heat treatment showed a high trap concentration. The

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Investigation of the Lux-ampere Characteristics of CdS Single Crystals

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B006/B060

results of measurements on normal samples are illustrated in Figs. 1-4. Fig. 5 shows $I_{ph}^{st}(L)$, $\tau^{o}(L)$, and $a_d(L)$ for two samples with high trap concentrations. Here, the curves $I_{ph}^{st}(L)$ and $a_d\tau^{o}L$ are not parallel due to the distortion of $\tau^{o}(L)$ by the traps. Moreover, I_{ph}^{st}, $\tau_{i.r.}$, τ^{o}, a_d, and $a_{i.r.}$ were studied as a function of the carrier concentrations n. Fig. 6 shows the curves obtained (straight lines): $I_{ph}^{st} \sim L \sim n$. The infrared quenching of the photocurrent is related to the considerable decrease of the photocurrent yield and the carrier lifetime. It is shown that the results of these investigations contradict the hypotheses of Rose (Ref. 2) and Bube (Ref. 6), who assumed that the course of lux-ampere characteristics may be explained by the constancy of the photocurrent yield. The linearity of these curves has to be explained primarily by the hypothesis of the exciton mechanism of photoconductivity (hypothesis of triple impact, Ref. 4). Finally, the authors thank M. K. Sheynkman for his discussions. There are 6 figures and 6 references: 4 Soviet and 2 US.

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82549

Investigation of the Lux-ampere Characteristics of CdS Single Crystals

S/181/60/002/007/029/042
B006/B060

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

SUBMITTED: October 17, 1959

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

25567

S/185/60/005/002/002/022
D274/D304

9.4177

AUTHORS: Sal'kov, Ye.A., Fedorus, G.A. and Sheynkman, M.K.

TITLE: On the role of contacts in the effects of photoactivation and infrared extinction of photoconductivity in CdS single crystals

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 2, 1960, 141-148

TEXT: The question is axamined whether the peculiar features of photoconductivity of CdS single crystals are properties of the semiconductor or whether (and to what extent) they belong to the contact between semiconductor and metal. Photoactivation and infrared extinction were studied on CdS single crystals with ohmic (strongly anti-depletion) contacts, obtained by applying melted In or Ga to the surface, and on specimens with depletion contacts, obtained by Al-spraying of the unprocessed surface. The main result of the experiments was that the investigated effects are related to the semiconductor itself, and not to the contacts. Fig. 3 shows a block-

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On the role of contacts...

diagram of the measuring device. A variable voltage was applied to the specimen, of frequency 100 kc and amplitude 1.65 v. With given parameters of the circuit, capacitance of specimens equal to 0.1 pFar., and ohmic contacts, no dependence whatsoever of the photocurrent on the frequency of the applied voltage was observed even at frequencies of 200 kc. In studying the photoactivation, the specimen was simultaneously illuminated from both monochromators. The light from one monochromator was modulated, whereas the light from the other was fixed. The dependence of the photocurrent-amplitude on the light-intensity was measured at both constant and variable (100 to 200 kc) voltages). The displacement of the photocarriers in the specimens did not exceed, as a rule, 1/40 of the distance between the electrodes (which was 2mm) when a variable voltage (100 kc) was applied. Hence the effects observed in this case were not related to contacts. Constant-voltage measurements were carried out on more than 20 specimens with different contacts; the ordinary method of measurement was used. V.E. Lashkarev, Ye.A. Sal'kov, G.A. Fedorus, M.K. Sheynkman (Ref. 11: UFZh, 2, 261, 1957; 3, 207, 1958; DAN SSSR, 114, 1203, 1957). The spectral distribution

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of infrared extinction of the photocurrent on ohmic specimens is not dependent on the frequency of the applied voltage (from 0 to 200 kc). The lux-ampere relationship, the kinetics of the photocurrent, the photoactivation, and the infrared extinction are related to the semiconductor and not the contacts. Hence the assumption formulated by various authors is correct; among these: A. Rosa (Ref. 6: Proc. IRE, 43, 1850, 1955) and R.H. Bube (Ref. 7: Phys. and Chem. Solids, 1, 234, 1957). Photoactivation and extinction were observed at both constant and variable voltage. Whereas in ohmic specimens the photocurrent does not depend on the frequency, the photocurrent in non-ohmic specimens is frequency-dependent. In the case of non-ohmic (depletion) contacts, the effects measured at constant voltage give results entirely different from measurements at variable voltage. Photoactivation is often observed at variable voltage only, and not at constant. Hence measurements of photocurrent characteristics on ohmic specimens permits determining the internal and surface properties of semi-conductors, whereas measurements on specimens with depletion contacts - determination of the properties of the contacts. The frequency characteristic of the

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D274/D304

On the role of contacts...

photocurrent in specimens with depletion contacts apparently corroborates the assumption of "sluice" formation at such contacts. There are 10 figures and 12 references: 8 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: R.H. Bube, Phys. Rev., 99, 1105, 1955; A.Rosa, Proc. IRE, 43, 1850, 1955; R.H. Bube, Phys. and Chem. Solids, 1, 234, 1957; I. Lambe, Phys. Rev., 98, 985, 1955.

ASSOCIATION: Instytut fizyky AN USSR (Physics Institute, AS Ukr SSR)

SUBMITTED: July 3, 1959

Fig. 3 Legend: 1 & 2 - monochromators; 3 - sinusoidal voltage generator; 4 - millivoltmeter; 5 - amplifier; 6 - rectifier; 7 - oscillograph; 8 - specimen

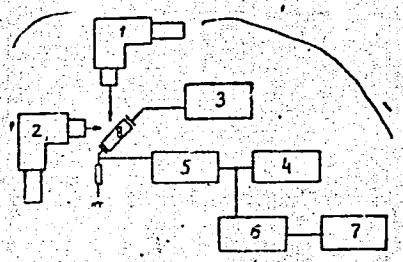

Рис. 3.

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25684 S/181/61/003/007/006/023
B102/B202

24.7000 (1035, 1138, 1482)

AUTHORS: Lashkarev, V. Ye., Sal'kov, Ye. A., and Sheynkman, M. K.

TITLE: Study of the photoactivation of the photocurrent yield in CdS single crystals

PERIODICAL: Fizika tverdogo tela, v. 3, no. 7, 1961, 1973 - 1982

TEXT: The authors attempted to study the activation of the photocurrent yield in CdS-type single crystals in a temperature range of from - 70 to + 115°C. The method consists in the following: the specimen is exposed to short rectangular pulses and, independently thereof, also subjected to an exposure constant with time; the experiment shows that with increasing intensity of illumination the slope of the first part of the curve of growth of the photocurrent determining the photocurrent yield increases. The photoactivation of CdS single crystals has been discovered and described by Lashkarev and G. A. Fedorus (Izv. AN SSSR, ser fiz. 16.81, 1952). It has been observed by the authors also in CdSe and CdS-CdSe. Several attempts have been made to a theoretical study and explanation of this effect. Thus, e. g., L. G. Paritskiy and

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Study of the photoactivation ...

S. M. Ryvkin (FTT, II, 545, 1960) explained the photoactivation in CdS-single crystals by the presence of fast adhesion levels for photocarriers. The authors found that in these crystals the curves of growth of the photocurrent consist of two parts with different slopes and that the exposure influences only the slope of the second part. In some cases the concepts on photoactivation strongly diverge. In view of the experimental results this process is obviously complicated. The present paper is intended to contribute to the explanation of these problems. The main possibilities of explaining the effect of photoactivation consist in the explanation of the relationship between the actual quantum yield G and the light intensity L as well as in an application of the concepts on the fast adhesion levels to the kinetics of the photocurrent. In order to explain the nature of the photoactivation, a so-called "discriminating experiment" is necessary which admits the clear determination of the proper mechanism. It is demonstrated that different mechanisms of photoactivation may lead to different shapes of the curves $G_f(N)$ where G_f is the slope of the second part of the curve of growth of the photocurrent and N the electron concentration. Three mechanisms are studied

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more thoroughly. a) Existence of fast adhesion levels (discrete level of depth U_i, and concentration $\mathcal{N}_i$). $G_f(N)$ is then given by

$$G_f = \left[1 + \frac{\mathcal{N}_i Q_i}{(Q_i + N)^2}\right]^{-1} G(1)$$ where $Q_i = Q\exp(-U_i/kT)$, Q is a statistical factor of the conduction band equal to $3.10^{19}\,cm^{-3}$ at room temperature, when $m_{eff} = m_e$. b) The fast adhesion levels form not one discrete level but an energy band from U_1 to U_2 in which they are irregularly distributed with the density $\mathcal{N}(U)$;

$$G_f = \left[1 + \frac{\mathfrak{N}(U)}{Q_2 + N}\right]^{-1} G, \qquad (2)$$

$$Q_2 = Qe^{-\frac{U_2}{kT}}; \quad Q_1 = Qe^{-\frac{U_1}{kT}}.$$

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Study of the photoactivation ...

then holds. c) The occurrence of carriers is the result of a photoactive exciton decay on an occupied slow electron level (concentration $\mathcal{K}_i$, depth U_i). Then, $G_f = \frac{N}{Q_i + N} G_{max}$ (3) where G_{max} is the maximum quantum yield, $Q_i = Q\exp(-U_i/kT)$. These three cases are theoretically studied in detail an the $G_f(x)$ curves, where $x = N/\mathcal{K}_i$, are compared. Experimental studies were made with non-treated CdS-single crystals (grown from vapor). Indium sputtered in a vacuum served as electrodes thus warranting the linearity of the volt-ampere characteristics in a wide range of voltage and concentration. Also, the lux-ampere characteristics were measured in all specimens. A Kerr cell served as light modulator. The curve of growth of the photocurrent a typical specimen is shown in Fig. 3. The $G_f(I_{phot})$ curves were taken from several specimens. According to the course of these curves the specimens could be divided into two groups. Compared to the theoretical results, the experiments show that in the CdS-single crystals with linear lux-ampere characteristic photoactivation

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Study of the photoactivation...

is caused by the existence of fast adhesion levels of either discrete or continuous energy distribution. Photoactivity which is connected with a change of the actual quantum yield as the result of a change of the exposure intensity could not be observed. There are 6 figures and 9 references: 8 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Institut poluprovodnikov AN USSR Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: January 28, 1961

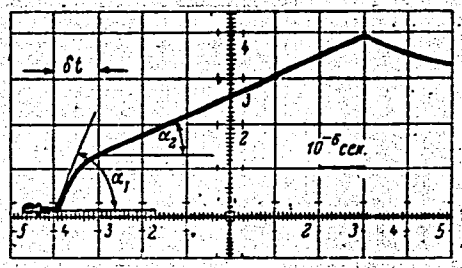

Fig. 3

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27279

S/181/61/003/008/009/034
B102/B202

9.4177 (1138)
26.2421 also 3110

AUTHORS: Marchenko, A. I., Sal'kov, Ye. A., Fedorus, G. A., and Fursenko, V. D.

TITLE: Some properties of CdS single crystals with gold impurities

PERIODICAL: Fizika tverdogo tela, v. 3, no. 8, 1961, 2285 - 2292

TEXT: The authors present results of studies of the effect of gold impurities in CdS single crystals on the photosensitivity, the spectral distribution of the photocurrent, the thermostimulated current and other properties of these crystals. The authors used single crystals with low sensitivity to light and either high dark resistivity (insulators, $\varrho \geqslant 10^{10}$ ohm·cm) or low dark resistivity (conductors, $\varrho = 10^5$ ohm·cm). The gold impurity was diffused-in since both gold impurities and annealing process affected the crystal properties. Preliminary studies showed that in order to be able to study the impurity effect separately, the specimens must be heat-treated (550°C, 2.5 hr) before diffusing in the impurities. The spectral photocurrent distribution was recorded by a УМ-2 (UM-2) monochromator the maximum intensity of the monochromatic

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Some properties of...

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light source (λ = 510 mμ) was $5 \cdot 10^{13}$ quanta/sec·cm^2. After the initial attenuation of the photocurrent the relaxation time of the photocurrent was determined by means of an ЭНО-1 (ENO-1) oscilloscope. The following results were obtained when studying the effect of gold impurities on the integral photosensitivity: Dark conductivity increases only slightly with increasing gold content. It attains saturation with high gold content. In this case the photosensitivity is increased by about 100 times as compared to the initial value. A separate study of the effect of annealing and of the gold impurity showed that annealing inconsiderably increased the dark conductivity of the "insulating" crystals, but strongly reduced that of the "conductive" crystals. If gold was added to the annealed specimen, dark conductivity was slightly increased in both cases. The following results were obtained when studying the effect of gold on the sensitivity to X-ray and gamma radiation:

Crystal	I_{dark}, a	I_{x-ray}, a	I_{γ}, a
	100 volts		
CdS, pure, annealed	10^{-12}	10^{-9}	10^{-8}
CdS, annealed, +Au	10^{-11}	$2.3 \cdot 10^{-7}$	10^{-6}

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Co^{60} (300 mcuries) served as gamma source, the X-ray source was an X-ray tube with Cu-anticathode of the device УРС-25И (URS-25I). The photosensitivity at a voltage of 50 v applied to the crystals was 1a/lumen. Table 4 gives further numerical data. The studies of the effect of gold on the spectral distribution of the photocurrent $I_{\Phi}(\lambda)$ showed that the shape of the curve is maintained (see Fig. 1). The results of the study of the effect of gold on thermostimulated photoconductivity (made by A. P. Trofimenko) are shown in Fig. 2. Finally, the authors studied the effect of infrared quenching of the photocurrent. The alloyed specimens showed two maxima of infrared quenching: at 0.95 and at 1.4 μ. With non-alloyed specimens the first maximum was at 0.9 μ. This shift is due to the existence of two infrared absorption mechanisms. The results of the studies are summarized as follows: 1) The gold impurities increase the sensitivity of the CdS single crystals to light, gamma and X-radiation. 2) The increase of photosensitivity is related to an increase in the lifetime of the photocurrent carriers. 3) In the entire spectral range of photosensitivity of CdS gold has a stimulating effect without changing the shape of the spectral characteristics. 4) In CdS the gold atoms do not form new levels for the electron capture in the energy

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interval 0.005 - 0.5 ev. The increase of the area within the curve of thermostimulated conductivity is due to an increase of the lifetime of the free photoelectrons. 5) Gold impurities do not influence the energetic position of the bands of infrared quenching of the photocurrent. The authors thank Academician AS UkrSSR V. Ye. Lashkarev for interest and M. K. Sheynkman for discussions. There are 4 figures, 4 tables, and 10 references: 5 Soviet-bloc and 5 non-Soviet-bloc.

ASSOCIATION: Institut poluprovodnikov AN USSR, Kiyev (Institute of Semiconductors AS UkrSSR, Kiyev)

SUBMITTED: February 20, 1961

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AUTHOR: Sal'kov, Ye. A.

TITLE: Kinetic method of determining the parameters of adhesion levels

PERIODICAL: Fizika tverdogo tela, v. 5, no. 1, 1963, 240 - 245

TEXT: A method is suggested for determining the parameters of the fast adhesion levels in a steadily excited (illuminated) photoconductor. The illuminated CdS sample is exposed to an additional light flash of $2 \cdot 10^{-7}$ sec. This is much less than (θ) the time required for equilibrium to be restored between the adhesion level and the conduction band. The following can therefore be assumed

$$\frac{d\nu}{dt} = B_l \nu_l - A_l \nu_l \qquad (4)$$

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$$\frac{d\nu_t}{dt} = -B_t\nu_t + A_t\nu, \quad (5).$$

$$B_t = C_t(n + Q_t); \quad A_t = \frac{\mathfrak{N}_t Q_t}{n + Q_t} C_t;$$

$$Q_t = Qe^{-\frac{\varepsilon_t}{kT}}, \quad Q = \frac{2(2\pi m^* kT)^{3/2}}{h^3}, \quad C_t = S_t v_T;$$

The initial conditions $t = 0$, $\nu(0) = \nu_0$ and $t \gg \theta$, $\nu = \nu_\infty$ lead to the solution $(\nu - \nu_\infty)/(\nu_0 - \nu_\infty) = \exp(-t/\theta)$ which shows that the rapid drop in additional conductivity with time, $\theta = 1/(A_t + B_t)$, changes in a quasisteady way. θ can be found by analyzing the relaxation curve of the additional conductivity and comparing it with the above solution. The quasisteady change means that $d\nu/dt = 0$. Combining this with the condition for the conservation of charge, one finds $\nu_0/\nu_\infty = 1 + A_t/B_t$. Measuring this ratio for two different concentrations, one finds $\mathfrak{N}_t$ and Q_1, and thence C_t and S_t.

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SAL'KOV, Ye. A.; SHEYNKMAN, M. K.

Some properties of contacts between a metal (In, Ga) and a photoconductor (CdS). Fiz. tver. tela 5 no.1:237-239 Ja '63. (MIRA 16:1)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

(Photoconductivity)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, Ye. A.

Kinetic method for determining the parameters of trapping levels. Fiz. tver. tela 5 no.1:240-245 Ja '63.
(MIRA 16:1)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

(Electrons—Capture) (Photoconductivity)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

SAL'KOV, Ye.A.; SHEYNKMAN, M.K.

A method for determining the parameters of recombination levels in monopolar photoconductors. Fiz. tver. tela 5 no.2: 397-404 F '63. (MIRA 16:5)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.
(Photoconductivity)(Cadmium sulfide--Electric properties)

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L 13379-63 EWT(1)/EWG(k)/BDS/EEC(b)-2 AFFTC/ASD Pz-4 AT/IJP(C)

ACCESSION NR: AP3002738 S/0120/63/000/003/0140/0141

62

AUTHOR: Sal'kov, Ye. A.

TITLE: Outfit for investigating photoconductivity by superposed square pulses

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1963, 140-141

TOPIC TAGS: photoconductivity investigation, Kerr cell

ABSTRACT: An outfit is described whose fundamental component is an electrooptical Kerr modulator, that secures a 0.2-microsec light-pulse front. The outfit was used for studying photoconductivity of CdS single crystals at positive and negative temperatures. A functional diagram and simplified connection diagrams are presented. The fundamental shortcoming is: the Kerr modulator passes 1-2 per cent of the light flux at all times. "The author expresses his gratitude to V. A. Romanov for his help in aligning the outfit." Orig. art. has: 3 figures.

ASSOCIATION: Institut poluprovodnikov AN UkrSSR (Institute of Semiconductors, AN UkrSSR)

SUBMITTED: 02Aug62 DATE ACQ: 12Jul63 ENCL: 00

SUB CODE: SD, GE NO REF SOV: 007 OTHER: 000

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

KOLOMIYETS, B. T.; MAMONTOVA, T. N.; LEBEDEV, E. A.; MAZETS, T. F.; STEPANOV, G. I.; LASHKAREV, V. Ye.; SALKOV, E. A.; SHEYNKMAN, M. K.

"Fast recombination processes in single crystals of CdS and CdSe."

report submitted for Intl Conf on Physics of Semiconductors, Paris 19-24 Jul 64.

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L 22546-65 EWT(1)/EWG(k)/EWT(m)/EEC(t)/T/EWP(t)/EWP(b) IJP(c) AT/JD

ACCESSION NR: AP4043100 S/0185/64/009/007/0807/0810

AUTHORS: Korsuns'ka, N.Ye. (Korsunskaya, N.Ye.); Sal'kov, Ye.A.; Chernovolenko, A.A.; Sheynkman, M.K.

TITLE: Determining the quantum yield of the intrinsic photoeffect in CdS-monocrystals using short impulse light

SOURCE: Ukrayins'ky*y fizy*chny*y zhurnal, v. 9, no. 7, 1964, 807-810

TOPIC TAGS: CdS monocrystal, photocurrent quantum yield, photosensitivity, fast recombination channel, recombination channel operating time, cadmium sulfide

ABSTRACT: The phenomenological quantum yield of the photocurrent in CdS monocrystals illuminated by light impulses of 2 x 10^{-7} sec. duration and constant intensity was measured at 300K. Wave length was varied from 480-520 μm. The yield was determined as the ratio of the total of the photoelectrons available in the sample at the end of the light impulse action to the total number of quanta absorbed in the crystal; the latter was determined with the help of photoamplifier FEY-18A calibrated against an absolutely black background. The value of the measured yield was near unity in different photo-

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ACCESSION NR: AP4043100

sensitive crystals (0.6-1) and did not depend on λ. At the same time the yield, measured upon illumination of these same crystals with light impulse $\Delta t = 10^{-4}$ sec. was several times smaller. Thus the obtained data confirmed that the operating time of the fast recombination channel τ_1 was within the limits 10^{-5} sec $> \tau_1 > 2 \times 10^{-7}$ sec. "The authors sincerely thank V.E. Lashkar'ov, member of the AN URSR, for attention to and discussion of the work." Orig. art. has: 3 equations and 3 tables.

ASSOCIATION: Instytut napivprovidnyxiv AN URSR, Kiev (Institute of Semiconductors, AN URSR)

SUBMITTED: 20Mar64 ENCL: 00

SUB CODE: SS, OP NR REF SOV: 007 OTHER: 000

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L 29937-65 EWT(m)/EWP(b)/EWP(t) IJP(c) JD

ACCESSION NR: AP5003455 S/0181/65/007/001/0289/0291

27
26
B

AUTHOR: Sal'kov, Ye. A.

TITLE: Concerning certain properties of a p(SiC)-n(CdS) junction

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 289-291

TOPIC TAGS: pn junction, silicon carbide, cadmium sulfide, electroluminescence, rectifier property, current voltage characteristic

ABSTRACT: In view of the interest in injection of both majority and minority carriers in CdS crystals (double injection) and the difficulties of obtaining p-type CdS, the author investigated some properties of a p-n junction consisting of p-type blue single-crystal SiC, and n-type single-crystal CdS, obtained by growing CdS single crystal on the p-type SiC single crystal. The voltage-current characteristics and the response to illumination were investigated, together with the spectral distribution of the glow of the p-n junc-

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tion and the dependence of the integral glow intensity on the density of the direct current through the junction; the relaxation time of the integral glow was estimated. It was found that the junction rectifies current with a rectification coefficient that ranges from 10^4 to 10 in different samples when 10 volts are applied to the sample. The voltage-current characteristics show that negative resistance is obtained in a definite voltage region. The hole lifetime is estimated at approximately 10^{-8} sec. Although an analogous phenomenon is observed for n-(CdS) in the region of small dark conductivity, no negative resistance was observed in the latter case. Glow is observed in all cases when current flows in the forward direction (SiC positive), and as a rule no glow is observed when the polarity is reversed. The glow intensity has a maximum at the junction itself. An increase in the junction current changes the color from red to green. The spectrum lies between 500 to 600 nm, with two peaks at 525 and 585 nm. The integral intensity increases linearly with the current up to about 100 mA, after which

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saturation is observed. The glow attenuation time, determined by passing rectangular 2-microsecond square-wave pulses through the samples, was close to exponential with a characteristic time of 2.5 μsec. Orig. art. has: 2 figures. [02]

ASSOCIATION: Institut poluprovodnikov AN UkrSSR, Kiev (Institute of Semiconductors, AN UkrSSR)

SUBMITTED: 30Jul64 ENCL: 00 SUB CODE: SS, OP

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L 26276-66 EPF(n)-2/EEC(k)-2/EWT(1) AT/WW

ACC NR: AP6013514 SOURCE CODE: UR/0120/66/000/002/0132/0134

64
B

AUTHOR: Sal'kov, Ye. A.; Khvostov, V. A.; Chernovolenko, A. A.

ORG: Institute of Semiconductors AN UkrSSR, Kiev (Institut Poluprovodnikov AN UkrSSR)

TITLE: Obtaining light pulses for the investigation of the kinetics of photoconductivity

SOURCE: Pribory i tekhnika eksperimenta, no. 2, 1966, 132-134

TOPIC TAGS: photoconductivity, light radiation, nanosecond pulse, pulse generator

ABSTRACT: A device for generating specially shaped light pulses for use in the study of the kinetics of photoconductivity is described. The device consists of two thyratrons and a coaxial storage line which discharges through a specially designed discharge lamp. The lamp, a porcelain capillary tube with tungsten electrodes, has a diameter of 0.01 cm. The limited cross section of the tube provides a current density of about 10^6 amp/cm^2 and, consequently, a greater pulse brightness. The device provides a pulse time of 5—6 nsec, a duration of constant light intensity of about 40 nsec, and a duration of the

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ACC NR: AP6013514

trailing edge at 30% level of the pulse height of 30 nsec. The device can be used in the study of fast recombination processes as well as for measurements of the absolute value of the quantum yield of photoelectrons. Orig. art. has: 4 figures and 1 table. [GS]

SUB CODE: 09/ SUBM DATE: 10Feb65/ ORIG REF: 005/ ATD PRESS: 4244

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APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001446910001-5

CHERNYAK, R.Ya., kand.tekhn.nauk; SAL'KOV, Yu.G.; PUSHENKO, A.I.

Universal magnetic drum. Avtom. i pribl no.1:72-74 Ja-Mr '63. (MIRA 16:3)

1. Institut kibernetiki AN UkrSSR.
(Magnetic memory)

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L 35916-66 EWT(d)/T/EWP(1) IJP(c) GG/BB/GD

ACC NR: AT6017035 SOURCE CODE: UR/0000/65/000/000/0111/0118

56
B+1

AUTHOR: Chernyak, R. Ya.; Sal'kov, Yu. G.; Zlobina, G. I.

ORG: None

TITLE: Principles of constructing a digital correlator

SOURCE: AN UkrSSR. Kiberneticheskaya tekhnika (Cybernetic techniques). Kiev, Naukova dumka, 1965, 111-118

TOPIC TAGS: digital computer system, data correlation, special purpose computer, computer design, computer program

ABSTRACT: Although general principles have been relatively well established for the construction of the structure of specialized computers with program control, those computers which have a fixed program control require the development of a specific structure for each specific problem. The large variety of solvable problems leads to the creation of many varieties of fixed program control computers which vary in their structure and design. In view of this, in order to create a theory of the construction of such machines, it seems highly desirable to accumulate, analyze, and generalize the principles underlying the construction of specialized machines or computing devices. The present authors present fundamental

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L 07486-67 EWT(d)/EWT(m)/EWP(1)/EWP(t)/ETI IJP(c) GG/BB/JD

ACC NR: AP6036068 SOURCE CODE: UR/0432/66/000/005/0049/0051

AUTHOR: Chernyak, R. Ya. (Candidate of technical sciences); Pushenko, A. I.; Sal'kov, Yu. G.

ORG: none

TITLE: A dual magnetic head

SOURCE: Mekhanizatsiya i avtomatizatsiya upravleniya, no. 5, 1966, 49-51

TOPIC TAGS: recording equipment, magnetic recording, magnetic drum

ABSTRACT: A new device consisting of magnetic read and write heads connected by a common shift mechanism has been developed. The heads are mounted on a moving carriage which permits independent transverse displacement of each head along the track of the magnetic drum. One revolution of one of the adjusting screws provided for displacement moves the corresponding head 500 μ. Linear displacement is achieved by means of micrometer screws; each revolution of a micrometer screw displaces a head 100 μ. Both heads have the same dimensions; the core material is 79 NM-type Permalloy with width, 2 mm; gap, 60 μ; and diameter, 2.5 mm. Output voltage of the read head is 300 mv at 40 m/sec linear speed of the magnetic carrier and at 350 mamp recording current. Special shielding reduces induced interferences to 4—6 mv, which is approximately 2% of the useful signal. Orig. art. has: 3 figures.

SUB CODE: 14 / SUBM DATE: none/ ATD PRESS: 5104

Card 1/1 UDC: 681.84.083.82

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SAL'KOVA, A. D., Aspirant

"The Economic Problems of Enlarging Collective Farms in the Outlying Dairy Regions Near Moscow." Cand Agr Sci, Moscow Fur and Pelt Inst, 29 Nov 54. (VM, 18 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

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GABRIELYAN, M.I., dotsent; SAL'KOVA, A.D., ordinator

Diphtherial affections of the nervous system as shown by data of the Clinic for Nervous Diseases of the Samarkand Medical Institute. Med.zhur.Uzb. no.10:18-20 O '58. (MIRA 13:6)
(DIPHTHERIA) (NERVOUS SYSTEM--DISEASES)

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LOZA, G.M., prof.; BUZILOV, Yu.T., dots.; GROMOV, M.N., dots.; NIKIFOROV, M.A., dots.; FEFELOV, V.P., kand. ekon. nauk; SINYUKOV, M.I., dots.; SAL'KOVA, A.D., dots.; GRANDITSKIY, P.A., dots.; TIKHONOVA, Ye.M., red.

[Practical aid for the organization and planning of production on collective and state farms] Praktikum po organizatsii i planirovaniiu proizvodstva v kolkhozakh i sovkhozakh. Moskva, Kolos, 1965. 526 p. (MIRA 18:5)

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BODNYA, M.D.; BARANOVSKAYA, G.M.; OSOVETSKIY, M.A.; OBNOSOVA, A.D.; SALKOVA, M.M.

Replacing hydrolysis alcohol with synthetic alcohol in the production of spirit varnishes for furniture. Lakokras. mat. i ikh prim. no.3:65-66 '61. (MIRA 14:6)
(Varnish and varnishing)

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