"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GERASIMOV, D.A., inzh.; GROSH, K.A., inzh.; CHERNYSHEV, A.S., inzh.

Making large foundation blocks in construction yards under winter conditions. Biul.stroi.tekh. 12 no.9:6-7 S '55. (MIRA 12:1)

1. Trest Chelyabmetallurgstroy.
(Foundations) (Concrete blocks--Cold weather conditions)

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ZORIN, L.V.; GROSHENKOVA, N.G.

Laws of the formation of placers. Izv. Vses. geog. ob-va 94 no.1:79-83 Ja-F '62. (MIRA 15:3)
(Siberia, Eastern--Ore deposits)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

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DIRIKHS, Al'fred,[Dierichs,Alfred], prof. doktor,; KUBICHKA, Rudol'f, [Kubicka, Rudolf], inzh.; DAVID,Z.[translator],; GROSHEK, F.,. [translator],; FEDOSEYEV, Sergey Dmitriyevich, kand.tekhn. nauk, red.; LOZBYAKOVA,Ye.S.,inzh.,ved. red.; SOLOMONIDICH, S.M., tekhn. red.

[Phenols and organic bases from coal] Fenoly i osnovaniia iz uglei. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1958. 468 p. (MIRA 11:11)

(Phenols)
(Coal-tar products)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEK, K.S., inzh.

Investigating a fan model with adjustable blades of the wheel. Izv.vys.ucheb.zav.; energ. 2 no.4:124-130 Ap '59. (MIRA 12:9)

1. Yuzhnoye otdeleniye "Orgres".
(Fans, Electric--Models)

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHENKO, V., inzhener-polkovnik

Means of special treatment. Tekh. i vooruzh. no.4:24-25 Ap '64. (MIRA 17:9)

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

LIMANOV, A., inzh.; BALAKIREV, N.; OLEYNIK, K., inzh.; LEONT'YEV, V.; GROSHENKOV, N.

These are your rights, comrades. Izobr.i rats. no.10:31 O '59. (MIRA 13:2)

1. TSentral'naya laboratoriya "Glavnospromstroymaterialov," Moskva (for Limanov). 2. Rukovoditel' konstruktorskoy gruppy proyektno-smetnogo byuro g.Zaporozh'ye (for Oleynik). 4. Predsedatel' zavodskogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov shinnogo zavoda, g.Yaroslavl' (for Leont'yev). 5. Starshiy inzhener Byuro ratsionalizatorov i izobretateley shinnogo zavoda, g.Yaroslavl' (for Groshenkov).
(Technological innovations)

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GROSHENKOV, S.S.

Scientific conference of the Central Scientific Research Institute for Physical Culture. Teor. i prak. fizkul' 18 no.7:557-558 '55. (MLRA 8:10)
(PHYSICAL EDUCATION AND TRAINING--CONGRESSES)

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHENKOVA, N.G.; ZORIN, L.V.; MALAYEVA, Ye.M.

Quaternary sedimentation in the Zeya Valley. Sov. geol. 3 no.2:39-47 F '60. (MIRA 13:11)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova Geograficheskiy fakul'tet.
(Zeya Valley—Sediments (Geology))

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

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GROSHEV, A. A

3(4) PHASE I BOOK EXPLOITATION SOV/2879

Vendrov, Semen Leonidovich, Aleksandr Afanas'yevich Groshev, Nikolay Mikhaylovich Isakov, Leonid Aleksandrovich Sergeyev, Iosif Mikhaylovich Shepshelevich, and Viktor Aleksandrovich Velichko

Sovremennaya tekhnika gidrograficheskikh izyskaniy (Modern Techniques in Hydrographic Surveying) Leningrad, Izd-vo "Rechnoy transport," Leningr. otd-niye, 1957. 170 p. 1,500 copies printed.

Ed. (Title page): Ye. V. Bliznyak, Doctor of Technical Sciences, Professor; Reviewer: A. I. Gruzinov; Ed. (Inside book): D. M. Kudritskiy; Tech. Ed.: K.M. Volchok.

PURPOSE: This book is intended for engineering and technical personnel engaged in hydrographic survey work. It may also serve as a textbook for students of hydrographic surveying.

COVERAGE: This book covers the basic principles and techniques of surveying inland waterways. It describes the role played by ultrasonics, radio, lighting

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engineering, and aerial photography in hydrographic surveying. Various sounding devices and range finders are described. No personalities are mentioned. There are 13 Soviet references.

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2. Brief information on the use of river sounding devices (echo sounders) 7
3. Radiogeodetic and optical range finding measurements in the USSR and their development 9

Ch. II. Echo Sounding Device and Its Use in River Surveys 12

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

AUTHOR: Groshev, A.A. SOV/109-4-6-18/27

TITLE: Integrating Amplifiers Employing Transistors (Integriruyushchiye usiliteli na poluprovodnikovykh triodakh)

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 6, pp 1038 - 1045 (USSR)

ABSTRACT: A single-stage transistor amplifier is considered. The transistor is represented by an equivalent active quadrupole Y_0 (Figure 1). The feedback path is represented by a passive quadrupole Y_2. The amplifier has an input admittance $y_1 = 1/z_1$, where z_1 takes into account also the internal impedance of the generator; y_{II} is the load admittance. The matrix of the equivalent quadrupole Y', representing the parallel combination of the quadrupoles Y_0 and Y_2, is given by Eq (1).

The transfer coefficient of the amplifier is expressed by Eq (2) or by Eq (3), where y_{BX} represents the input

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admittance of the transistor, k is the voltage amplification of the transistor without feedback and $y_{\ni BX}$ is the equivalent input admittance of the amplifier. If the admittance parameters are replaced by the corresponding impedance parameters, the transfer function of the system can be expressed by:

$$K = \frac{k + \frac{z_H}{z_2}}{\frac{z_1}{z_{\ni BX}} + \frac{z_1}{z_2}(1 - k) + \frac{z_1}{z_2}\left(\frac{z_{22}}{\Delta} + \frac{1}{z_1}\right)z_H} \qquad (4)$$

or by Eq (5), where η is the attenuation coefficient, Δ is the determinant of the transistor parameters and $z_{\ni BX}$ is the equivalent input impedance of the integrator.

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Integrating Amplifiers Employing Transistors

For an integrating amplifier, the impedances can be expressed by the equations defined in the first line on p 1040. The transfer coefficient can now be expressed by Eq (6), where the symbols T_1 and T are defined by Eqs (7). Eq (6) can also be expressed as Eq (11). Since $k \gg 1$, Eq (11) can also be written as Eq (12). Now the response of the system to a unit step can be represented by Eq (13). The solution of this is in the form of Eq (14). The relative integration error can therefore be defined by:

$$\varepsilon = \frac{U_2(t) - U_2(t)_{ид}}{U_2(t)_{ид}} \simeq \frac{t}{R_{вх} Ck} \qquad (15)$$

where:

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

Integrating Amplifiers Employing Transistors

$$U_2(t)_{вых} = - \frac{k\eta t}{R_{эвх}C(k - 1)} \quad .$$

From the above formulae, it can be seen that a single-stage integrator cannot yield very high time constants. The necessary increase in the time constant can be achieved by employing multi-stage transistor integrators. This type of circuit is illustrated in Figure 2, while its equivalent representation is given in Figure 3. The transfer function of the integrator of Figure 3 can be expressed by Eq (22). This is very similar to the transfer function of a single-stage integrator, as may be seen by comparing Eqs (8) and (24). The main disadvantage of the circuit of Figure 2 is its low input impedance. This can be increased by employing an emitter-follower input stage. Alternatively, an input stage may be formed by connecting two transistors in a circuit of the type illustrated in

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Integrating Amplifiers Employing Transistors

Figure 4a; the high input impedance can also be secured by employing a circuit of the type illustrated in Figure 4b. It is shown that the input impedance of an integrator employing an emitter input stage is given by Eq (25). The input impedance of an integrator with the circuit of Figure 4a is given by Eq (26). The input impedance of the circuit of Figure 4b is expressed by Eq (27). The theory was used to design a four-stage integrator. A detailed circuit diagram of this is shown in Figure 5. It was found that the measured results obtained with the amplifier, at a temperature of 20 $\pm$ 5°C, were in good agreement with the theoretically predicted values.. The author expresses his gratitude to the Candidate of Technical Sciences S.Ya. Shats for reading the manuscript and for valuable advice.

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Integrating Amplifiers Employing Transistors

There are 5 figures and 5 references, of which 4 are Soviet and 1 English; 1 Soviet reference is translated from English.

SUBMITTED: February 1, 1958

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S/106/61/000/012/004/010
A055/A127

9,2520 (1040, 1139, 1154)

AUTHOR: Groshev, A. A.

TITLE: Transistorized a-c amplifiers with direct coupling

PERIODICAL: Elektrosvyaz', no. 12, 1961, 29 - 35

TEXT: The author examines the stability of the static operation conditions of transistorized a-c amplifiers with direct coupling, taking into account the effect of the zero collector-current I_{k0}, of current amplification factor α and of base-to-emitter voltage U_{be}. The analysis is first applied to the case of a two-stage amplifier. The expression giving the collector current of the second stage is:

$$I_{k2} = \frac{E(S_2-1)}{R_{load1}} - \frac{U_{be2}(S_2-1)}{R_{load1}} - I_{k1}(S_2-1) + I_{k02}S_2, \qquad (2)$$

where

$$S_2 = \frac{R_{load1}+R_2}{R_2+R_{load1}(1-\alpha_2)} = \frac{\partial I_{k2}}{\partial I_{k02}}$$

is the stability coefficient determining the degree of influence of I_{k0} on the col-

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

Transistorized a-c amplifiers with direct coupling

lector current. The expression for the collector current of the first stage is:

$$I_{k1} = \frac{E}{R_c}(S_1-1) - \frac{U_{be1}}{R_c}(S_1-1) + I_{k01}S_1. \quad (4)$$

where $S_1 = (R_c+R_1)/[R_1+R_c(1-\alpha_1)]$.

Substitution of (4) in (2) yields another expression of I_{k2}:

$$I_{k2} = \frac{E}{R_{load1}}(S_2-1) - \frac{U_{be2}}{R_{load1}}(S_2-1) - \frac{E}{R_c}(S_1-1)(S_2-1) + \frac{U_{be1}}{R_c}(S_1-1)(S_2-1) -$$

$$- I_{k01}(S_2-1)S_1 + I_{k02}S_2. \quad (5)$$

Assuming that the supply voltage E and the bias resistances are constant, the author obtains:

$$\Delta I_{k2} \approx \frac{I_{k2}\Delta\alpha_2}{\alpha_2+\Delta\alpha_2}S_2 - S_1(S_2-1)\frac{I_{k1}\Delta\alpha_1}{\alpha_1+\Delta\alpha_1} + S_2\Delta I_{k02} - S_1(S_2-1)\Delta I_{k01} +$$

$$+ \frac{S_2-1}{R_{load1}}\Delta U_{be2} - \frac{(S_1-1)(S_2-1)}{R_c}\Delta U_{be1} \quad (6)$$

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where $\Delta\alpha$, ΔI_{k0}, ΔU_{be} are the variations of α, I_{k0} and U_{be} with temperature. The relative variation of I_{k2} can be expressed as:

$$\delta I_{k2} \approx \Delta I_{k2} / I_{k2} \qquad (7)$$

The analysis of (6) and (7) permits to rate the stability of the static operation conditions. An experimental check reproduced in the article confirms the correctness of formulae (6) and (7). In multistage amplifiers, a negative voltage-feedback (for the d-c component and extending over three stages) is used, in addition to local current-feedbacks, to ensure a definite stability of the static operation conditions. The author presents a set of formulae for the three-stage amplifier, analogous to those given for the two-stage amplifier, i.e. formulae permitting to calculate I_{k1}, I_{k2} and I_{k3}, and also ΔI_{k3}. In the case of silicon transistors, the following approximate formula can be used:

$$\Delta I_{k3} \approx \frac{I_{k1} S_1 \Delta\alpha_1}{m(S_1-1)(\alpha_1+\Delta\alpha_1)} - \frac{I_{k2} S_2 \Delta\alpha_2}{m(S_1-1)(S_2-1)(\alpha_2+\Delta\alpha_2)} \qquad (19)$$

where:

$$m = \frac{R_{load3}}{R_{load3}+R_0} \qquad (15)$$

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Transistorized a-c amplifiers with direct coupling

$$S_1 = \frac{R_{load3}+R_0+R_1}{R_1+(R_{load3}+R_0)(1-\alpha_1)} \qquad (12)$$

$$S_2 = \frac{R_{load1}+R_2}{R_2+R_{load1}(1-\alpha_2)}. \qquad (13)$$

In the last part of the article, the author describes a practical method for designing a three-stage amplifier and gives the results of an experimental check of this method. In conclusion, the author emphasizes that, in the calculation of the stability of the static operation conditions, it is necessary to take into account not only the effect of the variation of I_{k0}, but also the effect of the variation of α and even (if precise calculation is desired) of U_{be}. There are 3 figures, and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Sautels. A stable direct-coupled transistor servo preamplifier. "Communication and Electronics", 1959, no. 40. The names of the Soviet-bloc authors or scientists mentioned in the article are: Nikolayenko, N. S., Radiotekhnika, 1958, v. 13, no. 2; Voyshvillo, G. V., and Davydov, V. S.,

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31200
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A055/A127

Transistorized a-c amplifiers with direct coupling.

Radiotekhnika, 1956, v. 11, no. 10.

SUBMITTED: April 12, 1961

Card 5/5

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GROSHEV, A. L., KUZNETSOV, V. V., SVESHNIKOV, A. G., SEMASHKO, N. N., BALEBANOV, V. M., VOLKOV, B. I., GLASKO, V. B.,

"Motion of Individual Charged Particles in Helical-Symmetry Magnetic Field,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases, Paris, France, 8-13 Jul 63

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, A. L., KUZNETSOV, V. V., SVESHNIKOV, A. G., SEMASHKO, N. N., BALEBANOV, V. M., GLASKO, V. B.,

"Study of Individual Charged Particle Motion in "fluted" Magnetic Fields,"

report presented at the 6th Intl. Conf. on Ionization Phenomena in Gases, Paris, France, 8-13 Jul 63

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BALEBANOV, V.M.; GLASKO, V.B.; GROSHEV, A.L.; KUZNETSOV, V.V.;
SVESHNIKOV, A.G.; SEMASHKO, N.N.

Motion of single charged particles in undulating magnetic fields.
Atom. energ. 15 no.4:318-319 O '63. (MIRA 16:10)

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BALEBANOV, V.M.; VOLKOV, B.I.; GLASKO, V.B.; GROSHEV, A.L.; KUZNETSOV, V.V.; SVESHNIKOV, A.G.; SEMASHKO, N.N.

Motion of isolated charged particles in a magnetic field with helical symmetry. Atom. energ. 15 no.5:409-410 N '63. (MIRA 16:12)

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, A.P.

[Technical analysis] Tekhnicheskii analiz. Moskva, Gos. nauchno -tekhn. izd-vo khim. lit-ry, 1953. 519 p. (MLRA 6:12)
(Chemistry, Technical)

GROSHEV, ALEKSANDR PAVLOVICH

CIA-RDP86-00513R000517

PHASE I BOOK EXPLOITATION 725

Grosbev, Aleksandr Pavlovich

Tekhnicheskiy analiz (Technical Analysis) 2d ed. Moscow, Goskhimizdat, 1958. 475 p. 15,000 copies printed.

Ed. (title page): Filippova, N.A., Candidate of Chemical Sciences; Ed. (inside book): Yegorov, N.G.; Tech. Ed.: Shpak, Ye.G.

PURPOSE: The book is approved as a textbook for Chemistry Tekhnikums by the Upravleniye srednikh spetsial'nykh uchebnykh zavedeniy Ministerstva vysshego obrazovaniya SSSR (Administration of Special Secondary Schools, Ministry of Higher Education, USSR). The book can also be used by students of other tekhnikums, whose program includes a course in technical analysis.

COVERAGE: The book describes methods of analyzing water, fuels, lubricants, gases, metals, and some organic and inorganic substances; it also gives information regarding the control of the main chemical industrial processes. The author thanks for their help the faculties of the Moskovskiy politekhnikum im. V. I. Lenina (Moscow

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Polytechnical Institute imeni V.I. Lenin) and the Yaroslavski khimiko-mekhanidreskiy tekhnikum (Yaroslavl' Tekhnikum for Chemistry and Mechanics). There are 42 references, all Soviet (including 5 translations).

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

KUCHERYAVYY, F.I., kand.tekhn.nauk; MAYNOV, V.I., inzh.; GROSHEV, A.S.; TSIBULEVSKIY, A.I.

Using inclined boreholes in limestone quarries. Gor.zhur. no.3:31-35 Mr '65. (MIRA 18:5)

1. Dnepropetrovskiy gornyy institut (for Kucheryavyy, Maynov).
2. Upravlyayushchiy Balaklavskim rudoupravleniyem (for Groshev).
3. Glavnyy inzh. Balaklavskogo rudoupravleniya (for TSibulevskiy).

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

KUCHERYAVYY, F.I., kand. tekhn. nauk; MAYNOV, V.I., inzh.; GROSHEV, A.S., inzh.

Effectiveness of using igdanite in the flux limestone quarries of Crimea. Vzryv. delo no.57/14:240-244 '65. (MIRA 18:11)

1. Dnepropetrovskiy gornyy institut (for Kucheryavyy, Maynov).
2. Balaklavskoye rudoupravleniye (for Groshev).

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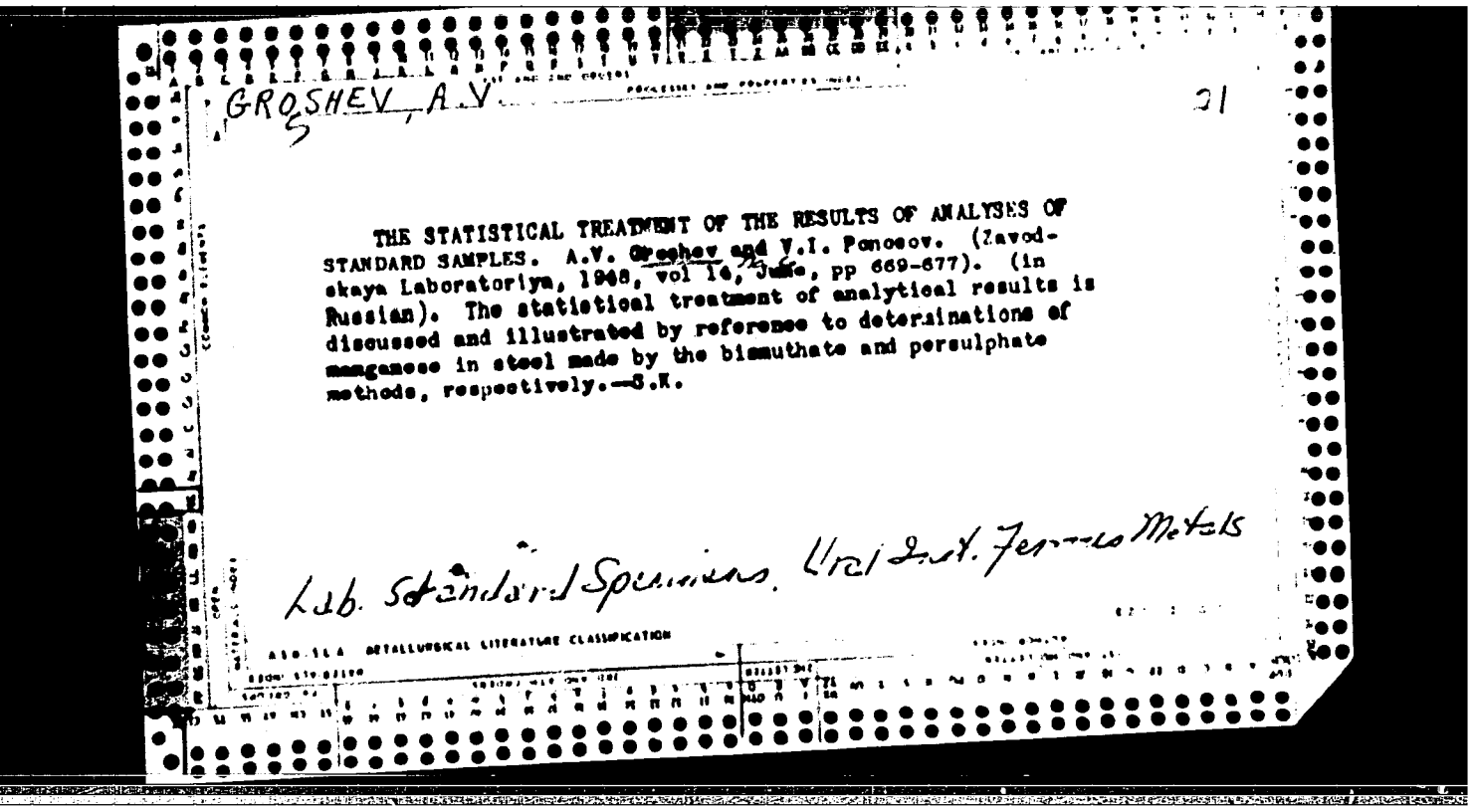
"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702



GROSHEV, A.V.

21

THE STATISTICAL TREATMENT OF THE RESULTS OF ANALYSES OF STANDARD SAMPLES. A.V. Groshev and V.I. Ponosov. (Zavodskaya Laboratoriya, 1948, vol 14, June, pp 669-677). (in Russian). The statistical treatment of analytical results is discussed and illustrated by reference to determinations of manganese in steel made by the bismuthate and persulphate methods, respectively.—S.K.

Lab. Standard Specimens. Ural Inst. Ferrous Metals

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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GROSHEV A.V.

LEDNEV, N.A., professor; GROSHEV, A.V.; YELISTRATOVA, T.A.; NIKITIN, B.D.; PENTKOVSKIY, M.V.; PREOBRAZHENSKIY, M.A.; RUMSHISKIY, L.Z.

[Practical mathematical work on calculating machines and instruments] Matematicheskiy praktikum na schetnovychislitel'nykh proborakh i instrumentakh. Moskva, Gos. izd-vo "Sovetskaia nauka," 1954. 365 p. (MLRA 7:7)
(Calculating machines)
(Approximate computation)

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, A.V.

Grošev, A. V. On the degree of uniformity of the distribution of a point set on an interval. Ural. Politehn. Inst. Trudy 51 (1954), 82–85. (Russian)

The author proposes to use as a measure of the uniformity of the distribution of a point set E of measure m on an interval $[0, l]$ the ratio $k=S/\bar{S}$, where

$$S=\int_0^l |\varphi(x)-\varphi_0(x)|dx,$$

$\varphi(x)$ is the measure of that part of E in $[0, x]$, $\varphi_0(x)=mx/l$, and $\bar{S}$ is the maximum of S for m and l fixed. It is proved that $\bar{S}=m(l-m)/2$. *M. M. Day.*

Math

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

LIZOGUB, A.P.; GROSHEV, A.Ya.

Photometric method for determining the content of tar in transformer oil. Neft. i gaz. prom. no.2:51-52 Ap-Je '59.

(MIRA 18:6)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, B. D.

7001
RML

V 4079 AEC-tr-2435((Pt. 1) (p.195-208))
NEUTRON-CAPTURE γ-RAY SPECTRA OF SOME HEAVY NUCLEI. B. P. Adyasevich, B. D. Groshev, and A. M. Demidov. p.195-208 of CONFERENCE OF THE ACADEMY OF SCIENCES OF THE USSR ON THE PEACEFUL USES OF ATOMIC ENERGY, JULY 1-5, 1955. SESSION OF THE DIVISION OF PHYSICAL AND MATHEMATICAL SCIENCES. (Translation). 14p.
This paper was originally abstracted from the Russian and appeared in Nuclear Science Abstracts as NSA 9-7307.

pmn

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

PRYAKHIN, Ivan Petrovich; GROSHEV, B.I., red.; ARNOL'DOVA, K.S., red. izd-va; PARAKHINA, N.L., tekhn.red.

[Tula forest belt; natural history study and prerequisites for the improvement of forestry] Tul'skie zaseki; estestvennoistoricheskii ocherk i predposylki k pod"emu kul'tury lesovodstva v zasekakh. Moskva, Goslesbumizdat, 1960. 125 p. (MIRA 13:10)

(Tula Province--Forests and forestry)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

ANUCHIN, Nikolay Pavlovich, prof.; GROSHEV, B.I., red.; GOROKHOV, M.G., red.izd-va; PARAKHINA, N.L., tekhn.red.

[Optimal felling age for trees in the European U.S.S.R.] Optimal'nye vozrasty rubki dlia lesov evropeiskoi chasti SSSR. Moskva, Goslesbumizdat, 1960. 131 p. (MIRA 13:6)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (VASKHNIL) (for Anuchin).
(Tree felling)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

PONOMAREV, Aleksandr Dmitriyevich; GROSHEV, B.I., red.; FILIMONOVA, A.I., red.izd-va; SHIBKOVA, R.Ye., tekhn.red.

[Organization of forestry and forest management in the U.S.S.R.] Organizatsiia lesnogo khoziaistva i lesoupravleniia v SSSR. Moskva, Goslesbumizdat, 1961. 47 p. (MIRA 16:2)
(Forest management)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, Boris Ivanovich; SEPEROVICH, I.P., red.; LABAZINA, S.N., red. izd-va; PARAKHINA, N.L., tekhn. red.

[Forest evaluation and the preparation of timber resources] Lesnaia taksatsiia i podgotovka lesosechnogo fonda. Moskva, Goslesbumizdat. 1961. 63 p. (MIRA 16:3)
(Forests and forestry--Valuation)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

TAMARKIN, Mark L'vovich; GROSHEV, B.I., red.

[Forests, forestry, and the characteristics of the taking stock of forests and forest management in North America] Lesa, lesnoe khoziaistvo i osobennosti lesoinventarizatsii i lesoustroistva v Severnoi Amerike. Moskva, Lesnaia promyshlennost', 1964. 192 p. (MIRA 17:9)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

BIKKULOV, A.Z.; GROMOV, B.M.

Use of an anti-solvent in the extraction of hydrocarbon fractions. Izv.vys.ucheb.zav.; neft' i gaz 6 no.11:71-73 '63. (MIRA 17:9)

1. Ufimskiy neftyanoy institut.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

BIKKULOV, A.Z.; KHLESTKIN, R.N.; GROSHEV, B.M.; KHAMAYEV, V.Kh.; ZARIPOV, A.G.

Use of petroleum toluene to obtain terephthalic acid. Neftepер. i neftekhim. no.8:33-35 '63. (MIRA 17:8)

1. Ufimiskiy neftyanoy institut.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 23466-65 EWT(m)/EPF(c) Pr-4, RM

ACCESSION NR: AP4049831 S/0318/64/000/011/0024/0026

AUTHOR: Bikkulov, A.Z.; Groshev, B.M.

TITLE: Glycols as selective solvents for hydrocarbon extraction

SOURCE: Neftepererabotka i neftekhimiya, no. 11, 1964, 24-26

TOPIC TAGS: glycol solvent, aromatic hydrocarbon extraction, glycol extractor, selective solvent, petroleum refining

ABSTRACT: Aromatic hydrocarbons produced by the catalytic cracking of petroleum are extracted from the catalyzate by liquid solvents. The purpose of this paper was to compare the action of different glycol solvents as to their extraction power and selectivity. It was found that triethylene glycol is superior to diethylene glycol. Apparently, higher molecular weight increases the dissolving power of the glycols, permitting extraction at lower temperatures. Polypropylene carbonate is most promising for the extraction of gasoline fractions. It has good dissolving power and excellent selectivity. Diethylene glycol, which is widely used in industry, is considerably inferior to polypropylene carbonate. Addition of water to diethylene glycol lowers its dissolving power without improving its selectivity. Artificial mixtures of 50% o-xylene with 50% nonane were subjected to extraction by different solvents and the results were plotted on curves. The investigated solvents formed

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 23466-65

ACCESSION NR: AP4049831

the following series according to decreasing dissolving power: ethylcarbitol, propylene carbonate, propylene glycol, diethylene glycol; according to decreasing selectivity: propylene carbonate, ethylene carbonate, ethyl carbitol, diethylene glycol, propylene glycol. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Ufimskiy neftyanoy institut (Ufa Petroleum Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: OC, FP

NO REF SOV: 006 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 03785-65
ACCESSION NR: AP5014946

UR/0065/65/000/006/0013/0018
665.52.061.5

AUTHORS: Bikkulov, A. Z.; Groshev, B. M.; Popov, V. A.

TITLE: Selective solvents for hydrocarbon extraction

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 6, 1965, 13-18

TOPIC TAGS: solvent, solvent action, solvent extraction, hydrocarbon, furfurole, dimethylformamine/ DEG selective solvent

ABSTRACT: A new procedure is recommended for hydrocarbon extractions according to which the selective and dissolving capacities of 27 solvents were compared. Several extractions were made with each solvent at the temperature interval limited by the critical temperature of solution at the maximum and that of the phasal state variation at the minimum point. The results are presented graphically as curves showing the relation of the extraction temperature to the quantity of extract and of the extract yield to the selectivity index. Three types of crude were used in the experiments: 1) deparaffined oil fraction 400-500C; 2) a mixture of 30% alpha-methylnaphthalene and 70% cetane; 3) equal quantities of o-xylene and n-nonane. The separation selectivity of the 2 and 3 crudes was

Card 1/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 53785-65
ACCESSION NR: AP5014946

calculated according to formula: $H = \frac{a(1-b)}{b(1-a)}$,

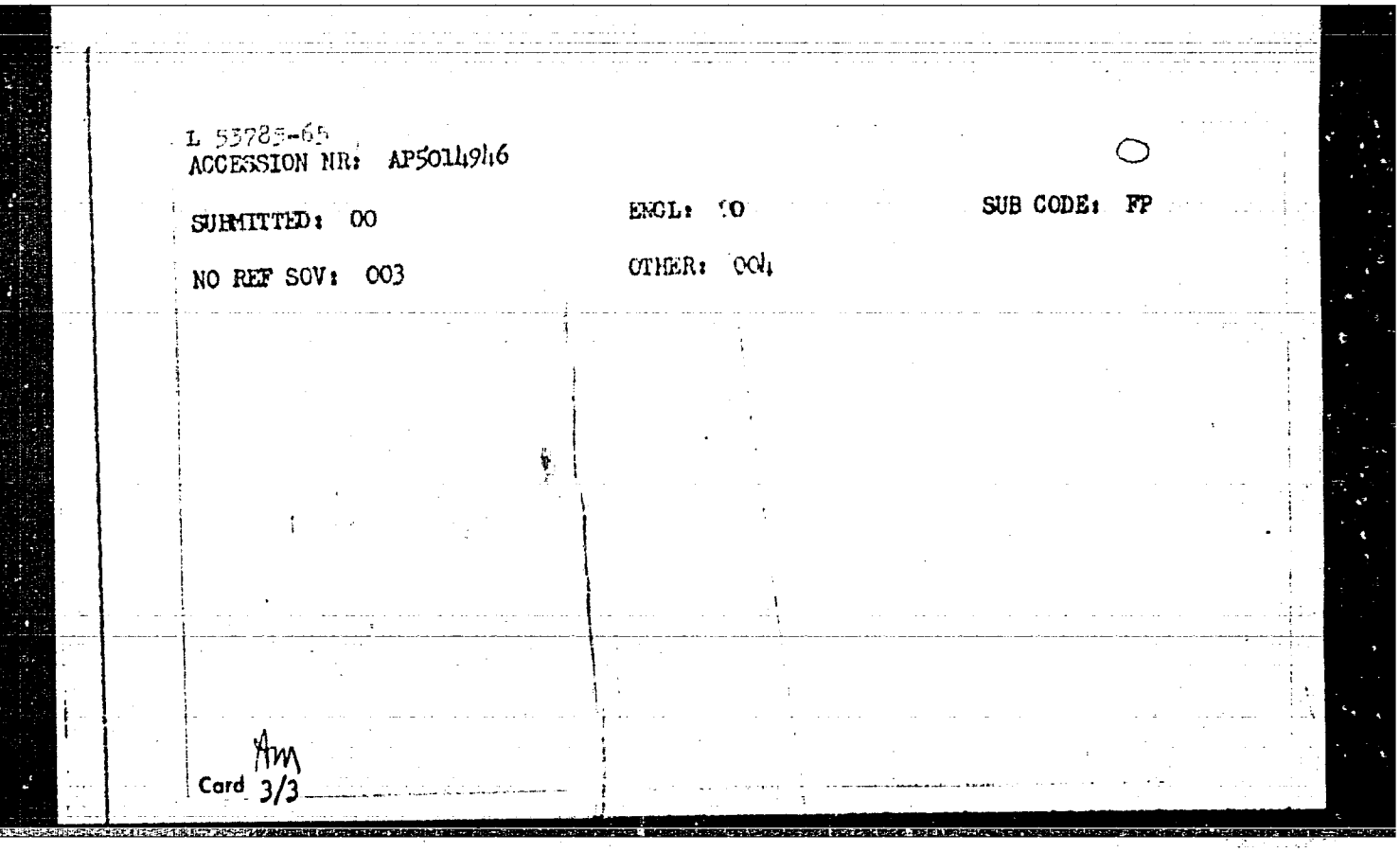
where H - selectivity, a and b are the content of aromatics in the extract and raffinate. No definite relation between the dissolving and selective capacities of solvents was established. The solvents studied, arranged in order of their selectivity decrease, were: nitrobenzene; benzaldehyde; phenol, furfurole; benzyl alcohol; crotonaldehyde; aniline, chlorax; diacetone alcohol, ethylcellosolve; ethylene chlorohydrin, acetone, n-propanol; acetic acid. Arranged in order of their decreased dissolving capacity, they were: nitrobenzene, benzaldehyde; crotonaldehyde; n-propanol; chlorax; phenol; ethylcellosolve; benzyl alcohol; acetone; diacetone alcohol; aniline; furfurole; ethylene chlorohydrin, acetic acid. Dimethyl formamide and furfurole proved to be the best practical solvents for medium distillates; sulfolane, propylene carbonate, and ethylene carbonate were best for the extraction of low-molecular aromatics from benzene fractions. Because of great difference between the boiling points of these solvents and crudes, they are regenerated easily by distillation. Their properties are superior to those of the popular selective solvent DEG. Orig. art. has: 1 table and 6 figures.

ASSOCIATION: UNI

Card 2/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702



L 53785-65
ACCESSION NR: AP5011946

SUBMITTED: 00 ENCL: 00 SUB CODE: FP

NO REF SOV: 003 OTHER: 004

Card 3/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

BIKKULOV, A.Z.; POPOV, V.A.; GROSHEV, B.M.

Selective solvents for extracting aromatic hydrocarbons from gasoline fractions. Neftepер. i neftekhim. no.6:33-34 '65. (MIRA 18:7)

1. Ufimskiy neftyanoy institut.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

BIKKULOV, A.Z.; GROSHEV, B.M.; POPOV, V.A.

Comparison of selective solvents. Izv. vys. ucheb. zav.; neft' i gaz 8 no.6:67-72 '65. (MIRA 18:7)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 28958-66 EWT(m)/T WE

ACC NR: AP6019085 SOURCE CODE: UR/0152/65/000/007/0059/0061

AUTHOR: Bikkulov, A. Z.; Groshev, B. M.; Popov, V. A.

ORG: Ufa Petroleum Institute (Ufimskiy neftyanoy institut)

TITLE: Selective solvents for middle petroleum distillates

SOURCE: IVUZ. Neft' i gaz, no. 7, 1965, 59-61

TOPIC TAGS: fractional distillation, petroleum refining, nitromethane, solvent extraction

ABSTRACT: Fifteen compounds were studied as possible selective solvents for extractive separation of middle distillates. It was shown that the most suitable selective solvents for middle distillates include dimethylformamide and furfurol, exhibiting at operating temperatures quite high dissolving and selective capacity. They can also be regenerated fairly easily. Sulfolan, propylene carbonate, and ethylene carbonate can be used in the extraction of the middle distillates. However, in view of the high boiling points, these solvents require special regeneration methods. Use of nitromethane and acetonitrile with sufficient temperature coefficients and satisfactory dissolving and selective capacity, can be used to prevent boiling of solvents at elevated pressures in the extraction equipment. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 11, 07 / SUBM DATE: 01Aug64 / ORIG REF: 007

Card 1/1 BLG

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

EXCERPTA MEDICA Sec. 6 Vol. 11/7 July 57

GROSHEV, D.M.

4141. GROSCHOV D.M. Inst. Centr. d'Hématol. et de Transf. Sang., Moscow. *La splénectomie au cours de l'anémie hémolytique. Splenectomy during haemolytic anaemia SANG 1956, 27/3 (232-241) Graphs 4

Experience in 25 patients shows that in intracellular haemolysis splenectomy is indicated. There is, however, a contraindication in haemolytic anaemias which are predominantly based on intravascular haemolysis. Repeated infusions of plasma of 40 to 100 ml. have a good effect, both preoperatively and postoperatively. In difficult cases, infusions of erythrocytes or whole blood are given. In the majority of cases, splenectomy under local anaesthesia with procaine is to be preferred. It has proved advantageous at operation to examine the gallbladder and remove it immediately if it contains stones, since a high percentage of patients with congenital haemolytic anaemia have gallstones. The postoperative course in congenital haemolytic anaemia is very favourable. However, in acquired haemolytic anaemias the results vary widely, so that success after splenectomy is not always assured. Here also, infusions of plasma, erythrocytes or whole blood may tide over a critical phase. Perlick - Magdeburg (VI, 9)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, G.

Reinforcing cinder block press forms. Stroi.mat.izdel. i konstr. 1 no.4:20 Ap'55. (MLRA 8:10)

1. Mekhanik shlakoblochnogo tsekha zavoda Novosibirskogo stroitel'stva No.30
(Cinder blocks)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, G.G.

Conditions of bedding and some problems in the formation of gas and oil pools of the Ekhabi field. Trudy VNIGRI no.181:180-190 '61. (MIRA 15:2)

(Ekhabi region--Petroleum geology)
(Ekhabi region--Gas, Natural--Geology)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

YEVDOKIMOVA, T.I.; GROSHEV, G.G.

Distribution of oil pools along the stratigraphic cross section in the Eastern Ekhabi field. Trudy VNIGRI no.224:102-108 '63.
(MIRA 17:2)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, G.L.

Interaction of metallic aluminum with hydrogen chloride in fused salts. Trudy po khim.i khim.tekh. no.1:64-74 '64.

Effect of a cation of salt in the system MCl - $AlCl_3$ and of additions of some metal chlorides on the reaction rate of metallic Al with HCl in fused salts. Ibid.:75-80 (MIRA 18:12)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, G.L.; YURLOVA, Z.I.

Chlorination of kaolin in fused chlorides. Trudy po khim.i khim.tekh. no.1:81-89 '64. (MIRA 18:12)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, I.

A trolley bus driver acts as an excursion guide. Sov. profsoiuzy 17 no.21:43-44 N '61. (MIRA 14:10)
(Moscow--Motorbus drivers)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, I.A., inzh.; IL'IN, E.I., inzh.; RABINOVICH, G.A., inzh.; SITKOVSKIY, A.Ya., inzh.; TSIBULEVSKIY, A.I., inzh.

Automatic conveyor line. Mekh. i avtom. proizv. 17 no.5:5-6 My '63. (MIRA 16:6)

(Balaklava—Conveying machinery)
(Electronic control)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

3447
S/109/62/007/002/022/024
D256/D303

26.2253
26.1140

AUTHORS: Morgulis, N.D., Levitskiy, S.M., and Groshev, I.N.

TITLE: Current oscillations in the system of a thermo-electronic energy converter with cesium vapor

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 2, 1962, 352 - 353

TEXT: The experimental cesium-vapor tube contained a Ta-tape cathode and a similar anode covered with a layer of cesium and provided with additional screening electrodes, the distance between the anode and the cathode being adjustable. The following parameters were varied during the investigation: The temperature of the cathode T_k, the saturation temperature of the cesium vapor t and the distance between the electrodes d. It was found that for a given d there are two discrete regions where oscillations exist, these are shown on a $t - T_k$ diagram. In the low T_k regions the oscillations are almost purely sinusoidal with a frequency ranging from 20 to 160 kcs/sec.

Card (1/2)

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In the second region of oscillations with higher T_k the oscillations were non-sinusoidal and their frequency was in the range of 1000 kcs/sec, the output power of the oscillations at this region being appreciable. The output power was investigated for both a.c. and d.c. as a function of the load resistance with the remaining parameters fixed at the following values: T_k = 2450°K; t = 120°C; d = 1 mm, and 3.6 and 0.9 watt/cm^2 maximum values of the output power were observed for d.c. and a.c. respectively, the corresponding voltages being 1.9 and 0.9 V. The respective efficiency of the converter for d.c. and a.c. was estimated to be $\eta_1 \geqslant 5$ %, $\eta_2 \geqslant 1$ %. There are 3 figures and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: R. Fox and W. Gust, Bul. Amer. Phys. Soc., 1960, 5, 80; Electronics 1960, 33, 5, 78.

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

SUBMITTED: July 3, 1961

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

37194
S/185/62/007/004/018/018
D407/D301

26.2132
26.2132
AUTHORS: Korchevyy, Yu. P., and Broshev, I. M.

TITLE: On the characteristics of a thermoelectronic energy-converter with metallic-caesium cathodes and small electrode gap

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 4, 1962, 447-448

TEXT: The characteristics of an experimental energy-converter with metallic-caesium cathodes are described; the results given are preliminary. The distance d between the electrodes could be altered within wide limits. A figure shows the isobars of electronic emission (i.e., the short-circuit current I_0) without an additional ionizer, at a pressure p = 1.0 - 3.6 mm Hg, d = 0.1 mm. Owing to the neutralization of the electronic space-charge by caesium ions, it is possible to obtain large

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

On the characteristics...

values of I_0 (e.g., $I_0 = 7$ amp/cm^2 at a chamber-temperature $t_b = 330^\circ$C and cathode temperature $T_c = 2150^\circ$K). Another figure shows the current-voltage characteristics of emission. From the characteristics, it is evident that useful energy-conversion power $W = 6.5$ watt/cm^2 can be obtained with an optimal output-voltage $V \approx 1.1$ volt; a qualitative estimate of the efficiency factor yielded $\eta \lesssim 9\%$. If a molybdenum cathode is used, one obtains $I_0 = 30$ amp/cm^2, $W = 12.5$ watt/cm^2, $V = 1.0$ volt (with $T_c = 2400^\circ$K, and $t_b = 360^\circ$C). All these values are quite satisfactory, but the authors hope to obtain still better results. The dependences

$$\lg \frac{I_0 - I}{I} = f(V) ,$$

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

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D407/D301

On the characteristics...

constructed by the method of E. Carabateas et al. (see references), are two straight lines. The electron temperature T_e of the interelectrode plasma was estimated by the slope of these lines. T_e was equal to 2900°K for the first straight line (Ta cathode, t_b = 330°C), and 5500°K for the second (Mo cathode, t_b = 360°C). There are 3 figures and 5 references: 2 Soviet-bloc and 3 non-Soviet-bloc. The references to the English-language publications read as follows: R. Hirsch, J. Appl. Phys., 31, 2064, 1960; E. Carabateas, S. Pezaris and G. Hatsopoulos, J. Appl. Phys., 32, 352, 1961; F. Mohler, J. Res. Bur. Stand., 21, 873, 1938.

ASSOCIATION: Kyyivs'kyy derzhuniversytet im. T. H. Shevcheka (Kyyiv State University im. T. H. Shevchenko)

SUBMITTED: December 30, 1961

Card 3/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

S/185/62/007/005/013/013
D407/D301

AUTHORS: Kucherenko, Ye.T., and Hroshev, I.M.

TITLE: Investigating energy spectrum of the canal rays of anomalous glow-discharge

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 5, 1962, 566 - 569

TEXT: The presence of fine-structure in the energy spectrum of canal rays was observed by Ye.T. Kucherenko and S.A. Fedorus (Ref. 2: Radiotekhnika i elektronika, 4, 1233, 1959). In the present work, the fine-structure is further investigated, with the purpose of determining a quantitative relationship between the fine-structure and certain parameters of anomalous glow-discharge. The energy-spectrum of the canal rays was investigated by the cylindrical-capacitor method. The electrical measuring-circuit is shown in a figure. The discharge-chamber was of glass with a tantalum cathode and a mobile nickel-anode. In developing the experimental procedure, the first measurements were conducted with the discharge in an air atmosphere. Analogous measurements were conducted in argon, and in a kyrpton-

Card 1/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

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D407/D301

Investigating energy spectrum of ...

neon mixture. The dependence of the collector current on the ion energy is plotted. A study of the dependence of the magnitude of the energy-distribution peak on the conditions of anomalous glow-discharge, showed that the determining parameter is the discharge current I_d. The relative magnitude of the peak increases sharply with I_d; the converse is also true. On the other hand, the cathode voltage U_c has no appreciable effect on the relative magnitude of the peak. The presence of a pronounced peak in the energy distribution of canal rays, is an indication of the probability of ion passage through the entire cathode space without considerable energy-losses through collisions. The presence of fast ions in the spectrum of canal rays of anomalous glow-discharge, is an established fact. This is related to the increase in the magnitude of the peak (with increasing I_d). There are 4 figures and 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc, (including 1 translation).

ASSOCIATION: Kyyivs'kyy derzhuniversytet im. T.H. Shevchenka (Kyyiv State University im. T.H. Shevchenko)

SUBMITTED: January 30, 1962

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, I. N.
AID Nr. 979-9 29 May

OSCILLATIONS IN A CESIUM-VAPOR DIODE (USSR)

Levitskiy, S. M., and I. N. Groshev. Radiotekhnika i elektronika, v. 8, no. 4, Apr 1963, 612-618. S/109/63/008/004/009/030

Plate-current oscillations in a diode filled with cesium vapor were investigated by means of an experimental tube operated at various values of vapor pressure, cathode heating, and anode voltage. The cathode was a thin, 1-mm wide tantalum strip, while the anode was formed by tantalum plates placed on both sides of the strip, which could be simultaneously adjusted either closer or farther apart, thus changing the distance from plate to cathode from 0.7 to 10 mm. The tube was placed in a thermostat whose temperature could be regulated from 20 to 300°C. Either a resistance directly connected in the plate current, or one coupled to it through an hf transformer, served as the load. Results of the investigations confirm the existence of two modes of oscillation: mode I corresponds to high pressure and low cathode temperature, and mode II corresponds to low pressure and high cathode temperature. Mode I oscillations are of low intensity and have a

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OSCILLATIONS [Cont'd] S/109/63/008/004/009/030

frequency of the order of 1 to 20 kc and a waveform close to sinusoidal. In mode II, the mode principally discussed, oscillations are very intense, have a frequency of the order of 100 to 1000 kc, and may have a waveform quite different from the sinusoidal. In mode II oscillation the amplitude decreases with a drop in cathode temperature and ceases abruptly at a critical lower boundary temperature. At a cathode temperature of about 2000°K, the oscillation frequency varies at first only slightly, but on approaching the lower boundary it suddenly increases almost twofold. Moreover, mode II oscillation intensity decreases as anode voltage is reduced to zero and then to negative values, and disappears at some critical negative potential. Oscillations disappear also at excessive positive potentials. This positive potential limit was found to vary directly with the cathode-anode spacing, and also directly with increased cathode temperature. From the analysis of test results it is concluded that the oscillatory condition is linked to the bunching action of gas ions in the interelectrode space. Measurements with an ion probe support this view. [DW]

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

ACCESSION NR: AP4009985 S/0109/64/009/001/0132/0137

AUTHOR: Levitskiy, S. M.; Greshov, L. N.

TITLE: Oscillatory phenomena in cesium-vapor-filled diodes

SOURCE: Radiotekhnika i elektronika, v. 9, no. 1, 1964, 132-137

TOPIC TAGS: cesium diode, cesium vapor filled diode, cesium tube oscillator, cesium tube oscillator phenomena, frequency pulling, frequency locking, diode synchronization

ABSTRACT: An experimental study of frequency pulling, locking, parallel operation, and maximum power of oscillations set up in a cesium-vapor-filled diode is reported. The frequency pulling was measured at 200-300 kc and 2,300K temperature of the cathode, with the diode operating under intermittent (50 cps) generation conditions. A GSS-6 oscillator was used as a source of oscillations in the locking experiments; the locking range was observed as wide as 20%.

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ACCESSION NR: AP4009985

Parallel operation and synchronization were investigated in a scheme comprising two identical cesium diodes; frequency vs. coupling and total output power vs. load resistance curves are reported. A-c power and the efficiency of thermal-to-electric energy conversion constitute only a part of the d-c values which could have been obtained from the same diode under nonoscillatory conditions. "In conclusion, we wish to thank N. D. Morgulis for his constant interest in the work, his valuable advice and suggestions." Orig. art. has: 6 figures and 1 formula.

ASSOCIATION: none

SUBMITTED: 11Dec62 DATE ACQ: 10Feb64 ENCL: 00

SUB CODE: GE NO REF SOV: 005 OTHER: 006

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 01177-66 EWT(1)/EWA(m)-2/EPA(w)-2 IJP(c) AT

ACCESSION NR: AP5017674 UR/0109/65/010/007/1346/1348
539.124.175

AUTHOR: Groshev, I. N. 44,55

TITLE: Transient and Cerenkov radiation of electron "leaves" 21,44,55

SOURCE: Radiotekhnika i elektronika, v. 10, no. 7, 1965, 1346-1348

TOPIC TAGS: transient radiation, Cerenkov radiation

ABSTRACT: Approximate formulas for the directional pattern and the radiated power are developed. They are intended for designing the devices that produce coherent radiation by using the phenomenon of de-excitation of electron "leaves". Orig. art. has: 1 figure and 10 formulas.

ASSOCIATION: none

SUBMITTED: 14Sep64 ENCL: 00 SUB CODE: [redacted]

NO REF SOV: 003 OTHER: 001

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APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 01176-66 EWT(1)/EPA(w)-2/EWA(m)-2 IJP(c) AT

ACCESSION NR: AP5017675 UR/0109/65/010/007/1348/1349
539.124.18.03

AUTHOR: Groshev, I. N. 44,55 36 B

TITLE: Generation of electron "leaves" 21,44,55

SOURCE: Radiotekhnika i elektronika, v. 10, no. 7, 1965, 1348-1349

TOPIC TAGS: electron "leaf"

ABSTRACT: Interaction is explained between a uniform r-f field and a ribbon electron beam which can produce coherent radiation by means of electron "leaves". The coherent radiation occurs when $\delta \ll \lambda$, where δ is the beam thickness and λ is the radiation wavelength. Equations determining sufficiently thin electron "leaves" with high current densities in them are set up. Orig. art. has: 3 figures and 7 formulas.

ASSOCIATION: none

SUBMITTED: 14Sep64 ENCL: 00 SUB CODE: NP, EC

NO REF SOV: 002 OTHER: 000

KC

Card 1/1

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

TERLIKOV, V.A., kand.tekhn.nauk; GROSHEV, L.M., inzh.

Study of stresses in the components and systems of agricultural machinery under field conditions. Trakt. i sel'khozmash. 32 no.6:30-31 Je '62. (MIRA 15:6)
(Agricultural machinery--Testing)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, L.M.

Results of testing the supporting structure of the SK-4 combine for stability. Trakt. i sel'khozmash. no.2:24-25 F '64. (MIRA 17:3)

1. Rostovskiy na Donu institut sel'skokhozyaystvennogo mashinostroyeniya.

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L 24486-65 EWT(1)/EEC(t)-2/EWA(h) Peb

ACCESSION NR: AP5006042 S/0141/64/007/006/1217/1222 25 23 B

AUTHOR: Groshkov, L. M.

TITLE: Experimental investigation of the space charge in a cylindrical magnetron in the static mode

SOURCE: IVUZ. Radiofizika, v. 7, no. 6, 1964, 1217-1222

TOPIC TAGS: cylindrical magnetron, space charge, electron cloud, electron trajectory, magnetron, electron optical ranging

ABSTRACT: This is a continuation of earlier work by the author (with M. I. Kuznetsov, Izv. vyssh. uch. zav. -- Radiofizika v. 4, 1104, 1961) where it was shown that the electron trajectories in the lower part of the electron cloud of a magnetron are closed loops. In the present investigation the author studied experimentally the space charge in the upper part of the electron cloud of the magnetron using the same method of electron-optical ranging. To this end, a second longitudinal ranging electron beam is introduced into the magnetron at some distance from the cathode. The deflection of this beam in the field (in the direct vicinity of the peak of the first loop and above it), observed on a fluorescent screen,

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ACCESSION NR: AP5006042

makes it possible to determine the characteristics of this field, and in particular the potential distribution. The experiment was carried out with a special dismountable tube with two longitudinal ranging beams, having a construction similar to that described in the earlier paper, except that two pairs of metallic rings are incorporated to permit setting the potential on the edges of the magnetron, in addition to the supplementary equipment necessary to shape the second ranging beam. The accuracy of the experiments was estimated at better than 5%. The experimental traces obtained on the fluorescent screen were compared with the theoretical curves, calculated under the assumption that the space charge corresponds to single-flow (Brillouin) state, double-flow state, and bidromic state. The experimental trace was most closely approximated by the bidromic theoretical curve. Since the presence of a bidromic state implies the existence of a virtual cathode inside the electron cloud, tests were made to see whether the sharpness of the trace on the screen can be varied by varying the position of this virtual cathode. Tests at different anode voltages and with a different tube construction have confirmed the presence of the virtual cathode at the center of the electron cloud of the magnetron. "The author thanks M. I. Kuznetsov for continuous interest in the work and for valuable advice." Orig. art. has: 2 figures, 2 formulas, and 2 tables. [02]

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

L 34486-65

ACCESSION NR: AP5006042

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute at Gor'kiy University)

SUBMITTED: 17Jan64 ENCL: 00 SUB CODE: NP

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Card 3/3

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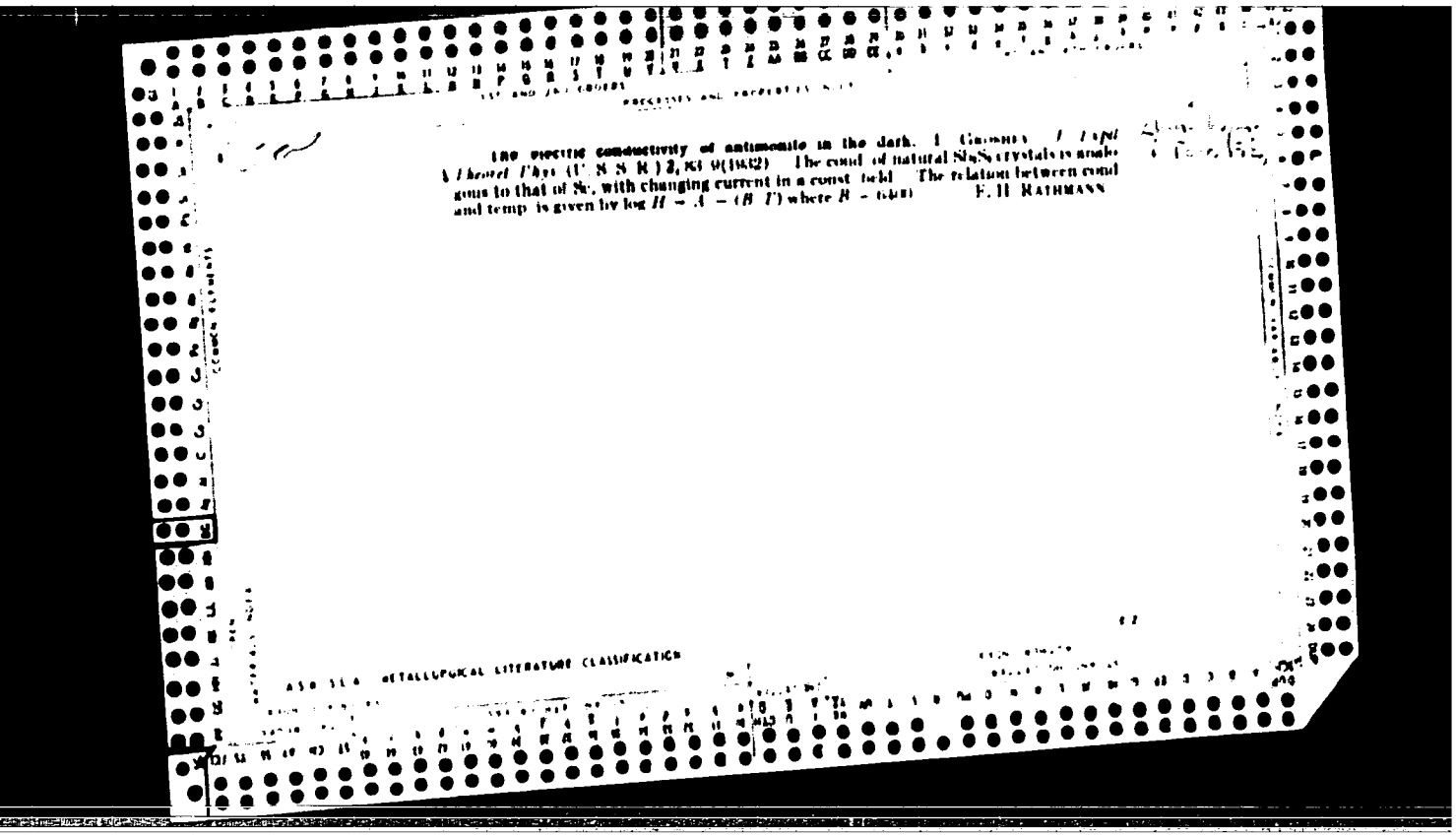

PROCESSES AND PROPERTIES INDEX

The electric conductivity of antimonite in the dark. I. Gromov. *J. Exptl. & Theoret. Phys.* (U. S. S. R.) 2, 83-9(1932). The cond. of natural Sb_2S_3 crystals is analogous to that of Se, with changing current in a const. field. The relation between cond. and temp. is given by $\log H = A - (B/T)$ where $B = 6400$. F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051702

GROSHEV, L. V.,

"Some Information on the Secondary Electron Emission From Potassium Surfaces," Zhurnal Tekhnicheskoi Fiziki, 1934, Vol. 4, pp 303-307.

The secondary electron emission from several potassium surfaces of different structures and from potassium hydride has been measured; it varies with the different potassium surfaces, and from potassium hydride is nearly the same as from pure potassium, though the photo-electric current increases 15 times.

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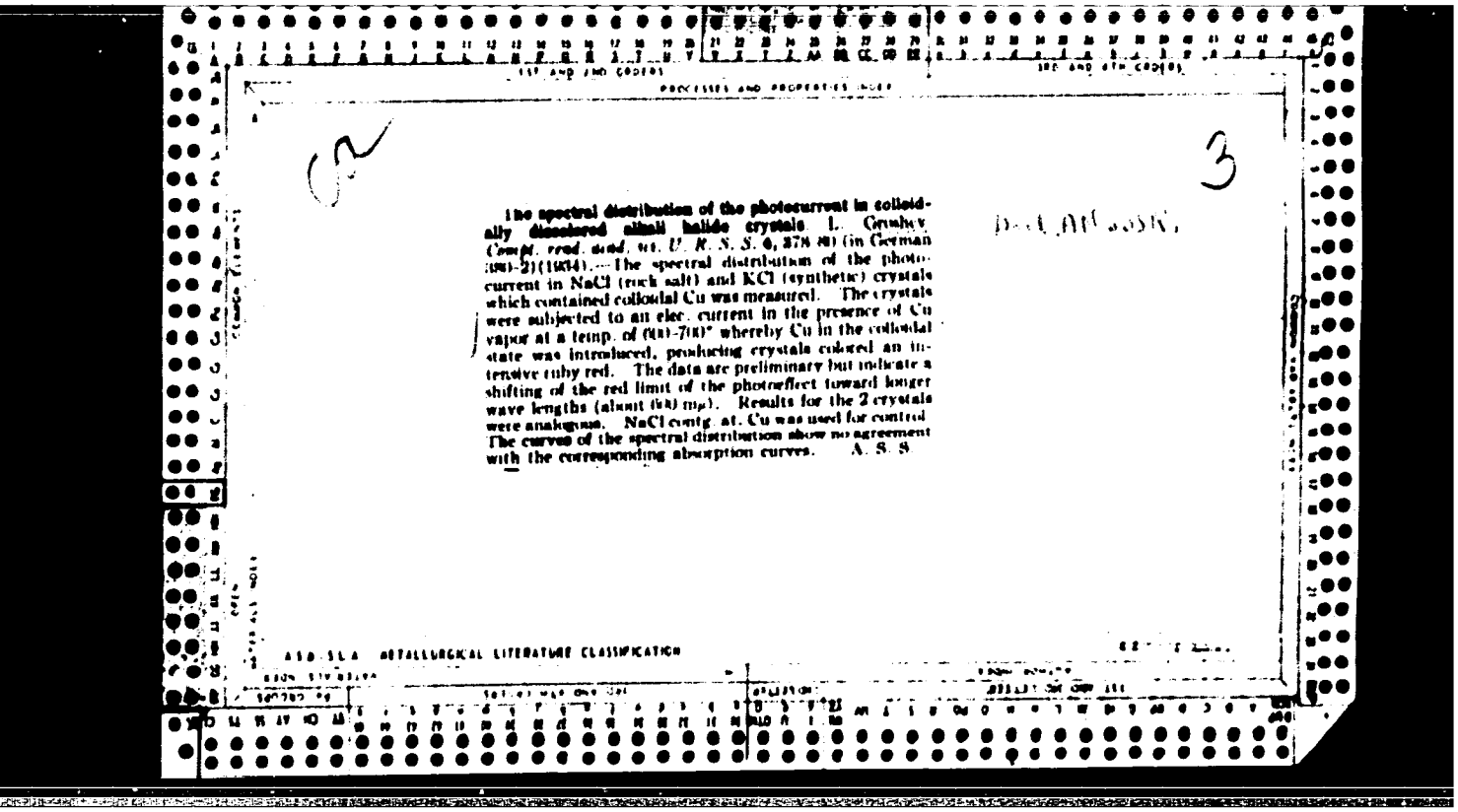

The spectral distribution of the photocurrent in colloidally discolored alkali halide crystals. I. Grushev. *Compt. rend. acad. sci. U. R. S. S.* 6, 278-80 (in German 280-2)(1934).—The spectral distribution of the photocurrent in NaCl (rock salt) and KCl (synthetic) crystals which contained colloidal Cu was measured. The crystals were subjected to an elec. current in the presence of Cu vapor at a temp. of (600-700)° whereby Cu in the colloidal state was introduced, producing crystals colored an intensive ruby red. The data are preliminary but indicate a shifting of the red limit of the photoeffect toward longer wave lengths (about 600 mμ). Results for the 2 crystals were analogous. NaCl contg. at. Cu was used for control. The curves of the spectral distribution show no agreement with the corresponding absorption curves. A. S. S.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION

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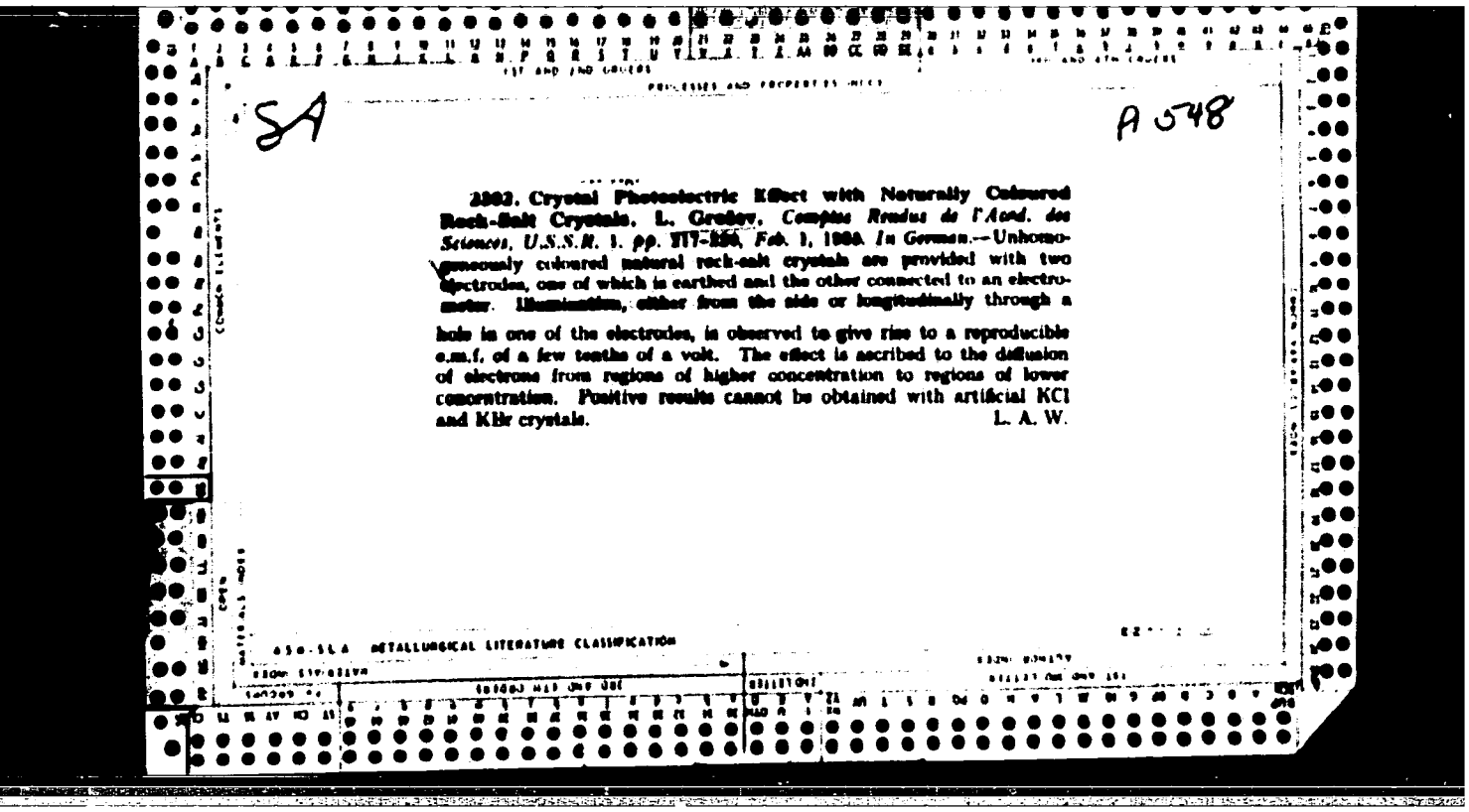

SA

A 548

2982. **Crystal Photoelectric Effect with Naturally Coloured Rock-Salt Crystals.** L. Grodzov. *Comptes Rendus de l'Acad. des Sciences, U.S.S.R.* 1. *pp.* 117–120, *Feb.* 1, 1936. *In German.*—Unhomogeneously coloured natural rock-salt crystals are provided with two electrodes, one of which is earthed and the other connected to an electrometer. Illumination, either from the side or longitudinally through a hole in one of the electrodes, is observed to give rise to a reproducible e.m.f. of a few tenths of a volt. The effect is ascribed to the diffusion of electrons from regions of higher concentration to regions of lower concentration. Positive results cannot be obtained with artificial KCl and KBr crystals. L. A. W.

656-SLA METALLURGICAL LITERATURE CLASSIFICATION

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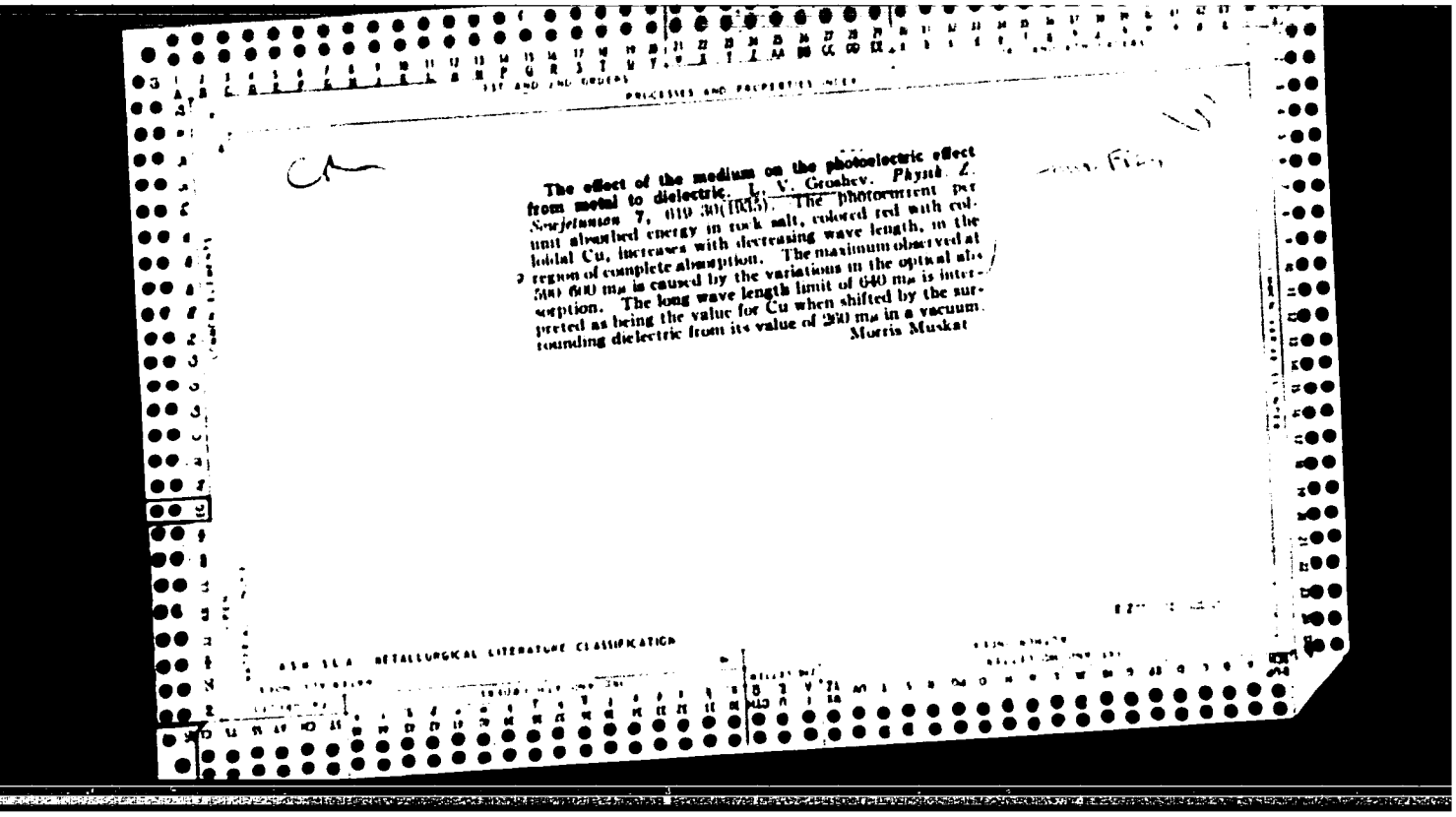

The effect of the medium on the photoelectric effect from metal to dielectric. L. V. Groshev. *Physik. Z. Sowjetunion* 7, 610-30 (1935). The photocurrent per unit absorbed energy in rock salt, colored red with colloidal Cu, increases with decreasing wave length, in the region of complete absorption. The maximum observed at 580-600 mμ is caused by the variations in the optical absorption. The long wave length limit of 640 mμ is interpreted as being the value for Cu when shifted by the surrounding dielectric from its value of 290 mμ in a vacuum.
Morris Muskat

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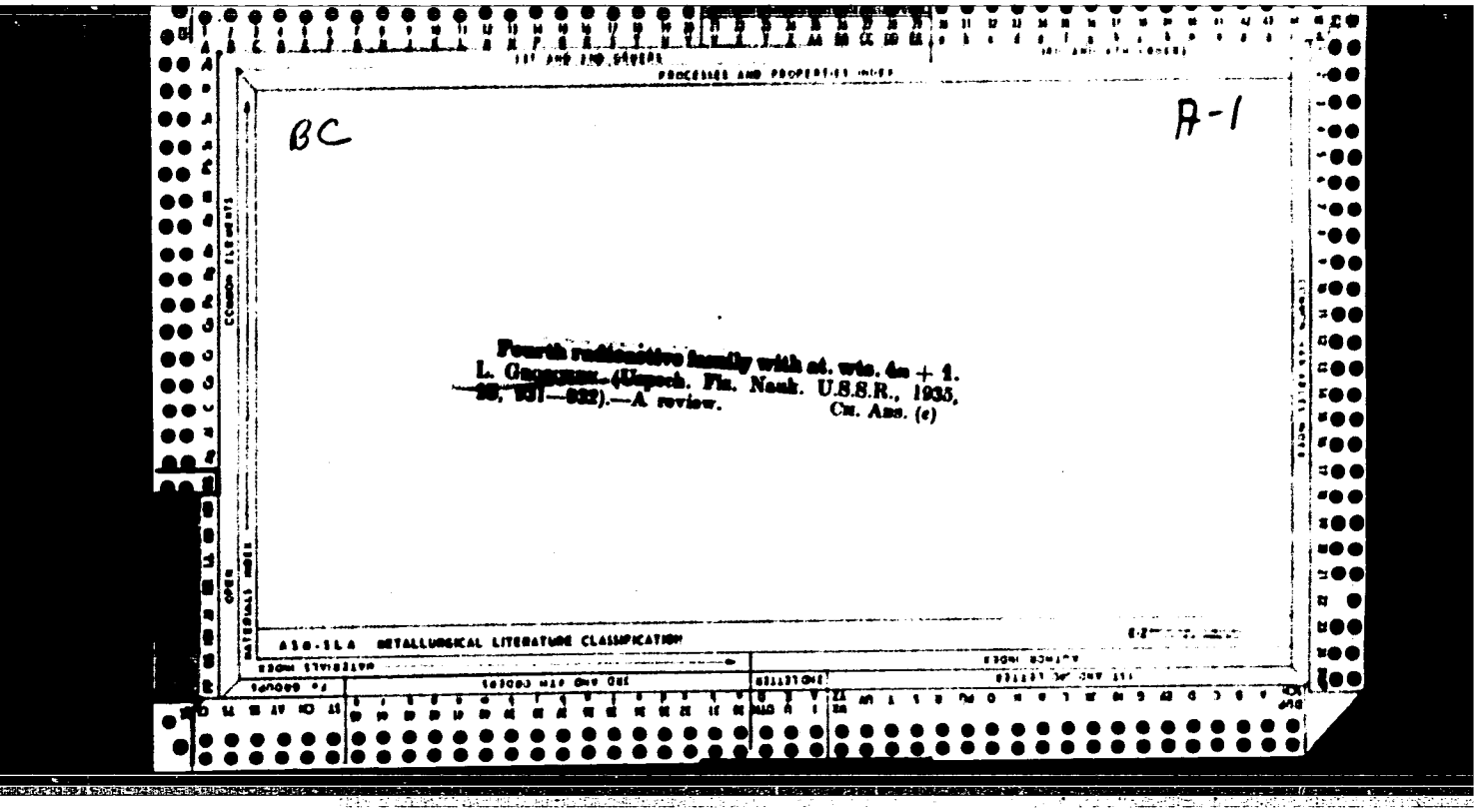

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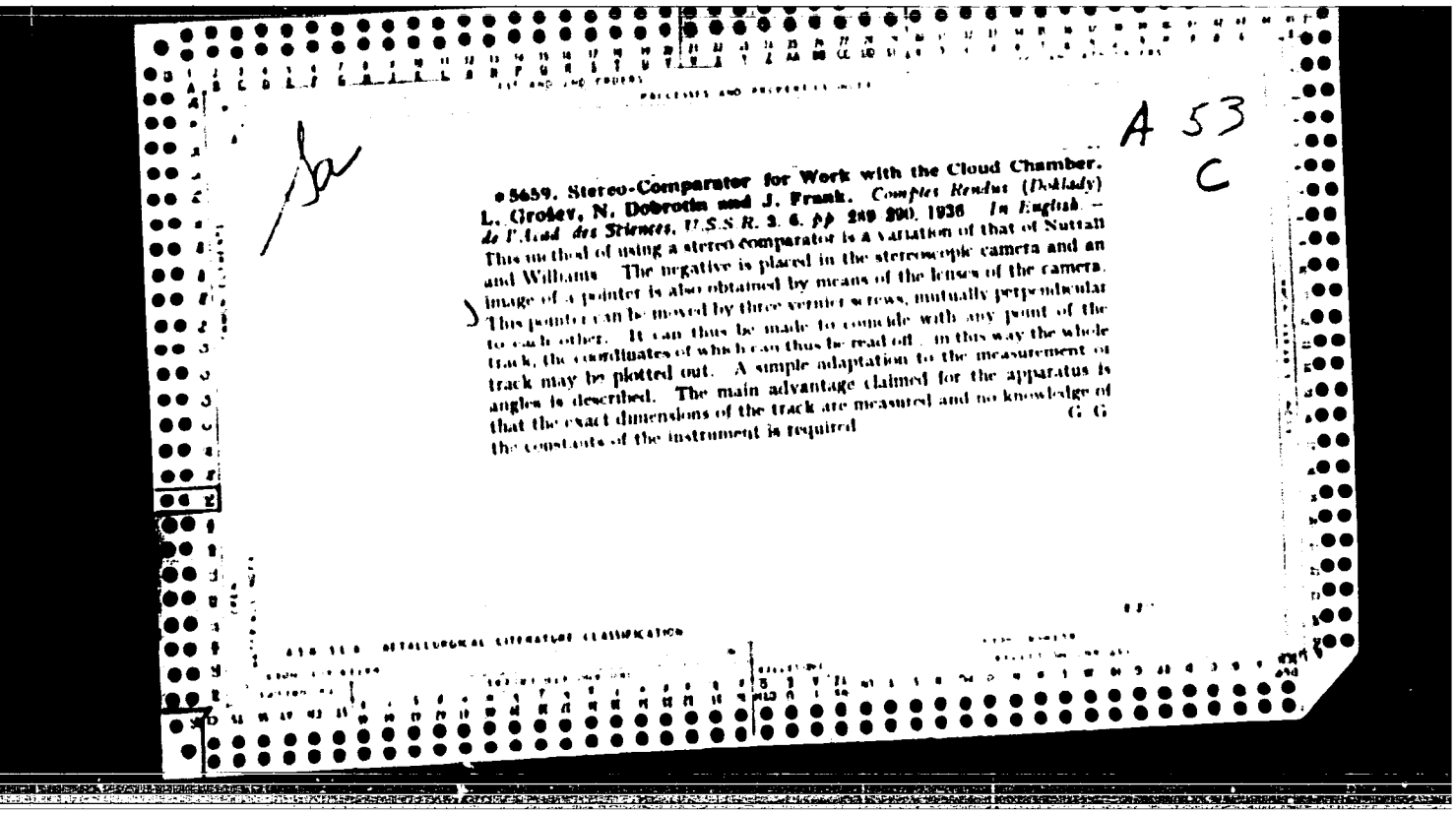

A 53
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• 5659. **Stereo-Comparator for Work with the Cloud Chamber.** *Comptes Rendus (Doklady) de l'Acad des Sciences, U.S.S.R.* 3. 6. pp 289 290. 1936 *In English.* — L. Grodev, N. Dobrotin and J. Frank.

This method of using a stereo-comparator is a variation of that of Nuttall and Williams. The negative is placed in the stereoscopic camera and an image of a pointer is also obtained by means of the lenses of the camera. This pointer can be moved by three vernier screws, mutually perpendicular to each other. It can thus be made to coincide with any point of the track, the coordinates of which can thus be read off; in this way the whole track may be plotted out. A simple adaptation to the measurement of angles is described. The main advantage claimed for the apparatus is that the exact dimensions of the track are measured and no knowledge of the constants of the instrument is required.

G. G.

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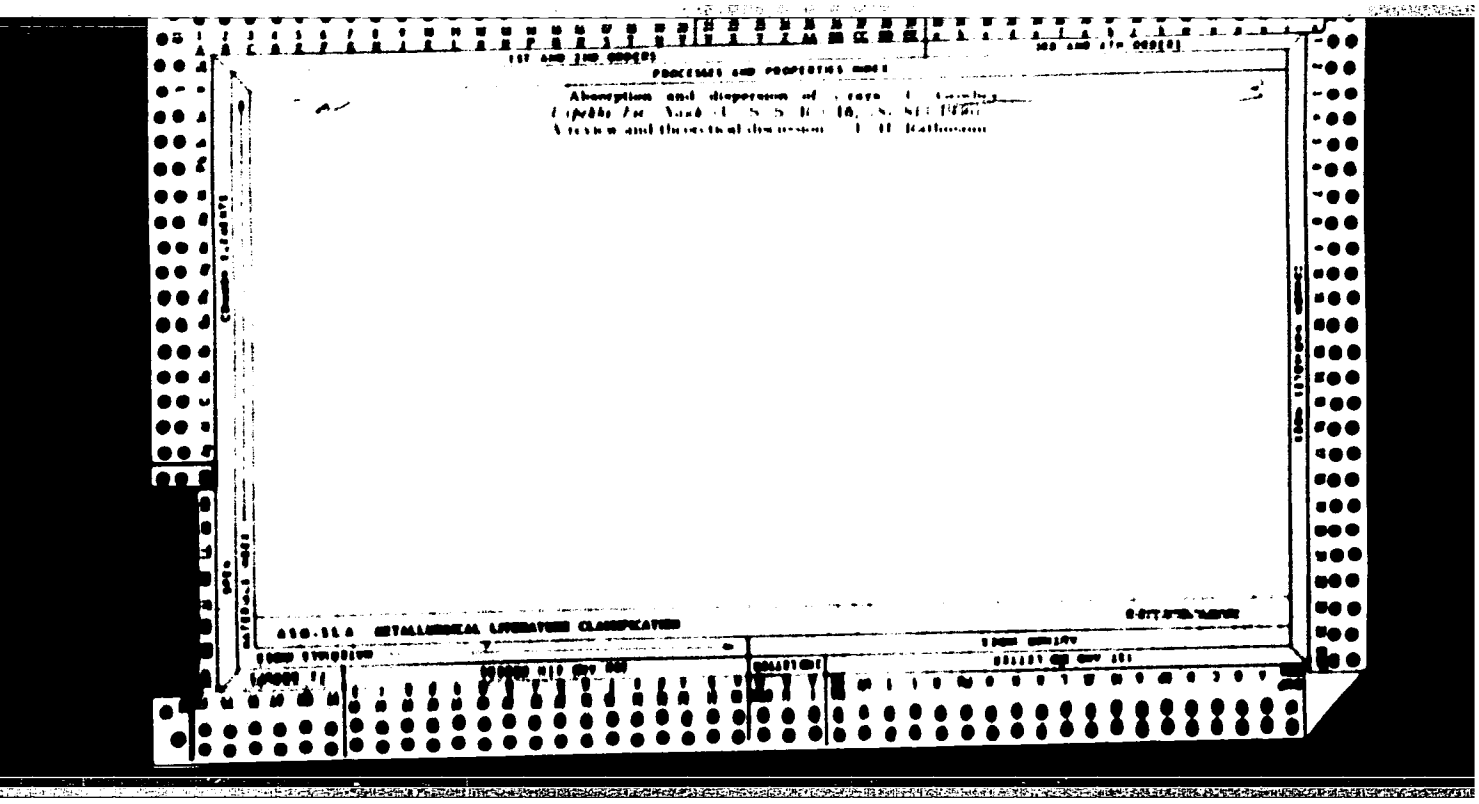

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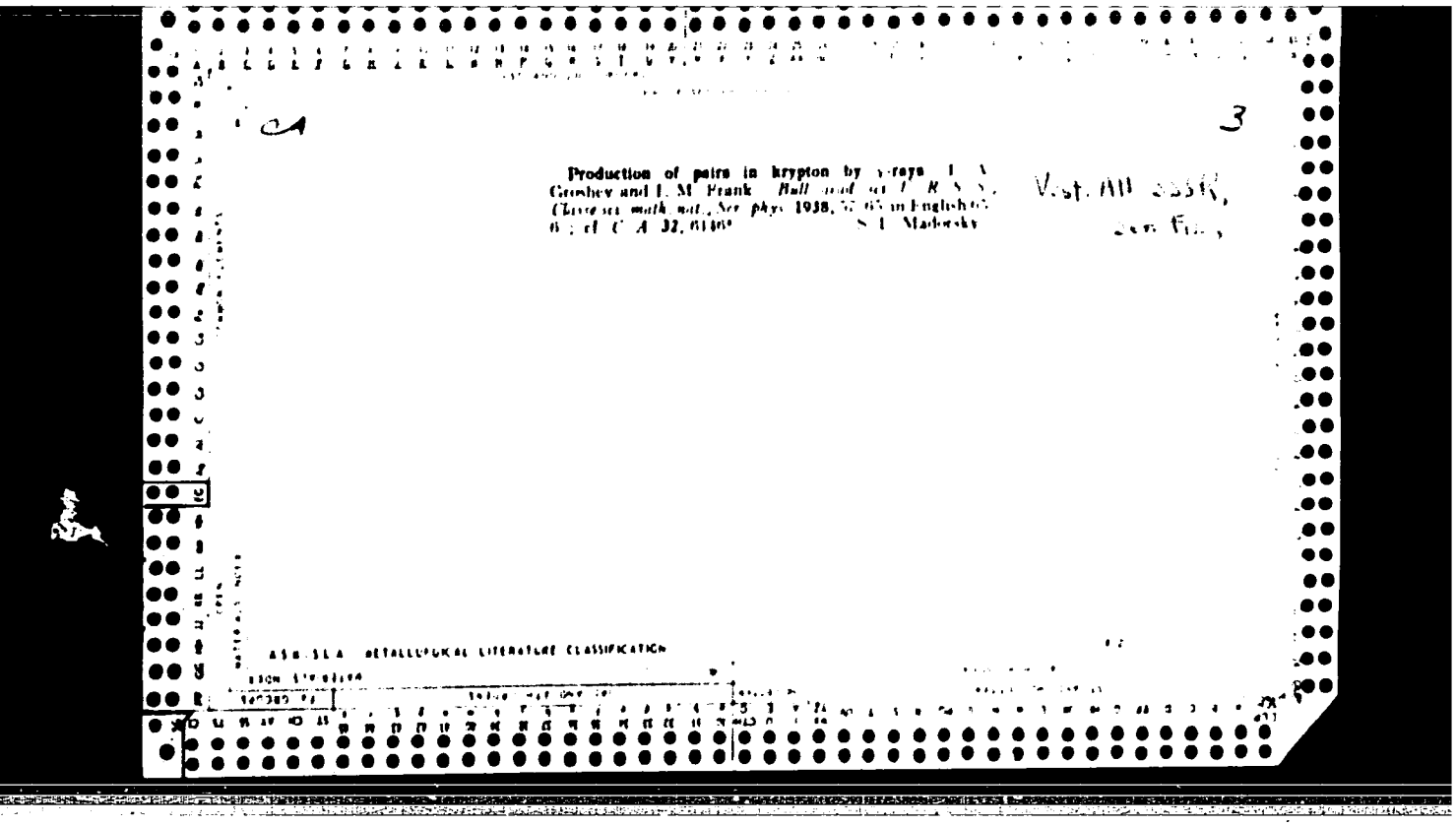

Production of pairs in krypton by γ-rays. I. A. Groshev and I. M. Frank. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Ser. phys.* 1938, 57-65 in English 65-6; cf. *C. A.* 32, 6146[6]. S. I. Madorsky

Vest. All SSSR, Ser. Fiz.,

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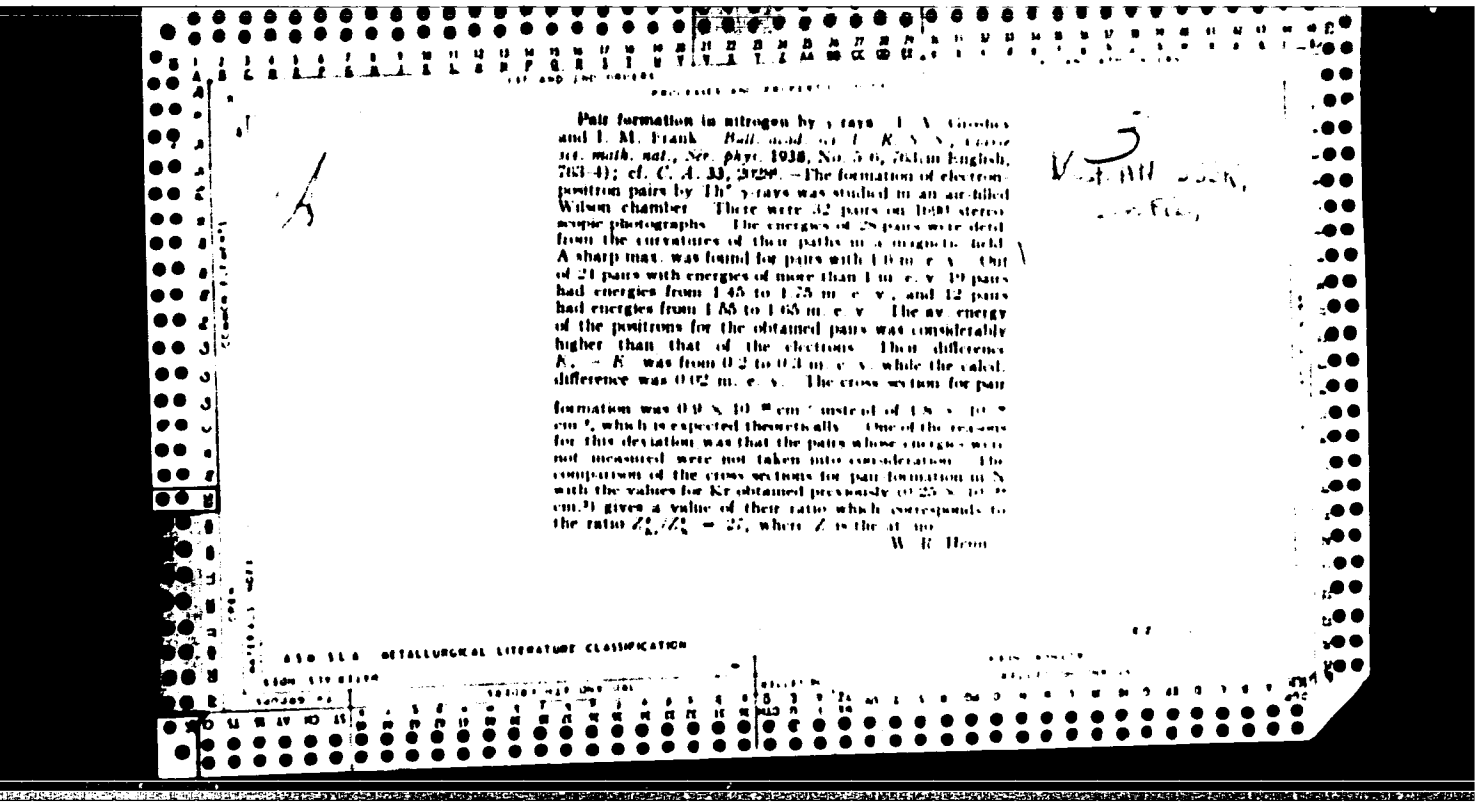

Pair formation in nitrogen by γ rays. I. V. Grosheva and I. M. Frank. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. phys.* **1938**, No. 5-6, 763(in English, 763-4); cf. *C. A.* **33**, 2029[illegible]. —The formation of electron-positron pairs by $Th^{\prime}$ γ-rays was studied in an air-filled Wilson chamber. There were 32 pairs on 1600 stereoscopic photographs. The energies of 28 pairs were detd. from the curvatures of their paths in a magnetic field. A sharp max. was found for pairs with 1.0 m. e. v. Out of 24 pairs with energies of more than 1 m. e. v. 19 pairs had energies from 1.45 to 1.75 m. e. v., and 12 pairs had energies from 1.55 to 1.65 m. e. v. The av. energy of the positrons for the obtained pairs was considerably higher than that of the electrons. Their difference $E_{+} - E_{-}$ was from 0.2 to 0.3 m. e. v. while the calcd. difference was 0.02 m. e. v. The cross section for pair formation was $0.9 \times 10^{-[illegible]}$ cm.^{2} instead of $1.8 \times 10^{-[illegible]}$ cm.^{2}, which is expected theoretically. One of the reasons for this deviation was that the pairs whose energies were not measured were not taken into consideration. The comparison of the cross sections for pair formation in N with the values for Kr obtained previously ($0.25 \times 10^{-[illegible]}$ cm.^{2}) gives a value of their ratio which corresponds to the ratio $Z^2_{Kr}/Z^2_{N} = 27$, where Z is the at. no.

W. R. Heim

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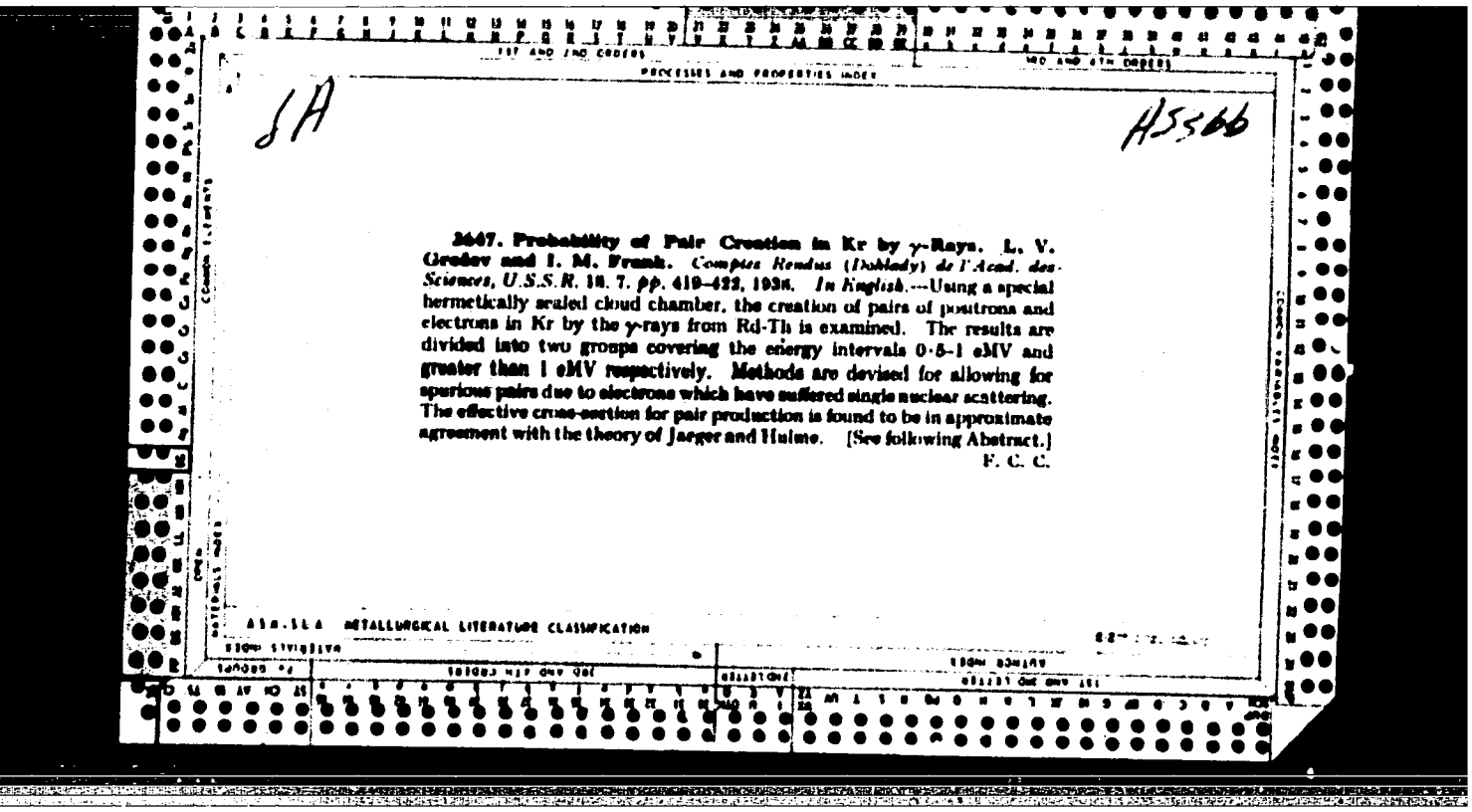

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H5566

3647. Probability of Pair Creation in Kr by γ-Rays. L. V. Groshev and I. M. Frank. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 18. 7. *pp.* 419–422, 1938. *In English.*—Using a special hermetically sealed cloud chamber, the creation of pairs of positrons and electrons in Kr by the γ-rays from Rd-Th is examined. The results are divided into two groups covering the energy intervals 0·5–1 eMV and greater than 1 eMV respectively. Methods are devised for allowing for spurious pairs due to electrons which have suffered single nuclear scattering. The effective cross-section for pair production is found to be in approximate agreement with the theory of Jaeger and Hulme. [See following Abstract.]
F. C. C.

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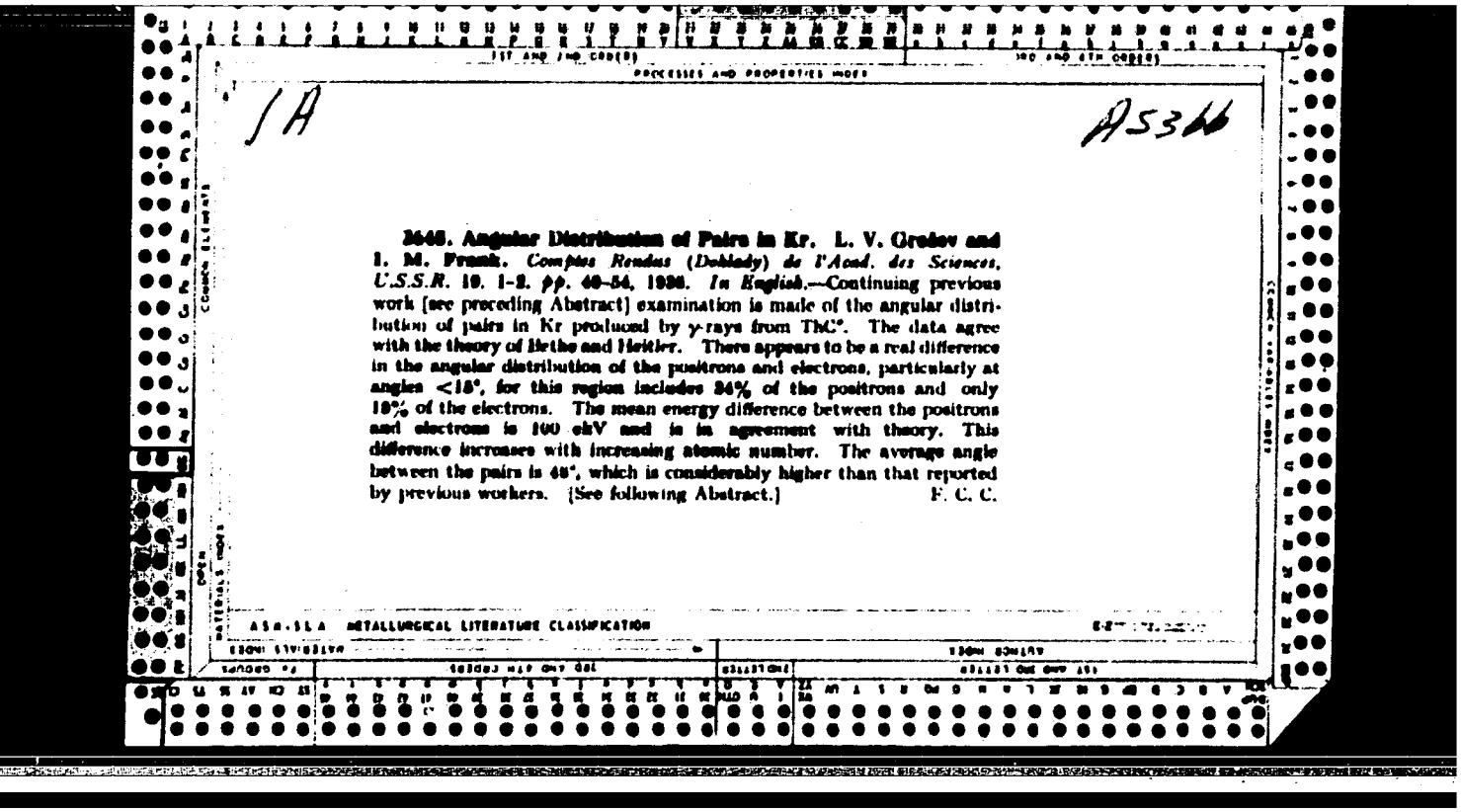

1A

A5346

3648. Angular Distribution of Pairs in Kr. L. V. Grodev and I. M. Frank. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 10. 1-2. *pp.* 40-54, 1936. *In English.*—Continuing previous work [see preceding Abstract] examination is made of the angular distribution of pairs in Kr produced by γ-rays from ThC". The data agree with the theory of Bethe and Heitler. There appears to be a real difference in the angular distribution of the positrons and electrons, particularly at angles <15°, for this region includes 34% of the positrons and only 10% of the electrons. The mean energy difference between the positrons and electrons is 100 ekV and is in agreement with theory. This difference increases with increasing atomic number. The average angle between the pairs is 48°, which is considerably higher than that reported by previous workers. [See following Abstract.] F. C. C.

A S M - S L A METALLURGICAL LITERATURE CLASSIFICATION

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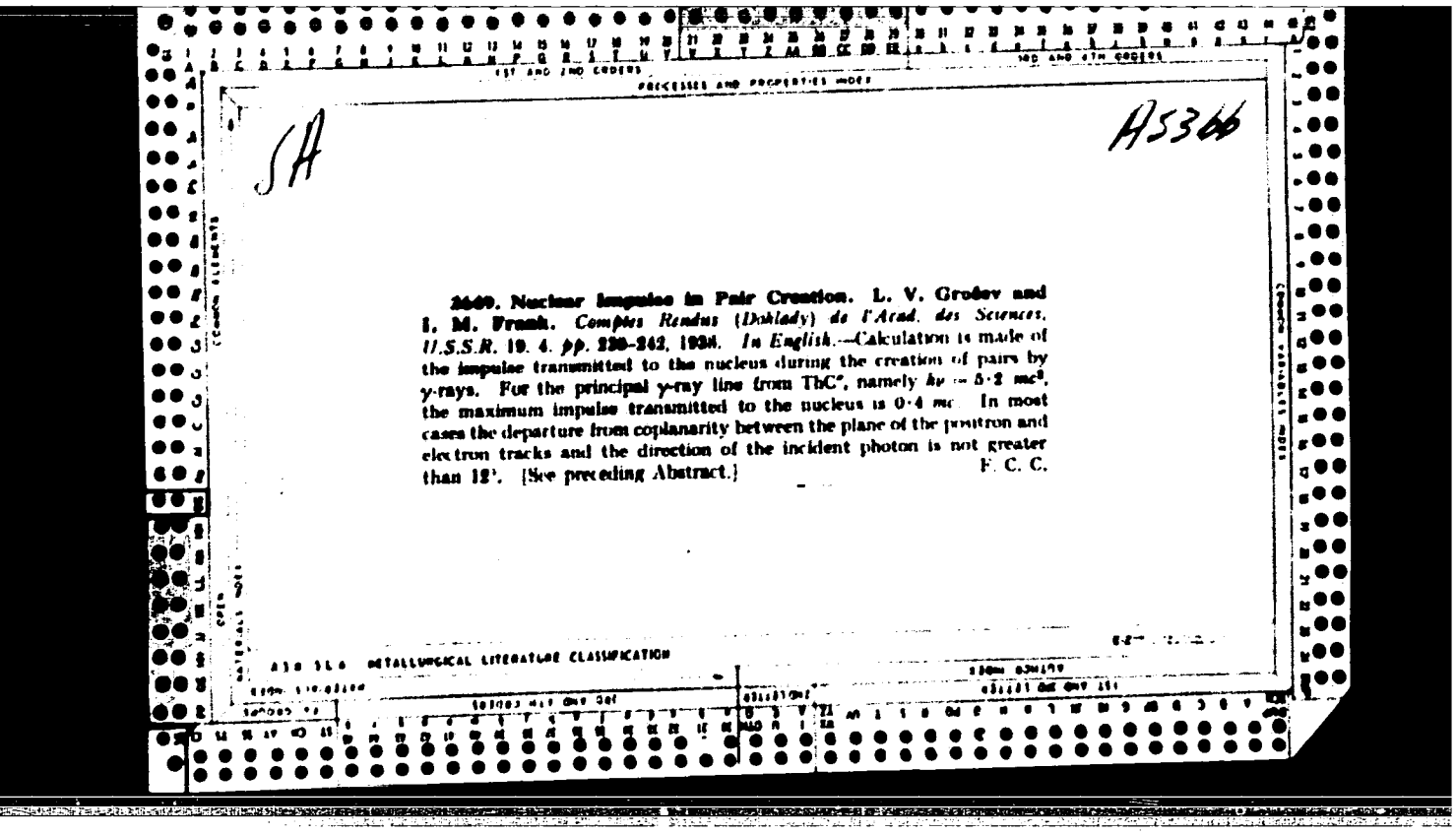
1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS



SA

A5366

2669. Nuclear Impulse in Pair Creation. L. V. Grošev and I. M. Frank. *Comptes Rendus (Doklady) de l'Acad. des Sciences, U.S.S.R.* 19. 4. *pp.* 239-242, 1938. *In English.*—Calculation is made of the impulse transmitted to the nucleus during the creation of pairs by γ-rays. For the principal γ-ray line from ThC", namely $h\nu = 5 \cdot 2\ mc^2$, the maximum impulse transmitted to the nucleus is $0 \cdot 4\ mc$. In most cases the departure from coplanarity between the plane of the positron and electron tracks and the direction of the incident photon is not greater than 12°. [See preceding Abstract.] F. C. C.

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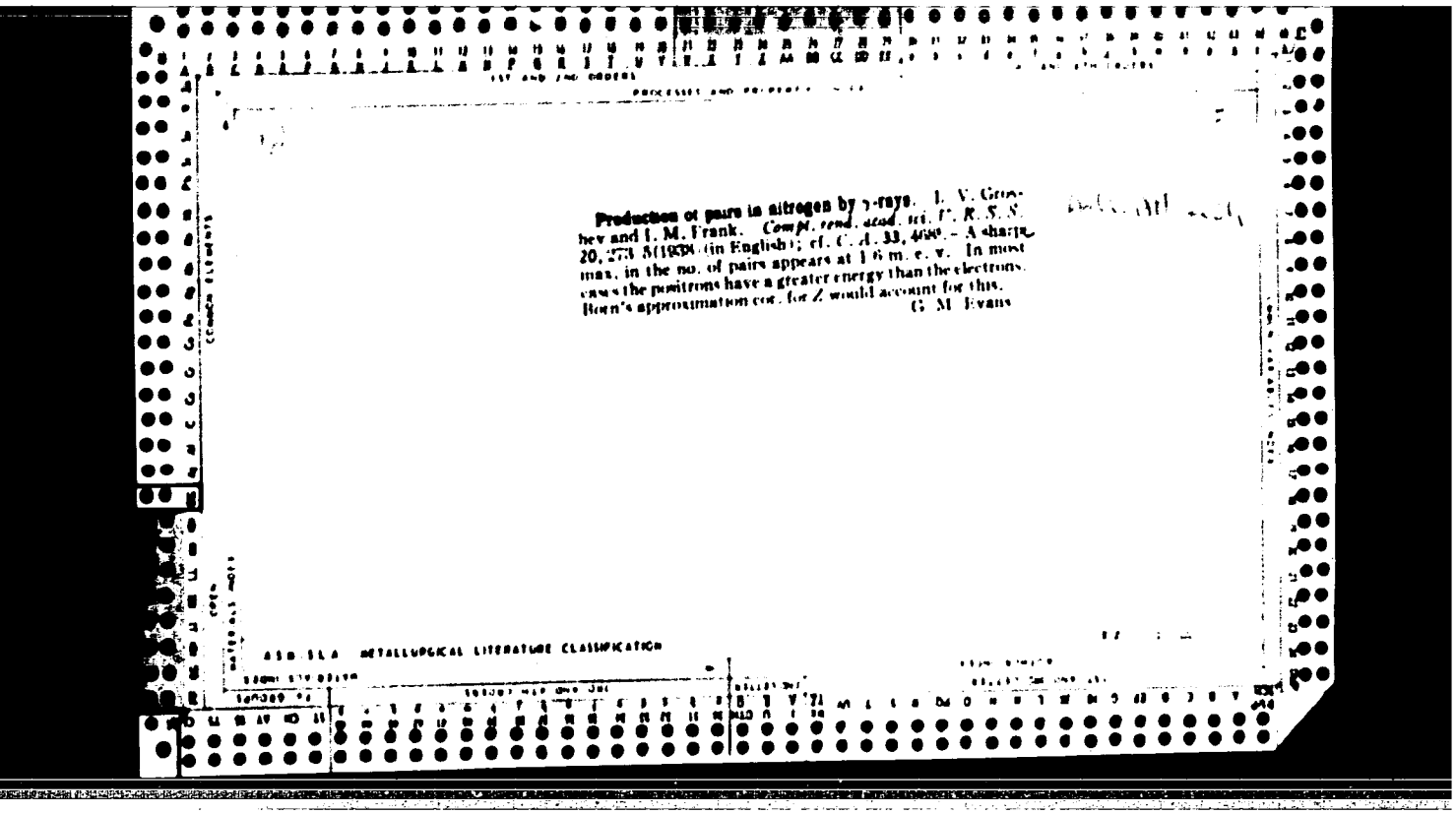
1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES



Production of pairs in nitrogen by γ-rays. I. V. Grosbey and I. M. Frank. *Compt. rend. acad. sci. U. R. S. S.* 20, 273-5(1938) (in English); cf. *C. A.* 33, 4680. – A sharp max. in the no. of pairs appears at 1.6 m. e. v. In most cases the positrons have a greater energy than the electrons. Born's approximation cor. for Z would account for this.

G. M. Evans

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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GROSHEV, L. , Veksler, Vladimir Iosifovich and N. Dobrotin

"Experimental Methods in Nuclear Physics," Moscow-Leningrad, 1940 book

Bol'shaya Sovetskaya Entsiklopediya, Vol. VII, 2nd ed., Moscow, 1949

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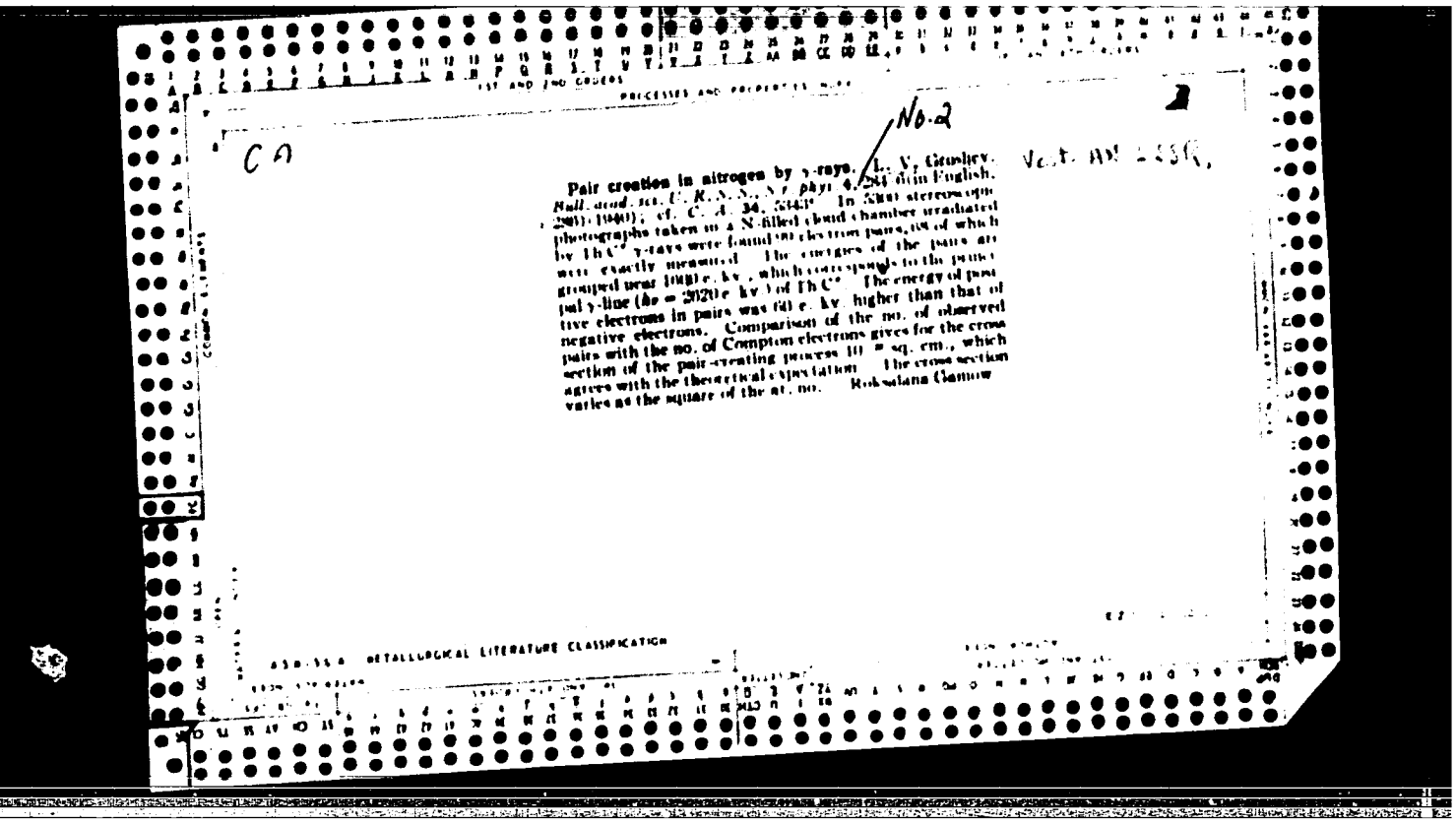

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

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No. 2

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Pair creation in nitrogen by γ-rays. L. V. Grushev. *Bull. acad. sci. U. R. S. S., Sér. phys.* 4, 284-6 (in English, 280)(1940); cf. *C. A.* 34, 5343[1]. In 5300 stereoscopic photographs taken in a N-filled cloud chamber irradiated by Th C[2] γ-rays were found 90 electron pairs, 68 of which were exactly measured. The energies of the pairs are grouped near 1000 e. kv., which corresponds to the principal γ-line ($h\nu$ = 2020 e. kv.) of Th C[2]. The energy of positive electrons in pairs was 60 e. kv. higher than that of negative electrons. Comparison of the no. of observed pairs with the no. of Compton electrons gives for the cross section of the pair-creating process $10^{-[illegible]}$ sq. cm., which agrees with the theoretical expectation. The cross section varies as the square of the at. no. Roksalana Gamow

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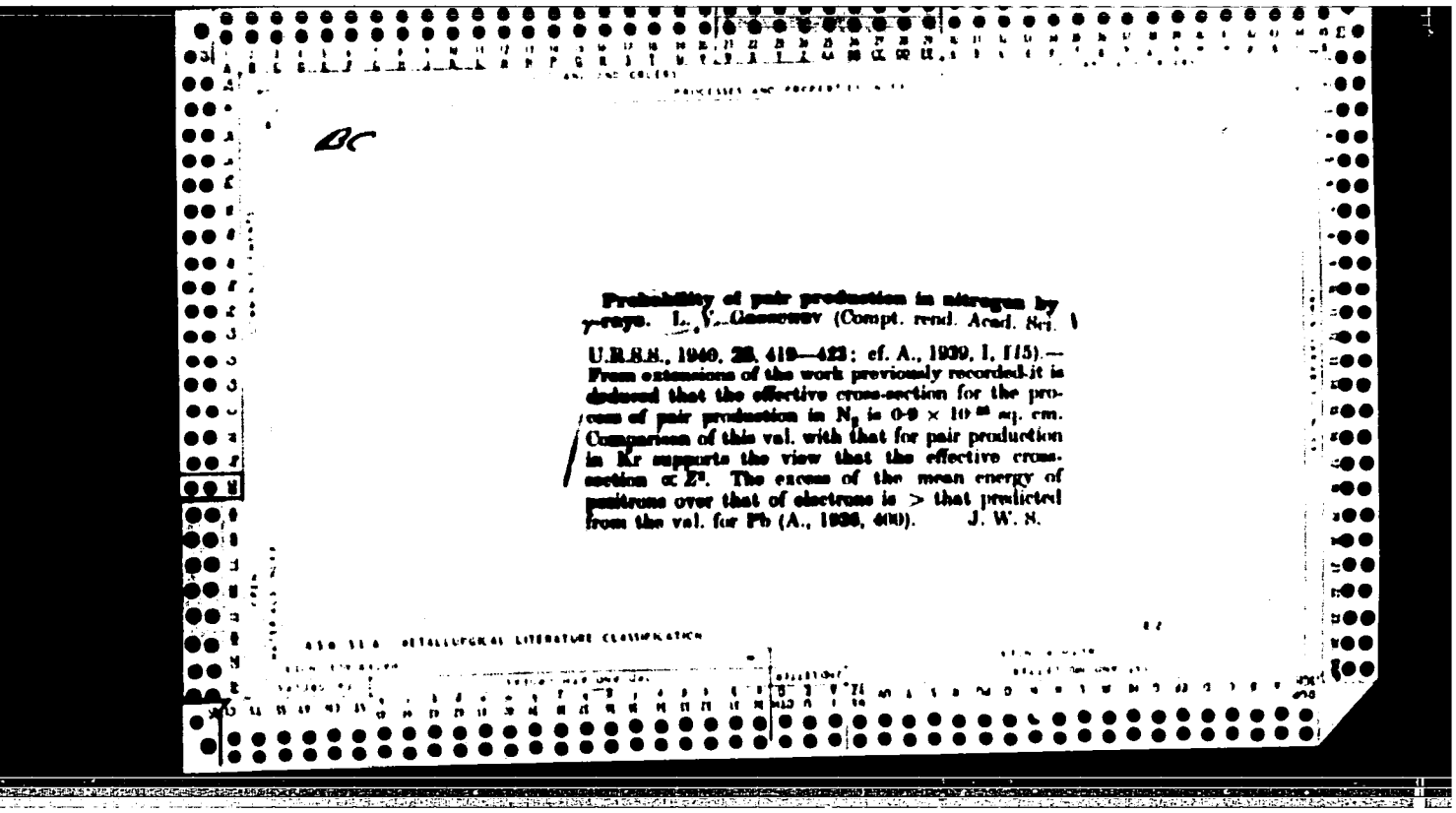

Probability of pair production in nitrogen by γ-rays. L. V. Groosnev (Compt. rend. Acad. Sci. U.R.S.S., 1940, 28, 419—423: cf. A., 1939, I, 115).—From extensions of the work previously recorded it is deduced that the effective cross-section for the process of pair production in N_2 is $0{\cdot}9 \times 10^{-26}$ sq. cm. Comparison of this val. with that for pair production in Kr supports the view that the effective cross-section $\propto Z^2$. The excess of the mean energy of positrons over that of electrons is > that predicted from the val. for Pb (A., 1938, 400). J. W. S.

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GROSHEV, L. V.,

Angular Distribution and Nuclear Impulse for Pairs in Nitrogen, Comptes Rendus de l' Academie des Sciences de l'U. R. S. S., 1940, Vol. 26, No. 5, pp 424-42 ; also in Doklady Akademii Nauk S. S. S. R., 1940, Vol. 26, No. 5, pp 432-43 , (Fizicheskii Institut imeni P. N. Lebedeva Akademii Nauk S. S. S. R., Moskva).

The angle between the direction of the photon and the direction of emission of the positron as well as the correspondin g angle for the electron, has an av. value of 23^0; the angle detd. by the directions of emission of positron and electron has an av. value of 40^0. The distribution of the dihedral angles between the 2 planes detd. by photon-positron directions and by photon-electron directions is plotted but no av. value is given. Results are calcd. for 79 pairs with energies between 1350 and 1850 e. kv. The results are in fair agreement with the predictions of the Bethe-Heitler theory (C. A. 28, 7140^5). The distribution of the recoil impulse of the nucleus is calcd.; it is approx. the same as for Kr (G. and Frank, C. A. 32, 7811^5).

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1ST AND 2ND ORDERS

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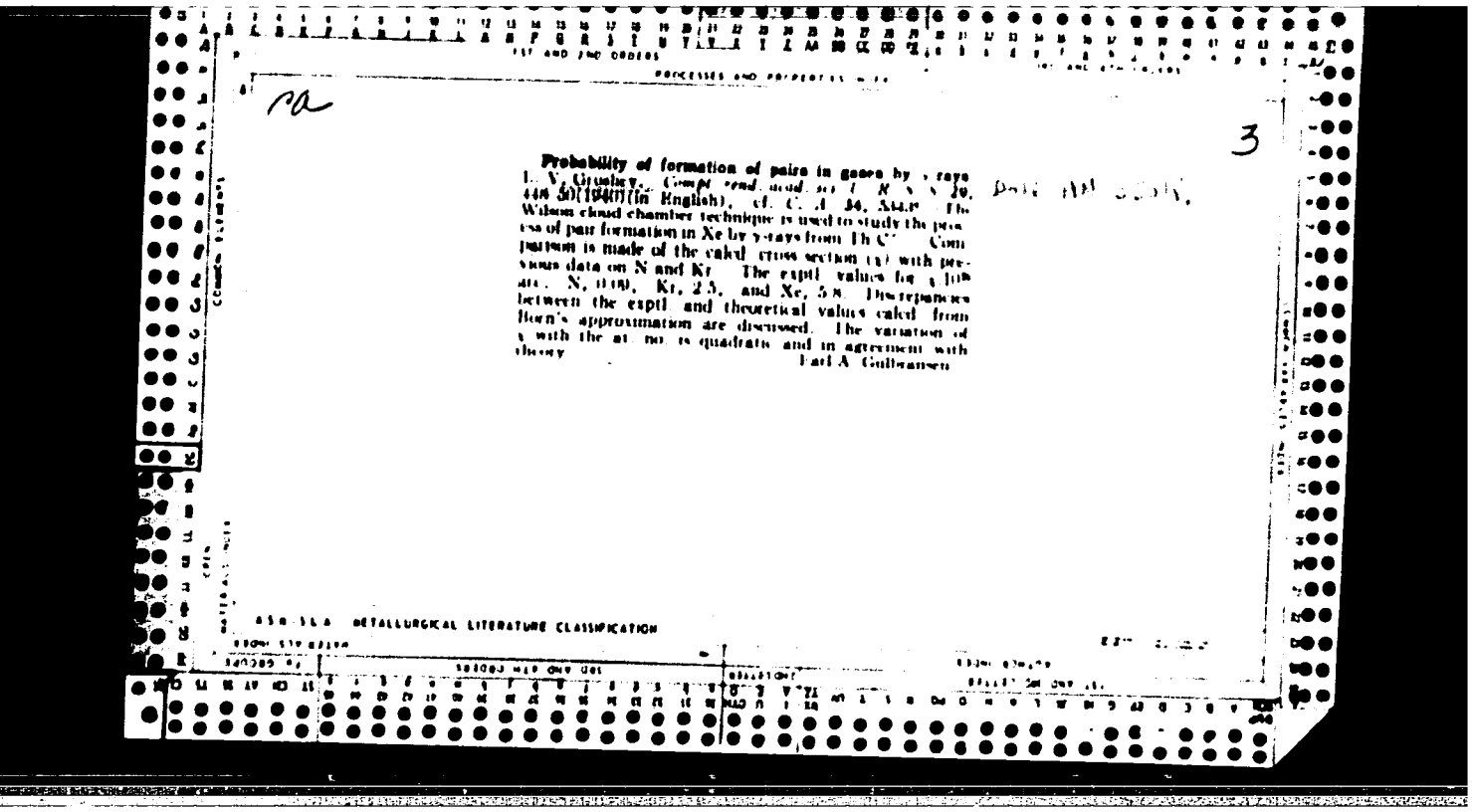

Probability of formation of pairs in gases by γ rays L. V. Grushev, *Compt. rend. acad. sci. U. R. S. S.* 29, 448-50(1940)(in English), cf. C. A. 34, 3348. The Wilson cloud chamber technique is used to study the process of pair formation in Xe by γ-rays from Th C. Comparison is made of the calcd. cross section (χ) with previous data on N and Kr. The exptl. values for χ/10⁸ are: N, 0.09, Kr, 2.5, and Xe, 5.8. Discrepancies between the exptl. and theoretical values calcd. from Born's approximation are discussed. The variation of χ with the at. no. is quadratic and in agreement with theory.

Earl A. Gulbransen

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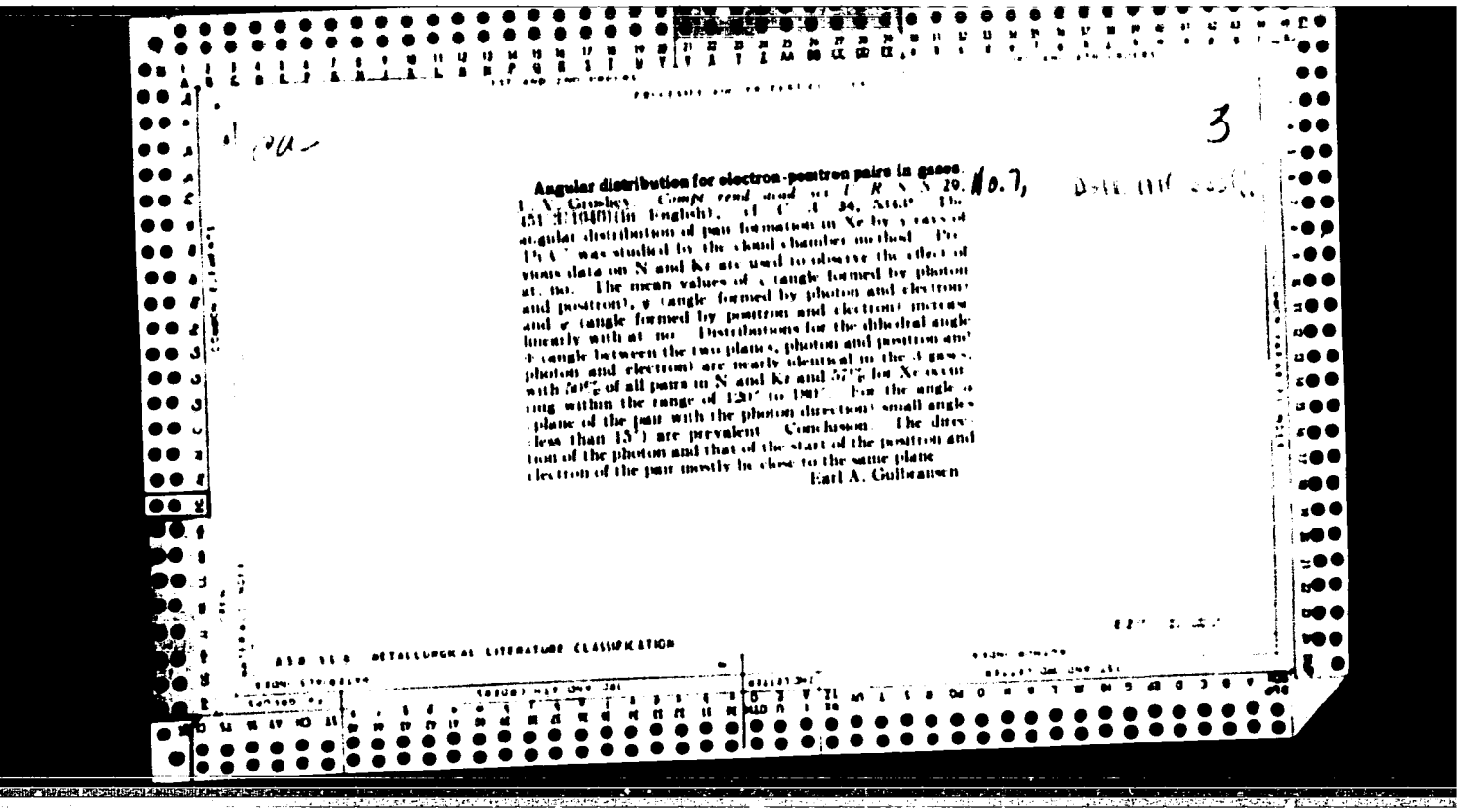

Angular distribution for electron-positron pairs in gases. No. 7,

L. V. Grosdev. *Compt. rend. acad. sci. U. R. S. S.* 29, 451-2(1940)(in English). *J. C. A.* 34, 5163. The angular distribution of pair formation in Xe by γ rays of 15 A° was studied by the cloud chamber method. Previous data on N and Kr are used to observe the effect of at. no. The mean values of ε (angle formed by photon and positron), φ (angle formed by photon and electron) and ψ (angle formed by positron and electron) increase linearly with at. no. Distributions for the dihedral angle Φ (angle between the two planes, photon and positron and photon and electron) are nearly identical in the 3 gases, with 50% of all pairs in N and Kr and 57% for Xe occurring within the range of 120° to 180°. For the angle α (plane of the pair with the photon direction) small angles (less than 15°) are prevalent. Conclusion. The direction of the photon and that of the start of the positron and electron of the pair mostly lie close to the same plane.

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GROSHEV, L. V.

"Product of Pairs in Gases," presented to the 1940 Conference on Atomic Nuclei, from the Lebedev Institute. Determined effective cross-section in N, Kr and Xe with 2.6 Mev gamma quanta from ThC"; and found dependence on Z to agree well with calculations of Jaeger and Hulme (British).

Journal of Physics, Vol. 4, No. 3, pp. 277-286, 1941
Zhur.-Fiz.,

"Formation of Pair Production in Gases," Mentions the use of a Wilson cloud chamber. Journal of Physics, Vol. 5, No. 2-3, p. 115-130, 1941.
Zhur.-Fiz.,

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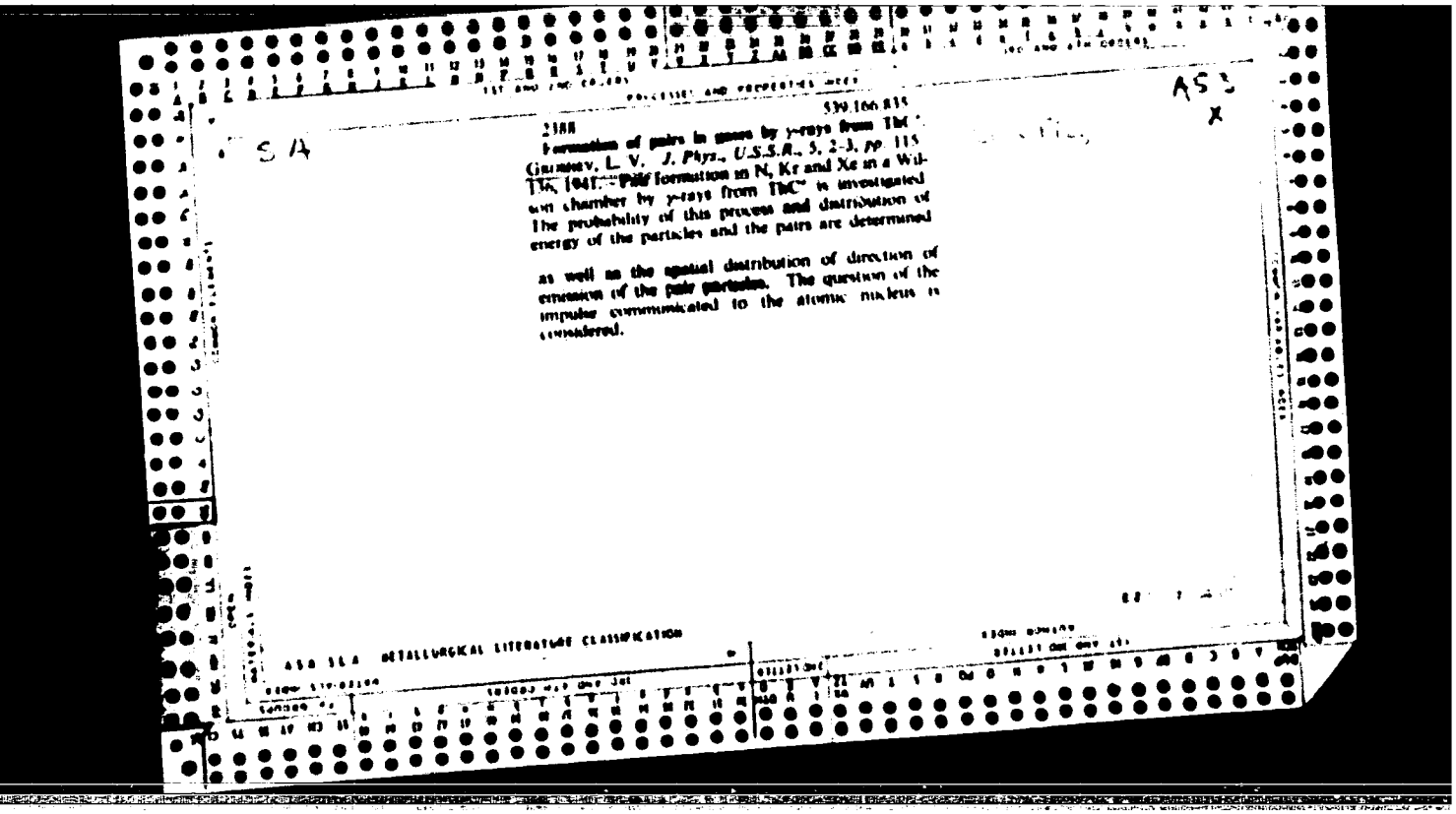

PROCESSES AND PROPERTIES INDEX

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Formation of pairs in gases by γ-rays from ThC'. Grodnev, L. V. *J. Phys., U.S.S.R.*, 5, 2-3, pp. 115-136, 1941. Pair formation in N, Kr and Xe in a Wilson chamber by γ-rays from ThC' is investigated. The probability of this process and distribution of energy of the particles and the pairs are determined as well as the spatial distribution of direction of emission of the pair particles. The question of the impulse communicated to the atomic nucleus is considered.

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GROSHEV, L. V.,

"Pair Creation in Gases from γ-Rays," Trudy Akademii Nauk S.S. S. R., Fizicheskii Institut imeni P. N. Lebedeva, 1945, Vol. 3, pp 115-130.

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