L 11826-66

ACC NR: AP6001569

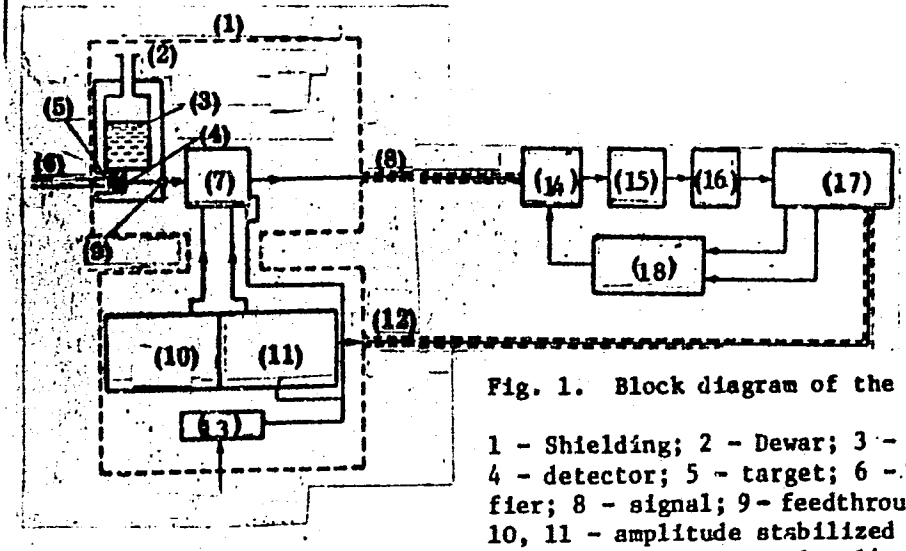

Fig. 1. Block diagram of the γ-spectrometer

1 - Shielding; 2 - Dewar; 3 - liquid nitrogen; 4 - detector; 5 - target; 6 - beam; 7 - preamplifier; 8 - signal; 9 - feedthrough insulator; 10, 11 - amplitude stabilized oscillator; 12 - code pulse; 13 - power supply; 14 - 6A3P control tube; 15 - UIS II amplifier; 16 - expander; 17 - 128-channel amplitude analyzer; 18 - amplification stabilization unit.

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ACC NR: AP6001569

3

The code pulses separate the reference pulses from the detector signals after amplification. These same code pulses prevent registration of the reference pulses when the detector signals are being recorded. Pulses from a second amplitude-controlled oscillator may also be fed to the preamplifier input for simulating detector signals when checking the operation of the device. From the output of the preamplifier, the signals being studied and the reference pulses are fed to the to the third grid of a 6A3P tube, which controls amplification during stabilization. Amplification control voltage from the stabilization unit is fed to the first grid of this tube. The signals are then amplified by a UIS-II amplifier and fed through the expander to the amplitude analyzer. The various sections of the unit are described in detail, with diagrams of the cooling unit, low-noise preamplifier, expander, stabilization circuit, and output stage of the amplitude-controlled oscillator. Tests showed that continuous-duty stability of the analyzer is better than 0.15% with no apparent effects of interference from the cyclotron with which it is designed to be used. The authors thank S. M. Ryvkin, O. A. Matveyev, and N. B. Strokan for graciously supplying experimental detector models. Orig. art. has: 8 figures. [08]

SUB CODE: 20, 09/ SUBM DATE: 17Oct64/ ORIG REF: 003/ OTH REF: 001/ ATD PRESS: 4/71

HW

Card 3/3

VASIL'YEV, V.D.

Reconstruction of the PS-64 scalers. Prib. i tekh. eksp. 6 no.1: 183-184 Ja-F '61. (MIRA 14:9)

1. Fiziko-tekhnicheskiy institut AN SSSR.
(Nuclear counters)

26439
S/048/61/025/007/001/005
B108/B209

24.6300

AUTHORS: Andreyev, D. S., Vasil'yev, V. D., Gusinskiy, G. M., Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Study of the Coulomb excitation of nuclear levels with the aid of accelerated multiply charged ions

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25, no. 7, 1961, 832 - 847

TEXT: This paper was read at the XI Annual Conference on Nuclear Spectroscopy in Riga, January 25 - February 2, 1961. The purpose of the studies was to improve the results of earlier work (Ref. 1: Andreyev, D.S. et al., Nucl. Phys., 19, 400 (1960); Ref. 2: Alkhazov, D. G., et al., Zh. eksperim. i teor. fiz., 37, 1530 (1959)) by the method of reference levels (Ref. 1) which consists in measuring the excitation cross section of a reference level before and after measuring the excitation cross section of the level to be investigated. The following nuclear levels were used as reference levels: 0.44 Mev of Na^{23} ($B(E2)\uparrow = 0.11 \cdot 10^{-48}\ e^2cm^4$) for studying Li and B; 1.19 Mev of Ni^{62} ($B(E2)\uparrow = 0.085 \cdot 10^{-48}\ e^2cm^4$) for

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B108/B209

Study of the Coulomb...

studying Co; 0.76 Mev of Se^{76} ($B(E2)\uparrow = 0.42 \cdot 10^{-48}\ e^2cm^4$) for studying Mg, Ca, and Se; 1.15 Mev of Sn^{122} ($B(E2)\uparrow = 0.26 \cdot 10^{-48}\ e^2cm^4$) for studying In, Sb, and Ce; 1.60 Mev of Ce^{140} ($\tau = 1.1 \cdot 10^{-13}$ sec) for studying the even Sn isotopes and Ba^{138}; 0.16 Mev of Ti^{47} ($B(E2)\uparrow = 0.040 \cdot 10^{-48}\ e^2cm^4$) for studying Sn^{117}. The excitation probability, $B(E2)\uparrow$, was determined with an error of 15 - 20%. Tables 1 and 2 contain the results of measurements. In all these studies, the authors made use of the broadening of the energy band of multiply charged ions accelerated in the cyclotron at the FTI (Institute of Physics and Technology). Ne ions having 16 - 18 Mev were used for studying the nuclear levels of light elements such as Li and B, and were also successfully applied to exciting higher levels in light and medium elements (Mg^{25}, Mg^{26}, Ca^{44}, Co^{59}, In^{115}, and Sb). 52.5-Mev ions of N were able to excite the levels with energies of 1.4 - 1.6 Mev of heavier nuclei (Ba^{138} and Ce^{140}). The nuclear levels of even-even isotopes were chiefly examined to complete the data on even-even nuclei and to compare results (Ref. 16: Kisslinger,

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Study of the Coulomb...

L. S., Sorensen, R. A., Dansk. Mat.-Fys. Medd., 32, No. 9 (1960))
(cf. Table 3). There are 16 figures, 3 tables, and 42 references:
7 Soviet-bloc and 31 non-Soviet-bloc.

Table 1. Coulomb excitation of levels (spin 2^+) in even-even nuclei.

Legend: (1) Isotope, (2) level energy, Mev, (3) excitation probability, (4) level lifetime, 10^{-13} sec, (5) ratio of B(E2)↑ to the same quantity as estimated for a one-particle model (the nuclear radius in the calculations was assumed to be $R_o = 1.2 \cdot 10^{-13} A^{1/3}$ cm).

Table 2. Coulomb excitation of levels in nuclei with odd A and in odd-odd B^{10} nuclei.

Legend: (1), (2), (3) see Table 1, (6) nuclear spin in ground state, (7) nuclear spin in excited state, (8) partial lifetime of the level relatively to the electric quadrupole transition, sec.

Legend to Table 3: (1) Nucleus, (2) calculated value of B(E2) as taken from Ref. 16, (3) experimental value of B(E2).

Card 3/6

24.7050

40574
S/070/62/007/005/009/014
E132/E460

AUTHORS: Kurov, G.A., Vasil'yev, V.D., Kosaganova, M.G.

TITLE: Experiments on growing crystals of germanium in thin layers

PERIODICAL: Kristallografiya, v.7, no.5, 1962, 773-779

TEXT: Layers of germanium were obtained by vacuum evaporation onto substrates of different materials (quartz, graphite, steel etc). The influence of temperature and the material of the substrate on the dimensions and the form of the crystals were studied. The temperature region of recrystallization of germanium in thin layers was established. By the choice of annealing regime and substrate the dimensions of grains could be increased by some (1 to 2) x 10^4 times. The importance of the perfection of very thin layers of germanium from an electrical point of view is considerable. Ge was evaporated at a pressure of about 10^{-5} mm Hg from a basket of W wire. The substrates could be heated during and after evaporation to 1000°C if necessary. The usual rate of evaporation was 1 micron/min and the final thickness 1 to 20 microns. It was found that the

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Experiments on growing crystals ...

recrystallization temperature lies close to the melting point and is very slow below 900°C. Layers on steel or Fe were alloyed with Fe and showed an n-type conductivity. The steel substrate was held at about 800°C during the evaporation. After annealing at about 900°C for 6 to 12 hours, crystals with dimensions of 2 mm in layers 4 to 20 microns thick could be obtained. The perfection of the crystallization was shown by back reflexion Kikuchi diagrams. There are 7 figures.

ASSOCIATION: Institut kristallografii AN SSSR
(Institute of Crystallography AS USSR)

SUBMITTED: October 27, 1961

KUROV, G.A.; VASIL'YEV, V.D.; KOSAGANOVA, M.G.

Experimental production of germanium crystals in thin films. Kristallografiia 7 no.5:773-779 S-O '62. (MIRA 15:12)

1. Institut kristallografii AN SSSR.
(Germainum crystals--Growth)

40093
S/048/62/026/008/004/028
B163/B104

24.6300

AUTHORS: Vasil'yev, V. D., Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Investigation of Coulomb excitation of levels in the nuclei Fe^{57}, Ge^{73}, Rh^{103}, Pd^{105}, In^{113}, In^{115}, and Sn^{115}

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 8, 1962, 992 - 997

TEXT: The nuclei listed in the title were bombarded by $N^{14;4+}$ ions with energies of 30 Mev in the case of Fe^{57}, 36 Mev in that of Ge^{73} and 42 Mev in all others. A number of nuclear levels not yet studied by Coulomb excitation were found and their reduced upward transition probabilities B(E2), parities, spin limits and partial life times τ(E2) were determined. The error of the B(E2) values is of the order of 20 to 30%. The results are given in the table. There are 6 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

Card 1/2

40094
S/048/62/026/008/005/028
B163/B104

24.6300

AUTHORS: Vasil'yev, V. D., Gangrskiy, Yu. P., Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Investigation of the Coulomb excitation of the second level $2'^{+}$ of Pd^{104}

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 8, 1962, 997 - 999

TEXT: Experimental investigation of the second level $2'^{+}$ of the Pd^{104} nucleus at 1.34 Mev by bombardment with $N^{14;4+}$ ions with an energy of 42Mev. The γ-background is so low, and the first-state energy 0.56 Mev so much different from that of the cascade quanta (0.78 Mev), that a direct measurement of the γ-spectra can be evaluated. The reduced transition probability $B(E2)_{0\to 2'}$, was calculated from the theoretical expression by Alder et al. (Rev. Mod. Phys., 28, 432, (1956)) for the cascade excitation cross section to be $0.015\cdot10^{-48}$ e^2 cm^4. This value coincides with the theoretical

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Investigation of the Coulomb ...

estimation according to Weisskopf (one-particle model). The lifetime calculated from $B(E2)_{0\to 2}$, is $5.8\cdot10^{-12}$ sec. The error is about 35%. There is 1 figure.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe Akademii nauk SSSR (Physicotechnical Institute imeni A. F. Ioffe of the Academy of Sciences USSR)

40095

24,1300

S/048/62/026/008/006/028
B163/B104

AUTHORS: Vasil'yev, V. D., Yerokhina, K. I., and Lemberg, I. Kh.

TITLE: Lifetime of the first level of Ti^{50}

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 8, 1962, 999 - 1001

TEXT: An isotopically enriched target with 58% Ti^{50} was Coulomb-excited with 30 Mev $N^{14;3+}$ ions. For the level at 1.58 Mev the reduced upward transition probability B (E2)↑ was determined as 0.040 $e^2 \cdot 10^{-48} cm^4$ and the lifetime of this state as $1.03 \cdot 10^{-12}$ sec. For a correct evaluation of the area below the 1.58 Mev peak, it was compared with the areas of the 1.19 Mev peak of Ni^{62} and of the 0.615 Mev peak of Se^{78}. The results are compared with those for Ti^{46} and Ti^{48} (Andreyev et al., Nucl. Phys., 19, 400 (1960)). With increasing number of neutrons the excitation energy increases from 0.89 to 1.50, and B(E2) decreases from 0.083 to 0.040. There are 2 figures and 1 table.

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VASIL'YEV, V.D., inzh.

Resolutions of the December Plenum of the Central Committee put into action. Khim.mashinostr. no.2:1-3 Mr-Ap '64. (MIRA 17:4)

TIKHONOVA, A.A.; VASIL'YEV, V.D.; KUROV, G.A.

Appearance of dislocations in germanium films. Kristallografiia 8 no.6:932-933 N-D'63. (MIRA 17:2)

1. Institut kristallografii AN SSSR.

L 15654-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3000818 S/0286/63/000/002/0032/0032

AUTHOR: Kurov, G. A., Vasil'yev, V. D., Kosagnanova, M. G.

TITLE: Method of growing monocrystals. / Class C 22f, 40d, 1 sub 30. No. 152741

SOURCE: Byul. izobreteniy i tovarnykh znakov, no. 2, 1963, 32

TOPIC TAGS: monocrystal growth, germanium, thin film

ABSTRACT: A method of growing monocrystals, say germanium, its distinguishing feature is that in order to obtain the monocrystals in the form of thin films, the initial material is evaporated in vacuum through a screen on a base with subsequent recrystallization. No graphics. [Abstracter's note: complete translation]

ASSOCIATION: none

SUBMITTED: 09Nov61 DATE ACQ: 28May63 ENCL: 00

SUB CODE: EL NO REF SOV: 000 OTHER: 000

Card 1/1

BENING, V.S., inzh.; VASIL'YEV, V.D., inzh.

Interaction of a shorting device and a separator. Zlek. sta. 35 no. 4:79-80 Ap '64. (MIRA 17:7)

L 07837-67 EWT(1)/EWT(m)/EWP(t)/ETI IJP(c) JD/GG

ACC NR: AP6024672 (A) SOURCE CODE: UR/0070/66/011/004/0668/0672

AUTHOR: Vasil'yev, V. D.; Tikhonova, A. A. 57 B

ORG: Institute of Crystallography AN SSSR (Institut kristallografii AN SSSR)

TITLE: Temperature conditions for the formation of epitaxial germanium films by the method of evaporation in vacuum 18 27

SOURCE: Kristallografiya, v. 11, no. 4, 1966, 668-672

TOPIC TAGS: germanium semiconductor, semiconducting film, epitaxial growing, evaporation, temperature dependence, crystal defect, heat effect

ABSTRACT: The authors present a calculation of the temperature variation and an estimate of the maximum possible temperature rise for characteristic experimental conditions prevailing when epitaxial germanium films are produced by evaporation in vacuum from a molecular beam. The substrate was heated in a graphite oven by radiation under conditions where it can be assumed that the oven constitutes an absolutely black body. The heat flux from the evaporator and the associated temperature rise of the substrate is estimated for different experimental conditions. The temperature of the growing epitaxial film is determined from the propagation of the

Card 1/2 UDC: 548.52:539.23

L 07837-67

ACC NR: AP6024672

heat in the substrate and its heat rise. Solution of the appropriate heat-propagation equations shows that at the usual growth rate of ~ 200 A/sec and at high initial substrate temperature ~ 900C, the change in temperature does not exceed 5C. However, at growth rates of 1 μ/sec this change amounts to ~100C. This appreciable change in substrate temperature and the temperature of the growing film may be the cause of uneven distribution of defects through the thickness of the film. Orig. art. has: 8 formulas and 1 table.

SUB CODE: 20/ SUBM DATE: 06Aug65/ ORIG REF: 002/ OTH REF: 009

Card 2/2 bc

PETROCHENKO, P.F., kand.ekon.nauk; VORONIN, Ye.P.; ROZHKOVA, V.V.; POPKOV, L.V.; PRIGARIN, A.A.; KAPLAN, I.I.; RYSS, V.M.; EKHIN, P.E.; KULAGIN, N.N.; VASIL'YEV, V.F.; LISOV, V.Ye., red.; PONOMAREVA, A.A., tekhn. red.

[Organization of work and establishing work norms in industrial enterprises] Organizatsiia i normirovanie truda na promyshlennykh predpriiatiiakh. Pod obshchei red. P.F.Petrochenko. Moskva, Izd-vo ekon.lit-ry, 1962. 285 p. (MIRA 15:4)

1. Moscow. Nauchno-issledovatel'skiy institut truda.
(Production standards)

VASIL'YEV, Vsevolod Dmitriyevich; KVASOV, N.V., red.

[Securing patentability and patent clearance in design in chemical machinery manufacture] Obespechenie patentosposobnosti i patentnoi chistory pri proektirovanii v khimicheskom mashinostroenii. Leningrad, 1964. 29 p. (MIRA 18:3)

L 26377-66

ACC NR: AP6007660 (A) SOURCE CODE: UR/0413/66/000/003/0028/0028

10 B

AUTHORS: Barenboym, I. Yu.; Dubrova, Ye. P.; Vasil'yev, V. D.; Lurik, N. M.; Radzevich, Ye. N.; Spitkovskiy, S. A.; Fuks, G. B.; Fel'dman, M. B.; Leybman, Ya. M.; Kolomoytsev, B. B.; Flaks, V. A.; Khandzhi, V. V.; Gol'dfel'd, L. M.; Lifshits, I. L.

ORG: none

TITLE: A means of erecting railroad bridges of arched-span construction from separate sections. Class 19, No. 178393

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 28

TOPIC TAGS: bridge, bridge construction, structural engineering, railroad bridge, cantilever bridge

ABSTRACT: This Author Certificate presents a means for erecting railroad bridges of arched span construction from separate sections. The sections are suspended and joined with struts of the structure above the arch by temporary sloping and horizontal members. These members serve as cross-stays and upper booms. The sections also feature a cantilever truss (see Fig. 1) with a triangular framing, the lower girder of which forms a semi-arch. The upper girder of the cantilever truss is set above the travel span, which includes separate elements of the truss used in mounting and elevating the structure. These members subsequently form a triangular cantilever

Card 1/2 UDC: 624.624

L 26377-66

ACC NR: AP6007660

Fig. 1. 1 - upper string of the cantilever truss; 2 - struts; 3 - slanting members; 4 - lower string panels; 5 - anchor post; 6 - key block; 7 - floor plates; 8 - cables; 9 - anchor block; 10 - tension cables; 11 - joints.

frame, cross-stays and semi-arch sections. Each panel thus formed serves as a support for the next panel. The panels are rigidly fastened along the entire face, the process being repeated until the entire semi-arch is formed. Then cables are placed between the link sections and the support. When the cables are tightened, the semi-arches are rotated with respect to the support section, thus unloading the diagonal and horizontal members of the cantilever. The cables are removed, after which the travel-span plates are placed upon the structure above the arch between the link sections of the semi-arch and the support. When the wearing surface is completely laid, the remaining part of the cables is tightened. Favorable working conditions for the support are created by freeing the support from one-sided loadings; assembly of the semi-arch takes place simultaneously on both sides of the pier, with each addition being a cantilever addition. The abutment portion of the semi-arch is prepared in place between the first support block of the semi-arch and the pier. Forces in members of the cantilever are lessened by the introduction of stiffener cables in the upper girder at 1/2--2/3 of its design length. Moments in panels on the semi-arch are reduced through a skewed arrangement of axes of diagonals relative to points of intersection of the axes of vertical members and the semi-arch blocks. Joints are placed between adjacent semi-arches on the assembled panels, thus controlling the position of cantilever frames in the span. Orig. art. has: 1 figure.

Card 2/2 SUB CODE: 13/ SUBM DATE: 14Nov64

IZVOLENSKIY, Vladimir Nikolayevich; VASIL'YEV,V.F., redaktor;YUDZON,D.M., tekhnicheskiy redaktor

[Legal problems of railroad transportation] Pravovye voprosy zheleznodorozhnykh perevozok. 2-e perer. izd. Moskva, Gos.transp. zhel-dor. izd-vo, 1955. 187 p. (MIRA 9:3)
(Railroads--Freight)

1. VASIL'YEV, V. F. Eng.

2. USSR (600)

4. Paper-Making Machinery

7. Manufacture of two-layer on Fourdrinier paper machines. Bum.prom. 27 no. 11, 1952.

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

VASIL'YEVA, V.Ya., otv.red.; GUBER, A.A., otv.red.; UZYANOV, A.N., otv.red.; ZHABREYEV, A.F., red.; VASIL'YEV, V.F., red.; EPSHTEYN, V.G., red. karty; LIVSHITS, Ya.L., red.izd-va; FRENKEL', M.Yu., red.izd-va; PANAS'YANTS, M.D., red.izd-va; TSIGEL'MAN, L.T., tekhn.red.

[Union of Burma; a collection of articles] Birmanskii Soiuz; sbornik statei. Moskva, Izd-vo vostochnoi lit-ry, 1958. 291 p. (MIRA 12:2)

1. Akademiya nauk SSSR. Institut vostokovedeniya. 2. Nauchnyy sotrudnik Instituta vostokovedeniya (for Epshteyn). (Burma)

VASIL'YEV, V. F.

Dissertation: "Interaction of Forces Pulling a Locomotive, and Local Rolled Iron Used for Wheels." Cand Tech Sci, Moscow Electromechanical Inst of Railroad Transport Engineers, Moscow, 1954. (Referativnyy Zhurnal--Mekhanika, Moscow, Aug 54)

SO: SUM 393, 28 Feb 1955

BENESHEVICH, I.I., kandidat tekhnicheskikh nauk; BOGIN, N.N., kandidat tekhnicheskikh nauk; BYKOV, Ye.I., inzhener; VLASOV, I.I., kandidat tekhnicheskikh nauk; GRITSEVSKIY, M.Ye., inzhener; GRUBER, L.O., inzhener. GURVICH, V.G., inzhener; DAVYDOV, V.N., inzhener; YERSHOV, I.M., kandidat tekhnicheskikh nauk; ZASORIN, S.N., kandidat tekhnicheskikh nauk; IVANOV, I.I., kandidat tekhnicheskikh nauk; KRAUKLIS, A.A., inzhener; KROTOV, L.B., inzhener; LAPIN, V.B., inzhener; LASTOVSKIY, V.P., dotsent; LATUNIN, N.I., inzhener; MARKVARDT, K.G., professor, doktor tekhnicheskikh nauk; MAKHAYLOV, M.I., professor, doktor tekhnicheskikh nauk; NIKANOROV, V.A., inzhener; OSKOLKOV, K.N., inzhener; OKHOSHIN, L.I., inzhener; PARFENOV, K.A., dotsent, kandidat tekhnicheskikh nauk; PERTSOVSKIY, L.M., inzhener; POPOV, I.P., inzhener; PORSHNEV, B.G., inzhener; RATNER, M.P., inzhener; ROSSIYEVSKIY, G.I., dotsent, kandidat tekhnicheskikh nauk; RYKOV, I.I., kandidat tekhnicheskikh nauk; RYSHKOVSKIY, I.Ya., dotsent, kandidat tekhnicheskikh nauk; RYABKOV, A.Ya., professor [deceased]; TAGER, S.A., kandidat tekhnicheskikh nauk; KHAZEN, M.M., professor, doktor tekhnicheskikh nauk; CHERNYSHEV, M.A., doktor tekhnicheskikh nauk; SHEIN, L.Ye., professor, doktor tekhnicheskikh nauk; YUDENEV, B.N., dotsent; AKSENOV, I.Ya., dotsent, kandidat tekhnicheskikh nauk; ARKHANGEL'SKAY, A.S., inzhener; BARTENEV, P.V., professor, doktor tekhnicheskikh nauk; BERNGARD, K.A., kandidat tekhnicheskikh nauk; BOROVOY, N.Ye., dotsent, kandidat tekhnicheskikh nauk; BOGDANOV, I.A., inzhener; BOGDANOV, N.K., kandidat tekhnicheskikh nauk; VINNICHENKO, N.G., dotsent, kandidat ekonomicheskikh nauk;

(Continued on next card)

BENESHEVICH, I.I.----(continued) Card 2.
VASIL'YEV, V.F., GONCHAROV, N.G., inzhener; DERIBAS, A.T., inzhener; DOBROSEL'SKIY, K.M., dotsent, kandidat tekhnicheskikh nauk; DLUGACH, B.A., kandidat tekhnicheskikh nauk; YEFIMOV, G.P., kandidat tekhnicheskikh nauk; ZEMBLINOV, S.V., professor, doktor tekhnicheskikh nauk; ZABELLO, M.L., kandidat tekhnicheskikh nauk; IL'IN, K.P., kandidat tekhnicheskikh nauk; KARPENIKOV, A.D., kandidat tekhnicheskikh nauk; KAPLUN, F.Sh., inzhener; KANSHIN, M.D.; KOCHNEV, F.P., professor, doktor tekhnicheskikh nauk; KOGAN, L.A., kandidat tekhnicheskikh nauk; KUCHURIN, S.F., inzhener; LEVASHOV, A.D., inzhener; MAKSIMOVICH, B.M., dotsent, kandidat tekhnicheskikh nauk; MARTYNOV, M.S., inzhener; MEDEL', O.M., inzhener; NIKITIN, V.D., professor, kandidat tekhnicheskikh nauk; PADNYA, V.A., inzhener; PANTELEYEV, P.I., kandidat tekhnicheskikh nauk; PETROV, A.P., professor, doktor tekhnicheskikh nauk; POVOROZHENKO, V.V., professor, doktor tekhnicheskikh nauk; PISKAREV, I.I., dotsent, kandidat tekhnicheskikh nauk; SERGEYEV, Ye.S., kandidat tekhnicheskikh nauk; SIMONOV, K.S., kandidat tekhnicheskikh nauk; SIMANOVSKIY, M.A., inzhener; SUYAZOV, I.G., inzhener; TAIDAYEV, F.Ya., inzhener; TIKHONOV, K.K., kandidat tekhnicheskikh nauk; USHAKOV, N.Ya., inzhenr; USPENSKIY, V.K., inzhener; FEL'DMAN, E.D., kandidat tekhnicheskikh nauk; FERAPONTOV, G.V., inzhener; KHOKHLOV, L.P., inzhenr; CHERNOMORDIK, G.I., professor, doktor tekhnicheskikh nauk; SHAMAYEV, M.F., inzhener; SHAFIRKIN, B.I., inzhener; YAKUSHIN, S.I., inzhener; GRANOVSKIY, P.G., redaktor; TISHCHENKO, A.I., redaktor; ISAYEV, I.P., dotsent, kandidat tekhnicheskikh nauk, redaktor; KLIMOV, V.F., dotsent kandidat tekhnicheskikh

(Continued on next card)

BENESHEVICH, I.I.--- (continued) Card 3.
nauk, redaktor; MARKOV, M.V., inzhener, redaktor; KALININ, V.K., inzhener, redaktor; STEPANOV, V.N., professor, redaktor; SIDOROV, N.I., inzhener, redaktor; GERONIMUS, B.Ye., kandidat tekhnicheskikh nauk, redaktor; ROBEL', R.I., otvetstvennyy redaktor

[Technical reference manual for railroad engineers] Tekhnicheskii spravochnik zheleznodorozhnika. Moskva, Gos. transp.zhel-dor. izd-vo. Vol.10. [Electric power supply for railroads] Energosnabzhenie zheleznykh dorog. Otv.red. toma K.G.Markvardt. 1956. 1080 p. Vol.13. [Operation of railroads] Ekspluatatsiia zheleznykh dorog. Otv. red. toma R.I.Robel'. 1956. 739 p. (MLRA 10:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Petrov)
(Electric railroads) (Railroads--Management)

L 11642-66 EWT(m)/T IJP(c)

ACC NR: AP6001592 SOURCE CODE: UR/0120/65/000/006/0195/0197

55

AUTHOR: Belogurov, V. N.; Vasil'yev, V. F. 55

ORG: Institute of Physics, AN LatSSR, Riga (Institut fiziki AN LatSSR) 55

TITLE: Fast coincidence circuit with discrimination of random coincidences 25 21 B

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1965, 195-197

TOPIC TAGS: particle counting, scintillator

ABSTRACT: A circuit is described for simultaneous measurement of true and delayed random coincidences. Slow scintillators with NaI(Tl) crystals were used. The circuit is based on the utilization of backlash characteristic of a Schmidt trigger and is similar to the circuits described by W. Gruhle (Nucl. Instrum. and Methods, 1959, 4, no. 2, 112) and by R. L. Chase (Rev. Scient. Instrum. 1960, 31, no. 9, 945). The arrangement used by the authors consisted of 14 electron tubes. They were divided into six main circuits including the delayed and nondelayed pulse shaping circuit, the coincidence circuit, the non-delayed pulse forming circuit, the random-coincidence discrimination circuit, the amplification circuit, and the anticoincidence circuit. The

Card 1/2 UDC: 621.374.33

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ACC NR: AP6001592

resolving time, measured by an FEU-13 photomultiplier, was 30 nsec. A 100% selection was obtained for bipolar input signals having amplitudes from 5 to 90 v and a front build-up time of 0.3 μsec. The arrangement was illustrated by a block diagram and connection network. The authors are indebted to B. A. Zager (OIYaI, Dubna) for assistance in their work. Orig. art. has: 3 diagrams. [22]

SUB CODE: 20 / SUBM DATE: 130ct64 / ORIG REF: 003 / OTH REF: 002

ATD PRESS: 4175

Card 2/2

VASIL'YEV, Vladimir Grigor'yevich; STRUZHKOVA, N.I., red.; BODANOVA, A.P., tekhn. red.

[Organization of work and wages for maintenance and repair workers in automotive transportation units] Organizatsiia truda i zarabotnoi platy remontno-obsluzhivaiushchikh rabochikh avtokhoziaistv. Moskva, Avtotransizdat, 1962. 105 p. (MIRA 15:7)

(Wages--Transportation, Automotive)

28213
S/194/61/000/005/044/078
D201/D303

16,8000 (1329,1132)

AUTHORS: Vasil'yev, V.G and Sharlya, I.

TITLE: Dynamic properties of the proportional-plus-integral regulator type VP-130 (IR-130)

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 5, 1961, 39-40, abstract 5 V326 (Tr. Khar'kovsk. politekhn. in-ta, 1960, 30, no. 1, 57-71)

TEXT: To simplify the given structural diagram of the regulator (R) - linearization is made of relationships with indifferent non-linearities. The time of acceleration and of coasting of the load motor and of the isodrome motor are neglected. The characteristics of switching circuits of control motors may be linearized also if provided the changes of the regulated quantity and consequently those of input of R occur relatively slowly. In this case the transfer function of R may be represented in the form

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Dynamic properties...

$$W(p) = \frac{x_{out}}{x_{in}} = -$$

$$- \left[k_1 + (T_3 p + K_2 \frac{T_4 \cdot p}{T_4 p + 1} + K_3) \frac{1}{T_2 \cdot p} \right].$$

The coefficient K_1 depends on the position of the adjustment handle, on the degree of uniformity and varies from 0.1 to 1.8. The time constant T_2 may be controlled by the adjustment of the "duplicate time" within the range 400 to 3200 sec. The mean values of the remaining quantities for the IR 130 are: T_3 = 15.35 sec; T_4 = 11 sec; K_2 = 4.64; K_3 = 1.32. To check the correctness of the assembly of the linearized structural circuit and to determine its parameters, analytical and experimental processes in a control system were compared. The experimental characteristics were determined with the IR-130 working together with the hydraulic analogue of the system. The analogue may be represented by one section with delay and an aperiodic section of the first order. 3 references. [Abstracter's note: Complete translation.]

Card 2/2

VASILYEV, V. G. (Novosibirsk):

"A reduction of the basic biharmonic problem to a successive solution of two Poisson's equations."

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964.

MALEVSKIY, Yuzef Boleslavovich; VASIL'YEV, Valentin Grigor'yevich; GRABIN, Vladimir Fedorovich; NERODENKO, M.M., inzh., red.; POGORETSKAYA, L.N., red.

[Equipment for the dilatometric study of transformations in welded joints] Ustanovki dlia dilatometricheskogo issledovaniia prevrashchenii v svarnykh soedineniiakh. Kiev, Naukova dumka, 1964. 35 p. (MIRA 17:11)

VASIL'YEV, Vladimir Grigor'yevich; LOBONINA, ..., red.; POKHLEBKINA, M., tekhn. red.

[Ways to improve production quality] Puti povysheniia kachestva produktsii. Moskva, Mosk. rabochii, 1963. 69 p. (MIRA 17:2)

BUYALOV, N.I.; VASIL'YEV, V.G.

Bibliography. Gaz. prom. 7 no.6:54 '62. (MIRA 17:6)

VASIL'YEV, V.G., kand.tekhn.nauk

Bearing capacity of reinforced concrete arches without articulation. Trudy KHIIT no.45:54-66 '61. (MIRA 15:5)
(Arches) (Reinforced concrete construction)

VASIL'YEVA, V.N.; PEREKALIN, V.V.; VASIL'YEV, V.G.

Study of the structure of unsaturated nitro compounds by the method of dipole moments. Zhur.ob.khim. 31 no.7:2171-2175 Jl '61. (MIRA 14:7)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut imeni A.I. Gertsena i Fiziko-khimicheskiy institut imeni L.Ya. Karpova.
(Nitro compounds)

VASIL'YEVA, V.N.; PEREKALIN, V.V.; VASIL'YEV, V.G.

Dipole moment study of the effect of steric factors on conjugation in the molecules of unsaturated nitro compounds. Zhur.ob.khim. 31 no.7:2175-2178 Jl '61. (MIRA 14:7)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut imeni A.I. Gertsena i Fiziko-khimicheskiy institut imeni L.Ya. Karpova.
(Nitro compounds—Dipole moments)

VASIL'YEVA, V.N.; PEREKALIN, V.V.; VASIL'YEV, V.G.

Method of dipole moments used for studying the structure of unsaturated nitro compounds. Dokl. AN SSSR 141 no.3:620-623 N '61. (MIRA 14:11)

1. Predstavleno akademikom A.N. Frumkinym.
(Nitro compounds--Dipole moments)

VASIL'YEV, V.G.; TREBIN, F.A.

Geological bases for increasing oil and gas recovery in the U.S.S.R. in 1961-1980. Neft. khoz. 40 no.6:1-6 Je '62. (MIRA 15:6)

(Petroleum geology)

S/032/61/027/002/024/026
B124/B201

AUTHORS: Grabin, V. F., Vasil'yev, V. G., and Rafalovskiy, V. A.

TITLE: Exchange of experience

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 2, 1961, 234-235

TEXT: The authors suggested the design of a vacuum differential dilatometer for studying conversion processes at temperatures of up to 1200°. This dilatometer, which is schematically shown in a figure, works on the following principle: The standard and the test sample are filled into the quartz tubes 1 and 2 which are sealed afterwards. The hooked quartz tube 3 is connected by fusion to tube 2 and houses a thermocouple 4 which allows measuring the temperature of the sample directly on the surface of the latter without interfering with the vacuum. All three quartz tubes are housed in another quartz tube 5 which is fastened to the basal plate 9 of the dilatometer by means of a vacuum sealing, consisting of screw nut 6, vacuum ring 7, and connecting piece 8. A special backrest 10 is provided between 7 and the turnbuckle barrel to prevent the quartz tube 5 from being damaged when screwing on 6. The quartz press heads 13 and 14 respond

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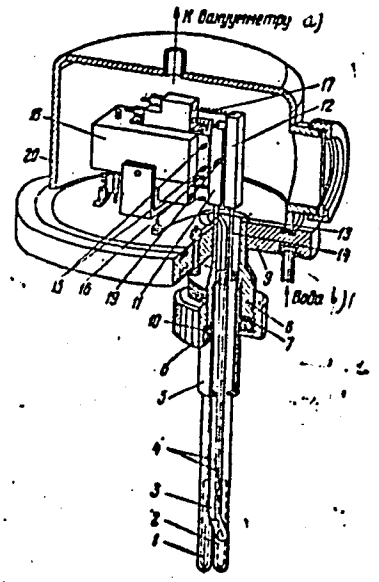
to any deformation in extension of either standard or sample and simultaneously transfer it to the slide bars 11 and 12. The latter are pressed onto the rollers 15 and 16 by means of coil springs 17. The slide bar 11 moves on the two rollers 15 (both having the same diameter), and thus changes its position with respect to block 18. The slide bar 12 changes its position both with respect to 18 and 11. In doing so, it moves along 16 to which reflector 19 is attached. The leads of the thermocouples outside the vacuum bell 20, and the basal plate are water cooled. The angle of rotation of reflector 19 is proportional to the displacement of 11 and 12 with respect to 18, i.e., it is proportional to the mutual displacement of standard and sample. The beam reflected from 19 is recorded by a scale or a photographic drum. A magnification of up to the 5,000-fold may be attained by changing the diameter of 16 and the distance between reflector and scale or photographic drum, respectively. A so-called "system of continuous addition", consisting of rollers and the evacuation of the dilatometer head, which is incorporated in the device, allows a direct recording of the differential curve. By means of the dilatometer described, the sample temperature can be measured with high accuracy, even at high temperatures, since decarbonization or oxidation of

the sample are excluded. The dilatometer may be used for investigations at low and/or high temperatures. [Abstracter's note: This is a full translation]. There is 1 figure.

ASSOCIATION: Institut elektrosvarki Akademii nauk USSR (Institute of Electric Welding, Academy of Sciences UkrSSR). Institut metallofiziki Akademii nauk USSR (Institute of the Physics of Metals, Academy of Sciences UkrSSR)

Exchange of...

S/032/61/027/002/024/026
B124/B201



Legend to the figure:
a) to vacuometer, b) water.

VASIL'YEV, V.G. (g. Zhukovskiy)

Multiply coupled reproducing systems with linear corrective transforming complexes. Avtometriia no.3:3-18 '65.
(MIRA 19:1)

1. Submitted Feb. 9, 1965.

VASIL'YEV, V.G.; YELIN, N.D., YEROFEYEV, N.S.; SOKOLOV, V.L.

Results of gas prospecting for the first three years of the seven-year plan. Geol. nefti i gaza 6 no.6:1-4 Je '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnykh gazov.

(Gas, Natural--Geology)

MIRCHINK, M.F.; VASIL'YEV, V.G.; DIKENSHTEYN, G.Kh.; YENIKEYEV, P.N.; YEROFEYEV, N.S.; KIROV, V.A.; L'VOV, M.S.; MAKSIMOV, S.P.; RUSAKOVA, L.Ya., red.

[Geological prerequisites for the development of oil and gas production in the U.S.S.R.] Geologicheskie predposylki razvitiia neftegazodobyvaiushchei promyshlennosti SSSR. Leningrad, Nedra, 1965. 112 p. (MIRA 19:1)

SLAVIN, R.M., inzh.; VASIL'YEV, V.G., inzh.; GERAS'KOV, N.I., inzh.

Complex of machines for over-all mechanization of large poultry houses. Zhivotnovodstvo 24 no.5:74-78 My '62. (MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva.

SLAVIN, R.M.; VASIL'YEV, V.G.; GERAS'KOV, N.I.; KISHECHNIKOV, S.A.; DMITRIYEV, I.N., red.; TRUKHINA, O.N., tekhn.red.

[Overall mechanization in poultry raising] Kompleksnaia mekhanizatsiia v ptitsevodstve. [By] R.M.Slavin i dr. Moskva, Sel'khozizdat, 1963. 287 p. (MIRA 17:2)

VASIL'YEV, V.G., kand.tekhn.nauk

Using the method of the adjustment of the enveloping curve in the design of reinforced concrete arches. Trudy KHIIT no.45:36-53 '61.
(MIRA 15:5)

(Arches) (Reinforced concrete construction)

BYKHOVSKIY, S.I.; VASIL'YEV, V.G., inzh.; KHORDAS, G.S., inzh.

High pressure air conditioning system. Sudostroenie 25 no.7:12-14 Jl '59. (MIRA 12:12)
(Ships--Air conditioning)

L 4948-66

ACC NR: AP5025723 SOURCE CODE: UR/0286/65/000/018/0078/0078

AUTHOR: Vasil'yev, V. O.

16
B

ORG: none

TITLE: Coordinatograph. Class 42, No. 174803

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 78

TOPIC TAGS: graphic data processing, graphic reproduction

ABSTRACT: This Author Certificate presents a coordinatograph for recording curves. The ordinate and abscissa values for the curves are fed by the output signals of ohmic resistance sensing elements. To simplify the device while assuring sufficient precision of curve construction, the coordinatograph contains bridge circuits with automatic compensation for controlling the abcissa and ordinate drives.

SUB CODE: DP, MA/ SUBM DATE: 28Mar64

PC

Card 1/1 UDC: 681.2.087

0901 1589

SKUL'SKIY, Yu.V.; VASIL'YEV, V.G.

Resistance butt welding of cast-iron pipe. Avtom. svar. 15 no.3:7-12 Mr '62. (MIRA 15:2)

1. Ordena Trudovogo Krasnogo Znameni institut elektrosvarki imeni Ye.O. Patona AN USSR.
(Pipe, Cast iron--Welding)

SOV/161-58-4-6/28

28(1)
AUTHOR: Vasil'yev, Vyacheslav Georgiyevich, Chief Engineer

TITLE: Automatic Equipment for the Solution of Volterra Integral Equations of the 2nd Type With a Kernel of the k(t - x)-Type (Avtomaticheskoye ustroystvo dlya resheniya integral'nykh uravneniy Vol'terra vtorogo roda s yadrom tipa k(t - x))

PERIODICAL: Nauchnyye doklady vysshey shkoly. Elektromekhanika i avtomatika, 1958, Nr 4, pp 36-38 (USSR)

ABSTRACT: Usually computors with nonlinear direct-current models are used for the solution of Volterra integral equations. In these devices the Volterra integral equations are solved by means of the method of the successive approximation. But these equations can also be solved by means of computors with linear direct-current amplifiers. These devices give the solution in a single working operation. Here a block circuit of such a device for the solution of Volterra integral equations of the 2nd type with a kernel of the k(t - x)-type is given. It is shown that on the basis of this circuit an automatic device can be realized securing the solution of Volterra integral equations of the 2nd type with the required exactness

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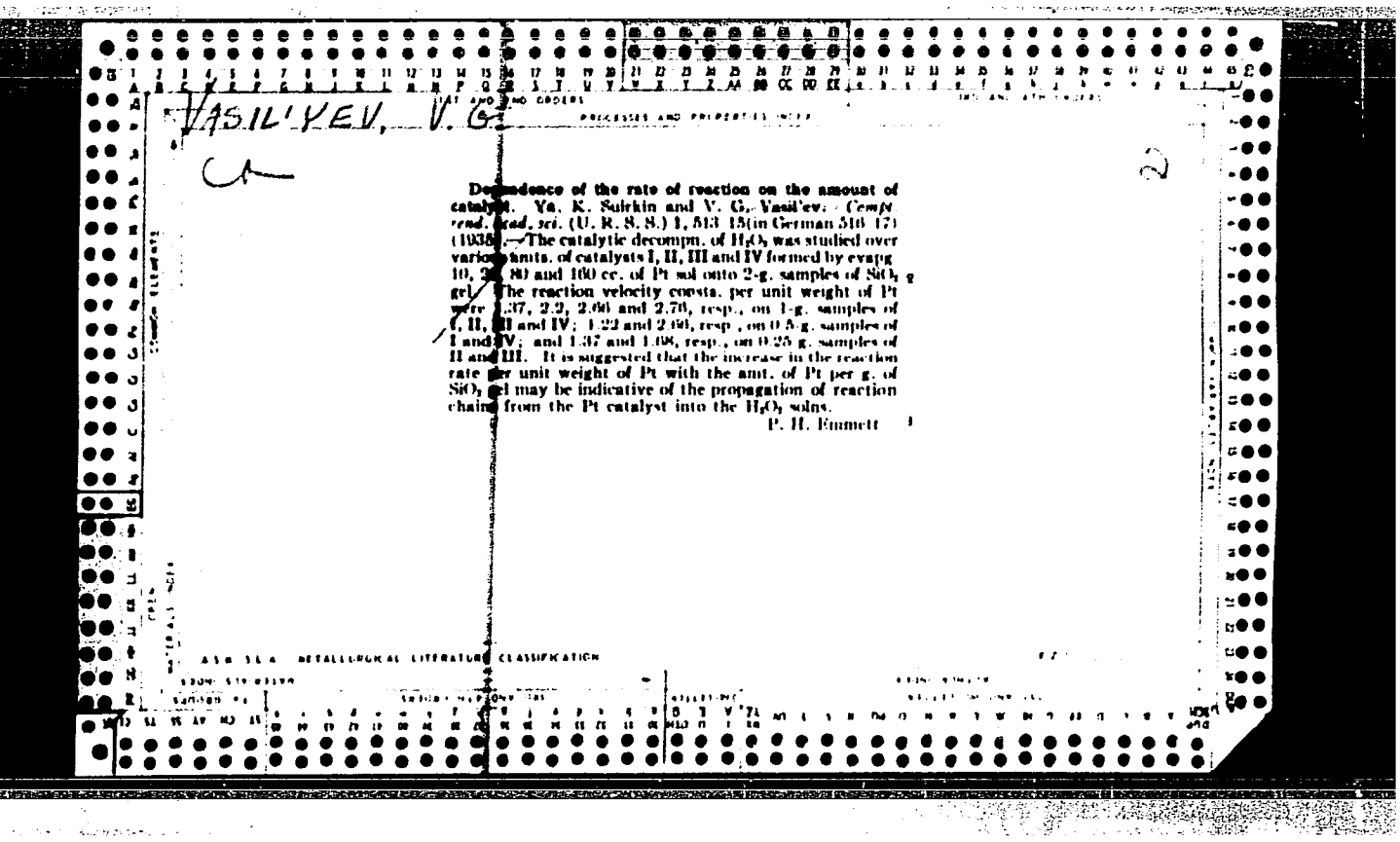
Automatic Equipment for the Solution of Volterra Integral Equations of the 2nd Type With a Kern l of the k(t - x)-Type

on finding the searched function. In the circuit given here there are three linear inertialess direct-current amplifiers and a passive quadrupole. Instead of two of the linear direct-current amplifiers there can also be used systems with an amplitude modulator, an alternating-current amplifier, and a phase sensitive detector in the automatic devices given here. The publication of this paper was recommended by the Kafedra avtomatiki, telemekhaniki i matematicheskikh mashin Moskovskogo energeticheskogo instituta (Chair of Automation, Telemechanics, and Mathematical Machines at the Moscow Institute of Power Engineering. There is 1 figure.

SUBMITTED: September 13, 1958

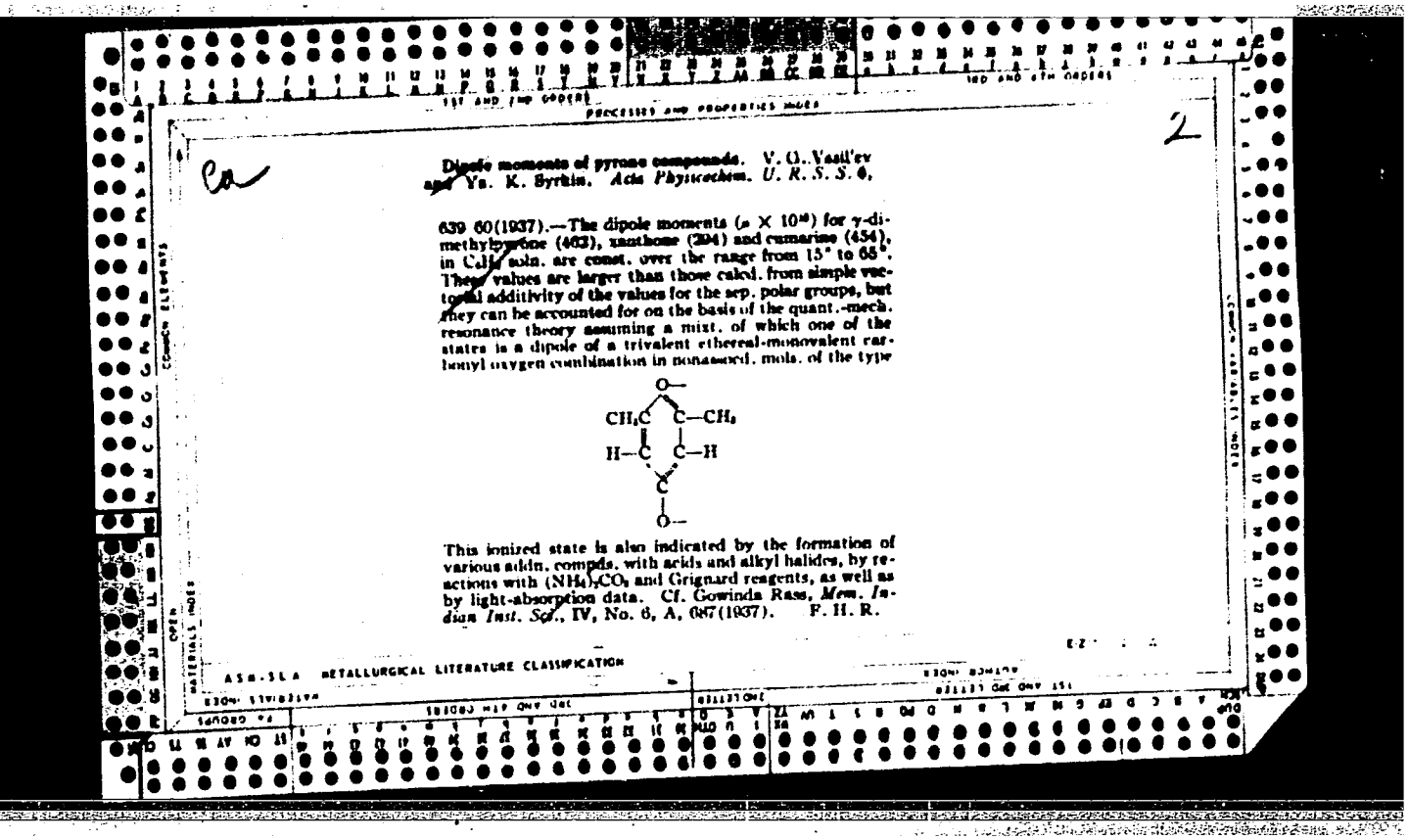
ASSOCIATION: NII



VASIL'YEV, V. G.

Dependence of the rate of reaction on the amount of catalyst. Ya. K. Sukkin and V. G. Vasil'ev. *Compt. rend. Acad. sci.* (U. R. S. S.) 1, 513–15 (in German 516–17) (1938).—The catalytic decompn. of H_2O_2 was studied over various amts. of catalysts I, II, III and IV formed by evapg 10, 20, 80 and 160 cc. of Pt sol onto 2-g. samples of SiO_2 gel. The reaction velocity consts. per unit weight of Pt were 1.37, 2.2, 2.60 and 2.70, resp., on 1-g. samples of I, II, III and IV; 1.22 and 2.60, resp., on 0.5-g. samples of I and IV; and 1.37 and 1.08, resp., on 0.25 g. samples of II and III. It is suggested that the increase in the reaction rate per unit weight of Pt with the amt. of Pt per g. of SiO_2 gel may be indicative of the propagation of reaction chains from the Pt catalyst into the H_2O_2 solns.

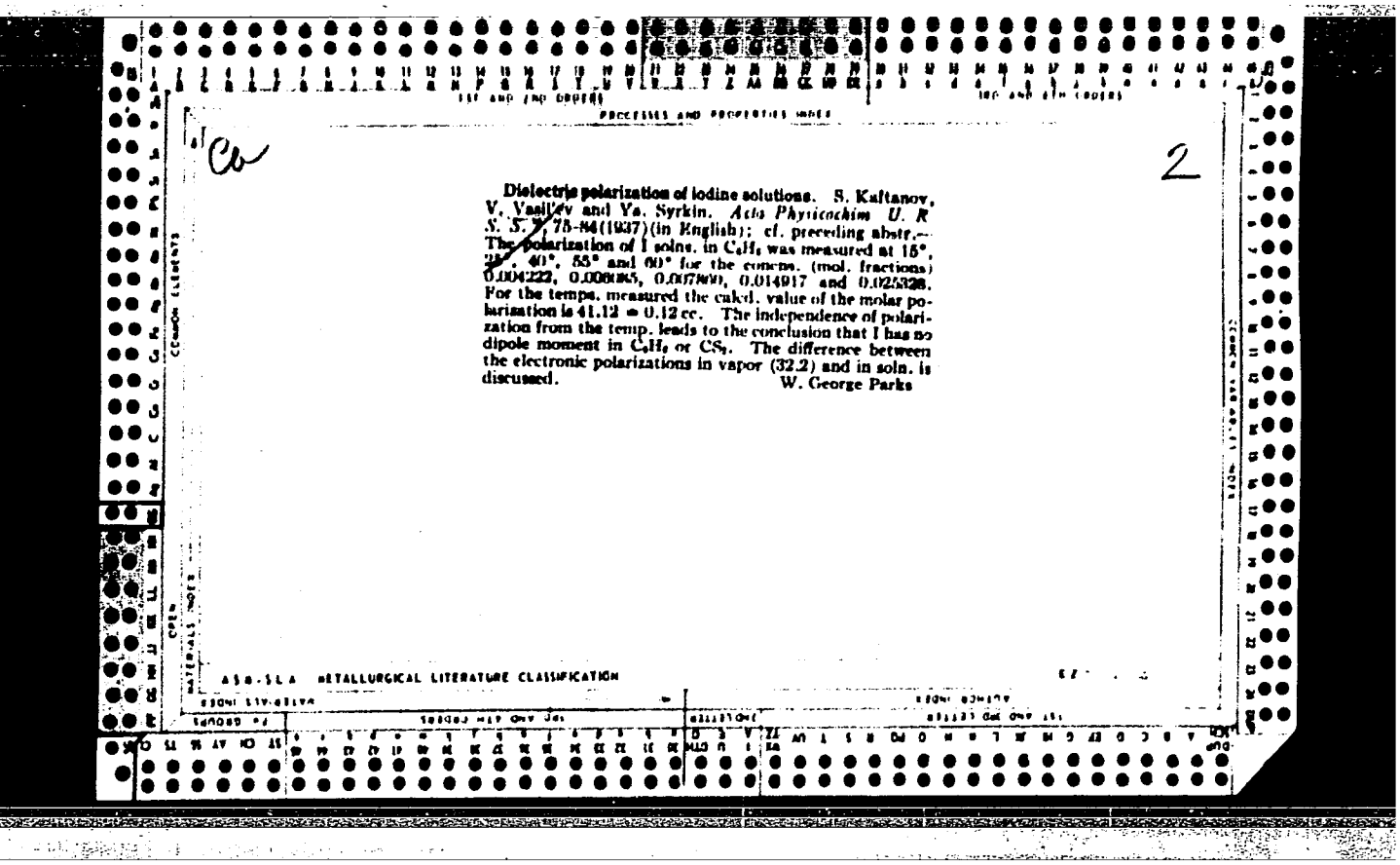
P. H. Emmett



Ca

Dipole moments of pyrone compounds. V. G. Vasil'ev and Ya. K. Syrkin. *Acta Physicochim. U. R. S. S.* 6, 639-60(1937).—The dipole moments ($\mu \times 10^{18}$) for γ-dimethylpyrone (403), xanthone (204) and cumarine (454), in C_6H_6 soln. are const. over the range from 15° to 65°. These values are larger than those calcd. from simple vectorial additivity of the values for the sep. polar groups, but they can be accounted for on the basis of the quant.-mech. resonance theory assuming a mixt. of which one of the states is a dipole of a trivalent ethereal-monovalent carbonyl oxygen combination in nonassocd. mols. of the type

This ionized state is also indicated by the formation of various addn. compds. with acids and alkyl halides, by reactions with $(NH_4)_2CO_3$ and Grignard reagents, as well as by light-absorption data. Cf. Gowinda Rass, *Mem. Indian Inst. Sci.*, IV, No. 6, A, 087(1937). F. H. R.



Dielectric polarization of iodine solutions. S. Kaftanov, V. Vasil'ev and Va. Syrkin. *Acta Physicochim. U. R. S. S.* 7, 75-84 (1937) (in English); cf. preceding abstr.— The polarization of I solns. in C_6H_6 was measured at 15°, 25°, 40°, 55° and 60° for the concns. (mol. fractions) 0.004222, 0.008085, 0.017809, 0.014917 and 0.025328. For the temps. measured the calcd. value of the molar polarization is 41.12 ± 0.12 cc. The independence of polarization from the temp. leads to the conclusion that I has no dipole moment in C_6H_6 or CS_2. The difference between the electronic polarizations in vapor (32.2) and in soln. is discussed.

W. George Parks

1ST AND 2ND ORDERS

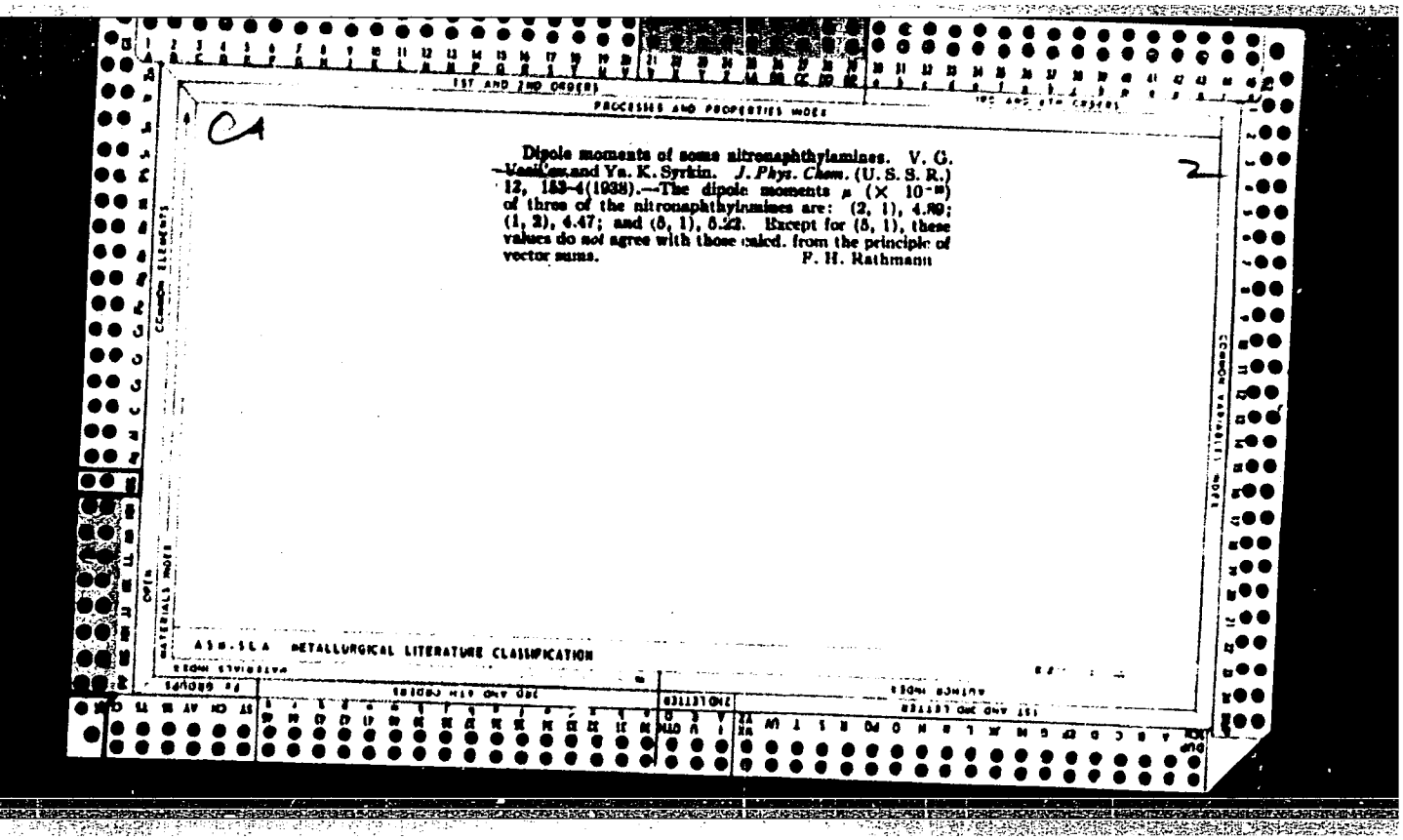
PROCESSES AND PROPERTIES INDEX

A-1

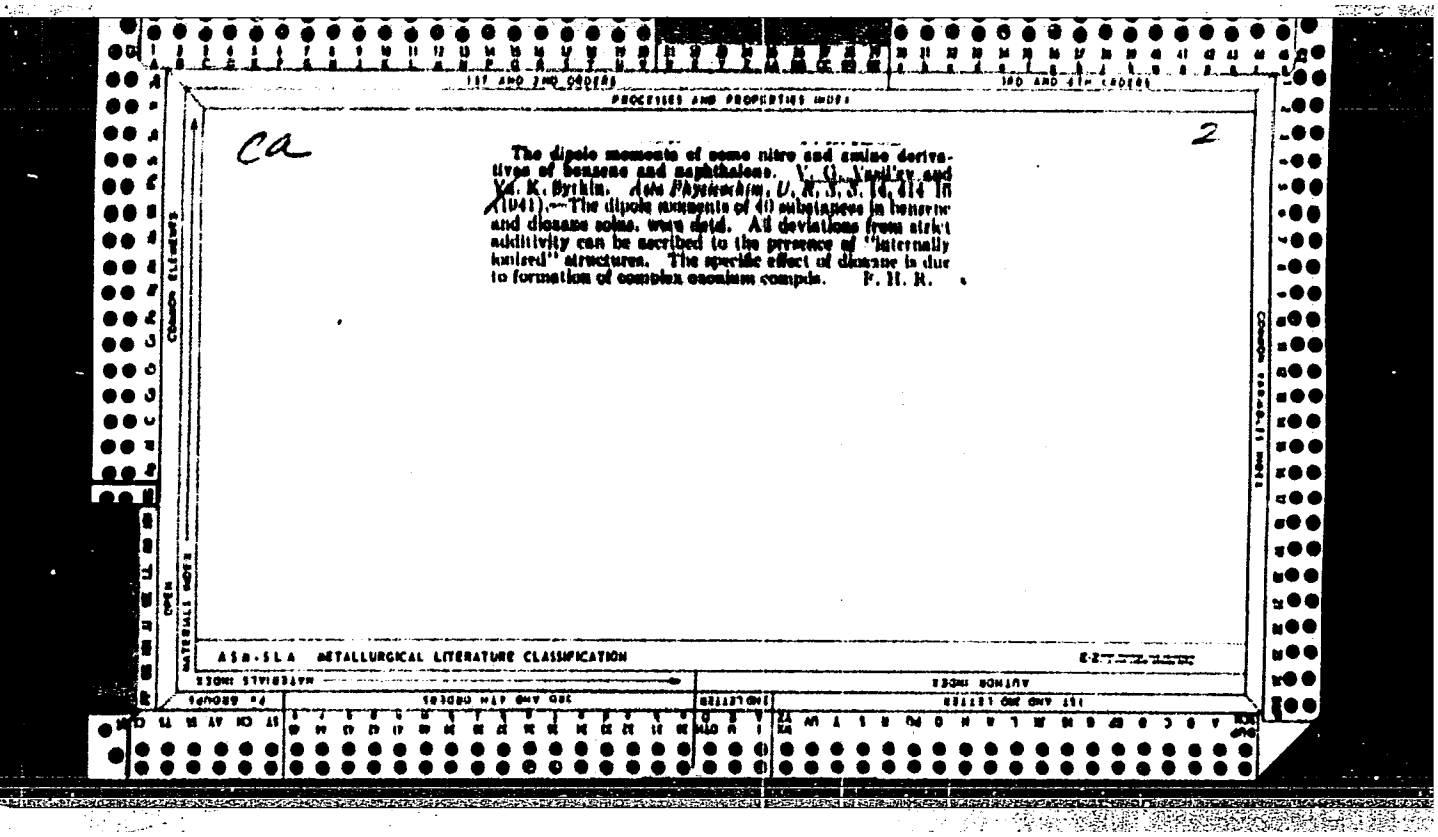
BC

Dipole moments of some nitronaphthylamines. V. G. VASSILIEV and J. K. SIRKIN (Acta Physicochim. U.R.S.S., 1938, 9, 203—204).—The vals. for 1 : 2-, 2 : 1 , and 1 : 5-NO_2·$C_{10}H_6$·NH_2 are given as 4·47, 4·80, and 5·22 D., respectively. W. R. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Dipole moments of some nitronaphthylamines. V. G. Vasil'ev and Ya. K. Syrkin. *J. Phys. Chem.* (U. S. S. R.) 12, 183–4(1938).—The dipole moments μ ($\times 10^{-18}$) of three of the nitronaphthylamines are: (2, 1), 4.89; (1, 2), 4.47; and (5, 1), 5.23. Except for (5, 1), these values do not agree with those calcd. from the principle of vector sums.
P. H. Rathmann



ca

2

The dipole moments of some nitro and amino derivatives of benzene and naphthalene. V. G. Vasil'ev and Yu. K. Syrkin. *Acta Physicochim. U. R. S. S.* 14, 614 (1941).—The dipole moments of 40 substances in benzene and dioxane solns. were detd. All deviations from strict additivity can be ascribed to the presence of "internally hindered" structures. The specific effect of dioxane is due to formation of complex oxonium compds. F. H. R.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

VASIL'YEV, V.G.; KHANIN, A.A.

Distribution of oil and gas pools in the cross section of the sedimentary mantle of the U.S.S.R. Geol. nefti i gaza no.11:1-5 N '63. (MIRA 17:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

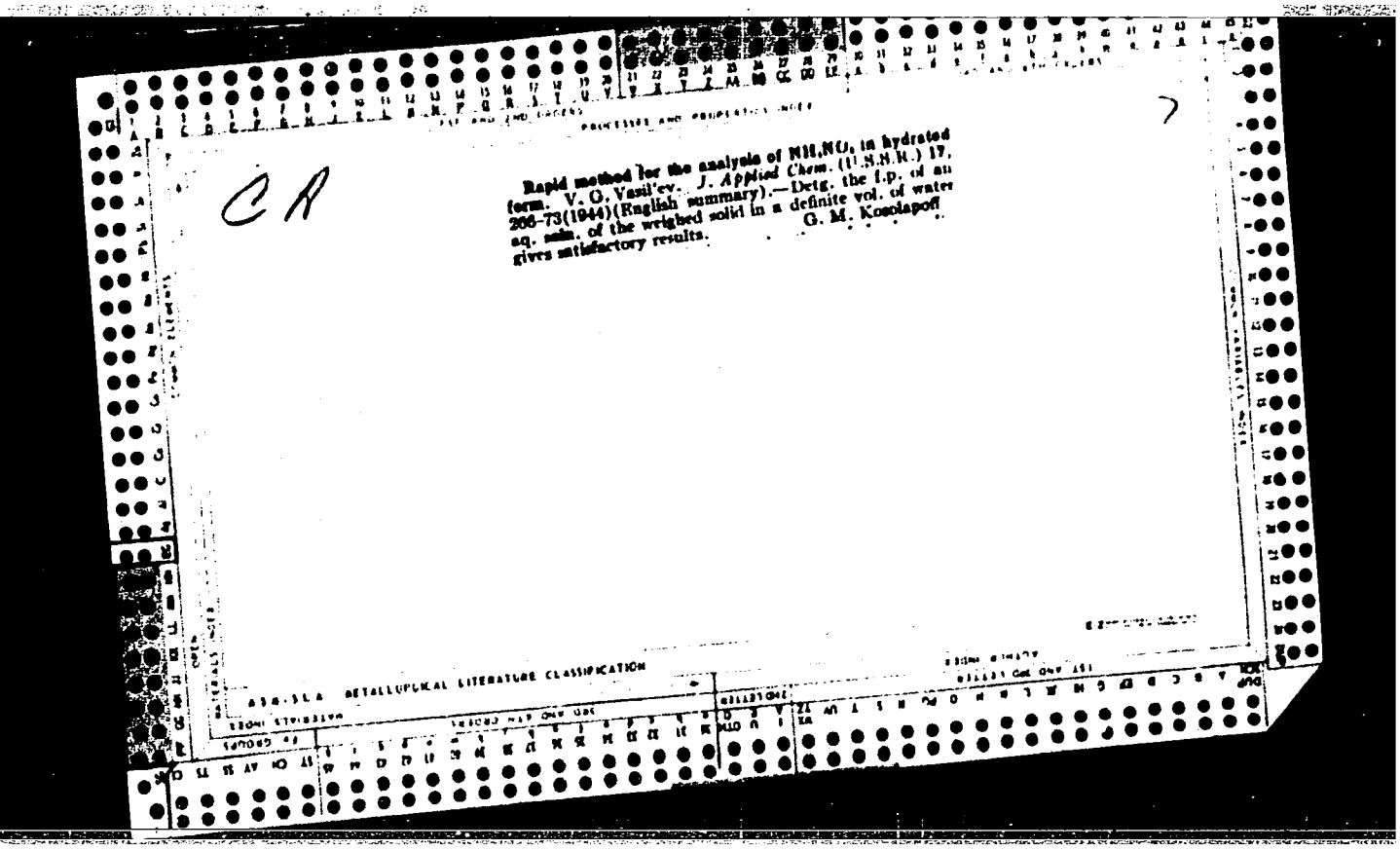
MIRCHINK, M.F.; VASIL'YEV, V.G.; DIKENSHTEYN, G.Kh.; YENIKEYEV, P.N.; YEROFEYEV, N.S.; KIROV, V.A.; L'VOV, M.S.; MAKSIMOV, S.P.; RUSAKOVA, L.Ya., red.

[Geological prerequisites for the development of the petroleum- and gas-production industry of the U.S.S.R.] Geologicheskie predposylki razvitiia neftegazodobyvaiushchei promyshlennosti SSSR. Leningrad, Nedra, 1965. 112 p. (MIRA 18:10)

AMURSKIY, G.I.; VASIL'YEV, V.G.; VOL'VOVSKIY, I.S.; GARETSKIY, R.G.; GABRIELYANTS, G.A.

Basic tectonic elements in the western part of Central Asia. Neftegaz. geol. i geofiz. no.4:7-10 '65. (MIRA 18:7)

1. Upravleniye geologii i okhrany nedr pri Sovete Ministrov Turkmenskoy SSR; Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza; IG AN SSSR i Nauchno-issledovatel'skaya Sredne-Aziatskaya geofizicheskaya ekspeditsiya, kontora Spetsgeofizika.



CA

Rapid method for the analysis of NH_4NO_3 in hydrated form. V. G. Vasil'ev. *J. Applied Chem.* (U.S.S.R.) 17, 266–73(1944)(English summary).—Detg. the f.p. of an aq. soln. of the weighed solid in a definite vol. of water gives satisfactory results. G. M. Kosolapoff

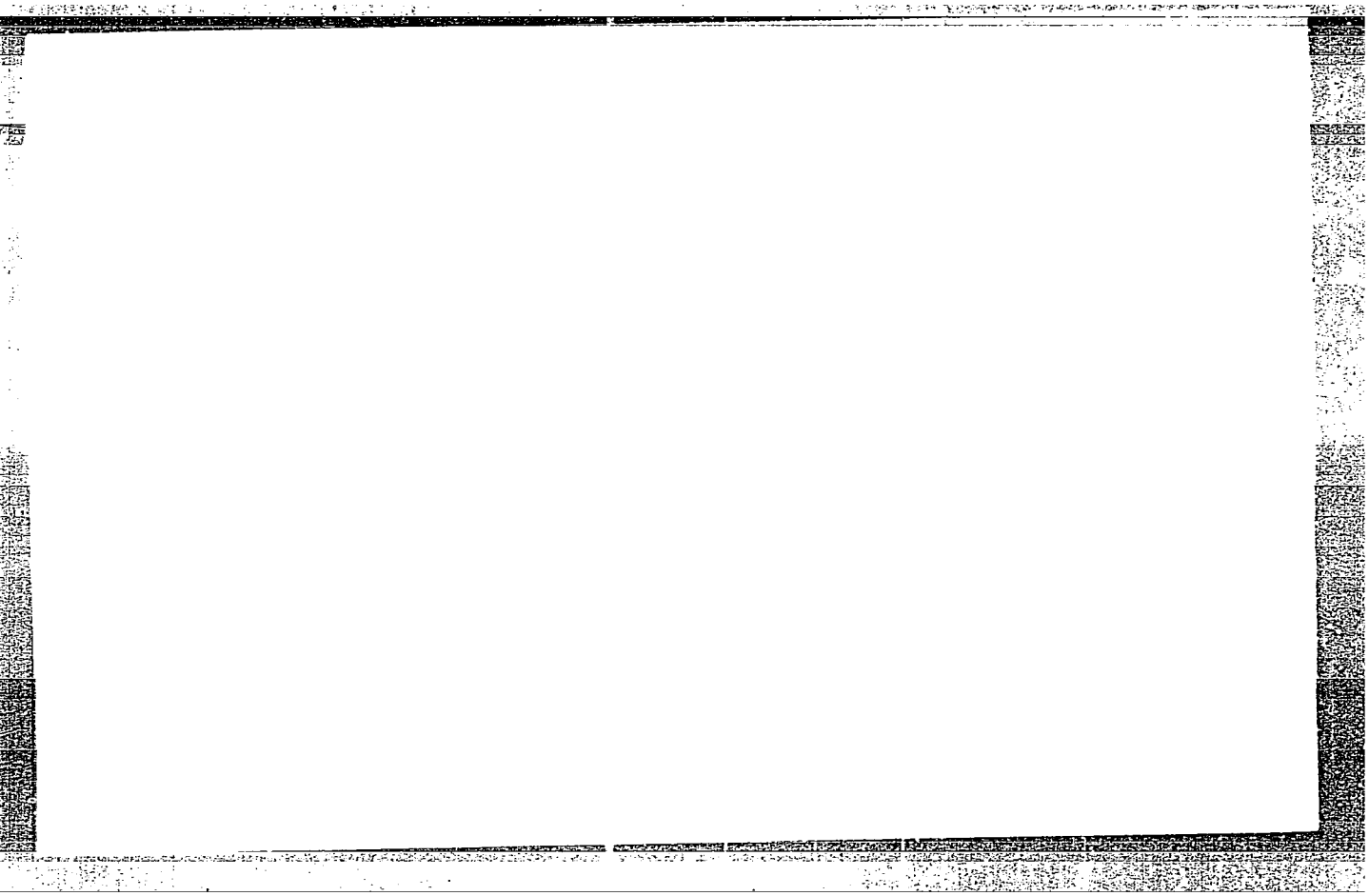
WEISSBERGER, Arnold, editor; VASIL'YEV, V.G., redaktor; OGANDZHANOVA, N.A., redaktor; IL'IN, B.M., tekhnicheskiy redaktor

[Physical methods of organic chemistry. Translated from the English] Fizicheskie metody organicheskoi khimii. Perevod s angliiskogo. Pod obshchei red. V.G.Vasil'eva. Moskva, Izd-vo inostrannoi lit-ry, Vol.2. 1952. 587 p. (MIRA 10:1)
(Chemistry, Organic)

VASIL'YEV, V. G.

WEISSBERGER, Arnold, redaktor; VASIL'YEV, V.G., redaktor; ARNOL'DOV, V.V., redaktor; SHAPOVALOV, V.I., tekhnicheskiy redaktor.

[Physical methods of organic chemistry. Translated from the English] Fizicheskie metody organicheskoi khimii. Perevod s angliiskogo pod obshchei red. V.G. Vasil'eva. Moskva, Izd-vo inostrannoi lit-ry. Vol. 3. 1954. 216 p. (MIRA 8:4)
(Electric moments) (Mass spectrometry) (Radiochemistry)



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858920004-4"

VASIL'YEV, V.G.

2107. Technique of determining radio-carbon in organic compounds. V. G. Vasil'ev [i. Ya. Karpov Phys. Chem. Inst., Moscow]. *Zhur. Anal. Khim.*, 1953, **10** (6), 368-372.—The organic compound containing ^{14}C is burnt in O and the CO_2 is converted into $BaCO_3$, which is formed into a disc in a special apparatus. The activity is measured by means of a Geiger counter. A formula for calculating the absolute radioactivity of $BaCO_3$ samples from comparisons with uranium standards is given.

G. S. Smith

POTAPOV, V.K.; VASIL'YEV, V.G.; TUNITSKIY, N.N.

Investigation of the ionization and dissociation of n-octane and n-nonane molecules by means of bombardment with "quasi-monokinetic" electrons. Probl.fiz.khim. no.2:146-162 '59. (MIRA 13:7)

1. Laboratorii stroyeniya molekul i adsorbtsionnykh protsessov Nauchno-issledovatel'skogo fiziko-khimicheskogo instituta imeni L.Ya.Karpova.

(Octane) (Nonane) (Electrons)

5(3) SOV/79-29-6-45/72

AUTHORS: Vasil'yev, V. G., Kharlamova, Ye. N.

TITLE: Thermal Decarboxylation of Methyl Acetyl Salicylate Marked With C^{14} (Termicheskoye dekarboksilirovaniye metilatsetilsalitsilata, mechennogo C^{14})

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 6, pp 1973 - 1982 (USSR)

ABSTRACT: The decarboxylation reaction of the carboxylic acids has been investigated in detail. R. R. Brown (Ref 1) mentions a number of proofs for the fact that these reactions take place over the formation of the anion or the dipolar ion:

$$RCO_2H \rightarrow RCO_2^- \rightarrow R^- + CO_2 \quad (1)$$

$$RCO_2H \rightarrow H^+RCO_2^- \rightarrow RH + CO_2 \quad (2)$$

$$H^+ + RCO_2^- \rightarrow HR + CO_2 \quad (3)$$

The only example of a decomposition in undissociated form is the mesitol acid (mezitoynaya kislota). The thermal decarboxylation of the esters is more complicated. Both bonds show the same stability with respect to their cleavability. On the basis of theoreti-

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Thermal Decarboxylation of Methyl Acetyl Salicylate Marked With C^{14} SOV/79-29-6-45/72

cal considerations the authors used a method described already earlier for the investigation of the kinetics and the mechanism of the decarboxylation of methyl acetyl salicylate (=A.M.C.) with the C^{14} marked in the acetate group (scheme (6) and (7)) i. e. at 280, 300 and 320°. The application of the isotope made possible a separate determination of the rates of the simultaneous development of carbon dioxide from both carboxyl groups of this compound. The separation of CO_2 from the methyl carboxyl group takes place autocatalytically. The initial noncatalytic reaction takes place with the activation energy 44 Cal/Mol. The autocatalytic stage occurs with the activation energy 38 Cal/Mol between AMC and the product of the first reaction. The curves computed on the basis of these conditions correspond to the experiment. A chain-, radical-, and ionic mechanism is not possible. The separation of C^*O_2 from the acetoxy group takes place in two stages: at the beginning acetic anhydride forms from 2 molecules AMC which in the second stage decomposes into CO_2 and acetone. This reaction is inhibited by the decomposition products of AMC. The difference of the activation energy of the two reactions (=1.8 Cal/Mol) was computed

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from the ratio of the constants of the initial velocities of $C^{*}O_2$ and CO_2. This difference is mainly due to the difference in the degree of conjugation of the two carboxyl groups with the aryl and methyl group of the molecule AMC (2 curve diagrams). There are 3 figures and 21 references, 5 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni L. Ya. Karpova (Scientific Physicochemical Research Institute imeni L. Ya. Karpov)

SUBMITTED: April 15, 1958

5(4)

AUTHORS: Potapov, V. K., Vasil'yev, V. G., Tunitskiy, N. N. SOV/20-126-3-43/69

TITLE: The Ionization and Dissociation of the Molecules of n-Octane and n-Nonane by Monoenergetic Electrons (Ionizatsiya i dissotsiatsiya molekul n-oktana i n-nonana monoenergeticheskimi elektronami)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 612-615 (USSR)

ABSTRACT: In the introduction to the present paper investigations carried out by V. L. Tal'roze and Ye. L. Frankevich on the determination of the affinity of some molecules are mentioned (Ref 4). In the present paper the formation of fragment ions and the excitation of molecule ions by monoenergetic electrons is investigated. This is done by investigating the occurrence of fragment- and molecule ions of n-octane, n-octane-$2D_1$ and n-nonane-$5D^{13}$. Measurements were carried out in a special mass spectrograph, and for obtaining the monoenergetic electrons a method developed by R. E. Fox (Ref 6) was used. Tables 1 and 2 show the potentials of molecule- and fragment-ions of the type $C_nH^+_{2n+1}$ and $C_nH^+_{2n}$ occurring in this mass spectrograph, and two diagrams show the ion flux of molecule- and fragment ions in dependence on electronic energy. From these

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results the schemes for the formation of the fragment-ion $C_nH_{2n+1}^+$ and of the fragment-ion $C_nH_{2n}^+$ from n-octane are then obtained.

Finally, the authors thank M. V. Tikhomirov for his help and evaluation of results, as well as M. V. Gur'yev for the synthetic production of n-octane-$2D_1$ and n-nonane-$5C^{13}$. There are 3 figures, 2 tables, and 10 references, 3 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Physico-chemical Research Institute imeni L. Ya. Karpov)

PRESENTED: February 27, 1959 by S. S. Medvedev, Academician

SUBMITTED: February 18, 1959

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S/020/60/133/01/42/070
B004/B007

5.3100

AUTHORS: Vasil'yev, V. G., Kharlamova, Ye. N.

TITLE: Investigation of the Strength of C-O Bonds by Isotopic Exchange

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 1, pp. 152 - 154

TEXT: The authors investigated the relative strengths of C-O bonds in ethers and esters by means of the exchange of C^{14}. As a relative measure of strength an exchange yield was selected, which was attained after a certain time. The experimental conditions were chosen in such a manner that the yield did not exceed 20 - 40 %, so that its values approximately corresponded to the rate constants. Equimolar mixtures, in which one component was tagged with C^{14}, were heated in ampoules. In the first two experimental series determination of the radioactivity absorbed by the non-tagged component was carried out qualitatively by measuring radioactivity, but in the third, it was carried out quantitatively by

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Investigation of the Strength of C-O Bonds by Isotopic Exchange

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determining the C^{14} content. In series 1 reactions of ethers were investigated. Neither p-nitrophenol, p-chlorophenol, p-diethoxybenzene nor p-cresol ethyl ether entered into exchange reaction with sulphuric ether tagged with C^{14} at 300°C and with the experiment lasting 20 h. Only in the case of phenetole was a slight exchange observed. Experiments carried out with phenetole and (p-nitrophenol) and C^{14}-ethanol also showed no reaction. In series 2 qualitative investigations were carried out in mixtures of acids, esters, acid anhydrides and ketones (Table 1). Ketones did not enter into reaction with acid anhydrides. For series 3 the system $C_6H_5COOC_6H_5 + C_6H_5C^{14}OOH$ was selected, and both the exchange of C^{14} as also, in parallel experiments, with $C_6H_5CO^{18}O^{18}H$ the exchange of O^{18} were investigated. C^{14} was combusted to CO_2 and determined by measuring the pulses of $BaC^{14}O_3$. O^{18} was combusted to CO_2^{18} and the latter was determined by means of an МИ-1303 (MI 1303)-type mass spectrometer (these measurements were carried out by M. V. Tikhomirov). The authors found an exchange of C^{14} equalling 41.5 %, and of O^{18} equalling 21 %. Therefore,

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the authors give the following scheme for the exchange reaction:

$$\left.\begin{matrix} C_6H_5CO\text{-}OC_6H_5 \\ C_6H_5C^{14}O^{18}\text{-}O^{18}H \end{matrix}\right\} \rightarrow + \begin{matrix} C_6H_5C^{14}O^{18}\text{-}OC_6H_5 \\ C_6H_5CO\text{-}O^{18}H \end{matrix}$$

4

The exchange occurs by way of the C-O bond between carboxylic carbon and ester oxygen. There is 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-khimicheskiy institut im. L. Ya. Karpova (Scientific Research Institute of Physical Chemistry imeni L. Ya. Karpov)

PRESENTED: March 4, 1960 by S. S. Medvedev, Academician

SUBMITTED: March 4, 1960

Card 3/3

MALEVSKIY, Yu.B.; GRABIN, V.F.; VASIL'YEV, V.G.; YAVORSKIY, Yu.D.

Alloys of copper with cobalt and silicon for the electrodes of resistance welding machines. Avtom. svar. 16 no.8:47-57 Ag '63. (MIRA 16:8)

1. Institut elektrosvarki imeni Ye.O. Patona AN UkrSSR.
(Electric welding--Equipment and supplies)
(Electrodes, Copper)

VASIL'YEV, V.G.

Present status of the development of natural gas reserves. Gaz. prom. 10 no.8:1-7 '65. (MIRA 18:9)

VASIL'YEV, V.G.

Using an anisometer to study the isometric decomposition of austenite. Avtom. svar. 18 no.10:74-75 O '65.
(MIRA 18:12)

VASIL'YEV, V.G.; KARASEV, I.P.; MAZUR, V.B.; MIRONCHEV, Yu.P.

Prospects for finding gas in the southern part of the East Siberian Platform. Gaz. prom. 8 no.6:1-4 '63. (MIRA 17:8)

L 22601-66 EWT(1) GS/GW
ACC NR: AT5028970 SOURCE CODE: UR/0000/64/000/000/0130/0140

AUTHOR: Vasil'yev, V. G.; Maksimov, S. P.; Trofimuk, A. A.

ORG: none

TITLE: Oil and gas basins of the SSSR

SOURCE: International Geological Congress. 22d, New Delhi, 1964. Geologiya nefti (Petroleum geology). Moscow, Izd-vo "Nauka," 1964, 130-140

TOPIC TAGS: geology, geologic conference, earth crust, map, natural gas, fuel, shale oil, petroleum

ABSTRACT: Oil and gas deposits in the earth's crust are confined to the series of sedimentary rocks filling up depressions in the folded or crystalline basement. The existing oil and gas basins are located in such depressions. According to I. O. Brod, the term "oil and gas and potential oil and gas basins" means "depressions in the present structure of the earth's crust differing in their geotectonic position and dimensions, characterized in most cases by inherited sagging, composed of relatively thick series of sedimentary rocks, and containing accumulations of oil and gas, the distribution of which is controlled by the peculiarities of the geological structure of each basin and its specific hydrogeological environment." By their position relative to the large geostructural elements of the earth's crust the basins are subdivided into: a) intraplatform depressions located in the interior

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part of ancient and younger platforms; b) subgeosynclinal depressions, also located on platforms, but adjacent to and genetically closely associated with geosynclir regions; c) intermontane depressions developed in the form of superimposed depressions on geosynclinal substratum. The total estimated area of prospective oil and gas regions in the Soviet Union is 11,875,000 square kilometers. There are over 40 oil and gas and potential oil and gas basins within this area, belonging to the above mentioned three types of geostructural elements. Within each oil and gas basin of platform type three structural stages are discernible: basement, intermediate stage, and platform cover proper. Within continents, oil and gas basins of subgeosynclinal-platform type, associated with a single folding system, can form continuous belts of oil and gas accumulations. Oil and gas basins on platforms usually have very complex geological structure, and individual oil and gas regions can be distinguished within them. With the regions it is advisable to discriminate individual oil and gas fields. Comparative evaluation of the supposed reserves of oil and gas was made by types of basins, based on the geological anomalies method. A more accurate estimation of the supposed reserves of oil can be made by the volumetric-genetic method, in accordance with a single general system of their evaluation. Considering the great theoretical and practical importance of oil and gas basin studies, it seems advisable to set up a special commission of representatives of geological services of the countries of Europe, Asia, America, Africa, and Australia within the International Geological Congress to prepare a map of "Oil and Gas Basins of the World." Orig. art. has: 3 tables and 1 figure. [Author's abstract.]

SUB CODE: 08/ SUBM DATE: 21Nov64/ ORIG REF: 007/

Card 2/2

BUYALOV, N.N.; [illegible], V.A.

Evaluating possible oil and gas reserves. Neftegaz.geol. i geofiz. no.7:3-6 '65. (MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut, Moskva, i Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

BAGIRYAN, G.V.; VASIL'YEV, V.G.; GORBENKO, G.L.; MIRONCHEV, Yu.P.; KOCHAROV, S.M.

Oil and gas fields of Siberia. Neftegaz.geol. i geofiz. no.1:4-9 '65. (MIRA 18:5)

1. Gosudarstvennyy geologicheskiy komitet RSFSR i Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

L 03018-67 EWT(1) IJP(c) GG

ACC NR: AP6028218 SOURCE CODE: UR/0199/66/007/003/0559/0576

AUTHOR: Lavrent'yev, M. M.; Vasil'yev, V. G.

ORG: none

TITLE: On the formulation of several incorrect problems of mathematical physics

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 7, no. 3, 1966, 559-576

TOPIC TAGS: integral equation, boundary value problem, Cauchy problem, Laplace equation, partial differential equation

ABSTRACT: The solution of the general equation

$$A\varphi = f. \qquad (1)$$

is said to be correctly formulated if there exists a function $B(f)$ defined and continuous in all F and inverse to the function $A(\phi)$, where F is a total metric space and $A\phi$ is a function with a region of definition $\Phi' \subset \Phi$. Approaches to incorrect problems are set forth using the classical Cauchy problem for Laplace's equation as an example. The first approach involves altering the notion of correctness. Tikhonov's method, for example, defines for (1) a closed set $M \subset \Phi$ and proceeds from the rules: 1) it is known *a priori* that a solution ϕ exists for some class of data and belongs to M; 2) the solution is unique in the class of functions belonging to M; 3) corresponding to

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ACC NR: AP6028218

infinitely small changes in f which do not carry ϕ outside of M are infinitely small variations in the solution. Another method is to retain the notion of correctness according to Hadamard, but to change the definition of a solution. A more general method is also described. A probabilistic approach is given in detail and illustrated in the solution of linear integral equations of the first order convolution type. Orig. art. has: 95 formulas.

SUB CODE: 12/ SUBM DATE: 05Apr65/ ORIG REF: 007/ OTH REF: 006

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L 04883-67 EWT(d)/EWP(c)/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c)

ACC NR: AP6015321 (N) SOURCE CODE: UR/0410/65/000/003/0003/0018

58
57
B

AUTHOR: Vasil'yev, V. G. (Zhukovskiy)

ORG: none

TITLE: Multiply-connected reproducing systems with correct linear conversion elements

SOURCE: Avtometriya, no. 3, 1965, 3-18

14

TOPIC TAGS: linear accelerator, linear automatic control system, circuit design, servosystem

ABSTRACT: The article demonstrates that it is possible, in principle, to design multiply-connected reproducing systems (MRS) with linear inertial conversion elements which function on a nonselective basis. An analysis of MRS is made for the purpose of obtaining the necessary and sufficient conditions of their high-quality operation. Declarative and mathematical definitions are proposed in the case of the fundamental concepts discussed, including: "linear converting complexes," "linear multiply-connected reproducing systems," and "simple-conversion linear multiply-connected systems." Systems of this general type, consisting of five linear correct conversion complexes, are analyzed, and the purpose and inherent errors of the conversion process are discussed. Stability conditions for uniquely operating MRS are

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L 04883-67

ACC NR: AP6015321

derived, and mathematical expressions are written for the prevention of useful signal suppression in such systems. Conditions for the correct use of multiply-bound systems for simple conversion are presented. Several specific arrangements of optimally corrected simple-conversion MRS are proposed (multiply-connected test and recording system, multiply-connected automatic control system), and linear systems for complex conversion are briefly discussed. The results, which indicate the advisability of using MRS as modern test equipment, are seen as useful in the development of test systems with non-selective primary converters, designed for the simultaneous testing and/or recording of a number of qualitatively distinct physical processes. Orig. art. has: 7 figures and 50 formulas.

SUB CODE: 09,14/ SUBM DATE: 16Dec64/ ORIG REF: 019

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VASIL'EV, Vasilii Gavrilovich

VASIL'EV, Vasilii Gavrilovich. Dva goda v tundre. Leningrad, Izd-vo Glavsevmorputi, 1935. 214 p. (Poliarnaia biblioteka). DLC: Unclass.
NN "Two Years in the Tundras"

So: LC, Soviet Geography, Part II, 1951/Unclassified

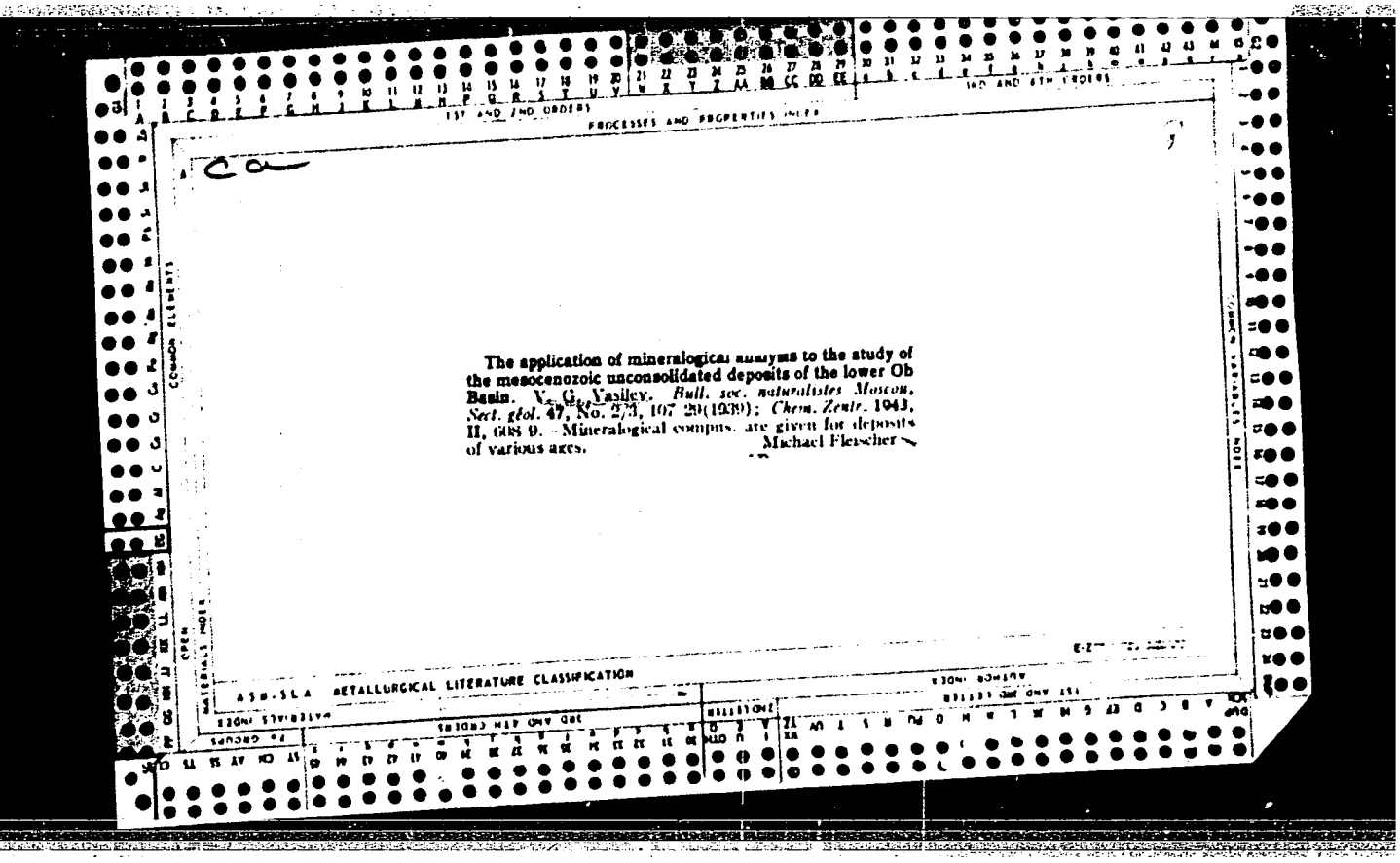
VASIL'EV, VASILII G., jt. comp.

Katalog astronomicheskikh... 1937. (Card 2, 48-34791)

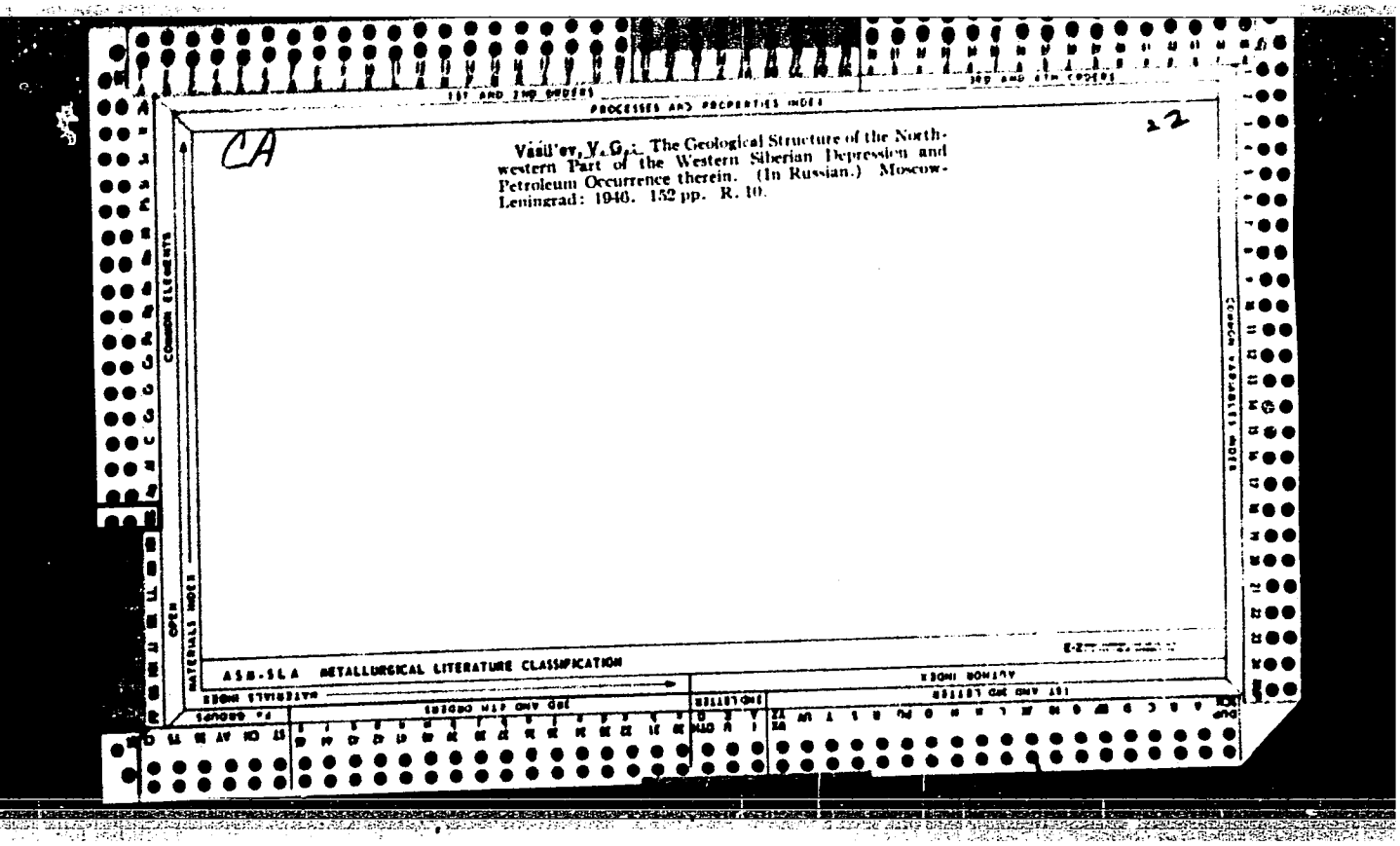
Dadaev, V. A., jt. comp. II. Vasil'ev, Vasilii G. jt. comp. III. Vorob'ev, V. I., ed. IV. Salishchev, Konstantin Alekseevich, jt. ed. V. Russia (1923- U.S.S.R.) Glavnoe upravlenie Severnogo morskogo puti.

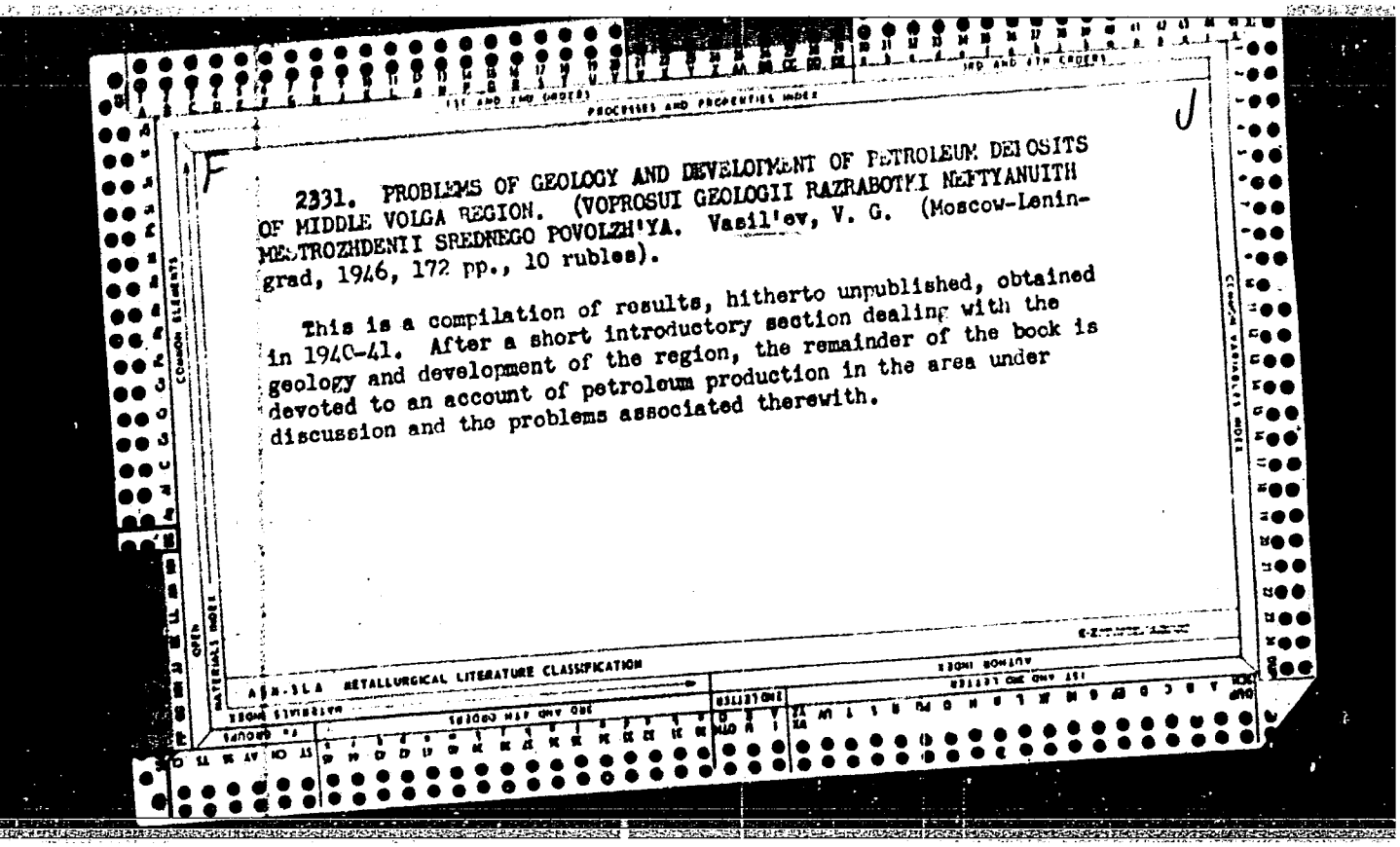
Paleozoic deposits on the headwaters of the Lower Tunguska and Chona rivers, and in the Njuja basin. A. G. Vasil'ev. *Bull. soc. naturalistes Moscou, Sect. geol.* 16, [illegible] (1938); *Neues Jahrb. Mineral. Geol.*, Ref. II, 1939, 520-2.—Elaborate discussions on the dolomitization and [illegible] of some of the deposits are given. C. A. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The application of mineralogical analyses to the study of the mesocenozoic unconsolidated deposits of the lower Ob Basin. V. G. Vasilev. *Bull. soc. naturalistes Moscou, Sect. géol.* 17, No. 2/3, 107-20(1939); *Chem. Zentr.* 1943, II, 608 9. —Mineralogical compns. are given for deposits of various ages. Michael Fleischer





2331. PROBLEMS OF GEOLOGY AND DEVELOPMENT OF PETROLEUM DEPOSITS OF MIDDLE VOLGA REGION. (VOPROSUI GEOLOGII RAZRABOTKI NEFTYANUITH MESTROZHDENII SREDNEGO POVOLZH'YA. Vasil'ev, V. G. (Moscow-Leningrad, 1946, 172 pp., 10 rubles).

This is a compilation of results, hitherto unpublished, obtained in 1940-41. After a short introductory section dealing with the geology and development of the region, the remainder of the book is devoted to an account of petroleum production in the area under discussion and the problems associated therewith.