L 10808-65

ACCESSION NR: AP4046693

SUBMITTED: 15Jun63	ATD PRESS: 3117	ENCL: 00	
SUB CODE: SS	NO REF SOV: 003	OTHER: 000	

Card 2/2

L 49800-65 EWT(1)/T/EWA(h) Pz-6/Peb IJP(c) AT

ACCESSION NR: AP5010101 UR/0109/65/010/004/0693/0699

AUTHOR: Avak'yants, G. M.

TITLE: Impurity theory of active and reactive properties of electron-hole junctions in semiconductors

SOURCE: Radiotekhnika i elektronika, v. 10, no. 4, 1964, 693-699

TOPIC TAGS: semiconductor, pn junction, semiconductor theory

ABSTRACT: Active and reactive properties of p-n junctions which may stem from the presence of acceptor-type deep levels in the space-charge layer are theoretically investigated. A formula (6) describing the controllable semiconductor capacitance (which is due to relaxation of the deep-level charge under small-signal conditions) is developed. It is shown (formula 11) that when a backward diode has inductive impedance, it also has, under certain conditions, an S-type falling-off characteristic; if, however, the diode has capacitive

Card 1/2

L 49800-65
ACCESSION NR: AP5010101

impedance, it may have an N-type falling-off characteristic. It is also shown that the effect of the charged-deep-acceptor concentration upon the impact-ionization factor facilitates formation of the falling-off characteristic. The above relations, however, may not hold true at frequencies higher than a certain limit. Orig. art. has: 1 figure and 34 formulas.

ASSOCIATION: none

SUBMITTED: 18Feb63 ENCL: 00 SUB CODE: EC

NO REF SOV: 001 OTHER: 000

Card 2/2

AVAK'YANTS, G.M.; RAKHIMOV, A.U.

Calculation of the volt-ampere characteristics of long diodes. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk 9 no.5:54-62 '65. (MIRA 18:11)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina.
Submitted June 10, 1964.

AVAK'YANTS, G.M.

Contribution to the theory of nonsymmetrical p-n junctions. Radiotekh. i elektron. 10 no.8:1489-1493 Ag '65. (MIRA 18:8)

1. Tashkentskiy gosudarstvennyy universitet im. V.I.Lenina.

L 8244-66
ACC NR: AP5022436 SOURCE CODE: UR/0109/65/010/009/1700/1706

AUTHOR: Avak'yants, G. M.; Dmitriyenko, I. L.; Murygin, V. I.

ORG: none

TITLE: Properties of "long" diodes

SOURCE: Radiotekhnika i elektronika, v. 10, no. 9, 1965, 1700-1706

TOPIC TAGS: semiconductor diode, junction diode

ABSTRACT: An analysis is offered of a new theoretical model of the "long" diode which consists of a two-layer structure with one injection junction, the diode base being located next to the back contact; the rate of surface recombination is assumed to be constant. By setting up, solving, and analyzing a differential equation describing the processes in the "long" diode, this formula for its I-V characteristic is derived: $V = 2s_p d/3u_p$, where d is the back-contact coordinate. This formula and other relations indicate the possibility of two types

Card 1/2 UDC: 621.382.29.001.5

L 8244-66
ACC NR: AP5022436

of I-V characteristics in "long" diodes: (1) The characteristic starts with an Ohm's-law segment, then a $j \approx V^2$ segment follows, then V = const., and finally, $j \approx V^3$; (2) The Ohm's-law segment, then a segment obeying the above I-V characteristic formula, and finally, $j \approx V^3$. Orig. art. has: 59 formulas.

SUB CODE: 09 / SUBM DATE: 13Dec63 / ORIG REF: 006 / OTH REF: 001

Card 2/2

L 8780-66 EEC(k)-2/EWA(h)/EWT(1)/EWT(m)/T/EWP(b)/EWP(t) IJP(c) JD

ACC NR: AP5027626 SOURCE CODE: UR/0109/65/010/011/2037/2045

AUTHOR: Avak'yants, G. M.; Atakulov, B. A.; Dmitriyenko, I. L.; Murygin, V. I.; Tserfas, R. A.

ORG: none

TITLE: Problem of the forward branch of the current-voltage characteristic of gold-doped-base silicon diodes

SOURCE: Radiotekhnika i elektronika, v. 10, no. 11, 1965, 2037-2045

TOPIC TAGS: semiconductor diode, silicon diode, current voltage characteristic

ABSTRACT: The results of experiments with (50—300-kohm.cm) Si-diodes doped by Au (0.1% Sb admixture) are reported; in some cases, the n^+-layer was obtained by phosphorus diffusion. Six varieties of experimental I-V characteristics had a segment of negative resistance followed by a segment of independent I/V relation;

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ACC NR: AP5027626

the latter segment occupies a large current interval and starts from 1.5--7 v. As neither M. A. Lampert's theory (Phys. Rev., 1962, 125, 126) nor R. Hall's theory (Proc. IRE, 1952, 40, 1512) can explain such a shape of the I-V characteristic, the authors offer a new theory based on the kinetics of carrier transitions near deep levels and on the formation of space charges in the dielectric-like semiconductor material. They also offer an empirical formula which describes both mechanisms behind the above I-V characteristic. Additional experiments with the diodes at -59-24- --4+49C corroborated the new theory: the negative-resistance segment vanished at higher temperatures. "E. G. Pel' carried out the lifetime measurements." Orig. art. has: 7 figures and 12 formulas.

SUB CODE: 09 / SUBM DATE: 05Jun64 / ORIG REF: 001 / OTH REF: 003

jw
Card 2/2

L 7794-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AP5027631 SOURCE CODE: UR/0109/65/010/011/2074/2077

AUTHOR: Avak'yants, G. M.; Alimova, L. I.; Murygin, V. I.; Skripnikov, Yu. S.; Tserfas, R. A.

ORG: none

TITLE: Selective properties of silicon diodes with gold-doped base

SOURCE: Radiotekhnika i elektronika, v. 10, no. 11, 1965, 2074-2077

TOPIC TAGS: silicon diode, semiconductor diode

ABSTRACT: Results are reported of an experimental investigation of an Au-doped-base silicon diode used as a parallel oscillatory circuit thanks to the falling-off branch of its I-V characteristic (N. Holonyak, Proc. IRE, 1962, 50, 12, 2421). Biased to the negative-resistance region, the diode behaved like a high-Q oscillatory circuit; biased to the edge of the positive-resistance region, it

Card 1/2

UDC: 621.382.2:546.28:621.391.8

L 7794-66
ACC NR: AP5027631

exhibited the characteristics of a low-Q oscillatory circuit. In addition to the fundamental resonance curve, a number of resonance peaks at various multiple frequencies were observed; higher applied voltages resulted in distorted (asymmetrical) resonance curves. A compound peaked high-Q resonance curve was exhibited by some specimens. As a rule, the resonance frequency increased with the bias current. As a parametric amplifier the silicon diode developed a voltage gain of 15—25. A transistor circuit, in which the resonant silicon diode was connected in lieu of the collector load, could be operated as an amplifier from a 9—12-v supply-voltage source. Orig. art. has: 7 figures.

SUB CODE: 09 / SUBM DATE: 05Jun64 / ORIG REF: 004 / OTH REF: 001

nw

Card 2/2

L 10391-66

ACC NR: AP5026907 SOURCE CODE: UR/0109/65/010/010/1880/1886

39
B

AUTHOR: Avak'yants, G. M.

ORG: none

TITLE: Characteristics of thick-base diodes

SOURCE: Radiotekhnika i elektronika, v. 10, no. 10, 1965, 1880-1886

TOPIC TAGS: thick base diode, semiconductor diode

ABSTRACT: The characteristics of thick-base forward-biased diodes are theoretically analyzed. This model is considered: one n-p junction and one n-n^+ junction; the base thickness considerably exceeds the hole diffusion length; most carriers drift in the current field. Both donor and acceptor impurities are assumed to be present in the base, the latter's energy (deep) level being situated near the center of the forbidden band. The diode base is compensated by a

Card 1/2 UDC: 621.382.233.001.24

L 10391-66

ACC NR: AP5026907

sufficient concentration of the deep levels. The passage of current is accompanied by a decompensation change in the carrier transition to deeper levels, formation and subsequent depletion of space charge. These phenomena account for negative S-type characteristics (having a point of zero differential resistance). In four analyzed mechanisms of the negative characteristic, the minority-carrier lifetime does not increase with the current. The theoretical vertical segment of the diode I-V characteristic, which follows the negative segment, is claimed to be in "qualitative agreement" with experimental data (N. Holonyak, Proc. IRE, 1962, 50, 12, 2443). Orig. art. has: 69 formulas.

SUB CODE: 09 / SUBM DATE: 31Jan64 / ORIG REF: 002 / OTH REF: 003

Card 2/2 jw

AVAKYANTS, G.M.; ALIMOVA, L.T.; MURYGIN, V.I.; SERDYUKOV, Yu.S.; TSERFAS, R.A.

Selective properties of silicon diodes with a gold-alloyed base. Radiotekh. i elektron. 10 no.11:2074-2077 N '65. (MIRA 18:11)

L 7793-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AF5027632 SOURCE CODE: UR/0109/65/010/011/2077/2081

AUTHOR: Avak'yants, G. M.; Zuyev, A. V.; Murygin, V. I.; Skripnikov, Yu. S.; Burov, V. P.; Tserfas, R. A.

ORG: none

TITLE: Amplifying and oscillating properties of silicon diodes with gold-doped base

SOURCE: Radiotekhnika i elektronika, v. 10, no. 11, 1965, 2077-2081

TOPIC TAGS: silicon diode, semiconductor diode

ABSTRACT: The results of an experimental investigation of the operation of a silicon diode as a voltage amplifier and as an oscillator are reported. A simple amplifier circuit consisting of a capacitor in series with the diode developed a voltage gain of 18—20 and a power gain of 200—300; its resonance frequency and

Card 1/2 UDC: 621.382.2:546.28:621.375+621.373

L 7793-66
ACC NR: AP5027632

passband depended on the bias current; its maximum sensitivity was 5—10 mv, and in some specimens, 200—300 mv. The noise in such a circuit was incoherent, sinusoidal, and had a maximum coinciding with the resonant frequency. As an oscillator, the silicone diode developed a practically sinusoidal waveshape; both its frequency and amplitude depended largely on the bias current and external capacitance. Orig. art. has: 7 figures.

SUB CODE: 09 / SUBM DATE: 05Jun64 / ORIG REF: 004 / OTH REF: 001

nw
Card 2/2

L 06570-67 EWT(1)
ACC NR: AP6029000 SOURCE CODE: UR/0431/66/001/002/0105/0110

51
B

AUTHOR: Avak'yants, G. M.; Kaniyazov, Sh.

ORG: Institute of Radiophysics and Electronics (Institut radiofiziki i elektroniki)

TITLE: Generation of electric oscillations in semiconductors during the transmission of direct current

25

SOURCE: AN ArmSSR. Izvestiya. Fizika, v. 1, no. 2, 1966, 105-110

TOPIC TAGS: electromagnetic wave generation, electric theory, circuit theory, semiconductor theory

ABSTRACT: The paper contains a theoretical analysis of the generation of oscillations in a circuit containing a long diode with impurity atoms in the base which produce deep levels in the forbidden band. A circuit consisting of a diode in series with a capacitor is considered and expressions are derived for the resonance and generation frequencies. It is shown that generation of electrical oscillations takes place only under definite conditions. The proposed method of analysis may be used to determine the possibilities for generation of oscillations in any circuit containing a diode. Orig. art. has: 24 formulas.

SUB CODE: 09/ SUBM DATE: 01Nov65/ ORIG REF: 001

Card 1/1

L 06571-67 EEC(k)-2/EWT(l) IJP(c)

ACC NR: AP6028999 SOURCE CODE: UR/0431/66/001/002/0095/0104

AUTHOR: Avak'yants, G. M.; Kaniyazov, Sh.

ORG: Institute of Radiophysics and Electronics (Institut radiofiziki i elektroniki)

TITLE: Theory of dynamic characteristics of long diodes

SOURCE: AN ArmSSR. Izvestiya. Fizika, v. 1, no. 2, 1966, 95-104

TOPIC TAGS: semiconductor diode, forbidden band, circuit theory

ABSTRACT: The authors study the dynamic properties of a semiconductor element made in the form of a diode with double injection where the base contains impurity atoms which produce deep levels in the forbidden band. Singularities in the dynamic characteristics of this type of element are studied for the case of an alternating signal and where the diode is biased in the forward direction with a constant current resulting from constant biasing voltage. Expressions are derived for the differential impedance with a weak alternating signal and it is shown that the reactance is inductive. The properties of a circuit containing a diode in parallel with a capacitor are analyzed and the voltage and power amplification characteristics of this type of diode are discussed. Orig. art. has: 23 formulas.

SUB CODE: 09, 20/ SUBM DATE: 01Nov65/ ORIG REF: 001

Card 1/1

ACC NR: AP6035095 SOURCE CODE: UR/0431/66/001/004/0248/0258

AUTHOR: Avak'yants, G. M.

ORG: Institute of Radiophysics and Electronics, AN, ArmSSR (Institut radiofiziki i elektroniki AN ArmSSR)

TITLE: Transmission of current through semiconductors with impurities or defects producing deep acceptor-type levels

SOURCE: AN ArmSSR. Izvestiya. Fizika, v. 1, no. 4, 1966, 248-258

TOPIC TAGS: semiconductor device, electric current, impurity level, semiconductivity

ABSTRACT: A theoretical analysis is given of the passage of a current through semiconductors containing impurities or defects, which produce deep acceptor-type levels. A series of initial equations are presented, the volt-ampere characteristic at high temperatures is calculated, and the influence of deep levels not filled before hole injection on the passage of the current is discussed. In conclusion, laws governing the transmission of current through deep level semiconductors are presented. Orig. art. has: 3 figures, and 42 formulas. [GC]

SUB CODE: 09, 20/SUBM DATE: 05Jan66/ORIG REF: 002/OTH REF: 002/

Card 1/1

PAKHMAN, T.A., kand. ekonom. nauk; MEZHOVA, R.V., kand. tekhn. nauk; OLEYNIK, O.A., inzh.; YUDINA, N.V.; BERNGARD, K.A., doktor tekhn. nauk, prof.; FROLOV, I.A., inzh.; TIKHONCHUK, Yu.N., kand. ekon. nauk; Prinimali uchastiye: AVAK'YANTS, N.M., inzh.; SHCHERBINA, R.M., inzh.; PETROVA, V.L., red.

[Organization of the railroad transportation of petroleum and chemical liquid cargo.] Organizatsiia zheleznodorozhnykh perevozok neftianykh i khimicheskikh nalivnykh gruzov. Moskva, Transport, 1964. 119 p. (Trudy Vsesoiuznogo nauchno-issledovatel'skogo instituta zheleznodorozhnogo transporta no.279).

(MIRA 17:12)

MURTAZAYEV, A.; AVAKYANTS, S.

Behavior of the cobalt electrode in alkaline solutions. Trudy Inst.Khim., Akad.Nauk Uzbek.S.S.R.,Inst., Khim., Obshchaya i Neorg. Khim. No.2, 164-76 '49. (MLRA 5:12)
(CA 47 no.17:8555 '53)

1. Akad. Nauk Uzbek. S.S.R.

AVAKYANTS, S.

USSR

Tantalum electrode for pH determination. A. Murtazaev and S. Avakyants. *Doklady Akad. Nauk Uzbek. S.S.R.* 1954, No. 7, 16-18; *Referat. Zhur., Khim.* 1954, No. 23937.—A Ta electrode was successfully used for detn. of pH 1.1-7.0 instead of a Pt one by the quinhydrone method. The potential of the Ta electrode was established just as quickly as the potential of the Pt electrode.

M. Hoseh

Avakyants, S. B.

USSR

Melting diagrams of some binary systems. A. Mirtskhulava, S. Avakyants, and Kh. Kakuipov. *Doklady Akad. Nauk SSSR, Ser. A* 1953, No. 10, 14-6; *Referat. Zhur., Khim.* 1954, No. 30923.—Melting diagrams were obtained for the systems: salol-monobromocamphor, resorcinol-salicylic acid, chloral hydrate-phenacetin, and resorcinol-antifebrin. Also studied were the proportions at which these systems can exist in the solid and liquid phase. The measurements were made cryoscopically. All the systems had one eutectic. Salol and monobromocamphor had a eutectic at 72.5 mol. % salol and a m.p. 19°. Resorcinol and salicylic acid had a eutectic at 81 mol. % resorcinol and a m.p. 99.5°. Chloral hydrate and phenacetin had a eutectic at 73 mol. % chloral hydrate at which point it formed a glassy mass that did not crystallize even below −10°. The eutectic of resorcinol and antifebrin was at 60.5 mol. % resorcinol and formed near the eutectic point a glassy, highly viscous mass.

M. Hoseh

AVAK'YANTS, Sergey Davidovich, assistent

Calculation of the characteristics of a three-phase series inverter. Izv.vys.ucheb.zav.; elektromekh. 5 no.1:91-98 '62. (MIRA 15:2)

1. Kafedra teoreticheskikh osnov elektrotekhniki Leningradskogo elektrotekhnicheskogo instituta.

(Electric current converters)

AVAK'YANTS, S.D., aspirant

Characteristics of a three-phase bridge inverter with series capacitances. Izv. LETI no.47:359-369 '62. (MIRA 16:12)

MURTAZAYEV, A.M.; AVAKYANTS, S.G.

Hydrogen and oxygen overvoltage on sulfur-containing nickel.
Uzb. khim. zhur. no.4:21-24 '58. (MIRA 11:12)

1.Tashkentskiy farmatsevticheskiy institut.
(Overvoltage) (Nickel plating)

AVAKYANTS, S.P.; BELOUSOVA, I.P.

Beta fructofuranosidase activity in continuous wine champagnization. Prikl. biokhim. i mikrobiol. 1 no.1:57-65 Ja-F '65. (MIRA 18:5)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti, Moskva.

AVARYANIN, S.F.

Enzymatic transformations in champagne wine with the participation of β-fructofuranosidase. Dokl. AN SSSR 165 no.1:221-223 N '65. (MIRA 18:10)

1. Vsesoyuznyy nauchnyy institut pishchevoy promyshlennosti.
Submitted July 2, 1965.

RATIANI, G.V.; AVALIANI, D.I.

Number of activ steam formation centers and critical thermal loads in t ebulition f some organic liquids in a large volume. Soob. AN Gruz. SSR 37 no.3:653-660 Mr '65. (MIRA18:5)

1. Gruzinskiy institut energetiki imeni Didebulidze, Tbilisi. Submitte Oct ber 2, 1964.

AVALIANA, R. Sh.

"The Biology and Economic Importance of the Fox (Vulpes Vulpes Alpherakyi Sat.) in the Transcaucasian Steppe." Cand Biol Sci, Inst of Zoology, Acad Sci Georgian SSR, Tbilisi, 1954. (RZhBiol, No 7, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

AVALIANI, A. Sh.

The preparation of barium and cadmium alloys in fused medium by electrolysis. R. I. Agladze and A. Sh. Avaliani. *Trudy Inst. Metalla i Gornogo Dela, Akad. Nauk Gruz. S.S.R.* 2, 89–98 (Russian summary, 98–9) (1949).—By electrolysis of a fused mixt. of 40–73% $BaCl_2$ and 27–60% KCl at 700–20° with a liquid Cd cathode it was possible to obtain alloys contg. up to 40% of Ba. The alloys were very friable and chemically active. The activity increased with an increase in temp. and content of Ba. The current efficiency was 88–95% for alloys with 25–30% Ba. M. C.

(1)

AVALIANI, A.Sh.

Electrolysis of organotitanium compounds. Trudy Inst.prikl. khim.i elektrokhim.AN Gruz.SSR 3:67-72 '62. (MIRA 16:1)
(Titanium organic compounds) (Electrolysis)

L 10259-66 ENT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP5026785 SOURCE CODE: UR/0286/65/000/017/0070/0070

INVENTOR: Dashniani, N. F.; Avaliani, A. Sh.

ORG: none

TITLE: Method of obtaining borides of metals. Class 40, No. 174370

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 70

TOPIC TAGS: boride, metal, inorganic synthesis, electrolysis

ABSTRACT: This Author Certificate introduces a method of synthesizing metal borides by electrolysis of a boron-containing, fused salt bath with a graphite anode and a metallic cathode at 1000C. To simplify the process and increase the yield, the salt bath consists of a mixture of barium chloride, barium oxide and boron oxide and electrolysis is performed with a current at which the counter electromotive force does not exceed 0.8--1 v. A variant of the above method is presented in which the proportion of barium oxide to boron oxide is 1:055 and the quantity of barium oxide does not exceed 30% of barium chloride. [ND]

SUB CODE: 07, 11 / SUBM DATE: 19Dec62/ ATD PRESS: 4160

Card 1/1 UDC: 541.135.3:661.615.2

RATIANI, G.V., kand.tekhn.nauk; AVALIANI, D.I., inzh.

Heat exchange in the boiling of Freon-12 and Freon-22. Khol.tekh. 40 no.1:40-44 Ja-F '63. (MIRA 16:3)

1. Institut energetiki AN Gruzinskoy SSR.
(Heat--Transmission) (Freons)

AVALIANI, G A

Marganets (Manganese) Moskva, Gosgeolizdat, 1953.
133 p. Diagrs., Tables (Ocherka Mestorozhdeniy Pri Poiskakh I Razvedkakh, Vyp. 14)

N/5
732.11
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AVALIANI, G.A.

Mineralogy of Chiatura carbonate manganese ores. Geol.sbor. [Kavk.] no.1:24-31 '59. (MIRA 13:1)
(Chiatura region (Georgia)--Carbonates (Mineralogy))
(Chiatura region (Georgia)--Manganese ores)

MERABISHVILI, M.S., glavnyy red.; AVALIANI, G.A., red.; BAKRADZE, I.V., red.; DOLABERIDZE, L.D., red.; KAKABADZE, N.A., red.; KOMETIANI, G.A., red.; TVALCHRELIDZE, G.A., red.; TEGONIDZE, G.I., red.; FOKIN, A.M., red.; FILATOV, S.S., red.; EDILASHVILI, V.Ya., red.; BEREZOVSKAYA, L.I., red.izd-va; IVANOVA, A.G., tekhn.red.

[Yearbook of the Caucasus Institute of Raw Minerals for 1957] Ezhegodnik Kavkazskogo instituta mineral'nogo syr'ia za 1957 god. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po geol. i okhrane nedr, 1959. 54 p. (MIRA 13:12)

1. Tiflis. Kavkazskiy institut mineral'nogo syr'ya.
(Caucasus--Mines and mineral resources)

AVALIANI, G.A.

Genetic types of manganese deposits in the Caucasus and their regionalization. Trudy GPI [Gruz.] no.2:91-94 '63.
(MIRA 17:9)

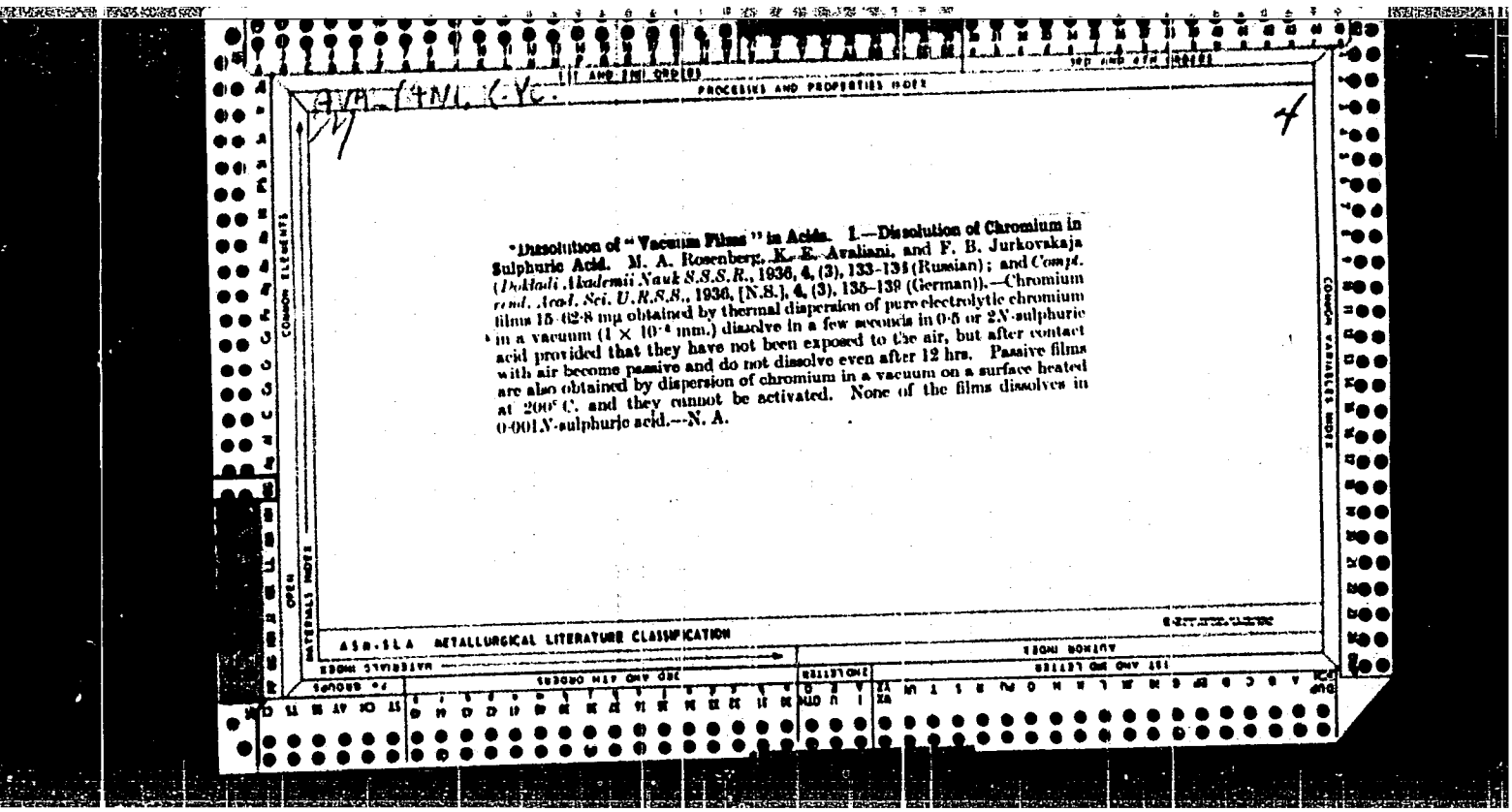
BETEKHTIN, A.G., glav. red. [deceased]; AVALIANI, G.A., red.;
BRAUN, G.A., red.; GUDZHEDZHIANI, B.I., red.;
DZIDZIGURI, A.A., red.; DOLIDZE, D.P., red.
KERESELIDZE, K.G., red.

[Chiatura manganese deposit] Chiaturskoe mestorozhdenie margantsa. Moskva, Izd-vo "Nedra," 1964. 243 p.
(MIRA 17:6)

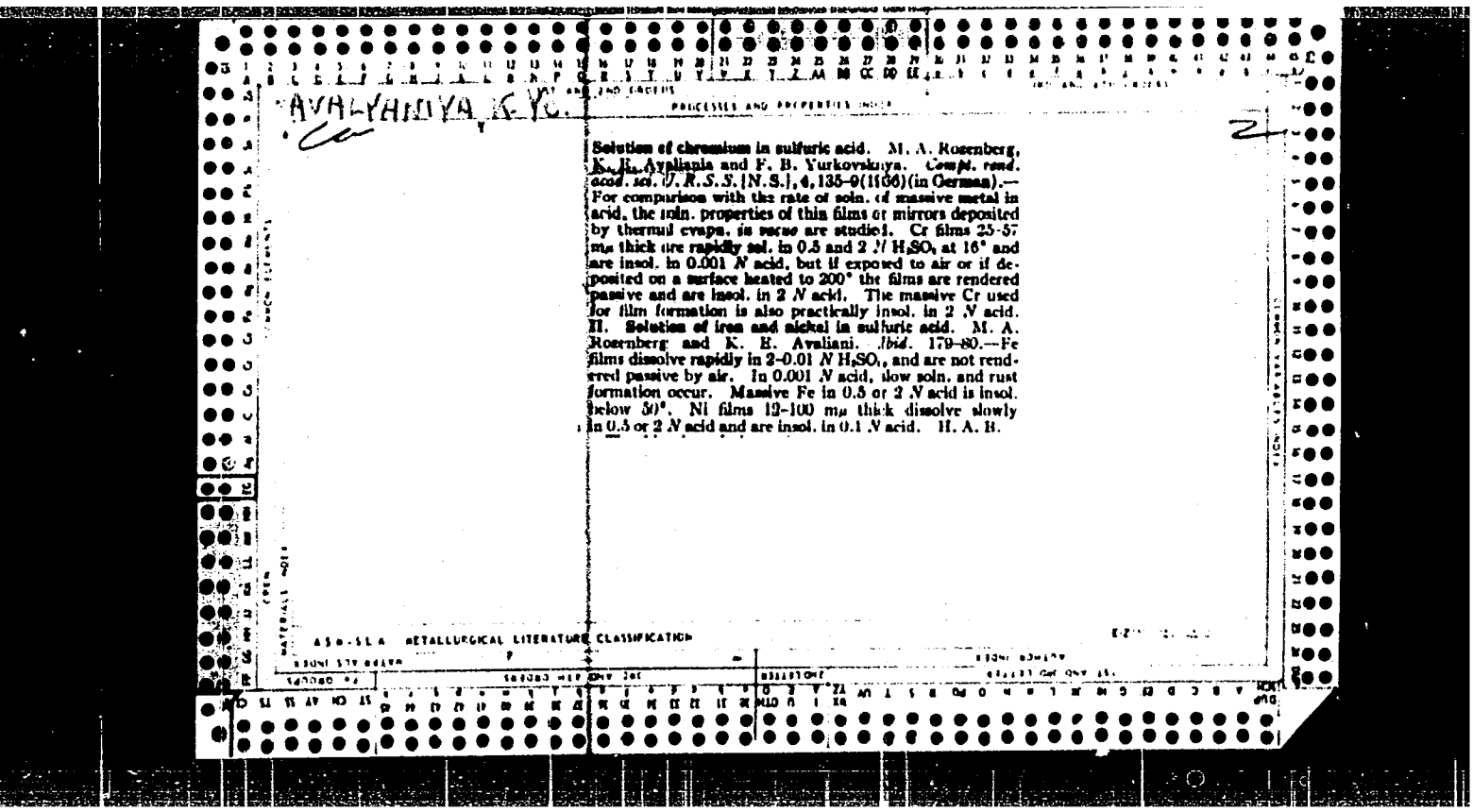
1. Georgia. Geologicheskoye upravleniye.

AVALIANI, G.V., inzhener; BEREZNEGOVSKAYA, V.N., inzhener.

Increasing the efficiency of grinding lean coal in a resolnter pulverizer. Elek.sta.27 no.6:50-51 Je '56. (MLRA 9:9)
(Pulverizers)



Dissolution of "Vacuum Films" in Acids. I.—Dissolution of Chromium in Sulphuric Acid. M. A. Rosenberg, K. E. Avaliani, and F. B. Jurkovskaja (*Dokladi Akademii Nauk S.S.S.R.*, 1936, 4, (3), 133–138 (Russian); and *Compt. rend. Acad. Sci. U.R.S.S.*, 1936, [N.S.], 4, (3), 135–139 (German)).—Chromium films 15–62·8 mμ obtained by thermal dispersion of pure electrolytic chromium in a vacuum (1×10^{-4} mm.) dissolve in a few seconds in 0·5 or 2*N*-sulphuric acid provided that they have not been exposed to the air, but after contact with air become passive and do not dissolve even after 12 hrs. Passive films are also obtained by dispersion of chromium in a vacuum on a surface heated at 200° C. and they cannot be activated. None of the films dissolves in 0·001*N*-sulphuric acid.—N. A.



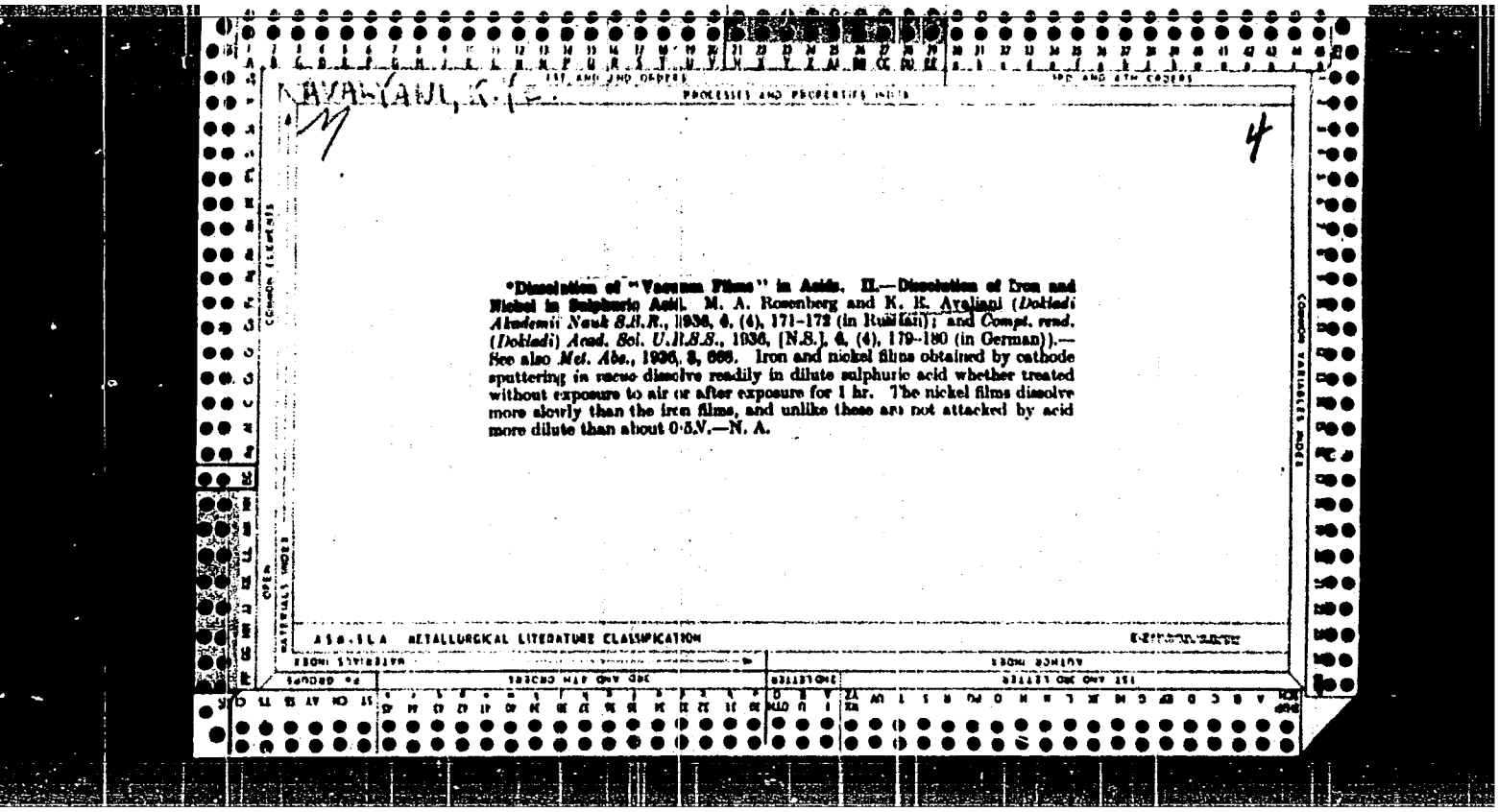
AVALYANIYA, K.YE.

Ca

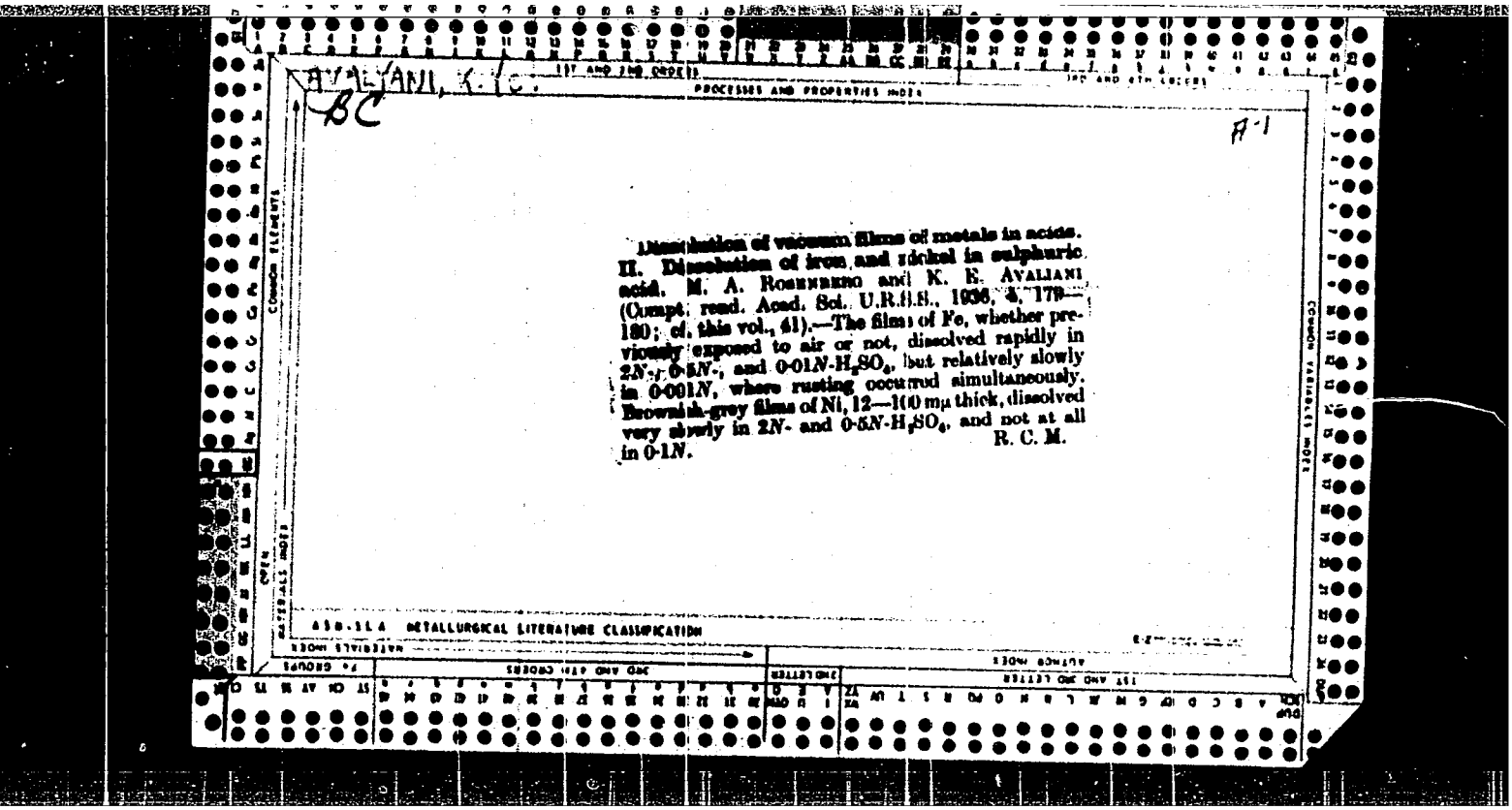
2

Solution of chromium in sulfuric acid. M. A. Rosenberg, K. E. Avaliani and F. B. Yurkovskaya. *Compt. rend. acad. sci. U.R.S.S.* [N.S.], 4, 135–9(1936)(in German).—For comparison with the rate of soln. of massive metal in acid, the soln. properties of thin films or mirrors deposited by thermal evapn. in vacuo are studied. Cr films 25–57 mμ thick are rapidly sol. in 0.5 and 2 *N* H_2SO_4 at 16° and are insol. in 0.001 *N* acid, but if exposed to air or if deposited on a surface heated to 200° the films are rendered passive and are insol. in 2 *N* acid. The massive Cr used for film formation is also practically insol. in 2 *N* acid. **II. Solution of iron and nickel in sulfuric acid.** M. A. Rosenberg and K. E. Avaliani. *Ibid.* 179–80.—Fe films dissolve rapidly in 2–0.01 *N* H_2SO_4, and are not rendered passive by air. In 0.001 *N* acid, slow soln. and rust formation occur. Massive Fe in 0.5 or 2 *N* acid is insol. below 50°. Ni films 12–100 mμ thick dissolve slowly in 0.5 or 2 *N* acid and are insol. in 0.1 *N* acid. H. A. B.

A56-51A METALLURGICAL LITERATURE CLASSIFICATION



"Dissolution of "Vacuum Films" in Acids. II.—Dissolution of Iron and Nickel in Sulphuric Acid. M. A. Rosenberg and K. E. Ayaliani (*Doklady Akademii Nauk S.S.R.*, 1936, 4, (4), 171–172 (in Russian)); and *Compt. rend. (Doklady) Acad. Sci. U.R.S.S.*, 1936, [N.S.], 4, (4), 179–180 (in German)).—See also *Met. Abs.*, 1936, 3, 668. Iron and nickel films obtained by cathode sputtering in vacuo dissolve readily in dilute sulphuric acid whether treated without exposure to air or after exposure for 1 hr. The nickel films dissolve more slowly than the iron films, and unlike these are not attacked by acid more dilute than about 0·5 N.—N. A.



AVALIANI, K. E.

BC

A-1

PROCESSES AND PROPERTIES INDEX

Dissolution of vacuum films of metals in acids. II. Dissolution of iron and nickel in sulphuric acid. M. A. Rosenblum and K. E. Avaliani. (Compt. rend. Acad. Sci. U.R.S.S., 1936, 3, 179—180; cf. this vol., 41).—The films of Fe, whether previously exposed to air or not, dissolved rapidly in 2*N*- and 0·5*N*-, and 0·01*N*-H_2SO_4, but relatively slowly in 0·001*N*, where rusting occurred simultaneously. Brownish-grey films of Ni, 12—100 mμ thick, dissolved very slowly in 2*N*- and 0·5*N*-H_2SO_4, and not at all in 0·1*N*. R. C. M.

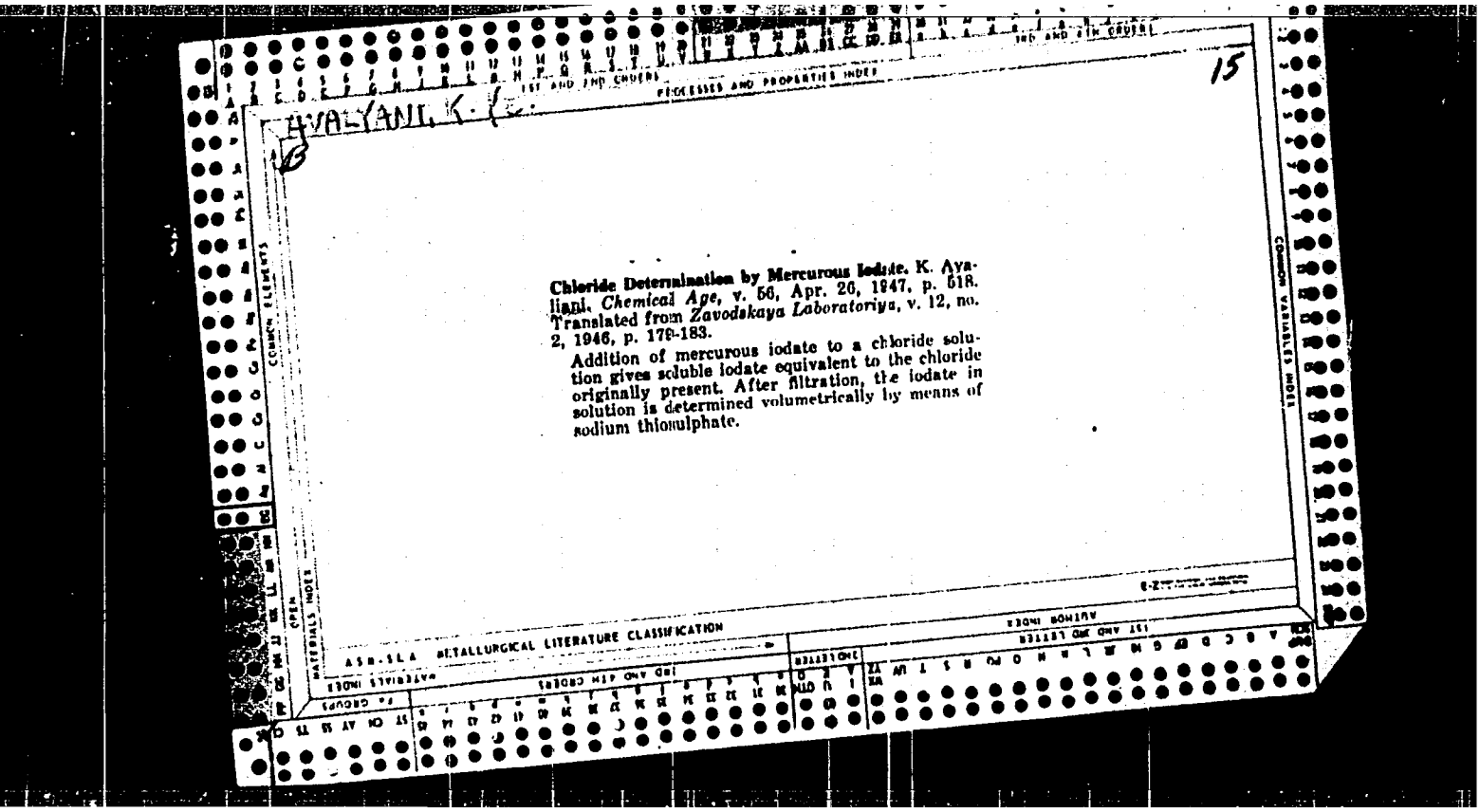
A 36-3 L 4 METALLURGICAL LITERATURE CLASSIFICATION

AVALYAN, K. Ye.

PROCESSES AND PROPERTIES

Kinetics of catalytic decomposition of ammonia. I. I. A. Khrizman and K. R. Avaliani. *Ber. inst. physik. chem. Akad. wiss. Ukr. S. S. R.* 5, 30 [in German 57] (1930); cf. *C. A.* 30, 7087. —A study of the kinetics of decompn. of NH_3 in the presence of $Fe\text{-}Al_2O_3\text{-}K_2O$ catalyst at 300–575° and initial pressure of 180 mm. resulted in an empirical equation $\frac{dP_{NH_3}}{dt} = \frac{kP^2_{NH_3}}{P^{0.91}_{H_2}}$ expressing the exptl. results. The value of log k varies from 0.746 to 0.507 × 10⁻⁴; the mean value of the energy of activation E = ... is 11.7 Cal./mole. Differences between these results and those of Kunsman (*C. A.* 23, 2347) are discussed. J. G. Tolpin

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



AYALYANI, K. I.

15

Chloride Determination by Mercurous Iodide. K. Ayaliani. *Chemical Age*, v. 56, Apr. 26, 1947, p. 618. Translated from *Zavodskaya Laboratoriya*, v. 12, no. 2, 1946, p. 179-183.

Addition of mercurous iodate to a chloride solution gives soluble iodate equivalent to the chloride originally present. After filtration, the iodate in solution is determined volumetrically by means of sodium thiosulphate.

AVALIANI, K.Ye.

Micr[illegible]determination of chlorides by mercury-iodate in some biological materials [in Georgian with summary in Russian]. Trudy Inst. khim. AN Gruz. SSR 13:55-60 '57. (MIRA 11:4)
(Mercury Iodates) (Chlorides)

L 43122-65 EWG(j)/EWT(m)/EPF(c)/EPR/T/EWP(t)/EWP(b) Pr-4/Ps-4 IJP(c)
JD

ACCESSION NR: AR5008430 S/0081/65/000/003/B114/B115

29
B

SOURCE: Ref. zh. Khimiya, Abs. 3I821

AUTHOR: Avaliani, K. Ye.; Tsitsishvili, G. V.; Okropiridze, Ts. M.; Adolashvili, M. G.

TITLE: A study of the adsorption structure of heat-treated titanium dioxide

27 27

CITED SOURCE: Tr. In-ta khimii, AN GruzSSR, v. 14, 1964, 65-74

TOPIC TAGS: titanium dioxide, adsorption capacity, porosity, heat treatment

TRANSLATION: The authors investigated the adsorption structure of TiO_2 heat treated in a vacuum at 20 - 450C. The dioxide was obtained by ammonia precipitation from a hydrochloric acid solution of $TiCl_4$, followed by careful rinsing of the precipitate. The adsorption-structural characteristics of TiO_2, heat treated in a vacuum at temperatures within the named range, were defined by analyzing isotherms of adsorption and desorption of nitrogen vapor. It was found that the derived TiO_2 represents a mixed porosity adsorbent. Pores with radii up to 40A were prevalent. The studied dioxide is characterized at the same time by a developed internal surface (S=400 m^2/g) and a high sorption

Card 1/2

L 43122-65
ACCESSION NR: AR5008430 0

capacity (max. level 0.3 cm^3/g). Heat treating at 20 - 300C has a comparatively minor effect on these properties. A comparison of absolute isotherms indicates that surface characteristics change very little. The adsorption-structural characteristics vary sharply when heat treating temperatures exceed 300C, while porosity and the effective surface decrease substantially (S=110 m^2/g) at 400C. Additional heating to 450C results in an adsorbent with still lower adsorption properties (S=73.0 m^2/g). The authors verified the characteristic change in the dioxide's coloring from white to light brown when it is evacuated in a vacuum and heated to 300C. The color changes from light brown to black as the material is heated in a vacuum to 450C. Such changes in the coloring of the dioxide when heated and evacuated indicate a process of oxygen impoverishment and formation of material with altered chemical properties, representing a significant and interesting subject for further research. From the authors' summary.

SUB CODE: IC, MM ENCL: 00

Card 2/2

AVALIANI, L. V., Cand of Med Sci -- (diss) "Data on the study of the efficacy of intramarrow blood transfusion and the expediency of using anesthetic andother therapeutic liquids." Tbilisi, 1957, 22 pp (Tbilisi State Medical Institute), 200 copies (KL, 32-57, 96)

AVALIANI, R.Sh.

Recent data on the rodent fauna of Adzharia. Zool. zhur. 40 no. 2:293 F '61. (MIRA 14:2)

1. Department of Zoology, State Museum of Georgia (Tbilisi). (Adzharia--Field mice)

AVALIANI, R.Sh.

Materials on a study of the distribution of some bats in Georgia. Soob. AN Gruz. SSR 30 no.1:53-54 Je. '63. (MIRA 17:1)

1. Gosudarstvennyy muzey Gruzii imeni akademika S.N. Dzhanashia AN Gruzinskoy SSR, Tbilisi. Predstavleno chlenom-korrespondentom Akademii L.P. Kalandadze.

AVALIANI, R.Sh.

History of the study of mammals in Georgia. Soob. AN Gruz. SSR 39 no.1:251-256 Jl '65. (MIRA 18: 10)

AVALIANI, Sh.I.; NOZADZE, D.I.

Stimulating students' work in geography lessons. Geog. v shkole 23 no. 6:46-50 N-D '60. (MIRA 13:11)

1. Kutaisskiy institut usovershenstvovaniya uchiteley (for Avaliani). 2. 17-ya shkola g.Kutaisi (for Nozadze).
(Geography--Study and teaching)

AVALIANI, T., master-vzryvnik

Skill plus friendship. Sov. shakht. 12 no.6:12 Je '63.
(MIRA 16:9)

1. Shakhta imeni Vakhrusheva, g. Kiselevsk Kemerovskoy obl., neshtatnyy korrespondent "Sovetskogo shakhtera".
(Kuznetsk Basin--Coal miners)

AVALIANI, T., prokhodchik

Knowledge. Sov.shakht. 13 no.2:40-41 F '64. (MIRA 17:3)

1. Shakhta imeni Vakhrusheva, g. Kiselevsk, Kemerovskoy obl.

SOV/81-59-16-53[illegible]

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 16, p 414 (USSR)

AUTHORS: Avaliani, T.K., Monastyrskiy, V.N., Krasnyanskaya, G.G.

TITLE: The Effect of the Composition of the Admixture Tsiatim-339 on Its Properties

PERIODICAL: Tr. Vses. n.-i. in-t po pererabotke nefti i gaza i polucheniyu iskusstv. zhidk. topliva, 1958, Nr 7, pp 297-302

ABSTRACT: The effect of the components of the admixture tsiatim-339 on its operation properties has been studied. The presence of alkylphenol (AP) and a considerable quantity (~25%) of sulfur-containing AP in the admixture has practically no positive effect on the properties of oils from sulfurous petroleum. Oil with an admixture without oil-diluent (spindle oil) has the best indices. The admixture tsiatim-339 with 100% substitution of the hydroxyl hydrogen by barium (tsiatim-339p) improves the detergent properties of the oil AS-9.5 to 1.5-2 points according to the PZV method and reduces the corrosivity to 4.8 g/m^2. For improving

Card 1/2

Card 2/2

82512

S/065/60/000/008/004/007
E030/E412

15.6600

AUTHORS: Avaliani, T.K. and Monastyrskiy, V.N.

TITLE: Synthesis and Techniques for Preparing Basic Additive Components with a Sulphonate Base

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.8, pp.29-33

TEXT: Details are given of two methods for synthesizing high base number additives. In the first, to aqueous phenol and an oil-soluble sulphonic acid is added calcium oxide; the mixture is agitated, a stream of CO_2 passed through and the water and phenol distilled off, the end-product being homogenized in a centrifuge. In the second, to an oil, oil-soluble sulphonic acid, and calcium oxide, is added a "promoter" which may be a phenol, naphthol, nitro compound, or sulphonic acid. The additives work by oxidizing corrosive materials while the resulting oxidation products are held in suspension by the surface-active agents. Between 3.5 and 5 times the stoichiometric metallic content can be obtained by these methods. The base oil has a kinematic viscosity around 6 to 8 cs at 100°C, pour point around - 15°C and flash-point (closed) around 210°C. It is obtained from the residues from the

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E030/E412

Synthesis and Techniques for Preparing Basic Additive Components with a Sulphonate Base

desulphurization of oils, particularly white oils. Sulphonation is carried out with oleum and for these maximum basicities, 10 to 80% of oleum should be used and the process carried out between 10 and 70°C. Base numbers up to 18.2% have been obtained, with up to 23% free SO_3. There are 1 figure, 3 tables and 6 references: 1 Soviet and 5 English.

ASSOCIATION: VNII NP

Card 2/2

39832
S/081/62/000/011/039/057
E202/E192

11,9700

AUTHORS: Monastyrskiy, V.N., Ptashinskiy, I.A., Goysa, Ye.I., and Avaliani, T.K.

TITLE: Laboratory method of assessing the dispersing properties of additives in lubricating oils

PERIODICAL: Referativnyy zhurnal, Khimiya, no.11, 1962, 520, abstract 11 M 215. (Novosti neft. i gaz. tekhn. Neftepererabotka i neftekhimiya, no.3, 1961, 12-16).

TEXT: A laboratory method of assessment of dispersing properties of additives in oils is developed, employing electrophotocolorimeter. Essentially the method comprises centrifuging of the mixture of additives in toluene with lamp black, followed by photometric determination of the fall in the transparency coefficient of the centrifuged solution without lamp black (the so-called index of dispersion). By means of this index it is possible to evaluate the dispersion properties of the additive. The method is sufficiently accurate. Discrepancies between the parallel determinations of the dispersive index do not exceed ± 1.5% of the mean value of the compared results.

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out only in concentrations corresponding to the maximum of their dispersion indices. The method may also be used to assess the duration of effectiveness of the dispersing properties of oils containing additives, under their working conditions.

[Abstractor's note: Complete translation.]

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L 20326-63 EPF(c)/EWT(m)/BDS AFFTC/APGC Pr-4 -BW/WW/DJ

ACCESSION NR: AT3001982 S/2664/61/000/000/0145/0152

AUTHORS: Monastyrskiy, V. N.; Avaliani, T. K.

TITLE: Additive-production technology. Methods for the preparation of high-ash sulfonates.

SOURCE: Prisadki k maslam i toplivam; trudy nauchno-tekhnicheskogo soveshchaniya. Moscow, Gostoptekhizdat, 1961, 145-152.

TOPIC TAGS: lubricant, lubrication, additive, ash, sulfonate, promotor, phenol, sulfoacid, sulfonation, PMS, PMS_{Ya}.

ABSTRACT: The fundamental aim of the work described in the paper is the development of a process technology for the so-called high-ash additive or additive components based on low-solubility petroleum sulfoacids, which differ from ordinary sulfonates by the amount of metal that exceeds the stoichiometric quantity by a multiple factor. Two fundamental schemes for the preparation of high-ash sulfonate (MPS) from crude oil with the aid of phenol as a promotor were developed at the VNII NP. (1) The sulfonated oil, which contains the low-solubility sulfoacids, is treated with aqueous phenol for the segregation of the low-solubility sulfoacids. (2) The oil containing the low-solubility sulfoacids is treated directly with CaO,

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L 20326-63

ACCESSION NR: AT3001982

until the acid reaction ceases. Then phenol water and – in the presence of excess CaO – CO_2 is passed through the oil. The product is centrifuged. The two processes are described in detail. Operational tests were made on the DK-2 apparatus to determine the operational properties of oil AS-9, 5 of the NKZ without additive. The stability of the base oil AS-9, 5 is sharply improved upon the addition of PMS, whereas the neutral sulfonate does not improve this property. Short-term tests on GAZ-51 and D-35 engines showed the great effectiveness of additive PMS_{Ya}, regardless of the initial raw materials employed. The synthesis and fundamental process technology developed for the preparation of the highly effective component or additive that comprises the high-ash sulfonate (PMS) with a metal content that is 3.5 to 5 times the stoichiometric amount and in which phenol is used as a selective solvent and reaction promotor, was elaborated. The raw materials comprised distillate oils from S-containing crudes with varying degree of viscosity and neutral sulfonation products obtained in the production of white oil by S-free crude at the Plant imeni Mendeleyev. The superior qualities of the PMS additives obtained as compared with the previously obtained neutral sulfonate additives are shown by the NAMI method (determination of precipitation formation and viscosity upon oxidation). Orig. art. contains 1 fig. and 5 tables.

Card 2/3

L 20632-66 EWT(m)/T DJ

ACC NR: AP6011220 (A) SOURCE CODE: UR/0413/66/000/006/0057/0057

INVENTOR: Blagovidov, I. F.; Druzhinina, A. V.; Monastyrskiy, V. N.; Puchkov, N. G.; Deryabin, A. A.; Borovaya, M. S.; Filippov, V. F.; Avaliani, T. K.; Zaslavskiy, Yu. S.; Tarmanyan, G. S.; Shor, G. I.; Dmitriyeva, N. A.; Belyanchikov, G. P.; Kuliyev, A. M.; Suleymanova, F. G.; Zaynalova, G. A.; Sadykhov, K. I.

ORG: none

TITLE: Preparative method for motor oils. Class 23, No. 179868

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 6, 1966, 57

TOPIC TAGS: lubricating oil, lubricant additive

ABSTRACT: An Author Certificate has been issued for a preparative method for motor oils, involving the introduction of additives. To impart the required service properties, the additives used are an alkylphenol-formaldehyde condensation product (3—15%), a sulfonate additive (1—6%), an additive based on xanthates or dithiophosphates (0.5—1%), and an organosilicon additive (0.003—0.005%) [the additives are no further identified in the source]. [SM]

SUB CODE: 11/ SUBM DATE: 02Aug62/ ATD PRESS: 4225

Card 1/1 UDC: 665.521.5002.237

S/799/62/000/003/003/008

AUTHORS: Ayaliani, Yu. Ya., Alekseyev, Yu.N., Glukhov, Yu.N., Dorokhova, N.A., Tanetov, G.I.

TITLE: The arithmetic equipment of a specialized machine.

SOURCE: Akademiya nauk SSSR. Institut elektronnykh upravlyayushchikh mashin. Tsifrovaya tekhnika i vychislitel'nyye ustroystva. no.3. 1962, 14-23.

TEXT: The paper describes an arithmetic equipment (AE) of the parallel type, which operates with 22-digit binary numbers with a fixed decimal point and which performs addition, subtraction, multiplication, division, extraction of the square root, matching, shifting, and transposition of numbers. An acceleration in the multiplicational operations is achieved by the accumulation of the partial products without transitional carry-overs. The system of the elements and the design principles of the AE are briefly examined. The system of elements comprises a static trigger, a potential-impulse gate, and logic diode circuits. All of the elements are made up of semiconductor devices. The network of the AE is presented in skeletal form, which comprises the various equipments that serve to perform the elementary operations in each register, and the equipments that receive numbers from other partial parts of the machine. The operational algorithms of addition, subtraction,

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and division, and the technical methods in the design of the logical circuits which help to realize the algorithms, are similar to those employed in some existing computers, for example, the M-2. Thus, for example, the adding equipment of the AE differs in its logic structure from that employed in the M-2 machine only by the content of cyclic carry-over circuit from the higher digit to the lower digit. While the operation of algebraic matching exhibits certain peculiarities dependent on the character of the problems to be solved, there is nothing interesting from the point of view of engineering. In this operation, the same circuits as those utilized in addition and subtraction are employed. The operation of shifting is also of no additional interest, since it employs the same shifting circuitry employed in multiplication and division. In the multiplication the partial products remain immobile, whereas the multiplicand is shifted to the right. It can be shown that to obtain, in such procedure, an accuracy of no less than a unit of the lowest digit for 22-digit initial figures, it is necessary to have 3 additional digits in the AE prior to rounding off. Extraction of the square root follows almost precisely the same method as that employed in high-school long-hand work, that is, with division of the number into pairs of digits, extraction of the square root of the highest digital pair, and all the other subsequent steps required by the 2-rectangles-cum-small-square method, until the remainder is either zero or smaller than the required accuracy residual. The duration of the extraction of the square root amounts to 112 cadences or 317 μ sec.

The arithmetic equipment of a specialized machine. S/779/62/000/003/002/008

If the number of which the square root is to be obtained has a minus sign, then all the digits go to zero, and the operation comes to a halt. The description of the AE elements comprises the static trigger, the logical diode scheme, and the potential impulse gate, schematic circuits for all of which are shown. A block diagram is shown for a basic (k-th) digit of the AE. The AE described contains approximately 1,000 semiconductor triodes and 4,000 semiconductor diodes, all of which operate in regimes in which current intensities, voltages, and powers do not exceed the rated values. A special cooling system ensures maintenance of all semiconductor devices at room temperature. The circuits employed ensure maintenance of a stable operation of the AE under power-supply-voltage fluctuations of ±10% from nominal values. The electrical power supply of the AE is provided by a 400-cps rotary generator through rectifiers assembled in a 6-phase circuit. The total power requirements of the AE is approximately 0.8 kw. The AE is currently in experimental operation. There are 5 figures and 3 references (2 Russian-language Soviet and the English-language A.A.Robinson, Multiplication in the Manchester University high-speed digital computer. Electronic Engrg., v.25, no.299, 1953).

Card 3/3

AVALISHVILI, Ak.

Intermodal constancy of types of fixated set. Eksp. issl. po psikhol. ust. 1:199-207 '58. (MIRA 13:12)
(Attitude (Psychology))

KHODZHAVA, Z.I.; AVALISHVILI, A.M.

Essence of the so-called "new fact" in the psychology of attitude. Trudy Inst. psikhol. AN Gruz. SSR 12:179-196 '60. (MIRA 13:11)
(Attitude (Psychology))

AVALISHVILI, A.M.

Illusional action of set fixated for magnitude equalization.
Eksp.issl.po psikhol.ust. 2:45-56 '63. (MIRA 16:12)

*

GUDZHEDZHIANI, B.I.; CHICHUA, B.K.; PETROVSKIY, G.D.; KOMETIANI, G.A.; AZMAYPARASHVILI, M.V.; AVALISHVILI, E.Ye.[deceased]; MIRZIASHVILI, T.M.; SHCHERBAKOV, D.I., glav.red.; ARCHVADZE, Sh.R., red.; BOGOLYUBOVA, L.I., red.; VAL'TS, I.E., red.; TAVADZE, F.N., red.; YABLOKOV, V.S., red.; PEVZNER, G.Ye., red.izd-va; MAKUNI,Ye.V., tekhn. red.

[Coal atlas of the Caucasus] Atlas uglei Kavkaza. By B.I.Gudzhedzhiani i dr. Moskva, Izd-vo Akad.nauk SSSR, 1961. 167 p. (MIRA 14:12)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Sovet po izucheniyu proizvoditel'nykh sil.

(Caucasus--Coal geology)

E

Country : USSR
Category: Virology. Bacterial Viruses (Phages)

Abs Jour: Ref Zhur-Biol., No 23, 1958, No 103499

Author : Chanishvili, T.G.; Meypariani, A.N.; Avalishvili, G.I.
Inst : -
Title : Study of the Process of Bacteriophagia under Aeration Conditions. First Report

Orig Pub: Sb. Bakteriofagiya. Tbilisi, Gruzmedgiz, 1957, 261-263.

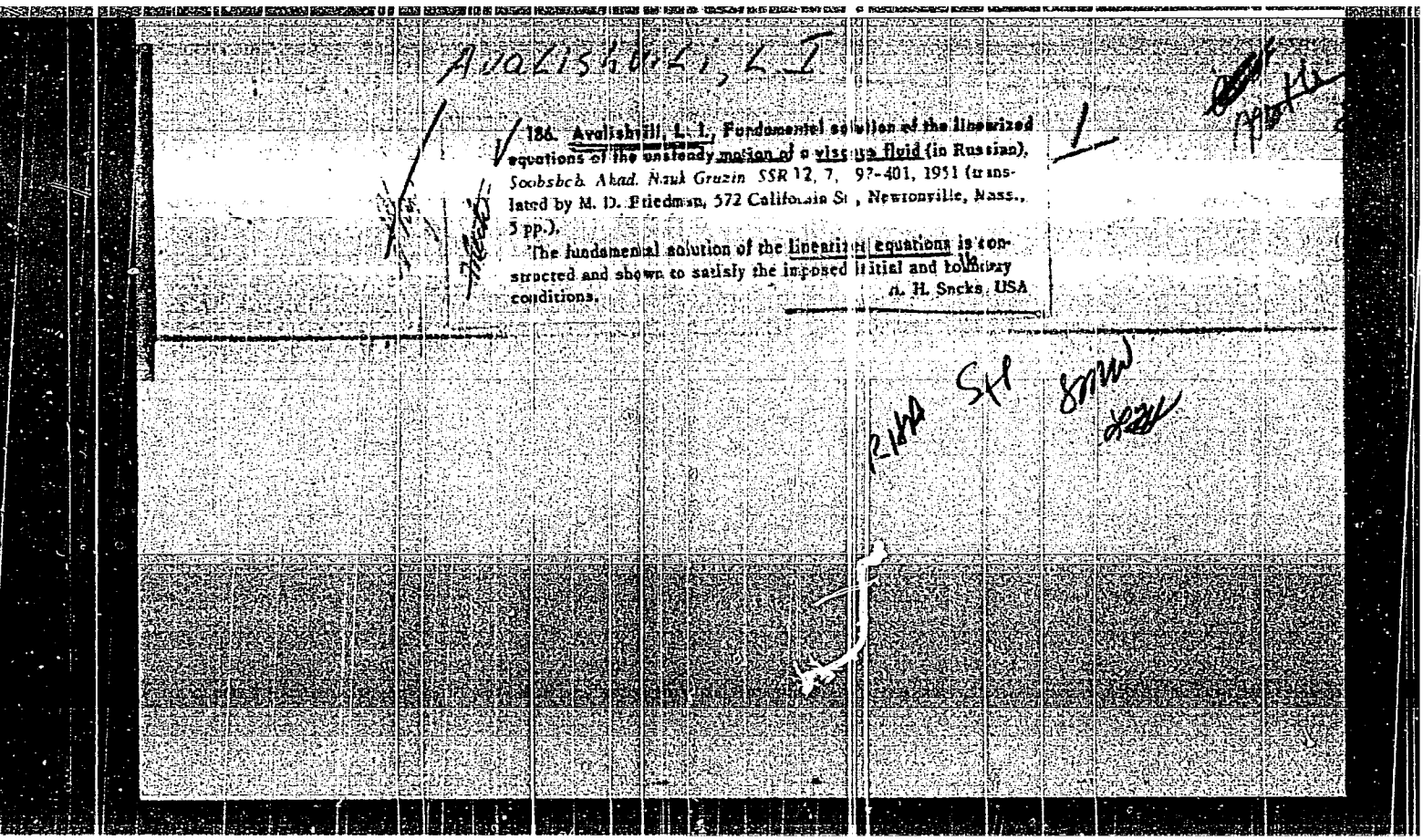
Abstract: Cultures of Flexner dysentery bacteria and paratyphoid Breslau bacteria were grown in five-liter flasks containing three liters of fish bouillon or of Hottinger's medium, through which air was insufflated for one or two hours and then five cubic centimeters of the corresponding phage inoculated. The greatest

Card : 1/2

AVALISHVILI, I. (Tbilisi)

The copper dish. Mest.prom.i khud.promys. 3 no.7:35 Jl. '62.
(MIRA 15:8)

(Tbilisi--Enamel and enameling)



Avdishkii, L. I.

186. Avdishkii, L. I., Fundamental solution of the linearized equations of the unsteady motion of a viscous fluid (in Russian), *Soobshch. Akad. Nauk Gruzin. SSR* 12, 7, 397-401, 1951 (translated by M. D. Friedman, 572 California St., Newtonville, Mass., 5 pp.).

The fundamental solution of the linearized equations is constructed and shown to satisfy the imposed initial and boundary conditions.

A. H. Sacks, USA

AVALISHVILI, L. Ye.

"Ozeyen Nonsteady-State Boundary Value Problem." Cand Phys-Math Sci, Tbilisi Mathematics Inst, Thilisi, 1954. (RZhMekj, Feb 55)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

AVALISHVILI, L.Ye.

Queen's nonstationary boundary value problems. Soob.AN Grux.SSR 17 no.6:489-494 '56. (MIRA 9:10)

1. Tbilisskiy gosudarstvennyy universitet imeni Stalina. Predstavleno akademikom N.I. Muskhelishvili.
(Fluid mechanics) (Boundary layer)

AVALISHVILI, L.Ye.

Particular solutions of linearized equations of planar unsteady movement of a viscous liquid. Soob.AN Gruz.SSR 24 no.4:391-394 Ap '60. (MIRA 13:7)

1. Tbilisskiy gosudarstvennoy im. Stalina. Predstavleno akademikom N.I.Muskhelishvili.
(Hydrodynamics)

37613

S/044/62/000/004/062/099
C111/C333

24.4200
16.3[illegible]0

AUTHOR: Avalishvili, L.Ye.

TITLE: The solution of the instationary boundary value problem of Oseen for a cylinder

PERIODICAL: Referativnyy zhurnal. Matematika, no. 4, 1962, 60, abstract 4B277. ("Soobshch. AN Gruz SSR", 1961, 26, no. 6, 647-651)

TEXT : The author considers the plane instationary boundary value problem of Oseen :

$$\nu\Delta v - U\frac{\partial v}{\partial x} - \frac{\partial v}{\partial t} = \frac{1}{\rho}\operatorname{grad} p;\ U, \rho = \text{const};$$

outside of the cylinder r = a with the additional conditions

$$v|_{t=0} = 0;\quad u|_{r=a} = U;\quad v|_{r=a} = 0.$$

With the aid of the Laplace transformation this system is reduced to a

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The solution of the instationary ... S/044/62/000/004/062/099
C111/C333

stationary boundary value problem. The solution of the latter is sought by a series set-up with undetermined coefficients. The coefficients are determined from an infinite system of linear algebraic equations which is obtained from the boundary conditions. It is remarked that the convergence of the process can be proved just as in H. Faxen, (Nova acta soc. scient. upsaliensis, 1927, vol. extra ordinem).

[Abstracter's note : Complete translation.]

Card 2/2

AVALISHVILI, M.G.

Functional condition of adrenal cortex in relation to the treatment of ulcers with some materia medica. Soob. AN Gruz. SSR 31 no.1:221-226 Jl '63. (MIRA 17:7)

1. Tbilisskiy gosudarstvennyy meditsinskiy institut. Predstavleno akademikom V.S. Asatiani.

AVALISHVILI, N. V.

"Meat Qualities of the Buffalo Common to the Georgian SSR." Cand Agr Sci, Georgian Order of the Labor Red Banner Agricultural Inst, 9 Mar 54 Dissertation (Zarya Vostoka Tbilisi, 21 Feb 54)

SO; SUM.186, 19 Aug 1954

AVALISHVILI, N. V., kandidat sel'skokhozyaystvennykh nauk.

Meat qualities of buffaloes. Miss.ind.SSSR 27 no.1:51-52 '56.
(Buffalo) (MLRA 9:6)

AVALISHVILI, S.D.; INTSKIRVELI, T.P.

Incidence of tertian malaria with prolonged incubation in the Adzharsk Republic. Med. paraz. i paraz. bol. no.3:219-226 Jl-S '54. (MLRA 8:2)

1. Iz respublikanskoy protivomalyariynoy stantsii Adzharskoy ASSR.
(MALARIA,
tertian, epidemiol. in Russia, malaria with prolonged incubation)

AVALISHVILI, S.D.; MAKHLINA, R.M.

Effectiveness of oil of chenopodium produced in the Soviet Union.
Med. paraz. i paraz. bol. no.4:308-309 O-D '54. (MLRA 8:2)

1. Iz Respublikanskoy protivomalyariynoy stantsii Adzharskoy ASSR
(Glavnyy vrach S.D.Avalishvili)
(ANTHELMINTHICS, therapeutic use,
oil of chenopodium, effectiveness)

AVALISHVILI, S. D.

Category: USSR/General Division. History. Classics. Personalities. A-2

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 21287

Author : Avalishvili, S.D.
Inst : not given
Title : History of the Fight against Malaria in Adzharian ASSR.

Orig Pub: Byul. Ni.-i. in-ta malyarii i med. parazitol. GruzSSR, 1955, No 1-2, 12-25

Abstract: Data are given on the spread of malarial disease and the organization of antimalarial service in Adzharian ASSR, beginning in 1878 with the annexation of Batum to Russia, and also statistics on malarial diseases in the territory of Adzharian ASSR from the beginning of the 20th Century and up to 1953. The history of the organization (1912) and the studies of the malarial station in Batum are described. The basic forms of blood-sucking mosquitoes which are met with in Adzharia are enumerated. Measures for

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MAKHLINA, R.M.; AVALISHVILI, S.D.; KAMALOVA, A.G.

Testing of some antihelminth preparations in ascariasis and necatoriasis under outpatient service conditions. Med.paraz. i paraz. bol. 32 no.5:623-624 S-O'63 (MIRA 16:12)

1. Iz parazitologicheskogo otdela respublikanskoy sanitarno-epidemiologicheskoy stantsii Adzharskoy ASSR.

AVALIYANI, V. I.

Grad Stud Dissertation: -- "Volume Determination in Projections With Numerical Markings." Cand Tech Sci, Georgian Polytechnic Inst imeni S. M. Kirov, 30 Jun 54. (Zarya Vostoka, Tbilisi, 18 Jun 54)

SO: Sum 318, 23 Dec. 1954

24(3), 24(5) SOV/56-35-5-19/56

AUTHORS: Byakov, V. M., Avalov, R. G.

TITLE: The Acceleration of Cosmic Rays in a Fluctuating Magnetic Field (*Uskoreniye kosmicheskikh luchey vo fluktuiruyushchem magnitnom pole*)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 5, pp 1181-1184 (USSR)

ABSTRACT: In the present paper the acceleration of cosmic particles is investigated in magnetic fields which are variable with respect to time. Such fields occur in the turbulent motion of interstellar matter as well as in the atmospheric motion of some types of stars. In an ideally conductive magnetized medium (as e.g. in cosmic space) the magnetic lines of force are connected with matter, and density variations simultaneously entail field variations. In interstellar space the hydrodynamic velocities are as a rule never small compared to the velocity of sound. Velocity fluctuations cause considerable density variations and thus also considerable fluctuations of the magnetic field. For the magnetic field there are two possibilities: either it grows at the expense of the turbulent motion of the magnetic medium,

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or it is steady (or quasisteady). The acceleration of cosmic particles in the former case was investigated by Logunov and Terletskiy (Ref 1), and their acceleration by magnetohydrodynamic waves in galactic spiral branches was investigated by Davis (Ref 2). In the present paper investigations are based upon the latter possibility, and the acceleration of charged particles at the expense of fluctuation variations of the magnetic field are investigated. First, the order of magnitude of the effect to be expected is estimated. For particles of the charge e and of the momentum p the following applies: $p \ll (e/c)H^2/|\text{grad } H|$ and for $H \leq 10^{-5}$ Oe $p^2\sin^2\vartheta/H = p_1^2\sin^2\vartheta_1/H_1$ (ϑ - angle between $\vec{p}$ and $\vec{H}$); the index 1 denotes the quantities at the moment of entering in the field domain under observation. Expressions are further derived for $\overline{\Delta p}$ and $\overline{\Delta p^2}$ in dependence on the period of field variation. Finally, the efficiency of the acceleration mechanism investigated is compared with that of Fermi (Ref 3) (in the relativistic case) and the following is obtained:

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$\left(\frac{dE}{dt}\right) \Big/ \left(\frac{dE}{dt}\right)_{Fermi} = \frac{1}{16} \frac{n^2}{1+n} \frac{c}{v}$ with $n^2/(n-1) \ll 3$ ($v \leq 100$ km/sec). Calculations show that the mechanism investigated here may be more efficient than the Fermi acceleration mechanism. In conclusion, the authors thank K. A. Ter-Martirosyan, S. B. Pikel'ner, and I. S. Shklovskiy for their interest and discussions. There are 6 references, 3 of which are Soviet.

SUBMITTED: May 19, 1958 (initially) and July 18, 1958 (after revision)

Card 3/3

AVALYAN, L.M.

Effect of the preliminary grafting of breeding material on character inheritance in tomato hybrids. Izv.AN Arm.SSR.Biol. i sel'khoz.nauki 9 no.11:101-114 N '56. (MLRA 10:1)

1. Biologicheskiy fakul'tet Armyanskogo pedagogicheskogo instituta.
(Tomatoes) (Hybridization, Vegetable)

USSR / General Biology - Genetics. B

Abs Jour: Ref Zhur-Biol., No 9, 1958, 38057.

Author : Avalyan, L. M.
Inst : Not given.
Title : A Study of Some Tobacco Intervariety Hybrids.

Orig Pub: Nauchn. tr. Erevansk. un-ta, 1956, 54, ch. 2, 87-93.

Abstract: The author conducted crossbreeding of the following tobacco varieties: Samsun 27, Trapezond 1272, Michurinskiy, and line Armni. Pairs were chosen with contrasting features. A study of the first hybrid generation showed that sessile leaves are dominant over petiolar ones; hybrids are intermediate in the number of leaves, or lean toward the maternal type in their leaf form; however, in some combinations the leaves are intermediate

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AVALYAN, L. M., Cand of Bio Sci -- (diss) "Joint influence of sexual and vegetative hybridization on the vitality and heredity of plants." Yerevan, 1957, 28 pp (Yerevan State University im V. M. Molotov) 150 copies (KL, 31-57, 104)

AVALYAN, L.M.

Complex vegetative-sexual tomato hybrids. Izv.AN Arm.SSR.Biol. i sel'khoz.nauki 10 no.2:47-56 F '57. (MLRA 10:4)

1. Yestestvennyy fakul'tet Armyanskogo pedagogicheskogo instituta.
(Tomato breeding)
(Hybridization, Vegetable)

AVANESOV, A., kandidat arkhitektury

Using sea shells for porous concrete. Sel'.stroi. 10 no.7:14 Jl'55.
(Shells) (Light weight concrete) (MLRA 8:10)

AVANESOV, A., kand.arkhitektury

Using shells in building in the Black Sea region. Biul.stroi. tekh. 12 no.8:17 Ag '55. (MIRA 12:1)

1. Rostovskiy inzhenerno-stroitel'nyy institut.
(Black Sea region--Shells) (Lightweight concrete)

RZAYEV, A.S.; AVANESOV, A.A.

Effectiveness of using diamond bits in the Zyrya oil field.
Burenie no.9:3-5 '65. (MIRA 18:10)

1. Neftepromyslovoye upravleniye "Azizbekovneft'".

GOL'DSHLYAK, inzh.; AVAKESOV, A.I., kand.arkhitektury

Using reedwork partitions. Biul.stroi.tekh. 16 no.1:35-36 Ja '59. (MIRA 12:2)

(Walls) (Reed (Botany))

AVANESOV, B.A.

Importance of vitamin B_{12} in conservative treatment of ulcers of the stomach and the duodenum in ambulant practice. Sbor.nauch.-prak.rab.Poliklin.im.F.E.Dzerzh. no.2:83-87 '61. (MIRA 16:4)

(ALIMENTARY CANAL—ULCERS) (CYANOCOBALAMINE)

AVANESOV, B.A.; CHEKHONINA, N.Ye.

Concerning visceral candidiasis. Sbor.nauch.-prak.rab.Poliklin. im.F.E.Dzerzh. no.2:88-90 '61. (MIRA 16:4)
(LUNGS--DISEASES) (MONILIASIS)