II

COUNTRY : CZECHOSLOVAKIA
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Instruments and Automation
ABS. JOUR. : RZKhim., No. 23 1959, No. 82561

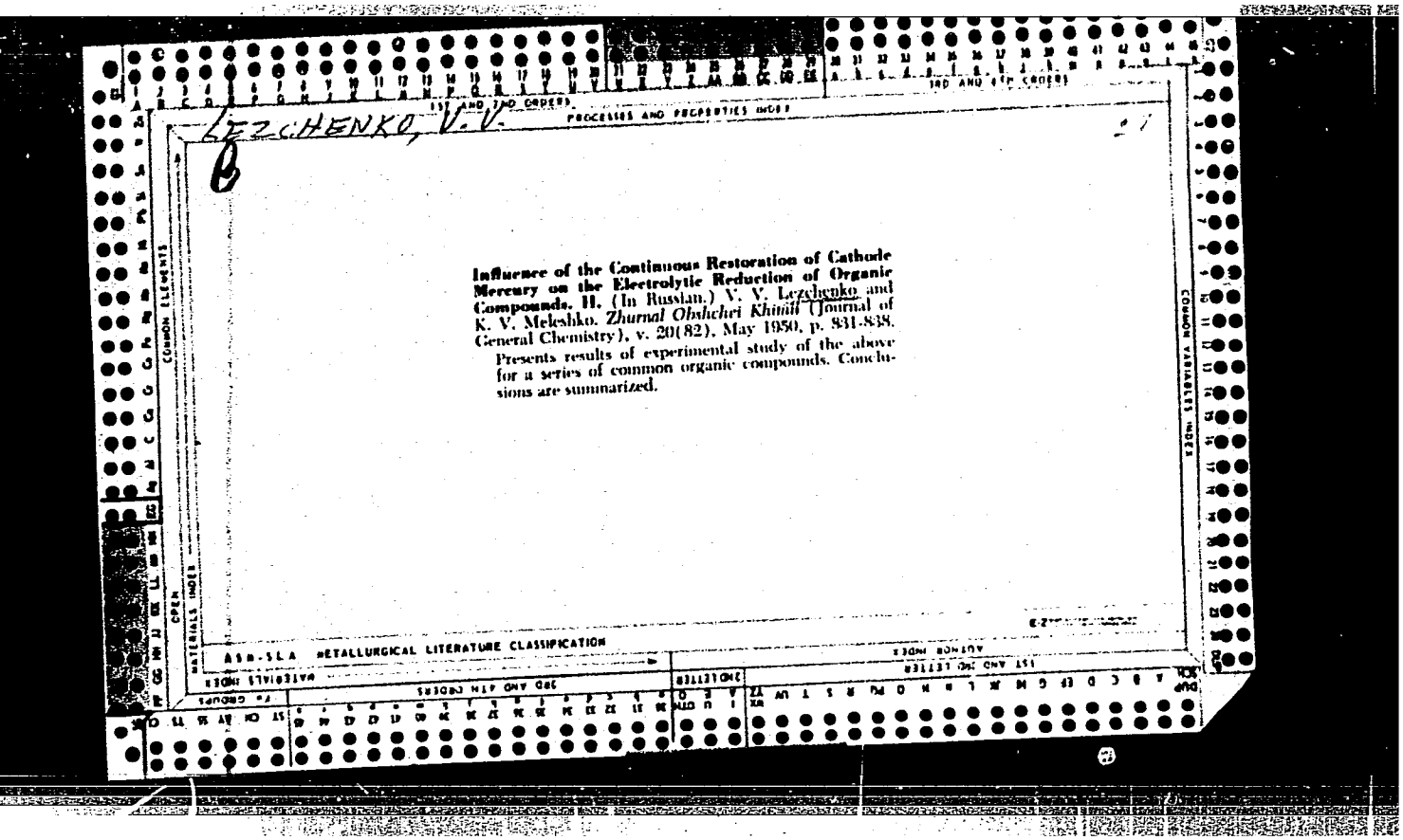
AUTHOR : Zenaty, G.; Lezatka, J.
INST. : -
TITLE : Automatic Control and Measurment of Feed Charged into a Rotary Kiln

ORIG. PUB. : Stavivo, 1959, 37, No 1, 14-15

ABSTRACT : For the purpose of maintaining a constant level of solids charge ahead of the bucket elevator, an electrode system, involving a two position control, is being employed. This control operates a motor that activates a device that pinches rubber tube through which the solids are being fed. -- Ye. Stefanovskiy

CARD: 1/1

H - 8



LEZCHENKO, V. V.

B

Influence of the Continuous Restoration of Cathode Mercury on the Electrolytic Reduction of Organic Compounds. II. (In Russian.) V. V. Lezchenko and K. V. Mekshko. *Zhurnal Obshchei Khimii* (Journal of General Chemistry), v. 20(82), May 1950, p. 831-838.

Presents results of experimental study of the above for a series of common organic compounds. Conclusions are summarized.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

L 5442-66 EWT(l)/EPA(a)/EWT(m)/EPF(n)-2/EWP(t)/EWP(b) IJP(c) JD/WW/JG
ACCESSION NR: AP5017914 UR/0051/65/019/001/0154/0156
535.372 :535.2

AUTHOR: Karulinya, E. K.; Lezdin', A. E.; Silin', Yu. A.

TITLE: Absolute intensities of thallium spectral lines in sensitized fluorescence of mercury and thallium vapors

SOURCE: Optika i spektroskopiya, v. 19, no. 1, 1965, 154-156

TOPIC TAGS: mercury, thallium, spectral line, line intensity, fluorescence spectrum

ABSTRACT: Mercury atoms were optically excited to the 6 $^3P_1$ level, imparting their energy by collision to neutral thallium atoms. The optical pumping was produced by a tube in the form of a quartz sphere (30--40 mm dia.) with two extensions, one containing mercury and the other thallium. Each extension was kept at a different temperature. Intensities were recorded photoelectrically. As a result, 11 thallium lines were observed in the fluorescence spectrum. The energy levels of the mercury and thallium are shown in Fig. 1 of the enclosure. The absolute intensities of the spectral lines were obtained by comparison with the continuous spectrum of a ribbon-filament or hydrogen lamp. The intensities and the level populations calculated from them are tabulated. "The authors thank S. E. Frish for interest and V. Mashnikova and V. Freyde for help with the measurements." Orig. art. has: 2 figures and 2 tables.

Card 1/3

L 5442-66
ACCESSION NR: AP5017914

ASSOCIATION: none

SUBMITTED: 18Feb65 ENCL: 01 SUB CODE: OP

NR REF SOV: 003 OTHER: 003

Card 2/3

L 5442-66
ACCESSION NR: AP5017914

ENCLOSURE: 01

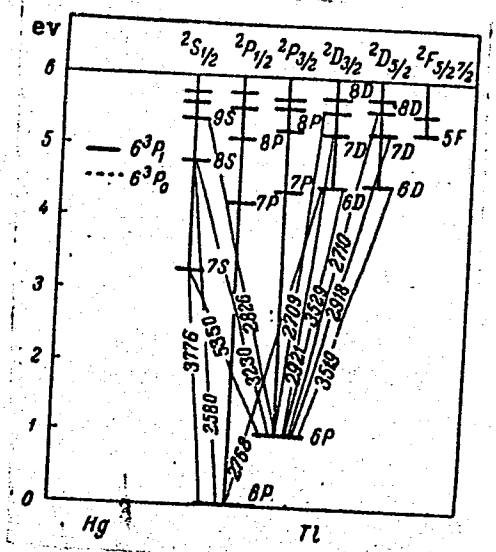


Fig. 1. Energy levels of mercury and thallium

Card 3/3

L 27212-66

ACC NR: AP6011583 SOURCE CODE: UR/0051/66/020/003/0539/0541

AUTHORS: Kraulinya, E. K.; Lezdin', A. E. 41 8

ORG: none

TITLE: Absolute effective cross sections in sensitized fluorescence of mercury and thallium vapors

SOURCE: Optika i spektroskopiya, v. 20, no. 3, 1966, 539-541

TOPIC TAGS: mercury, thallium, fluorescence, spectral line, line intensity, excitation cross section, hyperfine structure, line shift, optic transition

ABSTRACT: This is a continuation of an earlier experimental study (Opt. i spektr. v. 19, 154, 1965) of the absolute intensities of the spectral lines of thallium in sensitized fluorescence of mercury and thallium vapor. Present investigation is devoted to a determination of absolute intensities of the spectral lines under a different experimental condition, and to the calculation of the absolute effective cross sections on the basis of the obtained experimental measurements. The effective cross sections were determined by a formula given by one of the authors elsewhere (Kraulinya, with S. E. Frish, DAN SSR v. 101, 837, 1955 and later papers). Difficulties connected with the fact that the absolute

Card 1/2 UDC: 539.186

L 27212-66
ACC NR: AP6011583 O

intensities vary from tube to tube, and the thallium spectral lines are not simple but have a complicated structure, so that the influence of the hyperfine structure on the isotopic shift must be taken into account. A table listing the cross sections for various transitions with and without allowance for the hyperfine structure is presented. The results are compared with those by others and various differences are briefly discussed. The authors thank S. E. Frish for interest in the work, E.M. Anderson and E. K. Anderson for supplying the values of the transition probabilities for the thallium, and Yu. A. Silin' for help with the measurements. Orig. art. has: 1 formula and 1 table.

SUB CODE: 20/ SUBM DATE: 250ct65/ ORIG REF: 005/ OTH REF: 001

Card 2/2 CC

LEZERESKU, A.

RUMANIA / Forestry. Forest Cultures. K

Abs Jour: Ref Zhur-Biol., No 7, 1958, 29603.

Author : Lezeresku, A.
Inst : Not given.
Title : Exotic Trees of Forestry Significance in Curtea de Arges, Rumania.
(Drevesnyye ekzoty lesovodstvennogo znacheniya v Kurtya de Ardzhesh (Rumyniya).

Orig Pub: Rev. padurilor, 1957, 71, No 2, 113.

Abstract: No abstract.

Card 1/1

LEZERESKU, V.

RUMANIA/Cultivated Plants - Fruits. Berries. L-6

Abs Jour : Ref Zhur - Biologiya, No 16, 25 Aug 1957, 69404

Author : Lezeresku
Inst :
Title : Evaluation of Climatic Conditions in Sugyava Region (Rumanian Peoples Republic) Relative to Development of Grape Cultivation .

Orig Pub : Gradina, via si livada, 1956, 5, No 12, 36-43

Abst : As a result of meteorological observations in the Botoshani, Feltichenі and Dorogai stations for 5 years (1949 to 1953) it was established that in the Sugyava region (RPR) the climatic conditions are essentially unfavorable for grape cultivation, but in some districts the microclimatic conditions are suitable for grapegrowing. Here early table varieties of grapes may be recommended (ripening periods I to III), and also commercial ones.

Card 1/1

LEZERESKU, V.

RUMANIA/Cultivated Plants. Fruits. Berries. M

Abs Jour: Ref Zhur-Biol., No 5, 1958, 20516.

Author : G. Konstantinesku, V. Lezeresku, I. Poyenaru.
Inst : Balcescu Agricultural Institute, Bucharest Scientific Research Institute.
Title : Biological Criteria for Determining the Initial Moment of Florescence in the Grape Vine (Vitis vinifera sativa). (Biologicheskiye kriterii dlya opredeleniya momenta nachala tsveteniya vinogradnoy lozy (Vitis vinifera sativa).

Orig Pub: Bul. ştiinţ. Acad. RPR, Sec. biol. şi ştiinţe agric., 1956, 8, No 4, 827-846.

Abstract: The research has been summed up which was conducted in the ampelographic collection of the Agricultural Institute in Balcescu and the Scientific Research Institute at Bucharest. The difference in time for the buds to begin to open was

Card : 1/2

LEZERSON, I.R. (Moskva, G-69, Nikitskiye vorota, Stolovyy per., d.2, kv.2)

Mechanisms of the formation and surgical treatment of anal fissures. Vest.khir. no.1:73-79 '62. (MIRA 15:1)

1. Iz proktologicheskogo otdeleniya bol'nitsy No.18 im. Oktyabr'skoy revolyutsii (nauchn. rukovod. - prof. A.N. Ryzhikh, gl. vrach - T.N. Amarantova).
(FISTULA, ANAL)

LEZERSON, V. K., Engineer

"Fundamentals of the Theory and Calculation of a Not Fully Accessible Beam."
Sub 19 Apr 51, Moscow Electrical Engineering Inst of Communications

Dissertations presented for science and engineering degrees in
Moscow during 1951.

SO: Sum. No. 480, 9 May 55

LEZERSON, V.K.; KHARKEVICH, A.D., redaktor; MARTYNENKO, D.P., redaktor.

[Connection of the ATS-47 automatic telephone station with long distance and institutional telephone stations] Sviaz' ATS-47 s mezhdugorodnoi i uchrezhdencheskimi telefonnymi stantsiiami. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1953. 99 p. (MLRA 7:5)
(Telephone stations)

BABITSKIY, Iosif Aronovich [deceased]; LEZERSON, V.K., otvetstvennyy redaktor; DOBRYNINA, A.Ya., redaktor; LEDNEVA, N.V., tekhnicheskiy redaktor

[Calculation of multiswitches for automatic telephone stations] K raschetu stupenchatogo vkliucheniia na ATS. Moskva, Gos. izd-vo po voprosam sviazi i radio, 1956. 28 p. (MLRA 10:1)
(Telephone, Automatic)

SOLOV'YEVA, Anna Grigor'yevna,; LEZERSON, V.K., otv. red.; BELIKOV, V.S., red.; MAZEL', Ye.I., tekhn. red.

[Fundamentals of telephony and telephone central offices using manual systems] Osnovy telefonii i telefonnye stantsii ruchnogo obsluzhivaniia. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1958. 341 p. (MIRA 11:12)

(Telephone)

SOV/106-59-2-8/11

AUTHORS: Lezerson, V.K. and Greybo, Z.F.

TITLE: An Artificial Telephone Traffic Machine (Mashina iskusstvennoy telefonnoy nagruzki)

PERIODICAL: Elektrosvyaz', 1959, Nr 2, pp 64 - 71 (USSR)

ABSTRACT: The article describes a machine designed to simulate the traffic conditions on exchange switching apparatus. The machine was developed by the authors at the Tsentralnyy nauchno-issledovatel'skiy institut svyazi (Central Scientific Research Institute of Communications). The skeleton diagram of the machine is given in Figure 1. The random pulse generator (GSI) produces pulses having a Poisson distribution. The pulses are passed to a pulse distributor (RI) which directs one part of them to a calling pulse distributor (RIZ) and the other part to a releasing pulse distributor (RIO). Pulses from the calling pulse distributor are passed to a network in which is concentrated apparatus simulating the trunks or the equipment of the investigated group. These trunks are connected in a manner corresponding to the problem under investigation.

The calling pulse engages in its turn a free trunk which

Card1/3

remains engaged until it is cleared by a releasing pulse from the releasing pulse distributor. Counters, not shown in the diagram, register the number of calls originated, the number of lost calls and other quantitative criteria. The holding times follow an exponential distribution. The machine was checked by investigation of full-availability groups of up to 120 trunks, preserving all the conditions required for Erlang's formula.

The machine gives the possibility of investigating full-availability groups under conditions when the subscriber, having found all trunks engaged, repeats his attempt to find a free trunk. The skeleton circuit for this investigation is given in Figure 2 and the principles are explained. The results are tabulated in Table 1 and for a delayed-call system in Table 2.

The machine also enables the following to be investigated:

1) graded connection circuits with different availabilities;
2) full-availability group carrying two different loads working on either the lost call or the delayed call system;
3) a trunk with compounding selectors or with two successively connected search steps.

An Artificial Telephone Traffic Machine SOV/106-59-2-8/11

From the results, it is concluded that if a subscriber repeatedly tries for a connection, the lost-call system, judging from the lost calls, is less satisfactory and a free trunk can be obtained more quickly with a finite delay call system without the necessity of repeated dialling. Senior Technician N.I. Tsimbalov took part in this investigation.
There are 3 figures, 3 tables and 15 references, 9 of which are English, 1 Soviet, 2 German and 3 Swedish.

SUBMITTED: May 17, 1958

Card 3/3

KARMAZOV, Mikhail Grigor'yevich; METEL'SKIY, Georgiy Borisovich; LEZERSON, V.K., otv. red.; ULANOVSKAYA, N.M., red.

[Automatic telephony] Avtomaticheskaia telefoniia. Moskva, Sviaz'izdat, 1963. 375 p. (MIRA 17:5)

LEZGIN, L.

Determining the distance by means of a horizontal angle. Mor.flot 15 no.3:11-13 Mr '55. (MIRA 8:5)
(Navigation)

LEZGIN, L., prepodavatel'

Remote-control recording of log and time-indicator readings. (MIRA 14:6)
Mor.flot 21 no.2:20-21 F '61.

1. Khersonskoye morekhodnoye uchilishche.
(Nautical instruments)
(Remote control)

LEZGINTSEV, G.M.

Optimum parameters of hydraulic mining of placer deposits. Zap. LGI 49 no.1:95-98 '64. (MIRA 18:8)

KRYSENKO, N.S.; POZNYAKOV, V.Ya.; GAZARYAN, L.M.; ZADOV, Ye.B.; KADYRZHANOV, K.K.; KUZ'MIN, A.V.; TROITSKIY, A.V.; LEZGINTSEV, G.M.; MITROFANOV, S.I.; SOLOV'YEV, V.Ya.; SOBOL', S.I.; MYAGKOVA, T.M.; GAYLIT, A.A.; GENIN, N.N.; GRATSERSHTEYN, I.M.; SKORNYAKOV, Yu.T., referent

Fourth plenum of the central administration of the Scientific Technological Society for Nonferrous Metallurgy. TSvet. met. 38 no.5:90 My '65. (MIRA 18:6)

1. Chlen TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii i zavod "Ukrtsink" (for Krysenko). 2. Chlen TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii i "Severonikel'" (for Poznyakov). 3. Institut metallurgii im. Baykova (for Gazaryan). 4. Predsedatel' soveta Nauchno-tekhnicheskogo obshchestva Kol'chuginskogo zavoda OTsM (for Zadov). 5. Chlen TSentral'nogo pravleniya Nauchnc-tekhnicheskogo obshchestva tsvetnoy metallurgii, Sovet narodnogo khozyaystva Kazakhskoy SSR (for Kadyrzhanov). 6. Predsedatel' gorno-geologicheskoy sektsii TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva tsvetnoy metallurgii; Gosudarstvennyy komitet Soveta Ministrov RSFSR po koordinatsii nauchno-issledovatel'skikh rabot (for Kuz'min). 7. Chlen TSentral'nogo pravleniya Nauchno-tekhnicheskogo obshchestva

(Continued on next card)

KRYSENKO, N.S.--- (continued) Card 2.

tsvetnoy metallurgii, Sovet narodnogo khozyaystva SSSR (for Troitskiy). 8. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsvetnoy metallurgii (for Lezgintsev). 9. Gosudarstvennyy nauchno-issledovatel'skiy institut tsvetnykh metallov (for Mitrofanov, Sobol', Genin). 10. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut splavov i obrabotki tsvetnykh metallov (for Solov'yev). 11. Vsesoyuznyy nauchno-issledovatel'skiy i proyektnyy institut mekhanicheskoy obrabotki poleznykh iskopayemykh (for Myagkova). 12. Gosudarstvennyy institut po proyektirovaniyu predpriyatiy tsvetnoy metallurgii (for Gaylit).

44652
S/196/63/000/001/005/035
E193/E383

24.7800

AUTHORS: Sholokhovich, M.L., Khodakov, A.L., Lezgintseva, T.N. and Varicheva, V.I.

TITLE: New, highly nonlinear ferrcelectrics

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no. 1, 1963, 15-17, abstract 1 B54. (In collection: Segnetoelektriki (Ferroelectrics), Rostov-na-Donu, Rostovsk. un-t, 1961, 12-20)

TEXT: The ferroelectric properties of sintered compacts and single crystals of $Ba(Ti-Hf)O_3$ solid solutions, containing up to 25 mole.% Hf, were studied. The powder compacts were sintered three times at 1273, 1683 and 1873 °K (1000, 1450 and 1500 °C), the sintering time at 1273 °K (1000 °C) being 20 hrs. The specimens were ground and recompacted after the first sintering operation. Sintered compacts containing more than 6% Hf were porous. Single crystals of $Ba(Ti-Hf)O_3$ (molten K_2F_2 was used as a solvent) constituted coarse, triangular platelets joined along one of the sides, the length of the sides and thickness of some platelets reaching, respectively, 2.5 cm and 80-500 μ. Single crystals were light

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was considerably less than that in the case of single crystals.

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S/196/63/000/001/005/035
E193/E383

New, highly nonlinear ferroelectrics

The field intensity E_m, corresponding to the maximum value of ε, increased with increasing frequency f. Oscillograms of hysteresis loops of single crystals of solid solutions were characterized by pronounced rectangularity and reached saturation in fields as weak as 5 kV/cm. The total polarization ability of the crystals reached 30 - 35 kg/cm^2. Slight asymmetry of the hysteresis loops was attributed to the effect of electrons. A wide loop indicated considerable hysteresis losses, the nature of which was not associated with relatively low conductivity. A characteristic anomaly was observed in the temperature-dependence of the electrical conductivity σ in the vicinity of Θ (see Fig. 3). It was established that the nonlinear properties of single crystals were particularly strongly revealed under the simultaneous action of constant and alternating fields. The relationship between ε and the intensity of a DC field E at $f = 10^6$ c.p.s. is shown in Fig. 4, where the numbers given by each curve indicate the intensity of the alternating field. The most useful fact from the practical point of view is that maximum nonlinearity is observed in weak fields. There are 8 figures and 8 references.

[Abstracter's note: Complete translation.]

Card 3/3

ACCESSION NR: AR4042161 S/0196/64/000/005/B019/B019

SOURCE: Ref. zh. Elektrotekhnika i energetika, Abs. 5B83

AUTHOR: Lezgintseva, T. N.; Khodakov, A. L.

TITLE: Influence of slight impurities of iron on the dielectric properties of solid solutions of barium titanate and stannate

CITED SOURCE: Izv. Leningr. elektrotekhn. in-ta, vy*p. 51, 1963, 260-267

TOPIC TAGS: barium titanate, barium stannate, dielectic property solid solution

TRANSLATION: The dependence of ε on the intensity of a variable electric field E (up to 10 kv/cm), reversible ε (E varied up to 8 kv/cm) was studied at 300 kc, hysteresis loop and dependence on temperature of ε and tanδ at 300 kc from 20 to 140°C for ceramic solid solutions of $BaTiO_3$ - $BaSnO_3$ with 0; 3; 6; 9 and 12 mole % $BaSnO_3$ and 0; 0.1; 0.2; 0.4; 0.7; 1 mole % Fe_2O_3. Introduction of additions of Fe_2O_3 leads to a sharp lowering of the nonlinear properties of solid solutions; this is,

Card 1/2

ACCESSION NR: AR4042161

especially noticeably for compositions containing 6 mole % $BaSnO_3$. In solid solutions with additions of iron, θ shifts in the direction of low temperatures, the more noticeably, the higher the concentration of Fe, while ϵ is also lowered at θ. These effects are more noticeable in solid solutions baked directly from a mixture of $BaTiO_3$, $BaSnO_3$, and Fe_2O_3. The influence of Fe impurities on θ and ϵ in pure samples of $BaTiO_3$ is noticeably less than in solid solutions alloyed with the same concentration of Fe. For the manufacture of ferroelectric-ceramics and single crystals with the sharpest expressed nonlinear properties, it is proposed, to avoid materials containing Fe. Three illustrations. Bibliography: 4 references. [Rostov-on-Don State University]

SUB CODE: IC, EM ENCL: 00

Card 2/2

ACCESSION NR: AP4043360 S/0181/64/006/008/2401/2404

AUTHOR: Lezgintseva, T. N.

TITLE: Single crystals of barium titanate with stratified domain structure

SOURCE: Fizika tverdogo tela, v. 6, no. 8, 1964, 2401-2404

TOPIC TAGS: barium titanate, domain structure, dielectric constant, piezoelectric modulus, piezoelectric ceramic

ABSTRACT: The author investigated single crystals of barium titanate obtained from a melt in potassium fluorite with a small amount of hafnium added. All crystals had a stratified domain structure made up of alternating a- and c-domains at 45° to the plane of the plate. Such a domain structure is stable against heating, polarization, and prolonged action of mechanical load. A formula is derived for the dielectric constant of such a crystal and the dependence of the pro-

Card 1/4

ACCESSION NR: AP4043360

perties of the crystals on the concentration of the a-domains is analyzed. The variation of the piezoelectric modulus of the unpolarized single crystal on a constant bias field leads to a qualitative connection between the piezoelectric modulus and the domain structure of the crystal. The irreversible changes in the domain structure of the crystal during the course of the measurements may be the cause of the instability of the electric and mechanical properties. A qualitative agreement is obtained between the calculation results and the experimental data. "In conclusion I am grateful to O. P. Kramarov, A. V. Turik, and V. Z. Borodin for a discussion of the results." Orig. art. has: 3 figures and 3 formulas.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvenny*y universitet (Rostov-on-Don State University)

SUBMITTED: 26Feb64

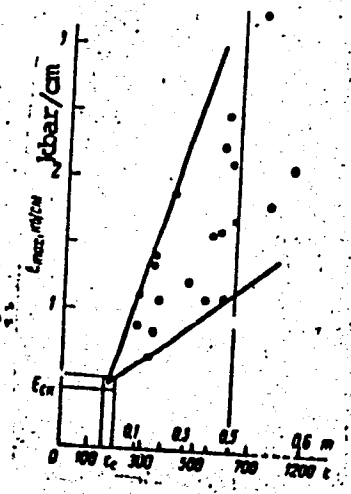
ENCL: 02

SUB CODE: SS NR REF SOV: 007 OTHER: 004

Card 2/4

ACCESSION NR: AP4043360

ENCLOSURE: 01

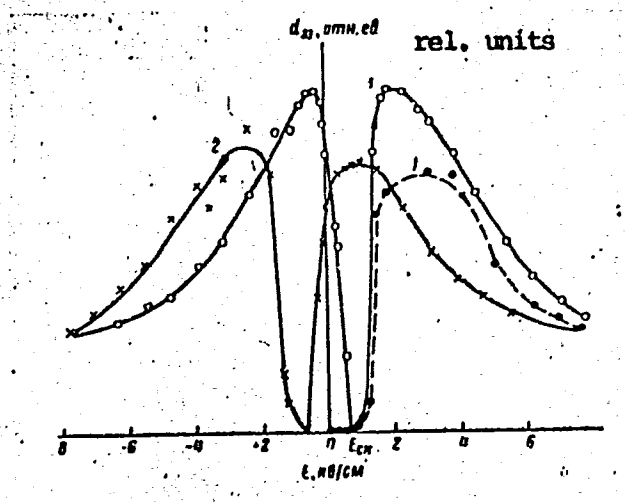


Dependence of maximum field intensity on the concentration of a-domains

Card 3/4

ACCESSION NR: AP4043360

ENCLOSURE: 02



Dependence of piezoelectric modulus d_{33} of an unpolarized single crystal on the fixed bias field. Numbers indicate the sequence of the measurements. The initial unpolarized state of the crystal is shown dashed.

Card 4/4

L 41140-65 EWT(l)/EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EPF(n)-2/EPA(w)-2/T/EEC(b)-2/
EWP(b)/EWA(h) Pab-10/Pt-10/Peb/Pi-4/Pu-4 IJP(c) GG/WH
ACCESSION NR: AP5000644 S/0181/64/006/012/3509/3514

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51
B

AUTHOR: Lezgintseva, T. N.

TITLE: Piezoelectric effect in barium titanate single crystals with complex domain structure

SOURCE: Fizika tverdogo tela, v. 6, no. 12, 1964, 3509-3514

TOPIC TAGS: barium titanate, single crystal, piezoelectric effect, domain structure

ABSTRACT: The author derived formulas for the piezoelectric modulus d_i in terms of the change in the permittivity ϵ (or polarization P) on the application of a mechanical load. The basic formula was

$$d_i = \frac{Q_i}{F} = \frac{\Delta P_i}{\sigma} = \frac{\Delta_i P}{i\sigma}$$

where Q -- electric charge, F -- applied force, and σ -- applied stress (pressure). Allowance was made for the change in the domain structure (90° domain rotation) under a mechanical load by expressing the change of the polarization ΔP in terms

Card 1/3

of a change in the a-domain concentration (m) : $\Delta P = \Delta m P_s$, where P_s is the spontaneous polarization. The formula was checked by comparison with the published values of d for $BaTiO_3$; it was used to calculate d from $\Delta\epsilon/\epsilon$ values, measured by applying either effectively hydrostatic or unideractional pressures to monocrystals and ceramic samples. The value of d_{33} for monocrystals was found to be two orders of magnitude greater than for ceramic samples. To check the results of the calculations, the author herself measured d_{33} of $BaTiO_3$ single crystals containing small admixtures of oxides of tetravalent elements and having laminar domain structure, by the static and quasistatic methods. The initial concentration of a-domains did not exceed 0.5. The values of d_{33} depended both on the polarization conditions and on the crystal composition. The highest values of d_{33} were obtained for crystals with an admixture of hafnium after strong (> 200C) heating, followed by cooling in a weak constant field. The lowest piezoelectric modulus was obtained for crystals grown with an admixture of SiO_2 in which the concentration of a-domains was highest (sometimes higher than 0.5) and in which mechanical stresses were greatest. The results were in agreement with those calculated using formulas given by the author, although these formulas did not allow for the duration of action of a load on a crystal which could affect the measured values of the piezoelectric modulus. The temperature

L 41140-65
ACCESSION NR: AP5000644

dependence of d_{33} (20--120C) for a single crystal of $BaTiO_3$, obtained by the quasistatic method, had the charecteristic maximum near the Curie point (120C) at which the piezoelectric modulus vanished, as expected for the direct piezoelectric effect. Dynamic measurements did not give such high values of the piezoelectric moduls but agreed completely with the published values, and confirmed that at sufficiently high frequencies the domain structure changes did not occur and the effects associated with these changes did not appear. "The author thanks G. P. Kramarov, Ye. G. Fesenko, and V. Z. Borodin for discussing the results of the work and for their valuable comments." Orig. art. has: 4 figures and 8 formulas.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-on-Don State University)

SUBMITTED: 29Apr64 ENCL: 00

SUB CODE: SS NR REF SOV: 012 OTHER: 005

Card 3/3

EWG(j)/EWT(l)/EWT(m)/EPF(c)/EWP(i)/EPR/T/EWP(t)/EEC(b)-2/
EWT(b)/EWA(c) Pr-4/Ps-4/Pi-4 IJP(c) JD/GG
ACCESSION NR: AP5010697 UR/0181/65/007/004/0975/0980

AUTHOR: Lezgintseva, T. N.

TITLE: Concerning the structure of the surface layer in single crystals of $BaTiO_3$

SOURCE: Fizika tverdogo tela, v. 7, no. 4, 1965, 975-980

TOPIC TAGS: barium titanate, single crystal, surface layer, domain structure

ABSTRACT: The author investigates the influence of crystal thickness and the influence of the electrode materials on the behavior of single-crystal barium titanate with a complicated domain structure. The crystals were grown from a melt of barium fluoride with both chemically pure $BaTiO_3$ and with small additions of group IV elements. The electrodes were deposited by [illegible] plate sputtering of silver and antimony in vacuum, and [illegible] SnO_2 at 400C. Liquid electrodes of saturated LiCl solution were also used. The crystal thickness was 0.035--1.7 mm. The results showed a tendency to an increased thickness of the surface layer with increasing crystal thickness, due to the increased concentration of the a-domains with increasing thickness. It is indicated that the previously observed large increase in the dielectric constant observed

Card 1/2

L 51406-65

ACCESSION NR: AP5010697

with increasing crystal thickness is due either to the edge effect or to an increase in the concentration of the a-domains with increasing crystal thickness. Making use of the large role of a-domains in the repolarization process, the author proposes a new model of the surface layer, which explains the asymmetry of the hysteresis loops of crystals provided with different electrodes. "I thank M. L. Sholokhovich for supplying the crystals and A. V. Turik, V. Z. Borodin, and O. P. Kramar for a discussion of the results." Orig. art. has: 5 figures.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov on Don State University)

SUBMITTED: 22Jul64 ENCL: 00 SUB CODE: SS,IC

NR REF SOV: 005 OTHER: 010

Card 2/2

L 57559-65 EWT(1)/EPA(s)-2/EWT(m)/EPF(n)-2/EEC(t)/T/EWP(t)/EWP(b)/EWA(c) Pt-4/
Pu-4/Pi-4 IJP(c) JD/WW/JG/GG
ACCESSION NR: AP5016141 UR/0048/65/029/006/1005/1008

AUTHOR: Sholokhovich,M.L.; Berberova,L.M.; Borodin,V.Z.; Lezgintseva T.N.

TITLE: Effect of the growth conditions on the properties of some doped barium titanate crystals/Report, 4th All-Union Conference on Ferroelectricity held in Rostov-on-the-Don 12-18 Sept 1964/

SOURCE: AN SSSR.Izvestiya.Ser.fizicheskaya,v.29,no.6,1965,1005-1008

TOPIC TAGS: ferroelectric crystal, barium titanate, doping, silicon, germanium, tin, zirconium, hafnium

ABSTRACT: $BaTiO_3$ crystals doped with Si, Ge, Sn, Zr or Hf were grown from solutions in fused KF and some of their properties were examined. In each case the oxide of the dopant was present in the solution at a concentration of 1 mole percent. The crystals were grown in two somewhat different ways. In the first series the mixture in the fused KF was held at 1140° for 6 hours and then cooled to 900° or 950°. In this series the solution always contained a sludge of undissolved $BaTiO_3$.

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L 57559-65
ACCESSION NR: AP5016141

The crystals obtained by this procesure were in the form of laminated twins. In the second series the mixture was held at 1180° until solution was complete and then cooled slowly to 840°. $BaTiO_3$ crystals obtained in this way are ordinarily cubes, but in this case the presence of the dopant affected the crystal form. The concentration of dopant in the final crystal was small and was not affected by prolonged heating. The concentrations of Si, Sn, Zr, Hf and Ge were 0.5, 0.5, 0.1, 0.05 and 0.01 percent by weight, respectively. The domain structure was affected by some of the dopants; this is discussed briefly. Doping the crystals with Sn, Zr and Hf did not change the temperature dependence of the dielectric constant. In the Si and Ge doped crystals the dielectric constant showed a small washed out maximum at a temperature somewhat below the Curie point. This is ascribed to the change in the number of a-domains with temperature. Prolonged application of a 2 kV/cm alternating field caused a gradual change in the shape of the hysteresis loop, particularly in the case of the Si doped crystals. Except for the Hf doped crystals, the saturation polarizations were between 1.0×10^{-5} and 1.8×10^{-5} C/cm^2. The saturation polarization of the Hf doped crystals was 2.5×10^{-5} C/cm^2. The

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L 57559-65
ACCESSION NR: AP5016141

starting fields (the field at which a rapid rise of polarization begins) were increased from about 500 V/cm for pure $BaTiO_3$ to between 750 and 950 V/cm for the doped crystals. Orig.art.has: 4 figures.

ASSOCIATION: Nauchno-issledovatel'skiy fiziko-matematicheskiy institut Rostovskogo-na-Donu gosudarstvennogo universiteta (Physico-mathematical Scientific Research Institute, Rostov-on-the-Don State University)

SUBMITTED: 00 ENCL: 00 SUB CODE: SS, IC

NR REF SOV: 003 OTHER: 006

Card 3/3

L 6929-66 EWT(t) /EPA(w)-2/EPA(s)-2/EWT(m)/EWP(i)/EWP(b)/EWP(e) IJP(c)
WH/JD

ACCESSION NR: AP5000644 S/0181/64/006/012/3509/3514

AUTHOR: Lezgintseva, T. N.

TITLE: Piezoelectric effect in barium titanate single crystals with complex domain structure

SOURCE: Fizika tverdogo tela, v. 6, no. 12, 1964, 3509-3514

TOPIC TAGS: barium titanate, single crystal, piezoelectric effect, domain structure

ABSTRACT: The author derived formulas for the piezoelectric modulus d_i in terms of the change in the permittivity ϵ (or polarization P) on the application of a mechanical load. The basic formula was

$$d_i = \frac{Q_i}{F} = \frac{\Delta P_i}{\sigma} = \frac{\Delta_i P}{\sigma_j}$$

where Q -- electric charge, F -- applied force, and σ -- applied stress (pressure). Allowance was made for the change in the domain structure (90° domain rotation) under a mechanical load by expressing the change of the polarization ΔP in terms

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ACCESSION NR: AP5000644

of a change in the a-domain concentration (m) : $\Delta P = \Delta m P_s$, where P_s is the spontaneous polarization. The formula was checked by comparison with the published values of d for $BaTiO_3$; it was used to calculate d from $\Delta\epsilon/\epsilon$ values, measured by applying either effectively hydrostatic or unideractional pressures to monocrystals and ceramic samples. The value of d_{33} for monocrystals was found to be two orders of magnitude greater than for ceramic samples. To check the results of the calculations, the author herself measured d_{33} of $BaTiO_3$ single crystals containing small admixtures of oxides of tetravalent elements and having laminar domain structure, by the static and quasistatic methods. The initial concentration of a-domains did not exceed 0.5. The values of d_{33} depended both on the polarization conditions and on the crystal composition. The highest values of d_{33} were obtained for crystals with an admixture of hafnium after strong (> 200C) heating, followed by cooling in a weak constant field. The lowest piezoelectric modulus was obtained for crystals grown with an admixture of SiO_2 in which the concentration of a-domains was highest (sometimes higher than 0.5) and in which mechanical stresses were greatest. The results were in agreement with those calculated using formulas given by the author, although these formulas did not allow for the duration of action of a load on a crystal which could affect the measured values of the piezoelectric modulus. The temperature

L 6929-66

ACCESSION NR: AP5000644

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dependence of d_{33} (20--120C) for a single crystal of $BaTiO_3$, obtained by the quasistatic method, had the characteristic maximum near the Curie point (120C) at which the piezoelectric modulus vanished, as expected for the direct piezoelectric effect. Dynamic measurements did not give such high values of the piezoelectric moduls but agreed completely with the published values, and confirmed that at sufficiently high frequencies the domain structure changes did not occur and the effects associated with these changes did not appear. "The author thanks O. P. Kramarov, Ye. G. Fesenko, and V. Z. Borodin for discussing the results of the work and for their valuable comments." Orig. art. has: 4 figures and 8 formulas.

ASSOCIATION: Rostovskiy-na-Donu gosudarstvenny*y universitet (Rostov-on-Don State University)

SUBMITTED: 29Apr64 ENCL: 00

SUB CODE: SS NR REF SOV: 012 OTHER: 005

Card 3/3 rds

L 7824-66 EWT(l)/EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EPA(w)-2/EWP(t)/EWP(b) IJP(c)

ACC NR: AP 5028101 JD/GG/WH SOURCE CODE: UR/0048/65/029/011/1982/1985

55 44 55 44 55 44

AUTHOR: Borodin, V.Z., Kuznetsov, V.G.; Lezgintseva, T.N.

ORG: Rostov-on-the-Don State University (Rostovskiy-na-Donu Gosudarstvennyy universitet)

TITLE: Dielectric and optical investigations of barium titanate single crystals in the infralow frequency range /Report, Fourth All-Union Conference on Ferroelectricity held at Rostov-on-the-Don 12-16 September 1964/

SOURCE: AN SSSR. Izvestiya, Seriya fizicheskaya, v. 29 no. 11, 1965, 1982-1985

TOPIC TAGS: ferroelectric crystal, barium titanate, dielectric constant, electric coercive force, electric domain structure, extreme low frequency.

ABSTRACT: The polarization, effective dielectric constant, and coercive field of thin (0.02 to 0.2 mm) $BaTiO_3$ single crystal plates with different domain structures were measured at frequencies between 10^{-2} and 10^4 cycle/sec. The reversible dielectric constant was measured at a carrier frequency of 150 kilocycle/sec in the presence of a very low frequency bias field. In addition to this, the behavior under the influence of low frequency fields of single a-domains in the midst of c-domains was observed with a polarizing microscope. At frequencies below about 50 cycle/sec the effective dielectric constant as a function of the amplitude of the measuring field showed a pronounced maximum at an amplitude in the vicinity

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ACC NR: AP 5028101

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of 1 kV/cm; the maximum dielectric constant increased rapidly with decreasing frequency and the position of the maximum shifted slightly to lower amplitudes. The coercive field decreased gradually with decreasing frequency, reached a minimum at a frequency that depended on the amplitude of the applied field, and subsequently increased to the static value. The changes in thickness of a-domains were observed in 0.2 cycle/sec fields. At low amplitudes of the applied field the domains oscillated at the applied frequency, but at high amplitudes the domains oscillated at twice the applied frequency. An analogous transition from fundamental to second harmonic domain oscillation was observed on decreasing the frequency while maintaining the amplitude constant. When oscillating at the second harmonic, the domains reached their greatest size when the applied field passed through the value of the coercive field. The relation between domain oscillation and other dielectric properties of the crystal is discussed briefly. The authors thank M.L.Sholokhovich for providing the single crystals. Orig. art. has: 1 formula and 5 figures.

SUB CODE: SS, EM SUBM DATE: 00/ ORIG.REF. 005 OTH REF: 002

Card 2/2

L 7840-66 EWP(e)/EPA(s)-2/EWT(m)/EWP(i)/EPA(w)-2/EWP(t)/EWP(b) IJP(c)

ACC NR: AP 5028103 JD/WH SOURCE CODE: UR/0048/65/029/011/1991/1993

AUTHOR: Lezgintseva, T.N.

ORG: Rostov-on-the Don State University (Rostovskiy-na-Donu Gosuderstvennyy universitet)

TITLE: Dielectric constant of barium titanate single crystals with laminar domain structure /Report, Fourth All-Union Conference on Ferro-electricity held at Rostov-on-the Don 12-16 September 1964/

SOURCE: AN SSSR. Izvestiya.Seriya fizicheskaya, v. 29, no. 11, 1965, 1991-1993

TOPIC TAGS: Ferroelectric crystal, single crystal, barium titanate, dielectric constant, electric domain structure, mathematic method

ABSTRACT: A theory given elsewhere by the author (Fiz. tverdogo tela, 6 2401 (1964)) is employed to discuss the influence of domain structure on the measured dielectric constants of barium titanate single crystals and other ferroelectric crystals of similar structure. Formulas are given for calculating the dielectric constants of a monodomain crystal from measurements on a crystal with the regular laminar domain structure shown in the figure.

Card 1/2

SUB CODE: SS, EM SUBM DATE: 00/ ORIG.REF: 003 OTH REF: 004

Card 2/2

Lezhankina, L.M.

USSR / Microbiology. Medical and Veterinary Microbiology. F-5

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 22006

Author : Lezhankina, L.M.
Inst :
Title : Filterable Forms of Thphoid Bacilli which were Formed Under Influence of Bacteriophage.

Orig Pub: Sb. tr. Irkut. gos. med. in-ta, Irkutsk, Knigoizdat, 1956, 152-157

Abstract: On addition of a polyvalent typhoid bacteriophage to cultures of typhoid bacilli a growth of secondary cultures was observed in 4 of 9 strains tested. The secondary cultures grew best of all on bullion with grape sugar and addition of human blood serum. Morphologically the cultures obtained appeared as thin rods or cocci, weakly gram strained. Upon passing part of the cultures did not grow, another part grew weakly and slowly. Biochemically and serologically the cultures obtained were com-

Card : 1/2

USSR / Microbiology. Medical and Veterinary Microbiology. F-5

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 22006

pletely inactive. The pathogenic effect on white mice was markedly lowered. Orientation examination of cultures on 16 mice showed absence of immunogenic effect.

Card : 2/2

LEZHANKINA, Z.S., kandidat sel'skokhozyaystvennykh nauk.

Effect of the contours of the soil surface on carrot yields in a humid area. Zemledelie 4 no.11:101-105 N '56. (MLRA 10:2)

(Carrots) (Soil moisture) (Crops and soils)

LEZHANKINA, Z., kand.sel'skokhoz.nauk, starshiy nauchnyy sotrudnik
BELYAYEVA, A., agronom.

From experiments to high crop yields. NTO 3 no. 5:6-8 My '61.
(MIRA 14:5)

1. Nauchno-issledovatel'skiy institut ovoshchnogo khozyaystva (for Lezhankina). 2. Zamestitel' predsedatelya soveta pervichnoy organizatsii Nauchno-tekhnicheskogo obshchestva, sovkhoz imeni M.Gor'kogo Moskovskoy oblasti (for Belyayeva).
(Moscow Province—Vegetable gardening)

ALEKSEYEVA, M.V., doktor sel'khoz. nauk, prof, retsenzent; KROTOVA, O.A., kand. sel'khoz. nauk, retsenzent; SHEV'YEV, Ye.I., agronom, retsenzent; LEZHANSKINA, Z.S., kand. sel'khoz. nauk, red.; VISHNYAKOVA, Ye., red.; GAYEVSKIY, A., red.; POKHLEBKINA, M., tekhn. red.

[Cooperation of science and production; experience in joint work of the vegetable growers on the M.Gorkii State Farm and the scientists of the Research Institute of Vegetable Gardening] Sodruzhestvo nauki i proizvodstva; opyt sovmestnoi raboty ovoshchevodov sovkhoza im. M.Gor'kogo i uchenykh Nauchno-issledovatel'skogo instituta ovoshchnogo khoziaistva. Moskva, Mosk. rabochii, 1963. 133 p. (MIRA 16:6)
(Vegetable gardening)

LEZHANKINA, Z.S., kand. sel'khoz. nauk; VISHNYAKOVA,Ye., red.

[Conveyor production of vegetables] Konveier zelennykh kul'tur. Moskva, Mosk. rabochii, 1964. 70 p.
(MIRA 17:10)

LEZHAVA, A.E., Cand Med Sci —(diss) "The problem of the etiology, pathogenesis and diagnostic ~~significance~~ value of clinical symptoms of an inflammatory disease of the gall bladder". Tbilisi, 1958.40 pp. (Tbilisi State Med Inst). 200 copies. (KL, 38-58, 108).

43

STEPANOV, G.D.; LEZHAVA, A.N.

Increase electric locomotive runs between wheel [illegible] repair.
Elek.i tepl.tiaga no.8:34-35 Ag '57. (MLRA 10:9)

1.Nachal'nik depo Khashuri Zakavkazskoy zheleznoy dorogi (for Stepanov)
2.Nachal'nik tekhnicheskogo otdela depo (for Lezhava).
(Electric locomotives--Maintenance and repair)

LEZHAVA, A. S.

"On the Contradiction between the Analysis of the Tissue and the Generally Accepted Classification of the Tissue into Four Basic Groups," Dok. AN, 28, No. 6, 1940.

Mbr., Histology, Univ. Stale Tbilissi, -1940-.

LEZHAVA, A.S.

Histological changes in myelinated nerve fibers during the longitudinal growth of the nerve. Soob.AN Gruz.SSR 8 no.5: 343-349 '47. (MIRA 9:7)

1.Akademiya nauk Gruzinskoy SSR, Institut eksperimental'noy morfologii, Tbilisi. Predstavlene deystvitel'nym chlenom Akademii A.S.Natishvili.
(Nerves)

LEZHAVA, A. S.

Lezhava, A. S. - "The secretory function of the intermediate epithelium," Trudy In-ta eksperim. morfologii (Akad. nauk Gruz. SSR), I, 1948, p. 73-97 - In Gruxian language Resume in Russian - Bibliog: 15 items

SO: U-3600, 10 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 6, 1949).

24280 LEZHAVA, A. S. Otdelitel'naya funktsiya perekhodnogo epiteliya. Trudy Akad. med. nauk SSSR, T. III, 1949, S. 169-71.

SO: Letopis, No. 32, 1949.

gle and multiple nuclear cells in the mesothelium of cat pericardium which contains unusual structures: rosettes, parallel cell rows and multinuclear cells of different dimensions. Rosettes contain from 7-9 up to 30-40 cells and form from multinuclear cells, which develop by multiple division of the nucleus and then of the cytoplasm. Parallel rows of cells also form from certain multinuclear cells, when their nuclei are arranged in a single line. The subsequent plasmotomy dissects the multinuclear cell

Card 1/2

described above as a

Card 2/2

LEZHAVA, A.S.; ABASHIDZE, V.S.

Conference of readers of "Arkhiv Anatomii, Gistologii i Embriologii" in Tbilisi. Arkh. anat. gist. i embr. 40 no.3:116 Mr '61. (MIRA 14:5)

(ANATOMY--PERIODICALS)

LEZHAVA, A.S.; TOROTADZE, E.E.

Transformation of ciliated cells of the epithelium into goblet cells. Trudy Tbil. GU 88:53-59 '63. (MIRA 18:8)

1. Kafedra gistologii Tbilisskogo universiteta.

SIKHARULIDZE, M.M.; LEZHAVA, A.S.

Interepithelial junction in the cloaca of some amphibians, reptiles and domestic hens. Trudy Tbil. GU 88:71-87 '63. (MIRA 18:8)

1. Kafedra gistologii Tbilisskogo universiteta.

IEZHAVA, A.S.; KOLOZHVARI-MARKINA, M.L.

Development of the interepithelial junction region in the cloaca of domestic hens. Trudy Tbil. GU 88:99-106 '63.
(MIRA 18:8)

1. Kafedra gistologii Tbilisskogo universiteta.

LEZHAVA, A.S.

Some problems of the structural development of animal organisms.
Trudy Tbil. GU 88:5-42 '63. (MIRA 18:8)

1. Kafedra gistologii Tbilisskogo universiteta.

ROYNISHVILI, N.M., professor, doktor tekhnicheskikh nauk (Tbilisi); LEZHAVA, B.N., kandidat tekhnicheskikh nauk (Tbilisi); MAMASAKHLISOV, G.I., kandidat tekhnicheskikh nauk (Tbilisi); PODVYAZKIN, K.A., kandidat tekhnicheskikh nauk (Leningrad); POVARENKO, S.D., dotsent (Leningrad); ZELEVICH, P.M., inzhener.

"General course in railroad engineering." K.M. Dobrosel'skii and others. Reviewed by N.M. Roinishvili and others. Zel.dor.transp. 39 no.4:90-93 Ap '57. (MLRA 10:5)

(Railroad engineering)
(Dobrosel'skii, K.M.)
(Nikolaev, I.I.) (Chernyshev, M.A.)
(Shilovskii, V.A.)

LEZHAVA, G.A.

Possibility of detecting the virus of laryngotracheitis in fowl by using the double diffusion precipitation in agar reaction. Soob. AN Gruz. SSR 30 no.3:325-327 Mr '63.
(MIRA 17:6)

1. Ministerstvo sel'skogo khozyaystva SSSR, Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnykh preparatov, Moskva. Predstavleno akademikom A.D. Zurabashvili.

LEZHAVA, G.A., aspirant

Early diagnosis of infectious laryngotracheitis in hens.
Veterinariia 41 no.7:21-23 Jl '64. (MIRA 18:11)

1. Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnykh preparatov.

LEZHAVA, G.G.

Role of stimulation frequency in the development of "habituation" to responses of the visual system. Soob. AN Gruz. SSR 35 no.3: 705-711 S '64. (MIRA 17:11)

1. Institut klinicheskoy i eksperimental'noy nevrologii AMN SSSR. Predstavleno chlenom-korrespondentom AN GruzSSR S.P. Narikashvili.

LEZHAVA, G.G.

Mechanism of the development of "habituation" of response potentials in the visual system. Soob. AN Gruz. SSR 31 no.3: 707-714 S '63. (MIRA 17:7)

MESHCHERSKIY, R.M.; IRZHAVA, G.G.; LAZAREVA, N.A.

Corticofugal changes in EGB responses of monopolar and bipolar recording potentials. Dokl. AN SSSR 162 no.6:1444-1446 Je '65. (MIRA 18:7)

1. Institut vysshey nervnoy deyatel'nosti i neyrofiziologii AN SSSR i Institut eksperimental'noy i klinicheskoy nevrologii AMN SSSR, Tbilisi. Submitted July 7, 1964.

ALADASHVILI, Z.M., inzh.; JEZHAVA, G.G., inzh.; MATIKASHVILI, I.V., kand. tekhn. nauk; TSIBALASHVILI, G.G., inzh.

The TR-4 device for measuring fuel consumption in motor vehicles. Priborostroenie no.7:26 Jl '65. (MIRA 18:7)

LEZHAVA, G.I.

Study of the terrestrial mollusk fauna in Gornaya Tushetiya. Soob. AN Gruz. SSR 29 no. 3:327-332 S '62 (MIRA 19:1)

1. Institut zoologii AN GruzSSR. Submitted March 25, 1961.

LEZHAVA, G.I.

The phenomenon of viviparity in Laciniaria Strauchi (O.Bttg.) (Gastropods, Clausiliidae) and fundamental data on its morphology. Dokl. AN SSSR 146 no.5:1231-1232 O '62. (MIRA 15:10)

1. Institut zoologii AN GruzSSR. Predstavleno akademikom Ye.N. Pavlivskim.

(Georgia—Clausiliidae) (Reproduction)

LEZHAVA, G.I.

Fauna of terrestrial molluska in eastern Georgia. Soob. AN Gruz. SSR 34 no.3:665-669 Je '64 (MIRA 18:1)

1. Institut zoologii AN Gruzinskoy SSR. Submitted November 5, 1963.

LEZHAVA, G.I.; NATSVLISHVILI, M.G.

Materials on terrestrial mollusks of the forest zone of the Kakhetian part of the Greater Caucasus. Soob. AN Gruz. SSR 38 no. 3:661-667 Je '65. (MIRA 18:12)

1. Gosudarstvennyy muzey Gruzii imeni Dzhanashia. Submitted April 20, 1964.

VLADIMIROV, L.A.; LEZHAVA, G.P.

Studying the flow of Georgian mountain streams. Metero. i gidrol. no.3:53-54 Mr '53. (MLRA 8:9)

1. Institut geografii Akademii nauk Gruzinskoy SSR, Upravleniye gidrometsluzhby Gruzinskoy SSR, Tbilisi.
(Georgia--Stream measurements)

Deceased

LEZHAVA, G.P.; LOMINADZE, V.P.

Development of hydrometeorological service and science in the 40 years of Soviet Georgia. Trudy Tbil. NIGMI no.10: 3-9 '62. (MIRA 16:11)

LEZHAVA, GRIGORIY Pavlovich 1910-1962

obituary - Meteor. i gidrol, 6, '63 p.63

KADEYSHVILI, V.G.; KASHAKASHVILI, V.P.; LEZHAVA, G.S.

Composite model of an a.c. network with noncalibrated resistances and the prospects for its use. Soob. AN Gruz. SSR 29 no.2:173-176 Ag '62. (MIRA 18:3)

1. Institut energetiki imeni Didebulidze, AN Gruzinskoy SSR, Tbilisi. Submitted June 26, 1961.

KADEYSHVILI, V.G.; KASHAKASHVILI, V.P.; LEZHAVA, G.S.

A static model of an electric power system in the Power Engineering Institute of the Academy of Sciences of the Georgian S.S.R. Trudy Inst.energ.AN Gruz.SSR 16:137-149 '62. (MIRA 16:4)
(Electric power distribution—Models)

BABUROV, A., student; GLADKOVA, N., studentka; GUTNOV, A., student; ZVEZDIN, A., student; LEZHAVA, I., student; SADOVSKIY, S., student; SUKHANOVA, Ye., studentka; KHARITONOVA, Z., studentka

From the diploma project to the map of Siberia. Tekh.mol. 28 no.7:6-7 '60. (MIRA 13:8)

1. Moskovskiy arkhitekturnyy institut.
(Cities and towns--Planning)

LEZHAVA K.T.

KHODAKOVSKIY, V.V.; YEFIMOV, V.A., kand. tekhn. nauk, starshiy nauchnyy rabotnik; KOSENKO, P.Ye., kand. tekhn. nauk; KAZAKEVICH, S.S.; LAPITSKIY, V.I., prof., doktor tekhn. nauk; FILIP'YEV, O.V.; STROGANOV, A.I., kand. tekhn. nuk, dots.; DEMIDOVICH, A.V.; BORNATSKIY, I.I., kand. tekhn. nauk; MEDZHIBOZHSKIY, M.Ya., dots.; KOCHO, V.S., prof., doktor tekhn. nauk; RYN'KOV, V.I.; LOMAKIN, L.M., mladshiy nauchnyy sotrudnik; KOKAREV, N.I., dots.; KLYUCHAREV, A.P.; PLYUSHCHENKO, Ye.A.; KAPUSTIN, Ye.A., kand. tekhn. nauk, dots.; KOBEZA, I.I., kand. tekhn. nauk, nauchnyy sotrudnik; SHIROKOV, G.I.; UMRIKHIN, P.V., prof., doktor tekhn. nauk; ~~LEZHAVA, K.I.;~~ ZHIGULIN, V.I.; MOROKOV, P.K.; KHLEBNIKOV, A.Ye., prof., doktor tekhn. nauk, starshiy nauchnyy sotrudnik; TARASOV, N.S.; NIKOLAYEV, A.G.

Discussions. Biul. TSNIICHM no.18/19:40-66 '57. (MIRA 11:4)

1. Starshiy inzhener Glavspetsstali Ministerstva chernoy metallurgii SSSR (for Khodakovskiy). 2. Institut gaza (for Yefimov). 3. Direktor Dneprodzerzhinskogo metallurgicheskogo instituta (for Kosenko). 4. Nachal'nik laboratorii Leningradskogo instituta ogneuporov (for Kazakevich). 5. Zaveduyushchiy kafedroy metallurgii stali Dnepropetrovskogo metallurgicheskogo instituta (for Lapitskiy). 6. Nachal'nik laboratorii Giprostali (for Filip'yev). 7. Chelyabinskiy politekhnicheskiy institut (for Stroganov). 8. Nachal'nik teplotekhnicheskoy laboratorii Severskogo metallurgicheskogo zavoda (for Demidovich). 9. Zamestitel' nachal'nika TSentral'noy zavodskoy laboratorii Makeyevskogo metallurgicheskogo zavoda (for Bornatskiy).

(Continued on next card)

KHODAKOVSKIY, V.V.---(continued) Card 2.

10. Sibirskiy metallurgicheskiy institut (for Medzhibozhskiy). 11. Zaveduyushchiy kafedroy metallurgii stali Kiyevskogo politekhnicheskogo instituta (for Kocho). 12 Ispolnyayushchiy obyazannosti glavnogo inzhenera Beloretskogo metallurgicheskogo kombinata (for Ryn'kov). 13. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki (for Lomakin). 14. Ural'skiy politekhnicheskiy institut (for Kokarev). 15. Zamestitel' nachal'nika teplotekhnicheskoy laboratorii Nizhne-Tagil'skogo metallurgicheskogo kombinata (for Klyucherov). 16. Nachal'nik teplotekhnicheskoy laboratorii TSentral'noy zavodskoy laboratorii zavoda im. Voroshilova (for Plyushchenko). 17. Zhdanovskiy metallurgicheskiy institut (for Kapustin). 18. Institut metallurgii im. Baykova AN SSSR (for Kobeza). 19. Nachal'nik laboratorii martenovskikh pechey Vsesoyuznogo nauchno-issledovatel'skogo instituta metallurgicheskoy teplotekhniki (for Shirokov). 20. Zaveduyushchiy kafedroy metallurgii stali Ural'skogo politekhnicheskogo instituta (for Umrikhin). 21. Nachal'nik metallurgicheskoy laboratorii TSentral'noy zavodskoy laboratorii Zakavkazskogo metallurgicheskogo zavoda (for Lezhava). 22. Zamestitel' glavnogo inzhenera zavoda im. Petrovskogo (for Zhigulin). 23. Nachal'nik martenovskogo tsekha Kuznetskogo metallurgicheskogo kombinata (for Morokov). 24. Institut metallurgii im. Baykova AN SSSR (for Khlebnikov). 25. Glavnyy inzhener Petrovsk-Zabaykal'skogo metallurgicheskogo zavoda (for Tarasov). 26. Nachal'nik tsekha Magnitogorskogo metallurgicheskogo kombinata (for Nikolayev).

(Open-hearth process)

TAVADZE, F.N.; LEZHAVA, K.I.

Production of silicon-free, killed pipe steel. Trudy Inst. met. AN Gruz. SSR vol. 13:75-88 '62. (MIRA 17:9)

LEZHAVA, K.K.

Importance of cytological research in the diagnosis of malignant tumors. Soob.AN Gruz.SSR 23 no.3:329-332 S '59. (MIRA 13:3)

1. Tbilisskiy gosudarstvennyy institut usovershenstvovaniya vrachey. Predstavleno akademikom A.P.TSulukidze.
(CANCER)

LEZhAVA, K.K., Cand. Med. Sci., (Diss) — "Data on the question of the cytological diagnosis of malignant tumors in the clinic of internal diseases," Tbilisi, 1961, 13 pp (Tbilisi State Medical Institute), 120 copies (KL-Supp 9-61, 191)

LEZHAVA, M. I.

22667 Lezhava, M. I. K Voprosv O Sekretornoy Funktsii Zheludka Pri Kholetsistopatiyakh. Trudy (Tbilis. Gos. Med. In-T), T. V, 1948, S. 100-09.---Na Gruz. Yaz.---Rezyume Na Rus. Yaz.---Bibliogr: 5 Nazv

So: Letopis', No. 30, 1949

LEZHAVA, Nikolay Isidorovich; SHCHEGOLEV, V.I., redaktor; DIZHUR, I.M., redaktor izdatel'stva; TROFIMOV, A.V., tekhnicheskiy redaktor

[Trim and draught; practical tables for rapid calculation of trim and draught applicable to any ship] Different i osadka; prakticheskie tablitsy dlia bystrogo rascheta differenta i osadki, primenimye k liubomu sudnu. Moskva, Izd-vo "Morskoi transport," 1957. 115 p.
(Trim (of ships)--Tables, etc.) (MLRA 10:6)
(Ships--Cargo)

LEZHAVA, G. A., LAZAROVA, S. YE.,

Textile Research

Discussing Chudinovskikh article "Determining the strength of bast fiber." Tekst. pro. 12 no. 3, 1952

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

1. LEZHAVA, O.I.

2. USSR (600)

4. Alfalfa

7. Stubble sowing of seed alfalfa (in Georgian with Russian summary)., Trudy Inst. pol. AN Gruz. SSR 6, 1951.

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

LEZHAVA, O. I. Cand Agr Sci -- (diss) "Certain Agrotechnical Agricultural Engineering Measures for Raising the Seed Yield of Alfalfa ~~in~~x Under Irrigation Conditions of the Nizhne-Kartalinskaya Plain." Tbilisi, 1957. 20 pp 22 cm. (Min of Agriculture USSR, Georgian Order of Labor Red Banner Agricultural Inst), 100 copies (KL, 27-57, 108)

LEZHAVA, O.I.

Effect of irrigation on the seed production of alfalfa in Kvemo-Kartli. Soob. AN Gruz.SSR 18 no.2:217-224 F '57. (MLRA 10:7)

1. Gruzinskiy nauchno-issledovatel'skiy institut semledeliya. Predstavleno akademikom N.N.Ketskhoveli.
(Georgia--Alfalfa)

LEZHAVA, O.I.

COUNTRY : USSR
CATEGORY : Cultivated Plants. Forage Crops.

ABS. JOUR. : RZhBiol., No. 23 1958, No. 104721

AUTHOR : Lezhava, O. I.
INST. : Georgian Scientific Research Institute of Agriculture
TITLE : The Influence of Post-Harvest Sowing Periods on the Yield of Alfalfa Seeds in the Conditions of Nizhnyaya Kartlya
ORIG. PUB. : Mitsatmokmedebis sametsniyerokvleviti institutis shromebi. Sakartvelo SSR, Tr. N.-i in-ta zemledeliya. Gruzssr, *)
ABSTRACT : In 1950-1955, at the base of Georgian Scientific Research Institute of agriculture, blue alfalfa was sown every 10 days from the 20th of July to the 10th of September on chestnut heavy irrigated soils on stubble with deep tillage. Plants of the sowing period from the 20th of July to the 10th August had a height of 60 centimeters, those of the sowing from 20-30 of August - 20-25 centimeters; plants of October sowing entered winter at cotyledon stage. The loss of the latter in winter time reached 61%. The yield of alfalfa seeds also decreased sharply in plants of the last sowing period. -- I. N. Zaikina

*) 1958, 10, 75-92

Card: 1/1

PHASE I BOOK EXPLOITATION SOV/3662

Akademiya nauk Gruzinskoy SSR. Institut prikladnoy khimii i elektrokhimii

Elektrometallurgiya khroma; sbornik rabot (Electrometallurgy of Chromium; Collection of Works), Tbilisi, 1959. 261 p. 1,000 copies printed.

Ed.: N.T. Gofman; Ed. of Publishing House: L.N. Sarkisyan; Tech. Ed.: A.R. Todua.

PURPOSE: This book is intended for metallurgists.

OBTAINING CHROMIUM COMPOUNDS FROM FERROCHROME

I. Electrochemical Methods of Obtaining Chromium Compounds

Agladze, R.I., T.V. Ionatamishvili, and S.N. Samarova. Anodic Dissolution of Ferrochrome in Solutions of Sodium Carbonate and Caustic Soda 3

Orelstani, Dzh. F., L.L. Rubesh, R.I. Agladze, and T.V. Ionatamishvili. Obtaining Chromium Sulfate by Reduction of Compounds of Hexavalent Chromium 9

Agladze, R.I., and T.V. Ionatamishvili. Obtaining Bichromate by Anodic Dissolution of Ferrochrome in Alkalis and Chromate Solutions 21

Agladze, R.I., T.V. Ionatamishvili, Dzh. F. Orelstani, and L.L. Rubesh. Production of Ammonium Bichromate and Chrome Ammonium Alum From Ferrochrome 33

Ionatamishvili, T.V. Resistivity of Electrolytes in the Anodic Dissolution of Ferrochrome 51

Ionatamishvili, T.V. Potentiometric Investigation of Chromate Solutions 57

Agladze, R.I., and T.V. Ionatamishvili. Anodic Dissolution of Ferrochrome in Sulfuric Acid Solutions 63

II. Chemical Methods of Obtaining Chromium Compounds

Lutsenko, K.G., R.I. Agladze, and T.V. Ionatamishvili. Separation of Sulfates of Chromium and Iron by Fractional Crystallization 75

Ionatamishvili, T.V., and P.K. Agladze. Separation of Sulfates of Chromium and Iron by Fractional Crystallization 83

Samarova, S.N. Production of Anhydrous Chromium Chloride 99

Ionatamishvili, T.V. Separation of Compounds of Chromium and Iron by Fractional Precipitation of Hydroxides 107

PRODUCTION OF METALLIC CHROMIUM

I. Production of Metallic Chromium by Electrolysis of Its Hexavalent Compounds

Berezovskaya, T.A. Production of Metallic Chromium From Solutions of Chromic Anhydride 119

Berezovskaya, T.A. Production of Metallic Chromium From Polychromates 129

II. Production of Metallic Chromium by Electrolysis of Chlorides

Gofman, N.T., D.A. Dzhanashvili, and T.A. Ivanova. Electrolysis of Chromium Chloride. Report II. Some Data on the Behavior of Chromium Chloride Solutions During Electrolysis 139

Gofman, N.T., D.A. Dzhanashvili, and D.I. Dzhanashvili. Electrolysis of Chromium Chloride. Report II. Production of Metallic Chromium 153

III. Production of Metallic Chromium From Chromium Salts

Sukhotina, E.K. The Problem of Obtaining High-Purity Chromium 167

IV. Production of Metallic Chromium by Electrolysis of Sulfates

Gofman, N.T., and E.I. Arkhipova. Some Properties of Sulfuric Acid Electrolytes Used for the Production of Electrolytic Chromium 179

Ionatamishvili, T.V., and L.L. Rubesh. Effect of Certain Sulfur Compounds on the Process of Producing Electrolytic Chromium 191

Aglaze, R.I., T.V. Ionatamishvili, D.A. Dzhanashvili, and R.A. Mikeladze (Deceased). One Problem of Obtaining Carbon-Free Chromium Alloys by Electrolysis 201

Card 2/3

S/081/60/000/013(I)/008/014
A006/A001

Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 13 (I), p. 423, # 53243

AUTHORS: Gofman, N. T., Lezhava, T. I., Dzhaparidze, D. I.

TITLE: Chromium Chloride Electrolysis. Information 2. Preparation of Chrome Metal

PERIODICAL: V sb.: Gidroelektrometallurgiya khroma, Tbilisi, AN GruzSSR, 1959, pp. 149-164

TEXT: The authors studied the effect of various conditions on $CrCl_3$ electrolysis to obtain Cr metal. It was established that the optimum composition of the electrolyte at the stabilization of its acidity and Cr^{2+} concentration was as follows (in g/l): Cr 120; NH_4Cl 50, KCl 70, D_c = 25 - 32 amp/dm^2, temperature 25 - 35°C, current efficiency for Cr is 19 - 4.5%. Current efficiency for H^2 is 6-7%. Stable concentration of Cr^{2+} in an open bath is 50 - 53 g/l. In a closed bath the Cr^{2+} concentration stabilizes at a level of 95 g/l with current efficiency increasing up to 67 - 72%. Stable supply of the

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S/081/60/000/013(I)/008/014
A006/A001

Chromium Chloride Electrolysis. Information 2. Preparation of Chrome Metal

acid from the anolyte is attained by addition to the anolyte of HCl of 1.19 specific weight in an amount of 1.9 ml/amp-hour for an open bath and 0.85-1.2 ml/amp-hour for a closed bath. The negative effect of Cu and the impossibility of its elimination by treatment with current is connected with the reduction of Cu^{2+} by Cr^{2+} ions. Information 1, see RZHKhim, 1960, No. 7, # 27353.

Z. Solov'yeva

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

AGLADZE, R.I., akademik; LEZHAVA, T.I.

Production of graphite and electrolytic iron in the anodic dissolution of cast iron. Soob. AN Gruz. SSR 29 no.1:39-44 Jl '62. (MIRA 18:5)

1. Institut prikladnoy khimii i elektrokhimii AN GruzSSR, Tbilisi. 2. AN GruzSSR (for Agladze).

ACCESSION NR: AP4025007 S/0062/64/000/003/0435/0439

AUTHOR: Lezhava, T. I.; Vagramyan, A. T.

TITLE: The stationary potential of liquid and solid gallium

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 3, 1964, 435-439

TOPIC TAGS: liquid gallium, solid gallium, stationary potential, electrode design

ABSTRACT: When there is no change in the free energy of a metal in changing its aggregate state, the equilibrium potential of the solid and liquid metal should be the same. The literature on the potentials for solid and liquid gallium is contradictory and shows differences of as much as 170 millivolts. The stationary potential of solid and liquid gallium in alkaline solutions of potassium gallate was determined in the 7-38 C temperature interval with electrodes of two designs (fig. 1.); the potential curves are shown in fig. 2. The change in voltage noted with one electrode 1a is attributed to penetration of the electrolyte to the platinum contact, forming a Ga-Pt macrocell. Readings with the glass encapsulated electrode 1b show the voltage does not change from 7-29 C (-1.632 v.), then there is a slight change to -1.638 v, a drop to -1.636 v, and then no change from

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ACCESSION NR: AP4025007

30-38 C. The cause for this change of 4-6 millivolts was not determined. The discrepancies in the literature are attributed to improperly set up experiments in which the electrode structure was faulty. Orig. art. has: 2 figures.

ASSOCIATION: Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry, AN SSSR)

SUBMITTED: 18Sep63 DATE ACQ: 17Apr64 ENCL: 02

SUB CODE: GP NO REF SOV: 003 OTHER: 004

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ACCESSION NR: AP4025007

ENCLOSURE: 01

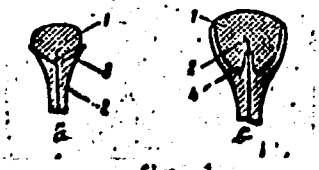

fig. 1

Electrode used for the investigation: 1-gallium; 2-platinum contact; 3-hydrogen bubble; 4-glass

Card 3/4

AGLADZE, R.I., akademik; LEZHAVA, T.I.

Electrosylis of solutions containing iron and manganese sulfates. Soob. AN Gruz.SSR 33 no.3:579-584 Mr '64 (MIRA 17:8)

1. Akademiya nauk Gruzinskoy SSR (for Agladze).

L 41383-65 EPF(c)/EWT(m)/EWG(m)/EWP(b)/T/EWA(d)/EWP(t) IJP(c) RWH/JD/JG/WB

ACCESSION NR: AP5009303 S/0364/65/001/003/0321/0325

AUTHOR: Lezhava, T.I.; Vagramyan, A.T.

TITLE: Passivation of the surface of liquid and solid gallium in the course of electrodeposition

SOURCE: Elektrokhimiya, v. 1, no. 3, 1965, 321-325

TOPIC TAGS: gallium electrodeposition, gallium passivation, electrochemistry, liquid electrode, electrode polarization, gallium electrode, gallium ion reduction

ABSTRACT: The rates of reduction of gallium ions on a liquid and solid gallium electrode were studied, account being taken of the state of the electrode surface. Polarization curves of the liquid electrode in potassium gallate with and without passage of current were recorded, and the influence of rising temperature was determined. Current — voltage curves were plotted for various degrees of renewal of the electrode surface. The polarization curves of the solid gallium electrode were reproducible to a much greater extent than those taken with the liquid electrode, apparently because of the more stable state of the solid surface. The passivation of solid gallium was found to be slower than that of liquid gallium. The differences are apparently due to the fact that in the case of solid gallium, the foreign particles adsorbed thereon have a stable arrangement which

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ACCESSION NR: AP5009303

changes only with the thermal motion of the particles, whereas on the surface of liquid gallium the foreign particles are weakly adsorbed because of the greater mobility of the liquid electrode. In all probability, these characteristics of liquid and solid gallium are responsible for the difference in the degree of retardation observed in the course of reduction of gallium ions. Orig. art. has: 8 figures.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 20Apr64 ENCL: 00 SUB CODE: IC, MM

NO REF SOV: 001 OTHER: 003

cc

Card 2/2

ACCESSION NR: AP5012347

UR/0364/65/001/004/0485/0488
541.135.52.681

AUTHOR: Lezhava, T. I.; Vagramyan, A. T.

TITLE: Electrochemical behavior of a gallium electrode in alkaline solutions of potassium gallate

SOURCE: Elektrokhimiya, v. 1, no. 4, 1965, 485-488

TOPIC TAGS: gallium, electrode

ABSTRACT: The stationary potential of a nonpolarized electrode does not always correspond to the true equilibrium potential. Generally the stationary potential lies somewhat on the positive side of the equilibrium potential. Since gallium is an electronegative metal its stationary potential depends on the anodic and cathodic curves of dissolution of gallium and cathodic polarization. To evaluate the shift in stationary potential of solid gallium due to the presence of oxide film on its surface a method was used in which the electrode is broken under the surface of the electrolyte, thus producing a fresh surface, with simultaneous recording of the change in potential. Fig. 1 of the Enclosure shows oscillograms for the change in

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