S/123/62/000/006/011/018
A004/A101

Electrodeposition of tin-nickel alloys

the following electrolyte (in g/l): nickel chloride $NiCl_2 \cdot 6H_2O$ - 250 - 300 (2.1 - 2.5 n); tin chloride $SnCl_2 \cdot 2H_2O$ - 45 - 50 (0.4 - 0.5 n); ammonium fluoride NH_4F - 60 (approximately 1.6 n); paraphenolsulfonic acid (commercial) - 0.5 mol/l, with a pH-value of 4.5, at a temperature of 50 - 70°C and a cathode current density of 0.5 - 4 amp/dm^2. Stirring of the electrolyte permits in both cases the increase of the admissible current density limit to 5.5 - 6 amp/dm^2. The alkaline electrolyte composition and the operation conditions for the deposition of tin-nickel alloys containing 5 - 12% Ni are the following (in g/l): tin (metallic Sn in the form of Na_2SnO_3) - 30 (approximately 1.0 n); metallic nickel (in the form of $Na_2Ni(CN)_4$) - 0.06 - 0.12 (0.002 - 0.004 n); free NaOH - 10 (0.25 n), free NaCN - 0.25 (0.005 n) at 75°C, 1 amp/dm^2 current density and the current efficiency of 65 - 58%. The authors describe the preparation and analysis of the mentioned electrolytes and the determining of the Sn-Ni coating thickness by the jet method applying direct current.

[Abstracter's note: Complete translation]

Card 2/2

[redacted] cadmium plating from a cadmium oxide [redacted]

[redacted] temperature of 18-25 °C, pH 7.5 and D_k = 0.1-2.0 a/dm^2.

L 02334-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6030631 SOURCE CODE: UR/0413/66/000/016/0127/0128

INVENTOR: Kudryavtsev, N. T.; Tyutina, K. M.; Fatkh, A. M. I.

ORG: none

TITLE: Method of electrolytic deposition of tin-cadmium alloy. Class 48, No. 185173 [announced by Moscow Chemical Technological Institute im. D. I. Mendelyev (Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 127-128

TOPIC TAGS: electrolytic deposition, tin alloy, cadmium alloy

ABSTRACT: An Author Certificate has been issued for a method of electrolytic deposition of tin-cadmium alloy at room temperature. To increase the dispersive power of the electrolyte and to obtain dense depositions of fine-crystalline structure, the process is carried out in a solution containing: 0.3--0.4 H tin chloride, 0.5 H cadmium chloride, 1.2 H amonium fluoride, 1 g/l carpenter's glue, and 10 g/l phenol at pH 2.5--4.0 and a 1.0--2.0 amp/dm^2 current density. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 05May64/

Card 1/1 UDC: 621.357.7:669.6'73

L 3783-66 EWT(m)/EWP(i)/EWP(t)/EWP(b) JD

ACCESSION: AP5014136 UR/0365/65/000/003/0308/0313 86 33 63

621.357.7
669.73

AUTHOR: Fatkh Alla, M. I.; Kudryavtsev, N. T.; Tyutina, K. M.
44,55 44,55 44,55

TITLE: Electrolytic cadmium plating from non-cyanic complex electrolytes
44,55,16

SOURCE: Zashchita metallov, v. 1, no. 3, 1965, 308-313

TOPIC TAGS: cadmium, metal plating, electroplating, electrolyte

ABSTRACT: Thirteen non-cyanic electrolytes for cadmium plating are compared for quality of cathodic deposition, yield with respect to current, cathode polarization and scatterig power. The compositions of these electrolytes and electrolysis conditions are shown in table 1 of the Enclosure. The highest uniformity in deposition thickness was obtained when electrolytes based on α-aminoacetic acid (glycocoll) or Trilon "B" are used or when the coating is produced by ammoniate electrolytes. Cathode polarization curves are given for the various electrolytes tested. The curves for electrolytes No. 5, 7 and 12 show more of an inclination toward the x-axis (cathode potential) than do the others. The cathode potentials in electrolytes based on Trilon "B" come close to the cadmium electrodeposition potentials of cyanic electrolytes. Cadmium electrodeposition from electrolyte No. 7 takes place

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L 3783-66

ACCESSION NR: AP5014136

3

at higher positive potentials than in cyanic solutions, but cathode polarization is high, reaching about 180 mv at a current density of 1 a/dm^2. Cadmium deposition from ammoniate electrolytes takes place at a considerably weaker cathode polarization, about 100 mv at 1 a/dm^2. If the metal yield with respect to current increases with current density, distribution of the metal on the cathode surface becomes less uniform and vice versa. The yield with respect to current falls sharply as the current density is increased in a Trilon electrolyte, which considerably improves the distribution of metal on the cathode surface at current densities greater than 1 a/dm^2. Curves for pH as a function of the quantity of acid or alkali added to the solution show that electrolytes No. 5, 7 and 12 have excellent buffer properties. A new electrolyte is developed based on glycocoll (no. 7 in table 1 of the Enclosure). This solution produces fine-grained uniformly thick cadmium coatings. The scattering power of this new electrolyte is considerably better than that of acid solutions, somewhat better than that of ammoniate electrolytes and close to that of cyanic solutions. Orig. art. has: 6 figures, 1 table.

ASSOCIATION: Khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Chemical Engineering Institute)

SUBMITTED: 03Nov64 4455 ENCL: 01 SUB CODE: MM, GC

NO REF SOV: 008 OTHER: 000

Card 2/3

L 3783-66

ACCESSION NR: AP5014136

ENCLOSURE: 01

TABLE 1

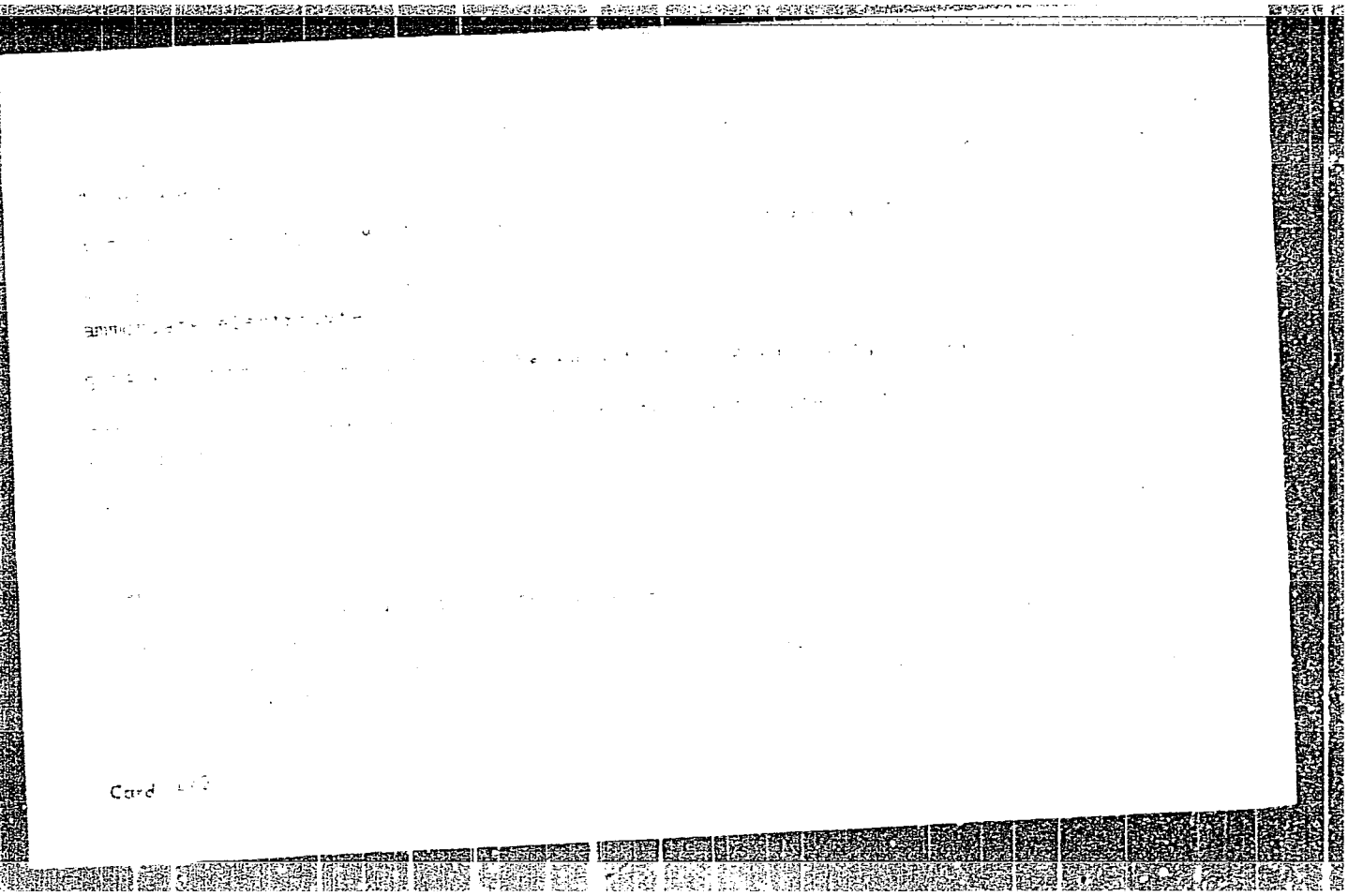
Components (g/l) and conditions of electrolysis	Electrolyte No.													
	1	2	3	4	5	6	7	8	9	10	11	12	13	
$CdSO_4 \cdot {}^8/_3H_2O$	64	100	—	—	—	—	—	—		128	64	—	48	
$Cd(BF_4)_2$	—	—	143	—	—	—	—	—	—	—	—	—	—	
$CdCl_2 \cdot 2^1/_2H_2O$	—	—	—	—	—	—	—	80	—		—	—	—	
CdO	—	—	—	32	40	16	40	—	40	—		32		
HBF_4	—	—	35	—	—	—	—	—	—	—	—	—	—	
$Al_2(SO_4)_3 \cdot 18H_2O$	28	—	—	—	—	—	—	—	—	—	—	—	—	
H_3BO_3	—	20	—	—	20	20	—	—	—	—	—	—	—	
$(NH_4)_2SO_4$	33	—	—	—	300	—	—	—	—	—	—	—	—	
NH_4F	—	—	—	300	—	—	—	—	—	—	—	—	—	
NH_4Cl	—	—	—	—	—	200	—	180	180	—	—	—	—	
Glycocoll	—	—	—	—	—	—	110	—	—	—	—	—	—	
Trilon "B"	—	—	—	—	—	—	—	—	—	—	112	280	75	
Ethylene diamine (basic)	—	—	—	—	—	—	—	—		375		—	—	
Monoethanol amine (75%) ml/l	—	—	—	—	—	—		400	400	—	—	—	—	
KOH	—	—	—	—	—	—	—	—	—	—	—	—	20	
NaOH	—	—	—	—	—	—	—	—	—	—	40		—	
NaCl	—	30	—	—	—	—	58	—	—	—		58		
Thiourea	—	—	—	2,5	2,5	2,5	2,5	—	—			—	—	
Joiner's glue	0,5	1	1	—	1	1	1	1	1	—		—	—	
Dextrin	—	—	—	10	—		—	—	—	—		—	—	
pH	4	4	2	7—8	7—8	7—8	7—8	8—9	8—9	8—9	11	11	4—5	
Current density	1	1	3	0,7	0,7	0,5	1	1	1	1	10	10	10	a/dm^2

Card 3/3

FATKH ALLA, M.I.; TYUTINA, K.M.; KUDRYAVTSEV, N.T.

Effect of pH on the cathodic process during the electrodeposition of cadmium from sulfate ammoniate electrolytes. Izv. vys. uchob. zav.; khim. i khim. tekh. 8 no.1:99-103 '65. (MIRA 18:6)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva, kafedra tekhnologii elektrokhimicheskikh proizvodstv.



Card

L 12597-65

ACCESSION NR: AP5010989

[illegible] crystalline and uniformly dispersed and the cathode polarization is low. [illegible] the cathode polarization is substantially [illegible]

[illegible] ness. Orig. art. has: [illegible] figures.

[illegible] (Moscow Institute of Chemical Technology) and Chemical Institut im. D. I. Mendeleeva; (Moscow Institute of Chemical Technology)

SUBMITTED: 06Jun64 ENCL: 00 SUB CODE: MM, GC

NO REF SOV: 006 OTHER: 002

Card 2/2

TYUTINA, N.A.; ALEKSOVSKIY, V.B.

Effect of soil acids on the migration ability of niobium.
Trudy IMGRE no.7:83-90 '61. (MIRA 16:11)

TYUTINA, N. A.

Cand Chem Sci - (diss) "Study of the state of niobium in natural waters, and the development of methods for analyzing in hydro- and biogeochemical surveys." Leningrad, 1961. 22 pp with illustrations; (Leningrad Order of Lenin State Univ imeni A. A. Zhdanov); 180 copies; price not given; (KL, 6-61 sup, 200)

SOV/7-59-6-10/17

3(5)

AUTHORS: Tyutina, N. A., Aleskovskiy, V. B., Vasil'yev, P. I.

TITLE: Experiment in Biogeochemical Testing and Methods of Niobium Determination in Plants

PERIODICAL: Geokhimiya, 1959, Nr 6, pp 550 - 554 (USSR)

ABSTRACT: The region of the central Timan in the Komi ASSR was investigated. Niobium was spectrophotometrically determined according to tb rhodanide method with a device of the SF-4 type (Refs 8, 9). It was precipitated from the solution with manganese oxyhydrate for the purpose of concentration. This precipitation is complete in the range of up to 50 µg Nb (Fig 1). Two methods were devised: analysis of the plant ash and analysis without previous ashing (oxalate extraction). Spectrum analyses were made with the device ISP-28. Tables 1 and 2 show the results by means of some control samples. Most of the plants were found to have a niobium portion of from o to 3 µg contained in 5 g dry leaves, partly, however, up to 50 - 70 µg. It is possible to draw diagrams with distinct maxima (Fig 2). The following plants concentrate niobium: Rubus arcticus L., Vaccinium myrtillus L., Chamaenerium angustifolium L., Betula pubescens Ehrh., and Betula verrucosa

Card 1/2

SOV/7-59-6-10/1

Experiment in Biogeochemical Testing and Methods of Niobium Determination in Plants

Ehrh. - A. Ya. Fedotova, Zap. geofizicheskiy trest (Zap. Geophysical Trust) assisted in the experimental work. Papers of A. P. Vinogradov, D. P. Malyuga, and S. M. Tkalich are mentioned. There are 2 figures, 3 tables, and 10 references, 8 of which are Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Institute of Technology imeni Lensovet)

SUBMITTED: March 16, 1959

Card 2/2

TYUTINA, N.A.; ALESKOVSKIY, V.B.; MILLER, A.D.

Methods of concentrating niobium ions in natural waters. Trudy LTI no.48:101-108 '58. (MIRA 15:4)
(Niobium--Analysis) (Water, Underground)

TYUTINA, V.A., assistent

First results of dispensary treatment of the rural population in three districts of Tashkent Province. Med.zhur.Uzb. no.1:67-70 Ja '59. (MIRA 13:2)

1. Iz kafedry organizatsii zdravookhraneniya (ispolnyayushchiy obyazannosti zaveduyushchego - dotsent S.G. Ostrovskaya) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(TASHKENT PROVINCE--DISPENSARIES)

TYUTINA, V. A., Candidate Med Sci (diss) -- "Experience in dispensary work of a rural settlement of Tashkent Oblast". Tashkent, 1959. 21 pp (Tashkent State Med Inst), 250 copies (KL, No 23, 1959, 173)

HC

L 23503-65 EWT(l)/EWP(e)/EWT(m)/EWP(k)/EED-2/EWP(b)/EWP(t) IJP(c) JD

ACCESSION NR: AP5001590 S/0226/64/000/006/0035/0042 2-B

AUTHOR: Gritsan, D. N.; Serpukhova, L. N.; Zhirov, G. A.; Leykina, R. Sh.; Kruzina, N. G.; Buravlev, A. T.; Yefremova, M. M.; Tyutina, V. K.; Shiloya, S. V.

TITLE: Electrolytic method for obtaining powder for the manufacture of ferrites

SOURCE: Poroshkovaya metallurgiya, no. 6, 1964, 35-42

TOPIC TAGS: nickel zinc ferrite, electrodeposition, powder metallurgy, ferrite manufacture, hydroxide precipitation

ABSTRACT: The authors describe their electrolytic method for obtaining a mixture of iron, nickel, and zinc hydroxides with a prescribed composition. The method can also be used to obtain a mixture of hydroxides completely free of extraneous metal ions and therefore not requiring special washing. By subsequent heat treatment, a mixture of oxides of a given composition can be obtained from the hydroxide mixture for the manufacture of nickel-zinc ferrites. This electrolytic method of obtaining nickel-zinc ferrite powders is based on the joint anodic solution of iron, nickel, and zinc in the electrolytic cell and simultaneous precipitation of the ions as hydroxides by the hydroxyl ions generated at the cathode. To elicit

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L 23503-65

ACCESSION NR: AP5001590

the possibility of controlling the composition of the hydroxide mixture, the authors studied the kinetics of the electrodeposition of the hydroxide of each metal separately, the completeness of their deposition, and the conditions under which the poorly soluble compounds would not be deposited on the electrodes and would not passivate them. The experiments were conducted at 20 and 90C. Electrolysis was carried out in a glass vessel; the anode was a plate made of the test metal and the cathode was a plate of stainless steel or other metal. Aqueous solutions of various salts and acids were used as the electrolyte, the most suitable being diluted solutions of NaCl, KCl, or HCl. The HCl solutions made it possible to obtain very pure hydroxide mixtures that did not require washing. Orig. art. has: 1 table and 8 figures.

ASSOCIATION: Khar'kovskiy gosuniversitet im. A. M. Gor'kogo (Khar'kov state university)

SUBMITTED: 25Nov63 ENCL: 00 SUB CODE: MM,IC

NO REF SOV: 002 OTHER: 000

Card 2/2

TYUTKINA, N.F.; MARGORINA, L.M.; SHATKOV, I.I.

Sporadic salmonellosis. Zhur. mikrobiol., epid. i immun. 40 no.6:38-40 Je '63. (MIRA 17:6)

ZATSEPIN, N.I., starshiy nauchnyy sotrudnik; TYUTKINA, N.F., vrach (Moskva)

Prevention of dysentery. Med.sestra no.6:3-6 Je '55. (MLRA 8:7)
(DYSENTERY, prev. and control,
in Russia)

TYUTKINA, N.F.; MARGORINA, L.M.; SHATROV, I.I.

Role of convalescents in the epidemiology of salmonellosis. Zhur. mikrobiol., epid. i immun. 33. no.12:23-25 D '62. (MIRA 16:5)
(SALMONELLA INFECTIONS)

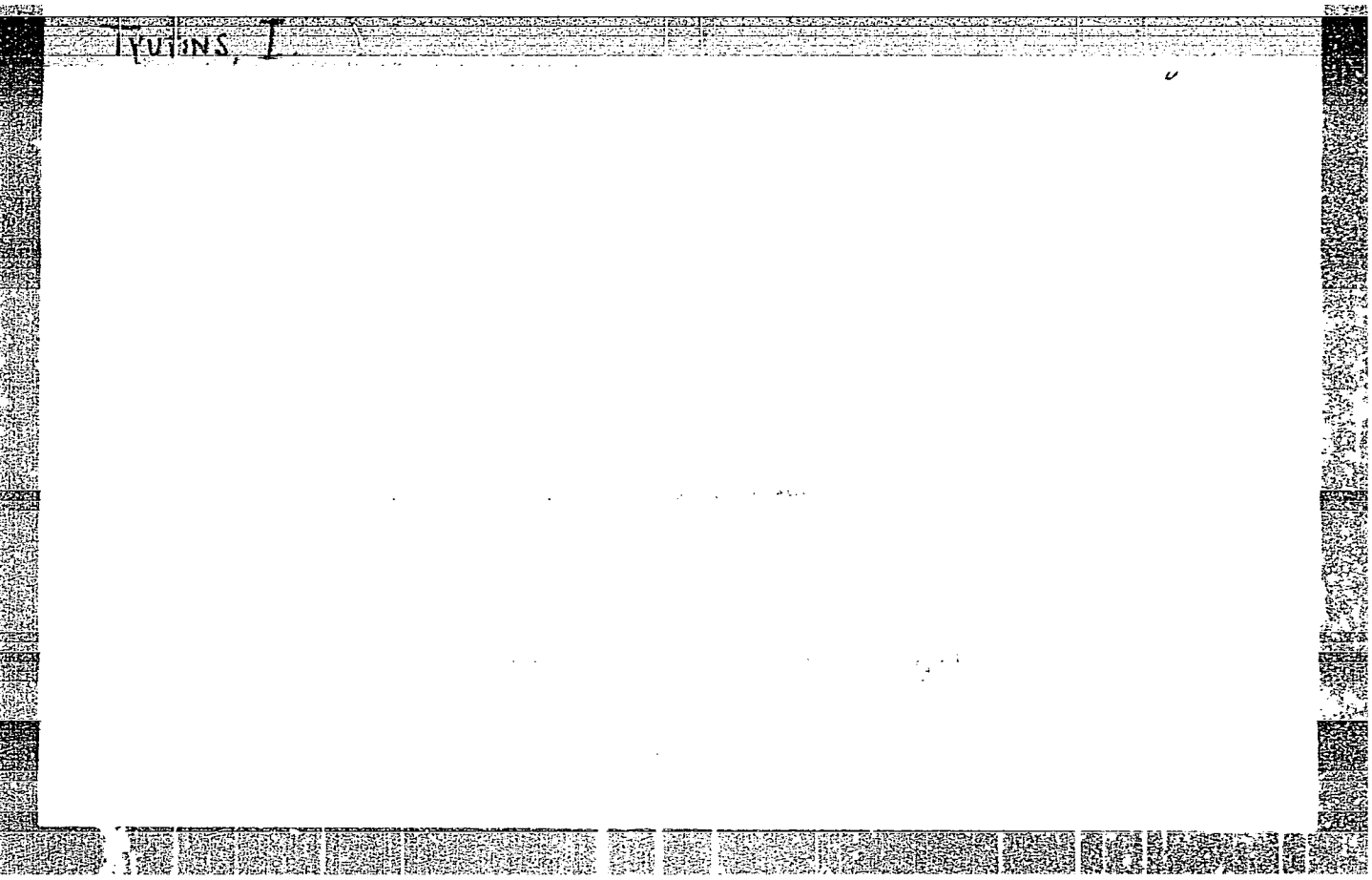
GRITSAN, D.N.; SERPUKHOVA, L.N.; ZHIROV, G.A.; LEYKINA, R.Sh.; KRUZINA, N.G.; BURAVLEV, A.T.; YEFREMOVA, M.M.; TYUTINA, V.K.; SHILOVA, S.F.

Electrolytic method of obtaining powders for the manufacture of ferrites. Porosh. met. 4 no.6:35-42 N-D '64. (MIRA 18:3)

1. Khar'kovskiy gosudarstvennyy universitet im. A.M. Gor'kogo.

TYUT'NNIK, Petr Mikhaylovich TRUPAK, N.G., prof., retsenzent

[Strength and stability of frozen rocks] Prochnost' i ustoichivost' zamorozhennykh gornykh porod. Moskva, Nedra, 1965. 76 p. (MIRA 18:4)



MARGORINA, L.M.; BILIBIN, A.F.; SHATROV, I.I.; TYUTKINA, N.F.

Material on the etiology and epidemiology of Salmonella infections. Report No.1. Zhur.mikrobiol.epid.i immun. 32 no.2:74-77 F '61. (MIRA 14:6)

1. Iz kafedry infektsionnykh bolezney II Moskovskogo meditsinskogo instituta imeni Pirogova i Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

(SALMONELLA INFECTIONS)

SOROKIN, N., kapitan-nastavnik; TYUTNEV, S., kapitan-nastavnik

Accidentless performance of the fleet. Rech. transp. 24 no.4:47-50 '65. (MIRA 18:5)

1. Volzhskoye ob"yedinennoye rechnoye parokhodstvo.

TYUTNEV, S.A.; FOMIN, N.I.

Our experience in the technical operation of vessels of the "Bor" type. Rech.transp.14 no.12:8-9 Je '55. (MIRA 9:9)

1.Kapitan parokhoda "Altay" (for Tyutnev). 2.Mekhanik parokhoda "Altay" (for Fomin).

ACC NR: AT6026448 (N) SOURCE CODE: UR/2546/66/000/156/0099/0104

13
B+1

AUTHOR: Tyutnev, Ya. A.

ORG: Central Institute of Weather Forecasting (Tsentral'nyy institut prognozov)

TITLE: Calculation and forecasting of sea ice phenomena in some harbors of the Azov and Bladk seas

17

SOURCE: Moscow. Tsentral'nyy institut prognozov. Trudy, no. 156, 1966. Raschet i prognoz elementov rezhima morya (Observing and forecasting characteristics of sea phenomena), 99-104

TOPIC TAGS: sea ice, sea ice forecasting

ABSTRACT: Equations are given for calculating the dates for the appearance of ice in the Gulf of Taganrog, the extension of the ice route in the Azov Sea, and the thickness of ice in Zhdanov harbor. Equations are also presented for the long-range forecasting of dates for the appearance and disappearance of ice in a number of harbors of the Black Sea and Azov Sea. Orig. art. has: 9 formulas and 3 tables. [Based on author's abstract] [NT]

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 003/

Card 1/1 vlr

TYUTNEV, YA. A.

32401. Tyutnev, Ya. A. K metodike kratkosrochnykh prognozov zamerzaniya pribrezhnykh rayonov morey. Trudy Tsentr. in-ta prognozov, vyp. 14, 1949, s. 17-26. ---- Bibliogr: 11 nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 44

TYUTNEV, YA. A.

PHASE I BOOK EXPLOITATION SOV/4582

Moscow. Tsentral'nyy institut prognozov

Voprosy morskikh gidrometeorologicheskikh prognozov (Problems of Oceanographic Hydrometeorological Forecasting) Moscow, Gidrometeoizdat, Gos.kom. 1959. 69 p. (Series: Its: Trudy, vyp. 91) Errata slip inserted. 600 copies printed.

Sponsoring Agencies: Tsentral'nyy institut prognozov; Glavnoye upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): A.I. Kandrashi; Ed. (Inside book): M.N. Gorgonskiy; Tech. Ed.: I.N. Zarub.

PURPOSE: This issue of the Transactions of the Central Institute of Forecasting is intended for scientific and field workers of the hydrometeorological service, hydrologists, and oceanographers.

COVERAGE: The articles in this collection deal mainly with the forecasting of water temperature in the open sea and in coastal waters. Methods of long-range forecasting of spring ice behavior are also analyzed. The results of investigations on the possibility of extrapolating the fields of cyclonic and anticyclonic activity, using Chebyshev's polynomials, are discussed. No personalities are mentioned.

Tyutnev, Ya. A. On Methods for Long-Range Forecasting of the Time for Break-up and Clearing of Ice on the Sea of Japan 57

Shereshevskiy, O.I. Calculations of Water Temperature Changes During the Year Season 64

AVAILABLE: Library of Congress

Card 2/2

AM/bm/gmp
12-21-60

TYUTNEV, Ya.A.

Simplified method for calculating the heat balance of the surface of the sea. Trudy Okean.kom. 11:142-149 '61. (MIRA 14:7)
(Ocean temperature)

TYUTNEV, Ya.A.

Simplified method for computing the thermal balance of the sea surface. Meteor. i gidrol. no.2:36-40 F '61. (MIRA 14:1)
(Ocean temperature)

TYUTNEV, Ya.A.; GRACHEVA, N.A.; SIDEL'NIKOVA, T.M.; SMIRNOVA, K.I.; YUSHCHAK, T.I.

Long-range prognoses of fall and spring ice phases of the Baltic Sea. Trudy TSIP no.57:83-97 '57. (MLRA 10:9)
(Baltic Sea--Ice)

TYUTNEV, YA. A.

GLAGOLEVA, M.G.; SAUSKAN, Ye.M.; TYUTNEV, Ya.A.

Prognosis of water temperature at the southwestern shore of Sakhalin. Trudy TSIP no.57:98-131 '57. (MLRA 10:9)
(Sakhalin region--Ocean temperature)

TYUTNEV, Ya.A.

Methods for long-range forecasting of ice formation and freezing of the coastal regions in the Sea of Japan. Trudy TSIP no.76: 71-80 '58. (MIRA 12:2)

(Japan, Sea of--Ice)

TYUTNEV, Ya.A.

Long-range forecasting of the break-up and disappearance of ice in the Sea of Japan. Trudy TSIP no.91:57-63 '59.
(MIRA 12:8)

(Japan, Sea of--Ice)

KRINCHIK, G.S.; TYUTNEVA, G.K.

Use of the magneto-optical method in studying exchange and ferromagnetic resonances in ferrite-garnets. Izv. AN SSSR. Ser. fiz. 28 no. 3 489-494 Mr '64. (MIRA 17:5)

KRINCHIK, G.S.; TYUTNEVA, G.K.

Magneto-optics of Eu^{3+} ions in a ferromagnetic crystal. Zhur. eksp. i teor. fiz. 46 no.2:435-443 F '64. (MIRA 17:9)

1. Moskovskiy gos. arstvennyy universitet.

ACCESSION NR: AP4019203 S/0056/64/046/002/0435/0443

AUTHORS: Krinchik, G. S.; Tyutneva, G. K.

TITLE: Magnetooptics of Eu+++ ions in a ferromagnetic crystal

SOURCE: Zhurnal eksper. i teor. fiz., v. 46, no. 2, 1964, 435-443

TOPIC TAGS: europium iron garnet, europium ferrite garnet, magneto-optics, infrared, infrared absorption line, absorption line fine structure, fine structure anisotropy, spin wave excitation, spin wave combined excitation, ferromagnetic crystal, ferromagnetic crystal spin system, Faraday effect

ABSTRACT: The effects of an external magnetic field on the optical properties of europium iron garnet (EIG) in the infrared were investigated using an IKS-12 spectrograph with an LiF prism in light mechanically interrupted at 200 cps. The sample was magnetized in a 2000-Oe field. Anisotropy is observed in the fine structure of

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ACCESSION NR: AP4019203

the $^7F_0 \rightarrow {}^7F_4$ absorption line, probably caused by the increased role of magnetic dipole transitions in this line. Some fine-structure components obtained with circularly polarized light can be interpreted as combination excitation of spin waves by optical transitions in the rare-earth ions of the ferromagnetic crystal. It is shown that this effect can be used to investigate the natural frequencies of the magnetic spin system of a ferromagnetic crystal. Agreement between the experimental study of the Faraday effect in EIG and the theory has shown that the Faraday effect has an exchange origin in the region of the $^7F_0 \rightarrow {}^7F_4$ absorption line employed, since the fine structure of this line is due to the level splitting of the Eu^{3+} ions in the exchange field of the iron sublattices of the garnet. The exchange effect was also verified by measurements of the temperature dependence of this line. The authors state that the results are not conclusive because of the small differences between many of the characteristic energies of the EIG, but they demonstrate some ad-

Card 2/3

ACCESSION NR: AP4019203

vantages of the magnetooptic method. "The EIG single crystals were grown by A. G. Titova, to whom we are grateful." Orig. art. has: 9 figures and 4 formulas.

ASSOCIATION: Matematicheskiy institut im. V. A. Steklova AN SSSR (Mathematics Institute AN SSSR)

SUBMITTED: 28Jun63 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 003

Card 3/3

TYUTNYARTSEV, V.I., pilot, komandir samoleta An-2 (Tyumen')

Selecting the landing field from the air. Grazhd.av. 17 no.10:8-10 O '60. (MIRA 13:9)
(Siberia--Airplanes--Cold weather operation)

KONSTANTINOVA, T.M.; TYUTNYAYEV, B.A., red.

[Novgorod; a handbook for excursionists and tourists] Novgorod; posobie dlia ekskursantov i turistov. Knizhnaia red. gazety "Novgorodskaia pravda," 1958. 189 p. (MIRA 12:4)
(Novgorod--Description)

FILIPPOV, A.Kh., TYUTRIN, A.I.

Simplified recording of the electric potential gradient of the atmosphere. Trudy GGO no.97:104-105 '60. (MIRA 13:8)
(Atmospheric electricity)

Tyutrin, A.I.

PHASE I BOOK EXPLOITATION SOV/5516
SOV/2-58-97

Leningrad. Glavnaya geofizicheskaya observatoriya

Voprosy atmosfernogo elektrichestva (Problems in Atmospheric Electricity) Leningrad, Gidrometeoizdat, 1960. 115 p. (Series: Its: Trudy, vyp. 97) Errata slip inserted. 1,000 copies printed.

Sponsoring Agency: USSR. Glavnoye upravleniye gidrometeorologicheskoy sluzhby.

Ed. (Title page): I.M. Imyanitov, Candidate of Physics and Mathematics; Ed. (Inside book): I.V. Tikhonova; Tech. Ed.: E.V. Volkov.

PURPOSE: This publication is intended for meteorologists and scientists concerned with the problem of atmospheric electricity. The book can also be used by graduate students at hydrometeorological institutes and by university students studying physics of the atmosphere.

COVERAGE: This issue of the Transactions of the Main Geophysical Observatory im. A.I. Voyeykov contains works on problems in atmospheric electricity written from 1956 to 1958. Individual articles deal with the electrical phenomena associated with thunderstorms, clouds, rains, and fogs. Observational techniques and instruments used are described. No personalities are mentioned. References accompany individual articles.

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AVAILABLE: Library of Congress

Card 1/4

TM/dwm/mas
10-31-60

LUZHNOV, M.I., inzhener; TYUTRIN, A.P., tekhnik.

Reversible scraper feeder for shale. Elek.sta. 25 no.1:51-52 Ja '54. (MLRA 7:1)
(Furnaces) (Conveying machinery)

TYUTRIN, A.P., tekhnik.

Couplings for auxiliary mechanisms. Elek.sta. 27 no.7:52-53 Jl '56. (MLRA 9:10)

(Couplings)

TYUTRIN, F.; RATUSHEVA, R.

For the further strengthening of the collective farm economy.
Den. i kred. 20 no.4:75-79 Ap '62. (MIRA 15:4)

1. Starshiy ekonomist Belgorodskoy kontory Gosbanka (for Tyutrin).
2. Kreditnyy inspektor Voznesenskogo otdeleniya Gosbanka Nikolayevskoy oblasti (for Ratusheva).
(Collective farms--Finance) (Banks and banking)

SHUFCHUK, B.; MISHUKOV, A.; TYUTRIN, I.; POLAGIN, I.

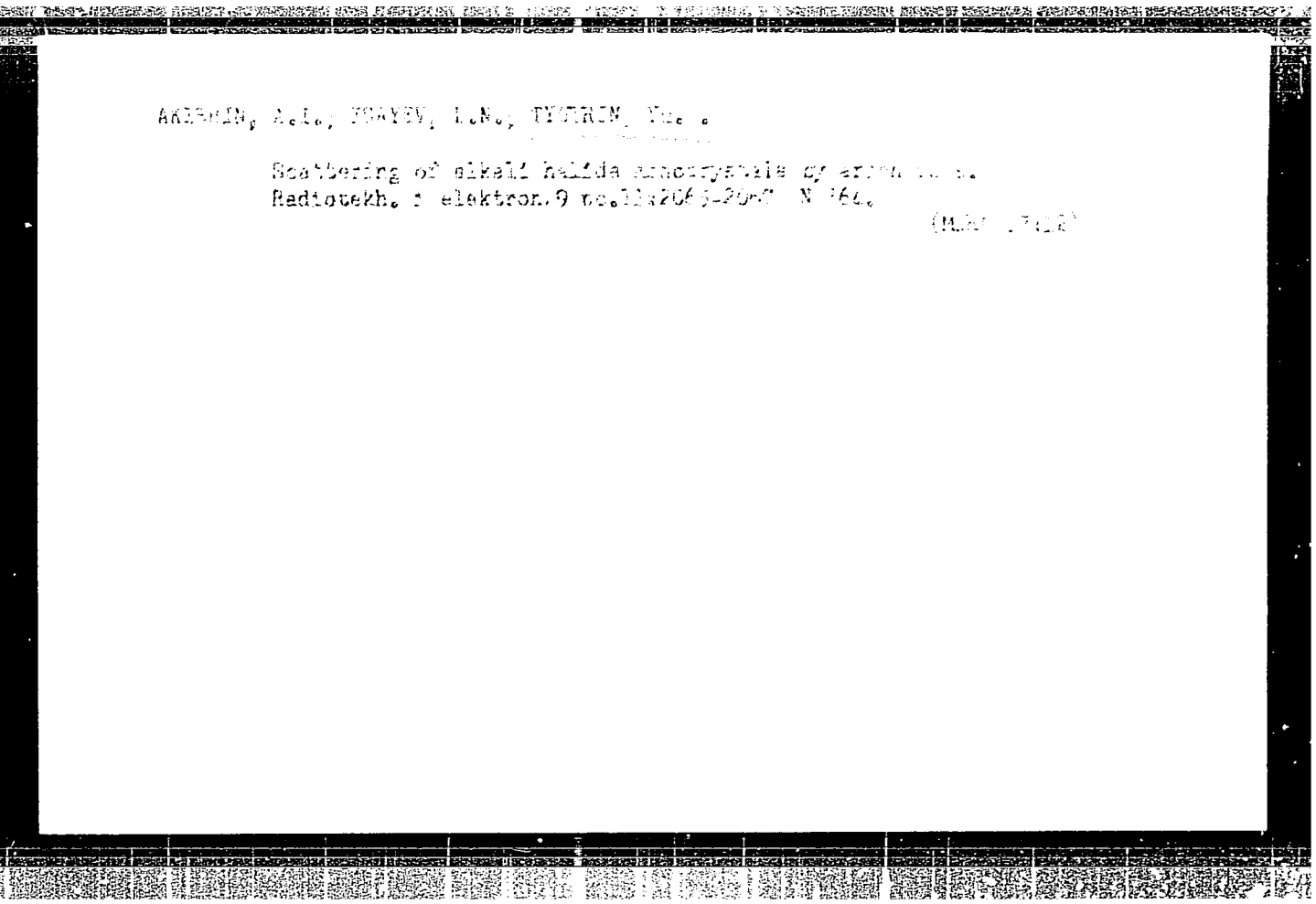
Readers' suggestions. Fin. SSSR 21 no.8:79-81 Ag '60. (MIRA 13:8)
(Finance)

DMITRIYEVSKIY, K.I., master-vzryvnik; BYCHKOV, F.; NIKITIN, L., inzh.; VORKHLIK, M., inzh.; TYUTRIN, V., inzh.; YUDINA, N.F., inzh.; ZANEGIN, G., inzh.

Editor's mail. Bezop. truda v prom. 5 no.8:34 Ag '61. (MIRA 14:8)

1. Shakhta No.32, Stalinskaya oblast' (for Dmitriyevskiy). 2. Sherlovogorskiy gornoobogatitel'nyy kombinat, Chitinskaya oblast' (for Nikitin, Vorkhlik, Tyutrin). 3. Otdel tekhniki bezopasnosti Nizhne-Tagil'skogo metallurgicheskogo kombinata imeni V.I. Lenina (for Yudina). 4. Tekhnicheskiy otdel tresta Dorogobuzhshakhtostroy (for Zanegin).

(Mining engineering--Safety measures)



AKISHIN, A.I., POKROV, I.N., TYURIN, Yu.

Scattering of alkali halide monocrystals by ...
Radiotekh. i elektron. 9 no.11:2065-2067 N '64.

(MIRA 17:12)

L 01064-66 EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EWP(t)/EWP(b) IJP(c) JD/WW/JG/DM

ACCESSION NR: AP5014540 UR/0089/65/018/005/0487/0491
621.039.714:546.432

AUTHOR: Tyutrina, A. P.; Zhagin, B. P.; Bakhurov, V. G.

TITLE: Removal of radium from liquid wastes by sorption with manganese dioxide

SOURCE: Atomnaya energiya, v. 18, no. 5, 1965, 487-491

TOPIC TAGS: uranium processing, radioactive waste, radioactive decontamination, manganese dioxide, pyrolusite

ABSTRACT: In view of the radioactive contamination of the liquid waste products of the hydrometallurgical processing of uranium raw material, the authors consider the possibility of using amorphous manganese dioxide and pyrolusite to remove the radium from this waste. The sorbent was prepared from air-dried sawdust impregnated with potassium permanganate and manganese chloride at various compositions and values of pH and the radium-sorption ability was measured. The sorption was effective both under static and dynamic conditions. It is concluded that synthetic manganese dioxide deposited on sawdust, or columns of suspended layers of pyrolusite can be used as effective sorbents. The spent pyrolusite can furthermore be used to oxidize uranium during the stage of ore stripping. Mixtures of sawdust with powdered pyrolusite of various grain sizes were also tested. "The authors

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ACCESSION NR: AP5014540

3

thank S. V. Golovin, V. A. Gorinov, and A. I. Shustov for help with the work."
Orig. art. has: 4 figures and 4 tables.

ASSOCIATION: none

SUBMITTED: 13May64 ENCL: 00 SUB CODE: NP

NR REF SOV: 002 OTHER: 001

Card 2/2 DP

TYUTRYUMOV, Oleg Sergeyevich; OKUNEV, Yu.K., mayor, red.; MEDNIKOVA, A.N., tekhn.red.

[Automobile alkali iron and nickel storage batteries] Avtomobil'nye shchelochnye zhelezo-nikelevye akkumuliatornye batarei. Moskva, Voen. izd-vo M-va oborony SSSR, 1958. 79 p. (MIRA 11:5)
(Automobiles--Batteries)

TYUTRYUMOVA, Yevgeniya Aleksandrovna; GIRGOLAV, S.S., redaktor; FREYDLIN, S.Ya., redaktor; KULNVA, M.S., tekhnicheskiy redaktor

[Bibliography of Soviet traumatology for 1946] Bibliografiia sovetskoi travmatologii za 1946 god. Pod red. S.S.Girgolava i S.IA.Freidlina. [Leningrad] Gos.izd-vo med.lit-ry, Leningr. otd-nie. No.14. 1956. 166 p. (MLRA 10:7)
(BIBLIOGRAPHY--WOUNDS]

TYUTRYUMOVA, YE. A.

USSR/Medicine - Literature, Medical
Medicine - Surgery

Apr 49

"New Books" 1½ pp

"Khirurgiya" No 4

Lists nine new books, including: Works of S. I. Spasokukotskiy, 1870 - 1943, Kh. Trueta's "Theory and Practice of Military Surgery," Ye. A. Tyutryumova's "Bibliography of Soviet Traumatology in 1940," V. Ya. Shlapoberskiy's "Penicillin in Surgery," and "War Trauma and Its Complications" (Works of Nav Med Acad).

PA 45/49T92

GANELINA, I.Ye.; ZIMOVAYA, N.G.; IL'INSKIY, O.B.; LEBEDEVA, V.A.; MARTYNYUK, V.K.; MERKULOVA, O.S.; MUSYASHCHIKOVA, S.S.; MYAGKAYA, I.P.; OSADCHIY, L.I.; POPOVA, T.V.; SEREBRENNIKOV, I.S.; TYUTRYUMOVA, Z.I.; CHERNICHENKO, V.A.; YAROSHEVSKIY, A.Ya.

Interoceptive component in the development of certain pathological states. Trudy Inst.fiziol. 8:240-253 '59. (MIRA 13:5)

1. Laboratoriya patologicheskoy fiziologii (zaveduyushchiy - V.S. Galkin [deceased]) Instituta fiziologii im. I.P. Pavlova AN SSSR.
(SENSES AND SENSATION) (PATHOLOGY)

ITSKOVICH, Emmanuil L'vovich, LOSHCHINSKAYA, Anna Valer'yanovna,; LEONTENKOV, A.I., nauchnyy red.; TYUTYUNIK, M.S., red.; GILENSON, P.G., tekhn. red.

[Automatic control in the burning of cement clinker] Avtomaticheskii kontrol' obzhiga tsementnogo klinkera. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1958. 48 p. (MIRA 11:10)
(Cement kilns)
(Automatic control)

MONFRED, Yu.B.; TYUTYUNIK, M.S., red.; YEMEL'YANOVA, M.D., red.; TEMKINA, Ye.L., tekhn. red.

[Technology of manufacturing reinforced-concrete elements for apartment houses; the cassette method] Tekhnologiia izgotovleniia zhelezobetonnykh izdelii dlia zhilishchnogo stroitel'stva; kassetnyi sposob. Moskva, Gosstroiizdat, 1963. 189 p. (MIRA 16:9)

(Reinforced concrete)

TYUTYUNIK, M.S.

PHASE I BOOK EXPLOITATION

AUTHOR: Vol'pert, G.D.

TITLE: Sprayed-Metal Coatings (Metallization) (Pokrytiya raspylennym metallom /metallizatsiya/)

PUB. DATA: Gosudarstvennoye izdatel'stvo literatury po stroitel'nym materialam, Moskva, 1957, 265 pp., 4000 copies

ORIG. AGENCY: None given

EDITOR: Tyutyunik, M.S.; Tech. Ed.: Pyatakova, N.D.

PURPOSE: This book is intended for maintenance personnel, designers, and process engineers at industrial establishments using and manufacturing various types of equipment.

COVERAGE: The author describes methods for repairing, reconditioning, and prolonging the service life of machine parts and other equipment by means of metal spraying. He also gives data on the properties of metal-coated items, conditions under which the metal can be sprayed on, and data on the spraying equipment. The appendices contain shop drawings of nonstandard equipment. The drawings

Sprayed-Metal Coatings (Cont.)

can be used if necessary to produce a number of simple devices. The author expresses his thanks to Vol'pert, Ye. A., for assistance in compilation of materials and to Gvirts, R.A., for reviewing the book. There are 33 references, of which 32 are Soviet and 1 is English.

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AVAILABLE: Library of Congress

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TYUTYUNKOV, P. N.

USSR /Chemical Technology. Chemical Products and Their Application I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31635

Author : Tyutyunkov P.N.

Title : Use of Fat Lime Paste in Hydroinsulating Plaster Mortar

Orig Pub: Stroit. prom-st', 1956, No 10, 49

Abstract: Report of the use in fire reservoirs, water towers and other constructions, of a hydroinsulating plaster of 1:2:4 composition (fat lime paste : cement : coarse sand). It is noted that in the above-stated structures no seepage occured over a period of two years.

Card 1/1

STROMBERG, A.G.; ZAKHAROV, M.S.; KAPLIN, A.A.; TYUTYUN'KOVA, R.S.

Rapid determination of the microconcentrations of copper in indium without separating the main mass of indium. Metod. anal. khim. reak. i prepar. no.5/6:90-92 '63. (MIRA 17:9)

1. Tomskiy politekhnicheskiy institut.

BURNASHEV, M.S.; TYUTYUNIK, S.N.

Feeding habits and growth of young whitefishes in ponds of the Kishinev Suburban Fish Farm of the Moldavian S.S.R. Uch. zap. Kish. un. 62 no.1:117-128 '62. (MIRA 16:7)

1. Kafedra zoologii pozvonochnykh zhivotnykh Kishinevskogo gosudarstvennogo universiteta.
(Kishinev region--Whitefishes) (Kishinev region--Fish culture)

ZHATOV, I.V.; PETROV, A.A.; AGEYEVA, V.A.; UKHANOVA, V.A.; BOVVA, D.L., red.; TYUTYAYEV, B.A., red.

[Novgorod Province during forty years of the Soviet regime, 1917-1957; a statistical manual] Novgorodskaia oblast' za 40 let Sovetskoi vlasti (1917-1957); statisticheskii sbornik. [Novgorod] Knizhnaia red. gazety "Novgorodskaia pravda," 1957. 501 p. (MIRA 11:3)

1. Novgorodskaya oblast'. Statisticheskoye upravleniye. 2. Nachal'nik Novgorodskogo oblastnogo statichesticheskogo upravleniya (for Bovva). 3. Novgorodskoye oblastnoye statisticheskoye upravleniye (for Zhatov, Petrov, Ageyeva, Ukhanova)
(Novgorod Province--Statistics)

MAKSIMOV, A.V.; TYUTYAYEV, B.A., red.

[Our brigade is in the millionaire class] Nasha brigada - millioner. Novgorod, Knizhnaia red. gazety "Novgorodskaia pravda," 1960. 27 p. (MIRA 14:12)

1. Brigadir pervoy kompleksnoy brigady kolkhoza "Znamya Lenina" Soletskogo rayona (for Maksimov).
(Soletski District—Collective farms)

4

L 19413-66 EWT(l)/EWT(m)/EPF(c)/EWP(i)/EWP(j)/T/EWP(t)/EWP(z)/EWP(b)/EWA(h)
ACC NR: AP5025697 IJP(c) JD/HW/JG/ SOURCE CODE: UR/0286/65/000/018/0047/0047

AUTHORS: Artemov, A. N.; Yermolayev, V. I.; Nazarova, R. G.; Petukhov, G. G.; Razuvayev, G. A.; Solov'yev, I. F.; Solov'yeva, N. A.; Sorokin, Yu. A.; Tyutyayev, I. N.

ORG: none

TITLE: Method for manufacturing film type electrical resistors. Class 21, No. 174697

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 47

TOPIC TAGS: electric resistor, chromium, nickel

ABSTRACT: This Author Certificate presents a method for manufacturing thin film electrical resistors by vacuum deposition of Cr and Ni onto an insulating base. To improve the adhesion of the metal film to the metal film and to decrease the thermal resistance coefficient, dibenzylchromium $(C_6H_6)_2Cr$ is mixed with dicyclopentadienylcarbonylnickel $(C_5H_5Ni(C\emptyset))_2$ in the ratio 1:(2.5-2.7), and the

Card 1/2 UDC: 621.316.849.539.216.2.002.2

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ACC NR: AP5025697 O

mixture is heated to the temperature of thermal decomposition.

SUB CODE: EC/ SUBM DATE: 12Mar64

OC

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2

S/020/60/131/04/039/073
B011/B017

69510

AUTHORS: Spitsyn, Vikt. I., Academician, Kolesnikova, L. N., Findikirova, Z. A., Simanov, Yu. P., Tulyupova, N. N.

TITLE: Niobate and Tantalate of Zirconium

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 4, pp 857-860 (USSR)

TEXT: The authors describe the conditions of formation of zirconium tantalate and -niobate. Mixtures of zirconium- and niobium hydroxide ($ZrO_2:Nb_2O_5$ = 2:1, 1:1 and 1:2) served for their production. Besides these mixtures, also the individual hydroxides were sintered and/or roasted in silite furnaces at 1300°. Figure 1 shows the X-ray photographs which were taken on an iron anode with a camera of type RKD-57. They were measured by means of a comparator. The results are in good agreement with data from publications. The lines characteristic of ZrO_2 and Nb_2O_5 do not appear on the X-ray photograph with an oxide ratio of 2:1. Hence, a new phase was formed (Fig 1). No lines with a different oxide ratio than that mentioned were observed. Zirconium tantalate was produced by a similar method from the corresponding hydroxides ($ZrO_2:Ta_2O_5$ = 2:1) by sintering. The X-ray photograph showed no lines of ZrO_2, only some lines which might be ascribed to

Card 1/3

free Ta_2O_5. The authors regard this as a casualty. The sintering product represents a new phase. The reaction of ZrO_2 with Ta_2O_5 takes place more easily, already at 1000° within 6 hours, whereas 40 hours are necessary for the formation of tantalite at 1300°. Since the oxides used are hardly volatile at these temperatures, the authors conclude that they obtained compounds $2ZrO_2.R_2O_5$, $(ZrO)_2R_2O_7$, respectively. The analysis shows a content of ZrO_2 which is in good agreement with that obtained by computations. Zirconium niobate and -tantalate are white, finely crystalline substances. A great number of lines (about 60) on the X-ray photographs indicate a low symmetry of the crystal lattice. The authors determined their physicochemical constants. Both compounds melt without decomposition and are not subject to any phase transformation between 20 and 1400°. Figure 2 shows the thermogram of heating. Furthermore, the authors investigated the rate of reaction of zirconyl niobate and -tantalate with CCl_4 vapor. For the purpose of comparison, they chlorinated the oxide mixtures 2:1 mentioned at the beginning at 500-650° during 30 minutes (Table 1). These zirconyl salts can be chlorinated 3-4 times more slowly than the corresponding oxide mixtures. At 500°, zirconyl tantalate cannot be chlorinated at all. Table 2 shows that both zirconyl salts

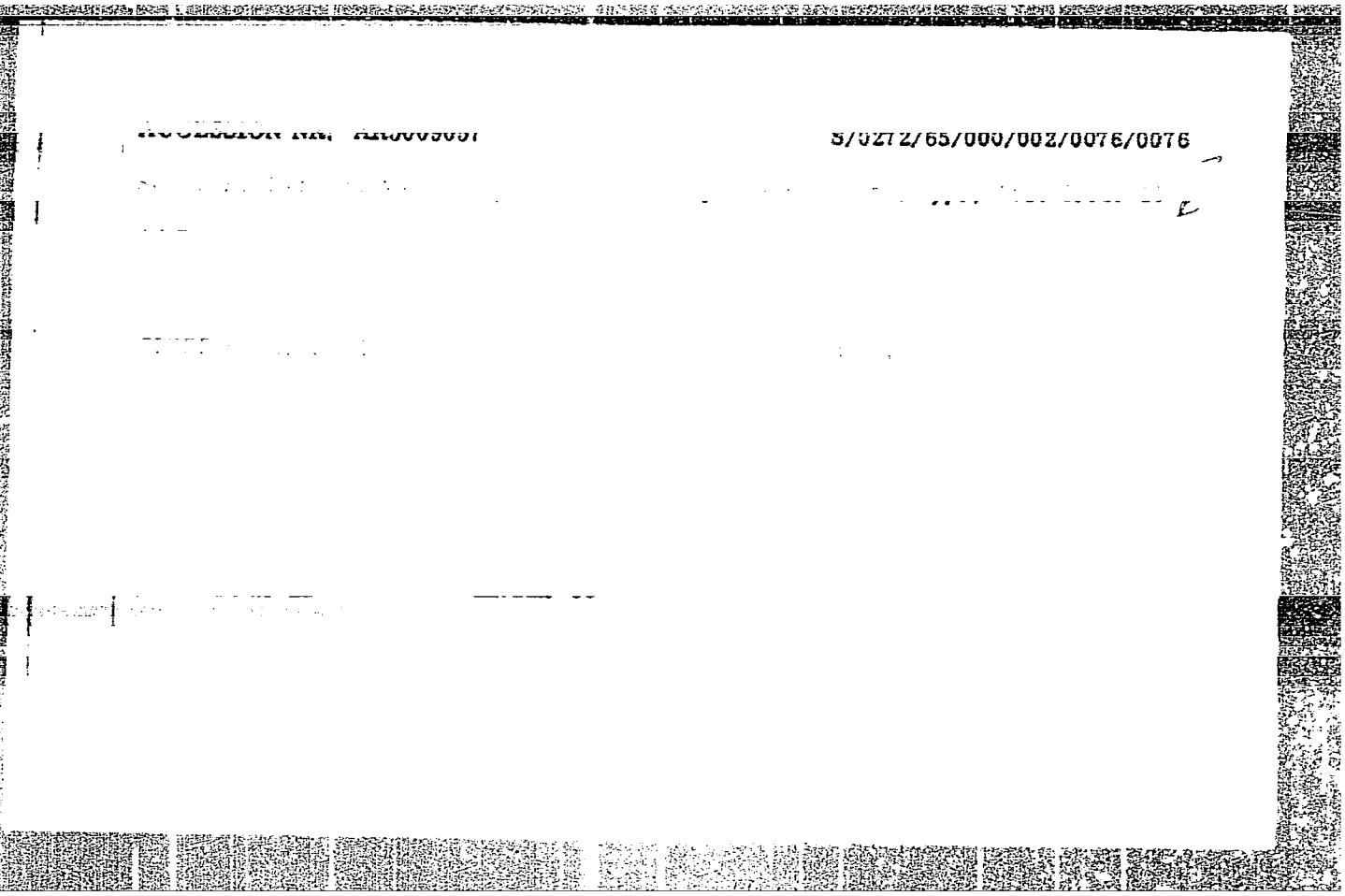
Card 2/3

are highly resistant to HCl (36%), H_2F_2 (75%), H_2SO_4 (94%), and NaOH (40%). They were best dissolved in H_2F_2 where tantalate is more resistant. It is practically insoluble in hot-concentrated HCl- and H_2SO_4 solutions, in H_2SO_4 and ammonium sulfate mixtures. Also together with sodium pyrosulfate, K_2CO_3, and sodium peroxide it cannot be melted. The undissolved portion of the two zirconyl salts remains unchanged which indicates a high chemical resistance of these compounds. There are 2 figures, 2 tables, and 5 references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University Imeni M. V. Lomonosov)

SUBMITTED: December 22, 1959

Card 3/3



ACC NR: AP7006225 SOURCE CODE: UR/0367/67/005/001/0042/0048

AUTHOR: Adamov, V. M.; Drapchinskiy, L. V.; Kovalenko, S. S.; Petrzhak, K. A.; Tyutyugin, I. I.

ORG: none

TITLE: Neutrons and gamma-quanta at spontaneous ternary fission of Cm^{244}

SOURCE: Yadernaya fizika, v. 5, no. 1, 1967, 42-48

TOPIC TAGS: nuclear fission, fission product, prompt neutron, gamma quantum, ALPHA PARTICLE, CURIUM, ISOTOPE

ABSTRACT: An investigation was made of the dependence of the average number of prompt neutrons ($\bar{\nu}_{tr}$) and gamma-quanta ($\bar{n}_{tr}$) on the energy of alpha-particles and the interrelationship of energy distribution of alpha-particles and gamma-quanta at a spontaneous ternary fission of Cm^{244}. The fission fragments were recorded by a small ionization chamber; the alpha particles with a CsJ(Tl) crystal; the neutrons with a stilbene crystal; and the gamma quanta with NaJ(Tl) crystal. An electronic device recorded simultaneously the number of binary coincidences of neutrons (gamma-quanta) and fragments ($N_{n(\gamma)\text{-frag}}$); the number of binary coincidences of alpha-particles and fragments ($N_{\alpha\text{-frag}}$); and the number of ternary coincidences of alpha-particles, neutrons (gamma-quanta), and fragment ($N_{\alpha\text{-}n(\gamma)\text{-frag}}$). Preliminary measurements of the dependence of $\bar{\nu}_{tr}$ and $\bar{n}_{tr}$ on the energy of alpha particles were carried out with the same target. The determined ratios for average numbers of prompt neutrons and gamma-quanta for ternary and binary spontaneous fission of Cm^{244} were

Card 1/2 UDC: none

ACC NR: AP7006225

$\bar{\nu}_{tr}/\bar{\nu} = 0.58 \pm 0.07$ and $\bar{n}_{tr}/\bar{n} = 0.88 \pm 0.09$, respectively. An investigation of the dependence of $\bar{\nu}_{tr}$ and $\bar{n}_{tr}$ on the alpha-particle energy showed that when the energy of the alpha-particle changes from 15 to 25 Mev, $\bar{\nu}_{tr}$ decreases from 1.95 to 1.16, while $\bar{n}_{tr}$ remains constant. This indicates that the ternary fission mechanism is two-staged. Correlated energy distributions of ternary fission of gamma-quanta and alpha-particles were obtained. An analysis showed that the gamma-quanta energy distributions do not depend significantly on the alpha-particle energy. The binary and ternary gamma-quanta spectra were also identical. It follows that no significant gamma-radiation directly connected with the alpha-particle emission is emitted in the ternary fission. The authors thank A. S. Krivokhatskiy, B. M. Aleksandrov, and N. A. Malyshev for the Cm^{244} targets. Orig. art. has: 6 figures. [WA-95] [JA]

SUB CODE: 20/ SUBM DATE: none/

Card 2/2

ACCESSION NR: AP4015564 S/0089/64/016/002/0144/0145

AUTHOR: Drapchinskiy, L. V.; Kovalenko, S. S.: Petrzhak, K. A.; Tyutyugin, I. I.

TITLE: Probability ratio of the triple splitting of U sup 235 and U sup 238 by a neutron of various energies

SOURCE: Atomnaya energiya, v. 16, no. 2, 1964, 144-145

TOPIC TAGS: triple splitting, probability, U sup 235, U sup 238, thermal neutron, fast neutron, heavy water

ABSTRACT: The authors have investigated the probability of triple splitting of U^{235} and U^{238} by thermal neutrons and by neutrons of 2.5 and 14 Mev energy. The thermal neutrons were obtained by slowing down neutrons of 2.5 Mev in paraffin, and the fast neutrons were obtained from the reactions $D(d,n)He^3$ for 2.5 and $T(d,n)He^4$ for 14 Mev respectively. The results show that the probability of a triple splitting does not change (within experimental errors of about 10%) with neutron energy. This is at variance with the results of N. A.

Card 1/2

ACCESSION NR: AP4015564

Perfilov et al. (Atomnaya energiya, v. 14 (1963), 575). Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 24Jun63 DATE ACQ: 12Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 002

2/2

Card

TYUTYUGIN, V.

Be constantly concerned about the health and rest of petroleum workers. Neftianik 9 no.9:25 S '64 (MIRA 18:2)

1. Tatarskiy Oblastnoy komitet Professional'nogo soyuza rabochikh neftyanoy i khimicheskoy promyshlennosti.

TYUTYUKIN, V.S.; GRIGORENKO, P.G.

Landslide in the Chauvay Valley. Trudy Inst.geol.AN Kir.SSR no.8: 131-134 '56. (MLRA 10:2)
(Chauvay Valley--Landslides)

SOKOLOVA, Ye.I.[deceased]; BRAYNZAROVA, G.T.; BOCHANOVA, N.S.; ZHIKHAREVA, V.I.; ZAKUMBAYEV, A.K.; ISAYEVA, M.G.; IMAMBAYEVA, U.A.; KRIVOSHEYEV, Yu.O.; KUDAYBERGENOV, Zh.D.; RAKHMETCHIN, S.; TYUTYUKOV, F.M.; SHIM, P.S.; LAZARENKO, Ye.I.; GARANKINA, A.I.; D'YACHENKO, R.; PETUKHOV, R.M., kand. tekhn. nauk, nauchn. red.; SHUPLOVA, M.A., red.; LEVIN, M.L., red.; ROROKINA, Z.P., tekhn. red.

[Food industry of Kazakhstan] Pishchevaia promyshlennost' Kazakhstana. Alma-Ata, Izd-vo AN KazSSR, 1963. 172 p.

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut ekonomiki.

(Kazakhstan--Food industry)

MOROZOV, Ye.F., TYUTYUKOV, N.A.

New sawdust unloader. Gidroliz. i lesokhim.prom. 13 no.7:24-25 '60.
(MIRA 13:10)

1. Khakasskiy gidroliznyy zavod.
(Khakasskiy--Loading and unloading)

I YU I YULKOV

BULGARIA/Physical Chemistry - Molecule, Chemical Bond. B-4

Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 20410

Author : Tyutyulkov.

Inst : Academy of Sciences of Bulgaria.

Title : Influence of Intramolecular Interaction on Dipole Moments. I. II.

Orig Pub : Dokl. Bolg. AN, 1957, 10, No 1, 37-40, 41-44.

Abstract : I. The deviation from the vector additivity rule in consequence of the intramolecular interaction was studied. A model of a single-electron one-dimensional vibrating dipole is juxtaposed to every chemical bond. The interaction of bonds is considered as a disturbance. The dipole moment of a system of two dipoles p_1 and p_2 was computed in the first approximation of the disturbance theory taking their inductive interaction into consideration. The computation

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Abs Jour : Ref Zhur - Khimiya, No 7, 1958, 20410

according to the derived equations gives p = 3.1 D for croton aldehide (trans form), the experimental values are 3.54 and 3.67 D.

II. The computation was completed by taking into consideration the interaction of electrons, which results in a twofold degeneration of the system state. The computed dipole moment of the trans-croton aldehide is 3.37 D.

COUNTRY : Bulgaria
CATEGORY : B-12

ABS. JOUR. : RZKhim., No. 22 1959, No. 77938

AUTHOR : Tyutyulkov, N. and Panayotova, B.
INST. : Bulgarian Academy of Sciences
TITLE : On the Polarographic Behavior of the Geometric syn- and anti-Isomers of Oximes. III.

ORIG. PUB. : Doklady Bolg Akad Nauk, 11, No 3, 201-204 (1958)

ABSTRACT : The polarographic behavior of the syn- and anti-isomers of furfuroloxime (I), benzoinoxime (II), and of the oximes of benzophenone (III) and of acetophenone (IV) has been investigated against a background of 0.1 M $(CH_3)_4Ni$. The authors have found that the α-form of I (syn) gives two, and the β-form of I gives one reduction wave in the polarogram similar to those previously observed for benzaldoxime (Communication II, RZhKhim, 1957, No 22, 71266). The limiting cur-

CARD: 1/4

COUNTRY : Bulgaria
CATEGORY : B-12

ABS. JOUR. : RZKhim., No. 22 1959, No. 77938

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : rent for the first wave of α-I i'(lim) is nearly independent of the height of the Hg column; the ratio i'(lim)/i''(lim) increases sharply with increasing temperature (approaching infinity) and is lowered when the fraction [units?] of organic solvent (OR) in the solution is increased. The sum i'(lim) + i''(lim) is the usual diffusion current for the reduction. The α- and β-forms of II give only a single wave; however, on the addition of OR, the

CARD: 2/4

COUNTRY : Bulgaria B-12
CATEGORY :

ABS. JOUR. : RZKhim., No. 22 1959, No. 77958

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : the rate of which is affected by the temperature and the OR content in the solution.

S. Mayranovskiy

CARD: 4/4

B-12

17170

COUNTRY: Bulgaria
CATEGORY :
ABS. JOUR. : RZKhim., No. 5 1960, No.

AUTHOR : Tyutyulkov, N. and Paspaleev, E.
INST. : Chemical Institute, Bulgarian Academy of Sciences
TITLE : The Effect of the Solvent on the Kinetics of Electrode Processes Preceded by Monomolecular Reactions
ORIG. PUB. : Izvest Khim Inst Bulg Akad Nauk, 6, 389-399 (1958)

ABSTRACT : The authors have made a theoretical study of the effect of the solvent on the kinetics of electrode processes which are preceded by a monomolecular reaction involving substances which are in equilibrium and which produce waves with limiting current i_1 and i_2 at different potentials. An equation is derived correlating the ratio i_1/i_2 with the corresponding rate constant for the forward and the reverse reactions. The effect of water-CH_3OH, C_2H_5OH, n-C_3H_7OH, or dioxane mix-

CARD: 1/2

B-12

17170

COUNTRY : Bulgaria
CATEGORY :
ABS. JOUR. : RZKhim., No. 5 1960, No.
AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : tures (with varying H_2O concentrations) on the ratio i_1/i_2 for the tautomeric forms $>CNOH \rightleftharpoons CN(\rightarrow O)H$ has been investigated for benzophenone oxime, α- and β-benzoin oxime, α-anisaldoxime, α'-p-tolyloxime, α-o-chlorobenzaldoxime, α-furfurol oxime, α-benzaldoxime, and α-piperonal oxime. From the dependence of the limiting current on the nature of the solvent, conditions can be determined for the qualitative and quantitative determination of the above-indicated isomers.

G. Tedoradze

CARD: 2/2

57

L 43808-66 EWP(j) RM

ACC NR: AP6032576 SOURCE CODE: BU/0011/65/018/012/1137/1139

62
B

AUTHOR: Tyutyulkov, N.; Fratev, F.

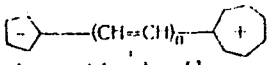
ORG: Institute of Organic Chemistry, BAN

TITLE: Calculating the alpha-cyclopropenyl-omega-cyclopentadienyl-polyenes using the LCAO-MO theory of molecular orbitals

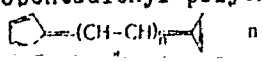
SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 12, 1965, 1137-1139

TOPIC TAGS: molecular orbital, charge density, chemical bonding, computer, computer program, molecular structure, organic chemistry/Minsk-2 computer

ABSTRACT: In an earlier communication (Dokl. BAN, 18, 1965, No 11) an examination was made of the α-cyclopentadienyl-ω-cycloheptatrienyl-polyenes using the theory of molecular orbitals in the conventional variant of Hueckel (Z. Phys. 70, 1931, 204). It was demonstrated that the distribution of the π-electronic charge and the alternation in the bond order is such that the structure of the compounds (I) is



The present paper is to investigate the compounds of the group of α-cyclopropenyl-ω-cyclopentadienyl-polyenes (II)



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0919 2428

ACC NR: AP6032576

in order to see the degree to which the typical and interesting distribution of the charges of the compounds of order (I) is preserved in this instance as well. The electronic charge of the atom and the bond order were calculated on the Minsk-2 computer using the Hueckel's method program. Results are shown on structural diagrams and in a table. This paper was presented by Corresponding Member BAN B. Kourtev on 7 September 1965. Orig. art. has: 4 figures and 1 table. [Orig. art. in Eng.] [JPRS: 36,464]

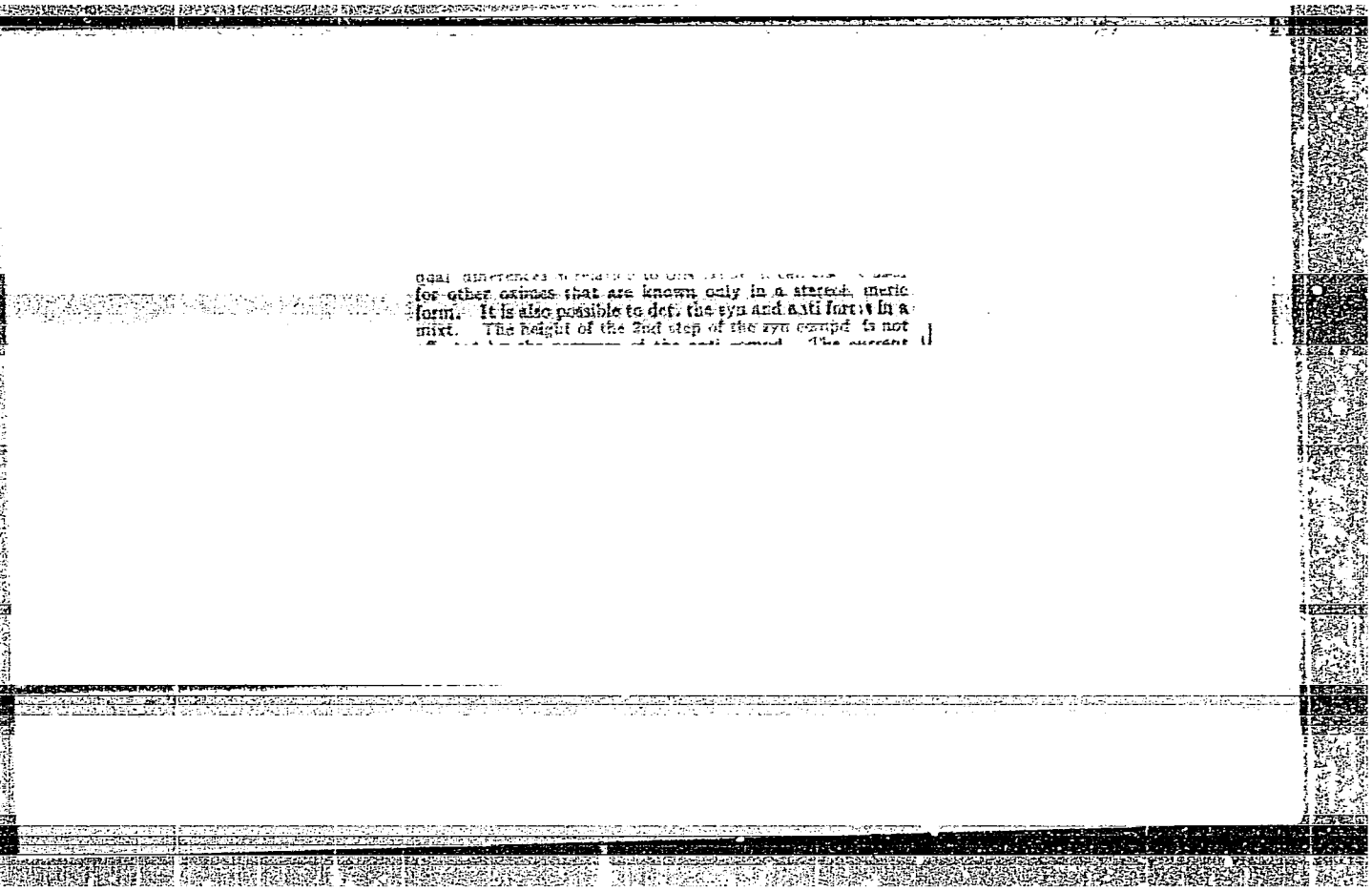
SUB CODE: 07 / SUBM DATE: none / ORIG REF: 001 / SOV REF: 001
OTH REF: 001

Card 2/2

TYUTYULKOV, N. [Tiutiulkov, N.]; BONCHEV, D.

Molecular diagrams of naphthaline, anthracene, biphenyl and biphenylene obtained with single-electron LCAO-MO without electronic interaction recording. Doklady BAN 17 no.11:1035-1038 '64.

1. Institute of Organic Chemistry of the Bulgarian Academy of Sciences. Submitted August 7, 1964.



APPROVED FOR RELEASE: 04/03/2001 CIA-RDP86-00513R001857810006-5"

Tyutyulkov, N.

Polarographic behavior of geometric *syn*- and *anti*-oxime isomers. III. N. Tyutyulkov and B. Panajotova. *Compt. rend. acad. bulgare sci.* 11, No. 3, 201–4(1958)(in German); cf. *C.A.* 49, 5158*e*; 53, 9228*h*.—The α-*syn* and β-*anti* oximes of furfural (I) and benzoin (II) were reduced polarographically in 0.1 Me_4NI soln. I and II oximes gave $e_{1/2}$ 1.75 and 1.77 v., resp., (against satd. calomel electrode), and α-*syn* I oxime (III) and β-oxime of II gave 2nd smaller waves at 2.15 and 2.21 v., resp., attributed to equil. of oxime with $>C=NH \rightarrow 0$. Lower temp. increased height of 2nd wave, and higher temp. increased height of 1st wave of III.

Owen H. Wheeler

AUTHOR: Tyutyulkov, N. SOV/76-32-6-30/46

TITLE: The Polarography of Geometrical Syn- and Antiisomers of Oximes. I. (Polyarografiya geometricheskikh sin- i anti-izomerov oksimov. I.)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 6, pp. 1389-1392 (USSR)

ABSTRACT: Different from other empiric rules fixed for the configuration determination and not only of oximes which are known only in a stereo-form Palm and Werbin (Ref 3) investigated the absorption spectra of the α- and β-form of a series of oximes and determined the wave lengths for either of the two forms. Continuing earlier investigations in the present paper the qualitative differences of the syn- and antiform in polarographing benzaldoxime were investigated also with the isomers of other aromatic aldoximes in order to be able to fix an empiric rule according to which a quantitative determination of the two forms in the mixture would be possible. The α- and β-forms of the following oximes were investigated: benzaldoxime, n-tolyl oxime, o-chlorobenzaldoxime, anisald-

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The Polarography of Geometrical Syn- and Antiisomers of Oximes. I.

oxime and piperonaldoxime. The measurements showed that the α-forms have two waves and the β-forms just one, the height of the wave depending linearly on the concentration of the oximes. From the considerations of the properties of the waves of the α-form may be seen that they are dependent on the presence of two substances being in equilibrium; it is assumed that they are the tautomeric isomers of the α-form, which is also brought into connection with the work by Hantsch and Werner (Ref 7). The occurrence of just one wave in the β-form is explained by the fact that the nitro-oxime equilibrium is to a great extent dislocated to the oxime form. Concluding from the results obtained the author says that the aldoximes having two waves on the polarogram have a syn-configuration, and that those showing only one have an anti-configuration; this rule can also be applied to oximes of which only a stereo-form is known. There is also a possibility for the quantitative determination of the α- and β-form in the mixture. There are 3 figures, 1 table and 12 references, 3 of which are Soviet.

SOV/76-32-6-30/46

The Polarography of Geometrical Syn- and Antiisomers of Oximes. I.

ASSOCIATION: Vysshiy meditsinskiy institut, Sofiya, Bolgariya
(Sofia, Higher Medical Institute, Bulgaria)

SUBMITTED: February 25, 1957

1. Oximes--Polarographic analysis 2. Oximes--Spectra
3. Stereochemistry

Card 3/3