KUDRZYCKA-BIELOSZABSKA, Florentyna; ZDERKIEWICZ, Tadeusz

Effect of mineral fertilizers on the development of sage (Salvia officinalis L.) and on its oil content. Ann.Univ.Lublin; sec.D 14:303-310 '59.

1. Z Katedry Farmakognozji Wydzialu Farmaceutycznego Akademii Medycznej w Lublinie Kierownik: doc. dr Florentyna Bieloszabska.
(FERTILIZERS)
(PLANTS MEDICINAL)

KUDRZYCKA-BIELOSZABSKA, Florentyna; ROZEK, Tadeusz

Isolation and biological determination of active constituents of rhiz. filicis. I. Ann.Univ.Lublin; sec. D 14:291-302 '59.

1. Z Katedry Farmakognozji Wydzialu Farmaceutycznego Akademii Medycznej w Lublinie Kierownik: doc. dr Florentyna Bieloszabska.
(ASPIDIUM chem)

KUDRZYCKA-BIELOSZABSKA, Florentyna; ZDERKIEWICZ, Tadeusz

Determination of oils in the tetraploid form of Carum carvi L.
Acta Pol. pharm. 21 no.2:135-143 '64.

1. Z Katedry Farmakognozji Akademii Medycznej w Lublinie
(Kerownik: doc. dr. F.W. Bieloszabska).

[redacted], Florentyna M.; [redacted], Kazimierz

Rarely used tranquilizing drugs of vegetable origin. Pol. tyg. lek. 20 no.17:599-602 26 Ap '65.

1. Z Katedry Farmakognozji Wydziału Farmaceutycznego AM w Lublinie (Kierownik: doc. dr. Florentyna Bielenzaka).

KUUV, E.

More attention to the development of rhythm sense and the coordination of movements. p. 413.

KEHAKULTUUR. (KEHAKULTUURI-JA SPORDIKOMITEE) Tallinn, Estonia.
Vol. 20, no. 13, July 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 12, Dec. 1959
Uncl.

KUDU, K. F.

Cand Phys-Math Sci - (diss) "Study of ion counter given predominantly positive half-periods of high frequency voltage." Leningrad, 1961. 7 pp; (Ministry of Education RSFSR, Leningrad State Pedagogical Inst imeni A. I. Gertsen, Chair of General Physics); 250 copies; free; (KL, 6-61 sup, 193)

KUDU, K. F.

High-frequency radiation detector for classroom demonstratio s.
Usp. fiz. nauk 82 no. 4:770-771 Ap '64. (MIRA 17:5)

CHABUDZINSKI, Z.; KUCZYNSKI, H.; KUDUK, J.

Conformations of carvomenthols and related compounds. Pt.2.
Bul chim PAN 9[i.e. 12] no.9:603-606 '64.

1. Department of Organic Chemistry of the School of Medicine, Wroclaw, and Department of Organic Chemistry II of Wroclaw Technical University. Submitted June 23, 1964.

CIESLAK, Jerzy, doc. dr.; KUDUK, Janina; RULKO, Felicja.

Gentiana lutea alkaloids. Acta Pol. pharm. 21 no.3:265-273 '64.
Acta Pol. pharm. 21 no.3:265-273 '64

1. Z Katedry Chemii Organicznej Akademii Medycznej we Wroclawiu (Kierownik: doc. dr. J. Cieslak)

KOSTECKA-MADALSKA, Olga; BANKOWSKI, Czeslaw; KUDUK, Janina

Attempted cultivation of eugenol-containing basil and the eugenol content in its oil. Acta Pol. pharm. 21 no.4: 387-393 '64.

1. Z Katedry Botaniki Farmaceutycznej Akademii Medycznej we Wroclawiu (Kierownik: doc. dr. Z. Chabudzinski).

BUNIMOVICH, Lev Danilovich; KUDUKIS, Valeriya Iosifovna; ERENBURG, Grigoriy Borisovich. Prinimali uchastiye: PEREPLETCHIKOV, B.I., inzh.; KHEYSTVER, Ye.M., inzh.; MOROZOV, N.A., red.; LEBEDEVA, I.D., red.izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Technology of assembly-line production of elements made by joiners and carpenters] Tekhnologiia massovogo proizvodstva stoliarno-stroitel'nykh izdelii. Moskva, Goslesbumizdat, 1963. 257 p. (MIRA 16:8)

1. Gosudarstvennyy institut proyektirovaniya predpriyatiy derevoobrabatyvayushchey promyshlennosti (for Perepletchikov, Kheystver).

(Building--Details)

KUDUKHOV, I.A.; SANAKOYEV, T.V.

Increasing the stability of the operation of electric vibratory machines. Obog. rud 6 no.4:43-45 '61. (MIRA 15:1)

1. Stalinirskiy zavod "Elektrovibromashina".
(Conveying machinery) (Ore dressing--Electric equipment)

KULUKHOV, I.A.; MALYSHEV, G.I.; SANAKOYEV, T.V.

Improving the spring system in electric vibrating machines.
Obog. rud 9 no.4:33-36 '64. (MIRA 18:5)

S/180/60/000/004/013/027
E111/E452

AUTHORS: Zholobov, V.V. and Kudukis, A.S. (Leningrad)

TITLE: Corrosion Stability of Titanium Alloys

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, No.4, pp.77-80

TEXT: After a brief review of the literature on the corrosion stability of titanium alloys, the authors describe their own experiments aimed at finding their suitability for chemical-plant construction. Soviet alloys type VT-5, VT-3 and VT-3-1 and some American alloys were studied in the laboratory in the following media: 10%, 50% and concentrated sulphuric acid; 10%, 20% and concentrated hydrochloric acid; 20% and concentrated phosphoric acid; 20% acetic acid. Tests were at 18 to 20°C for 65 days. Corrosion was estimated as the weight-loss rate per unit surface (g/m^2 hour). Results are shown diagrammatically in Fig.1 to 3. In addition, the corrosion of the following alloys were compared with that of technical titanium in boiling concentrated sulphuric acid for 4 hours: IMP1-A (titanium obtained by powder metallurgy), TiMo30, TiSi1, TiAl3Cr5, TiAl3V2, TiAl3Sn11, TiAl6Mo3Cr3.

Card 1/2

S/180/60/000/004/013/027
E111/E452

Corrosion Stability of Titanium Alloys

Results (Fig.4) show that of these materials only TiMo30 and TiSil had higher resistance to corrosion than technical Ti. VT-5, VT-3 and VT3-1 had low stability in sulphuric and hydrochloric acid, fairly low in phosphoric and high in acetic. There are 4 figures and 8 references: 5 Soviet, 1 English, 1 German and 1 Italian.

SUBMITTED: April 29, 1960

Card 2/2

KUDULIS, A.P., inzh.

Blasting under difficult conditions. Avt. dor. 28 no.9:28 S '65. (MIRA 18:10)

KUDULIS, A...

Blasting loose 2 million cubic meters of soil. Transp. stroi.
15 no.2:31-32 F '64. (MIRA 18:3)

1. Nachal'nik otdela upravleniya No.79 tresta Transvzryvprom.

L 05684-67

ACC NR: AP6019220 (A) SOURCE CODE: UR/0230/66/000/003/0051/0051

AUTHOR: Kudulis, A. P. (Engineer) 37 B

ORG: None

TITLE: Compaction of an embankment by underwater blasting

SOURCE: Transportnoye stroitel'stvo, no. 3, 1966, 51

TOPIC TAGS: highway construction, highway structure, explosive charge, solid explosive / No. 6 ZhV ammonite, KPM-1 explosion device 28 10

ABSTRACT: The use of a special blasting technique for the compaction of a highway embankment is described. The embankment was under construction on the Zasheyek - Monchegorsk Section of the Leningrad - Murmansk highway. The embankment was constructed as an approach to the bridge built over the Straits of Salma. The blasting compaction method was used to accelerate the completion of bridge construction work before November 1965. Four 200-kg underwater explosive charges were laid on each side of the embankment and one 5000-kg charge in the center. The total charge was 2100 kg made of a No. 6 ZhV pulverulent ammonite. The explosion was successfully actuated by means of two coupled KPM-1 explosion devices. The laying and blasting of charges is briefly explained, their emplacement is schematically illustrated and a 30-m high water blast is shown in a photo. Orig. art. has: 1 diagram, 1 photo.

SUB CODE: 13, 19/ SUBM DATE: None

Card 1/1

UDC: 624.131.3:624.136.1

KUDULIS, A.P.; AYKOV, A.I., inzh.

Sinking inclined holes at the Vuoksa quarry. Transp. stroi. 15 no.6:51 Je '65. (MIRA 18:12)

1. Glavnyy inzh. spetsial'nogo upravleniya No.79 Transvzryvproma (for Kudulis).

DRAUDINS, Teodors; KUDUMA, A., red.; MIRONOVS, A., tekhn.red.

[Combat history of the Latvian Riflemen, 1917-1920] Latviesu strelnieku cinu cels, 1917-1920. Riga, Latvijas Valsts izdevnieciba, 1961. 150 p. (MIRA 15:2)
(Latvia--Army) (Russia--Revolution, 1917-1921)

LEONT'YEV, O.K.; KHALILOV, A.I.; MEKHTIYEV, N.N.; KUDUSOV, F.A.

Some characteristics of the present-day dynamics of the coasts of Sulak Bay. Dokl. AN Azerb. SSR 21 no.2:39-43 '65.
(MIRA 18:5)

1. Institut geografii AN AzerSSR.

KAZANTSEV, Ye.I.; KUDUSOV, V.A.

Wash-out of thorium from strongly basic anion exchangers.
Radiokhimiia 5 no.2:231-236 '63. (MIRA 16:10)

KAZANTSEV, Ye.I.; KOROBEYNIKOV, V.L.; KUDUSOV, V.A.

Sorption of ions of certain metals on AV-17 anion exchangers from nitric acid solutions. Zhur. prikl. khim. 38 no.5:1143-1146 My '65. (MIRA 18:11)

1. Ural'skiy politekhnicheskiy institut imeni S.M. Kirova.

L 54467-65 EWT(m)/EPF(n)-2/EWG(m)/EWP(t)/EWP(b) Pu-4 IJP(c) RWH/JD/NW/JG/GS/RM

ACCESSION NR: AT5013643 UR/0000/65/000/000/0096/0103 27
543.21:543.544.6:548.841 +546.3 26
41

AUTHOR: Kazantsev, Ye. I.; Kudusov, V. A.; Korobeynikov, V. L.; Lyashenko, V. A.

TITLE: Study of the separation of thorium from ions of certain metals on the anion exchanger AV-17 from nitric acid solutions

SOURCE: AN SSSR. Otdeleniye obshchey i tekhnicheskoy khimii. Radiokhimicheskiye metody opredeleniya mikroelementov (Radiochemical methods for determining trace elements); sbornik statey. Moscow, Izd-vo Nauka, 1965, 96-103

TOPIC TAGS: column chromatography, anion exchange resin, thorium 27 separation, nitric acid concentration

ABSTRACT: The article is devoted to the separation of gravimetric amounts of a series of di- and trivalent ions from thorium in nitric acid solutions on the strongly basic anion exchanger AV-17x6. The adsorbability of Th was found to depend strongly on the HNO_3 concentration. The dynamic capacity of the column for thorium was studied as a function of HNO_3 concentration, temperature, amount of anion exchanger, and presence of certain reagents. All the ions studied were divided into three groups according to their capacity of being adsorbed and

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L 54467-65

ACCESSION NR: AT5013643

eluted: (1) thorium ions, which are adsorbed in considerable quantitites and are not eluted to any appreciable extent by 7 N HNO_3; (2) ions of La, Ce(III), Bi, Pb, Co, Ni, Cu, U(VI), and Al, which are adsorbed in small quantities; (3) ions of Fe(III), Cr(III), Zn, Cd, Mg, Mn(II), and Ca, which are not adsorbed by the resin. Ions of metals of groups 2 and 3, with the exception of U(VI), are quantitatively eluted from the resin by 7 N HNO_3. Thus, the results of the experiments show that Th can be separated from metals of groups 2 and 3. It was found that U could be separated from Th most effectively on the KU-2 resin from HNO_3 solutions less than 2.5 N, and on the AV-17x6 resin from HNO_3 solutions more than 2.5 N. A simple procedure is proposed for the separation of the thorium isotope UX_1 from uranium solutions. Orig. art. has: 5 figures and 4 tables.

ASSOCIATION: None

SUBMITTED: 21Oct63 ENCL: 00 SUB CODE: IC, GC

NO REF SOV: 009 OTHER: 011

Card 2/2

KUDYAKOV, F. A., Candidate Med Sci (diss) -- "The prophylaxis of postoperational infections of the pleural cavity in operations on the intestinal tract". Stalingrad, 1959. 19 pp (Stalingrad State Med Inst), 200 copies (KL, No 24, 1959, 150)

ZHUKOV, A.I.; ONOSOV, V.N.; KUDYAKOV, V.Ya.; SERGEYEV, B.M.

On the formation of $Th[(OH)_4Th]_n^{4+}$ ions. Zhur.neorg.khim. 8 no.4:871-875 Ap '63. (MIRA 16:3)

1. Ural'skiy politekhnicheskiy institut imeni S.M.Kirova.
(Thorium compounds)

KUDYAKOV, V.Ya.; SMIRNOV, M.V.

Potentials of Zr/Zr^{2+}, Zr/Zr^{4+} and Zr^{2+}/Zr^{4+} and equilibrium constant of the reaction $Zr + Zr^{4+} \rightleftharpoons 2Zr^{2+}$ in fused KCl. Trudy Inst. elektrokhim. UFAN SSSR no.6:19-27 '65. (MIRA 18:11)

SMIRNOV, M.V.; KUDYAKOV, V.Ya.

Equilibrium potentials of zirconium in molten lithium chloride. Izv. vys. ucheb. zav.; tsvet. met. 8 no.5:82-88 '65.
(MIRA 18:10)

1. Ural'skiy politekhnicheskiy institut, fiziko-tekhnicheskiy fakul'tet.

L 49454-65 EPF(c)/EPF(n)-2/EPA(s)-2/EWT(m)/EWP(b)/EWP(t) Pr-4/Pt-7/Pu-4 IJP(c)
NW/JD/JG
ACCESSION NR: AP5009941 UR/0364/65/001/002/0143/0148

45
43
B

AUTHOR: Kudyakov, V. Ya.; Smirnov, M. V.

TITLE: Equilibrium potentials of zirconium in fused cesium chloride

SOURCE: Elektrokhimiya, v. 1, no. 2, 1965, 143-148

TOPIC TAGS: zirconium, cesium chloride, electrochemistry, galvanic cell

ABSTRACT: This is a continuation of the study of equilibrium potentials of zirconium in fused alkali metal halides. The equilibrium potentials of zirconium in a CsCl melt were measured in the 6[illegible]-900°C range. The cell for measurement of the emf of zirconium was a wide hermetically sealed quartz test tube, shown in fig. 1 of the Enclosure. Doubly recrystallized CsCl was used. From the experimental data standard electrode potentials of Zr/Zr^{+2}, Zr/Zr^{+4} couples were calculated and also the oxidation-reduction potential of the Zr^{+2}/Zr^{+4} system. By measuring the current efficiency of anodic dissolution of metallic zirconium it was shown that the primary ions which are in equilibrium with the metal in CsCl melt are Zr^{+2} and Zr^{+4} rather than Zr^{+3}. For Zr^{+2}/Zr^{+4} couples the oxidation-reduction potential in

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L 49454-65

ACCESSION NR: AP5009941

CsCl melt was calculated to be

$$E_{2,4}^{\circ} = -2.927 + 7.20 \cdot 10^{-4} T, \text{ v.}$$

This oxidation-reduction potential is the most negative of all the other alkali halides because of the maximum stabilization of tetravalent zirconium ion in the CsCl medium due to stronger bonding with Cl^- anions. Orig. art. has: 2 tables and 5 figures.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova (Ural Polytechnic Institute)

SUBMITTED: 05Oct64 ENCL: 01 SUB CODE: GC, IC

NO REF SOV: 007 OTHER: 000

Card 2/3

GRIGOR'YEVA-BERENSHTEYN, A.G.; KUDYAKOVA, L.I.; TER-OSIPOVA, M.Z.; KHABAS, I.M.

Immunological effectiveness of purified diphtherial anatoxin adsorbed on aluminum phosphate. Zhur.mikrobiol.,epid.i immun. 30 no.11:48-50 N '59. (MIRA 13:3)

1. Iz Leningradskogo instituta vaktsin i syvorotok.
(DIPHTHERIA immunol.)
(TOXINS AND ANTITOXINS)

GRIGOR'YEVA-BERENSHTEYN, A.G.; KUDYAKOVA, L.I.; KHEYFITS, A.M.

Work in lowering diphtheria morbidity in Petrozavodsk.
Vest. AMN SSSR 17 no.2:56-62 '62. (MIRA 15:3)

1. Leningradskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(PETROZAVODSK—DIPHTHERIA—PREVENTION)

FRIDMAN, E.A.; GRIGOR'YEVA-BERENSHTEYN, A.G.; STENINA, Ye.S.; KUDYAKOVA, L.I.; FILIPPOVA, G.D.; BOLDASOV, V.K.

Immunological evaluation of the effectiveness of anti-influenza vaccination in 1958-1959 '61. Trudy Len.inst.epid.i mikrobiol. 22:146-156 '61 (MIRA 16:2)

1. Iz laboratorii grippa (zav. E.A. Fridman) Leningradskogo instituta epidemiologii i mikrobiologii imeni Pastera i otdela epidemiologii (zav. A.G. Grigor'yeva-Berenshteyn) Leningradskogo nauchno-issledovatel'skogo instituta vaktsin i syvorotok.
(INFLUENZA--PREVENTIVE INOCULATION) (IMMUNITY)

TATAROV, Yu.N., inzh.; KUZNETSOV, V.P., inzh.; KUDYANOV, A.V., inzh.

Designing automatic lines for machining small-sized parts.
Mash. Bel. no.2:22-31 '60. (MIRA 16:7)

(Machine tools) (Automation)

KUDYANOV, A.V., inzh.; TULLER, A.G., inzh.

Forced exchange of cutting tools in automatic lines. Mash. Bel. no.2:45-47 '60. (MIRA 16:7)

(Metal cutting tools) (Automation)

KUDYANOV, A.V., inzh.; GORFINKEL', D.Ya., inzh.; TSENTER, L.S., inzh.

Pneumatic removal of chips from machine-tools units and automatic lines. Mash. Bel. no.2:60-64 '60. (MIRA 16:7)

(Machine tools) (Pneumatic machinery)

KUDYASHOV, Yu. B.

KUDRYASHOV, Yu. B.: "Some properties and the nature of the hemolytic factor arising in the liver of animasl sin radiation disease." Moscow State U imeni M V. Lomonosov. Soil Biology Faculty. Moscow, 1956. (Dissertation for the Degree of Candidate in Biological Sciences.)

Knizhnaya letopis', No 39, 1956, Moscow.

SOV/21-58-10-14/27

AUTHORS: Dyadchenko, M.G. and Kudykin, A.G.

TITLE: On the Characteristics of Garnets from the Lower Tereblya Basin of the Transcarpathian Region (K kharakteristike granata basseyna nizhnego techeniya reki Terebli Zakarpatskoy oblasti)

PERIODICAL: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 10, pp 1087 - 1090 (USSR)

ABSTRACT: The geology of the Transcarpathian region has been studied by many Soviet geologists such as A.A. Bogdanov, V.G. Bondarchuk, O.S. Vyalov, M.M. Zhukov, Ye.K. Lazarenko, V.I. Slavin, V.S. Sobolev, L.G. Tkachuk, and others [Ref 1 through 10]. One of the authors studied the geological structure of the Tereblya river basin of the Transcarpathian region during 1955 to 1956. Considerable quantities of garnets were discovered in the course of studying the mineralogical composition of the microsections of Quaternary alluvial

Card 1/3

On the Characteristics of Garnets from the Lower Tereblya Basin of the Transcarpathian Region

deposits from the lower Tereblya basin. The investigated garnets are almandine by their predominant component; genetically, they should be connected with the local garneto-chlorito-muscovite schists. By the almandine component content, they are close to the garnet from the Transcarpathian dacites. The chemical analysis of the garnets was performed by analyst Ye.V. Romanishina, and the crystallochemical formulas of them were determined by V.S. Sobolev's [Ref 13] method. The compositions of the garnets from the regions of the Ukrainian crystalline shield and Transcarpathian region are dissimilar and connected genetically with the rocks in which they were formed. A comparative study of the composition of the garnets can be used to

On the Characteristics of Garnets from the Lower Tereblya Basin of the Transcarpathian Region

elucidate the conditions of rock formation and to divide them into separate genetic complexes. There are 2 tables and 18 references 17 of which are Soviet and 1 Czech.

ASSOCIATION: Institut geologicheskikh nauk AN UkrSSR (Institute of Geological Sciences of the AS UkrSSR)

PRESENTED: By Member of the AS UkrSSR, N.P. Semenenko

SUBMITTED: May 15,,1958

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration

1. Geology--USSR 2. Earth--Configuration 3. Minerals--Determination 4. Rock--Properties

KUDYAKOV, V.Ya.; SMIRNOV, M.V.

Equilibrium potentials of zirconium in fused cesium chloride.
Elektrokhimiia 1 no.2:143-148 F '65. (MIRA 18:6)

1. Ural'skiy politekhnicheskiy institut imeni Kirova.

SMIRNOV, M.V.; KUDYAKOV, V.Ya.

Thermodynamics of the reaction of zirconium di- and tetrachloride with alkali metal chlorides in melts. Zhur. neorg. khim. 10 no.5:1211-1214 My '65. (MIRA 18:6)

KUDYM, S.Ye.; ZAYNCHKOVSKIY, V.F.

The diversified Molotov Collective Farm. Zemledelie 4 no.6: 109-112 Je '56. (MLRA 9:8)

1. Predsedatel' kokhoza imeni Molotova, Dnepropetrovskogo rayona, Dnepropetrovskoy oblasti (for Kudym).
(Ukraine--Agriculture)

86690

S/123/60/000/023/001/008
A005/A001

18.7100

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 23, p. 129, # 127224

AUTHORS: Vargin, S. V., Kudymov, A. D.

TITLE: High-Temperature Carburizing of Carbon Steel of the Brand 20 in a Solid Carbonizer

PERIODICAL: V sb.: Novaya tekhnol. tsementatsii. Perm', 1959, pp. 87-111

TEXT: The carburizing was studied of carbon steel of the brand 20A in a solid carbonizer of the Bondyuzhskiy-type at 910 - 1,300°C temperature with intervals of 50°C. The increase of the carburizing temperature up to 950°C decreases the duration of soaking by 1.6 times. Quenching from 840°C guarantees the abolishment of the cementite network and the grain refinement in the core. The carburizing temperature of 1,000°C causes the increase of the grain from initially 7 marks to 4.5 marks in the core and 3.5 marks in the cemented surface. Therefore, normalizing or quenching from 900 - 920°C is necessary for abolishing the cementite network and simultaneous regeneration of the grain in the core, and following

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86690
S/123/60/000/023/001/008
A005/A001

High-Temperature Carburizing of Carbon Steel of the Brand 20 in a Solid Carbonizer

quenching of the carburized surface layer at 760 - 780°C, and tempering at 160 - 180°C. The carburizing at 1,050 - 1,100°C is not recommended. - There are 16 figures.

I. N. N.

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

KUDYMOV, B.Ya.; KOTOV, P.T.

Comparative analysis of induced polarization of sedimentary rocks.
Prikl. geofiz. no.16:213-226 '57. (MLRA 10:8)
(Rocks, Sedimentary)

KUDINOV, B. Ya.

With Veselov, K. Ye., Golomb, V. E., Kalisheva, L. V., Lozinskaya, A. I.
Review of P. I. Lukavchenko's "Gravimetric Exploration for Oil and Gas"

p. 245 in book Applied Geophysics, Collection of Articles, No. 19 Moscow, Gostoptekhizdat, 1958, 253pp.

The articles are devoted to a discussion of methods of interpreting various types of electrical logs, methods of determining the porosity, permeability, and specific surface characteristics of water bearing rocks, and methods of determining the physical properties of sidements and the characteristics of various physical parameters. A description of piezoelectric pressure recorders used in seismic exploration is also given.

KUDYMOV, B. Ya.

With Kotov, P. T. "The Nature of the Induced Electrical Polarization in Sedimentary Rocks."

p. 134 in book Applied Geophysics; Collection of Articles, No. sp, Moscow Gostoptekhizdat, 1958, 267p.

These articles are concerned with the methodology of interpreting the results of gravimetric, seismic and electrical surveys. Review the collecting properties of rocks on the basis of data obtained from resistometers and the application of charged particle accelerators in well logging.

KUDYMOV B.Ya.

VESELOV, K.Ye.; GOLOMB, V.M.; KALISHEVA, L.V.; KUDYMOV, B.Ya.; LOZINSKAYA, A.I.

On P.I. Lukavchenko's book: "Gravimetric prospecting for oil and gas." Reviewed by K.E. Veselov and others. Prikl. geofiz. no.19: 245-254 '58. (MIRA 11:4)

(Prospecting--Geophysical methods)
(Lukavchenko, P.I.)

KUDYMOV, B.Ya.; KOTOV, P.T.

Nature of induced polarization in sedimentary rocks. Prikl. geofiz. no.20:134-140 '58. (MIRA 11:11)
(Polarization (Electricity))
(Prospecting--Geophysical methods)

3(5) SOV/132-59-7-9/17

AUTHORS: Kudymov, B.Ya. and Ushakov, A.V.

TITLE: A Photo-Electric Device for the Study of the Luminescence of Walls of a Bore Hole

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 7, pp 34-36 (USSR)

ABSTRACT: This is a description of a luminograph for the study of the degree of luminescence of walls of a bore-hole, more especially - for the evaluation of the degree of saturation of oil-bearing beds of rocks in an oil well. The device was designed and constructed according to plans elaborated by the authors. It consists of a 150 cm steel cylinder, 90 mm in diameter, in which the device is assembled. A glass lens is fixed in the side of the cylinder. Ultra-violet rays produced by UFO-4 valve cause the luminescence of the photomultiplier, whereas current impulses originate on the anode of the photomultiplier corresponding to separate changeable amounts of the reflected luminescence on the cathode. These intensity impulses are passed onto the mantle

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A Photo-Electric Device for the Study of the Luminescence of Walls of a Bore Hole

of the valve of the preamplifier, and from there - to the multivibrator, where the second 12P4C valve acts as an amplifier of the intensity of impulses. From the cathode of this valve, and passing through a condenser, these impulses are transmitted to the surface station where they are registered on the counter or on the integrating apparatus of the radioactive core-sampling installation. Thus registered curves show largest deviations when the luminograph passes through the oil bearing bed of the bore-hole. The luminograph is fed by direct current of 150v intensity for feeding the incandescent and anode valves. The high 950v intensity indispensable for the photomultiplier is created by an RC-generator and rectifier. Experiments made with this device in oil wells of Bashkiriya, Tatariya, in

A Photo-Electric Device for the Study of the Luminescence of Walls of a Bore Hole

East-Siberia and in the city of Ramenskoye (Moskovskaya Oblast') gave very good results. There are 3 diagrams.

ASSOCIATION: VNIIGeofizika

Card 3/3

5(2)

SOV/32-25-5-22/56

AUTHORS: Kudymov , B. Ya., Malinina, V. I., Varlamov, V. P.

TITLE: Method of a Quantitative Spectral Analysis of Water on the Content of Chlorine, Bromine, Iodine and Sulphur (Metodika kolichestvennogo spektral'nogo analiza vod na soderzhaniye khlora, ioda i sery)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 5, pp 583-584 (USSR)

ABSTRACT: A water spectral analysis was worked out, which may find vast application in geological laboratories. A spectrograph ISP-51 was employed, as the most sensitive spectral lines of the elements mentioned in the title lie in the visible spectrum. A spark generator IG-3 served as spectrum exciter and the discharge took place in a fulgurator (Fig, Scheme) with a capacity of 1 cm^3. "Ortochrom" photofilms were used for the iodine and sulphur determination, and films of the "Spectral Type II" for the bromine and chlorine determination. The following spectral lines were used: Cl 4794.54, Br 4704.86, J 5161.19 and S 5453.88 Å. The determination accuracy was tested with artificial mixtures (Table 1) and the relative error in the halogen and sulphur determination was found to amount to

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Method of a Quantitative Spectral Analysis of Water on the Content of Chlorine, Bromine, Iodine and Sulphur

± 15%. The determination accuracy of spectral analysis on subterranean water samples was determined by comparing with data obtained from chemical analyses and amounts to ± 20% for chlorine in the case of a high chlorine content. There are 1 figure and 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut
(All-Union Scientific Research Institute of Geological Petroleum Prospecting)

Card 2/2

PHASE I BOOK EXPLOITATION SOV/5372

Kudymov, Boris Yakovlevich

Spektral'nyy karotazh skvazhin; geokhimicheskiye issledovaniya osadochnykh porod (Spectral Well Logging; Geochemical Investigations of Sedimentary Rocks) Moscow, Gostoptekhizdat, 1960. 60 p. 1,700 copies printed.

Sponsoring Agency: Ministerstvo geologii i okhrany nedr SSSR. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki (VNIIGeofizika).

Ed. (Title page): V.A. Sokolov; Scientific Ed.: A.G. Ionel'; Tech. Ed.: I.G. Fedotova.

PURPOSE: This booklet is intended for geophysicists, geologists, and geochemists concerned with the study of sedimentary rocks.

COVERAGE: The book presents the results of spectral analysis of core samples taken from Devonian, Carboniferous, and Permian sections of stratigraphic and exploratory boreholes located on the Russian platform. A description

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is given of the geochemical composition of individual sections, and recommendations are made on the spectral logging of wells for the study of sedimentary rocks. The author thanks N.D. Krylova, Ye. V. Turunovskiy (rock samples and spectrogram processing), and V.I. Malinina-Yermakova (quantitative spectral analysis of boreholes). There are 24 references: 23 Soviet and 1 English.

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AVAILABLE: Library of Congress

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JA/dwm/mas
8-8-61

KUDYMOV, B. Ya., SHMAROVA, V. I.

Relation between the membrane potential of rocks and the mobility of ions in the membrane. Prikl. geofiz. no.26:218-223 '60.
(MIRA 13:8)
(Rocks--Electric properties)
(Ions--Migration and velocity)

FEDYNSKIY, V.V., doktor fiziko-matem. nauk, red.; SHIROKOV, A.S., red.; KOVALEVA, A.A., red.; GRATSIANOVA, O.P., nauchn. red.; BORISOV, A.A., nauchn. red.; FEDYUK, V.I., nauchn. red.; KOTLYAREVSKIY, B.V., nauchn. red.; POMERANTSEVA, I.V., nauchn. red.; MOZZHENKO, A.N., nauchn. red.; LOZINSKAYA, A.M., nauchn. red.; SHNEYERSON, M.B., nauchn. red.; BOGDANOV, A.Sh., nauchn. red.; NIKITSKIY, V.Ye., nauchn. red.; KUDYMOV, B.Ya., nauchn. red.; PETROV, L.V., nauchn.red.; KOMAROV, .S.G, nauchn. red.; GORBUNOV, G.V., nauchn. red.; DUNCHENKO, I.A., nauchn. red.; FEL'DMAN, I.I., nauchn. red.; POMERUN, D.Ye., nauchn. red.; BEKMAN, Yu.K., ved. red.; VORONOVA, V.V., tekhn. red.

[Status and prospects for developing geophysical methods for mineral prospecting] Sostoianie i perspektivy razvitiia geofizicheskikh metodov poiskov i razvedki poleznykh iskopaemykh; materialy. Pod red. V.V. Fedynskogo. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 623 p. (MIRA 14:11)

1. Nauchno-tekhnicheskaya geofizicheskaya konferentsiya, Moscow, 1959.
2. Ministerstvo geologii i okhrany nedr SSSR (for Fedynskiy, Petrov).
(Prospecting--Geophysical methods)

S/169/62/000/006/015/093
D228/D304

AUTHORS: Polshkov, M. K. and Kudymov, B. Ya.

TITLE: State and means of increasing the effectiveness of geophysical methods of searching and prospecting for useful minerals

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 20, abstract 6A141 (Sov. geologiya, no. 10, 1961, 68-74)

TEXT: The successes of geophysical prospecting methods, especially in the field of seeking oil and gas, are noted. These are due to the improvement of apparatus and to the introduction of new survey techniques. A scientifically substantiated complex of geologico-geophysical investigations, allowing searches and prospecting to be conducted by the most rational methods with the reduction in the volume of structural drilling at the expense of seismic surveying, has been developed in recent years. The prospects are considered for raising the precision of depth determinations during mapping by seismic survey methods. The use in seismic surveying of transverse

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waves in place of longitudinal ones is extremely perspective. Much success will be achieved in the field of the detailed study and the mapping of intricately formed structures thanks to the introduction of the seismic method of controllable set reception. It is apt to employ the correlation refraction method for regional investigations of the basement surface and the method of deep seismic sounding for deeper crustal horizons. Regional investigations have covered the Soviet Union's extensive territories; in the authors' opinion, the time is ripe for organizing systematic work on the geological depth mapping of the USSR's territory on 1:1,000,000 sheets and, in places, on a larger scale. New methods of electric prospecting -- telluric currents, electromagnetic field formation, magnetotelluric profiling -- are being successfully used. Equipment for frequency electric sounding will be fully developed within the next few years. The method of gamma-gamma-logging is being successfully applied to investigate angle holes. The material composition of rocks is being studied by neutron methods. Research is being conducted on the use of nuclear, magnetic, and paramagnetic resonance for prospecting purposes. An extremely urgent problem is to expose oil pools in high-

State and means ...

S/169/62/000/006/015/093
D228/D304

resistance carbonate traps and to determine the degree to which rocks are saturated by oil and water. The detailed study of the question of using seismetry and gravimetry for seeking oil and gas fields will have to be tackled. [Abstracter's note: Complete translation.]

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POLSHKOV, Mikhail Konstantinovich; KUNYMOV, B.Ya., red.; VOYUTSKIY, V.S., red.; YUNGANS, S.M., ved. red.; VORONOVA, V.V., tekhn. red.

[Basic problems concerning seismic prospecting apparatus; transcient processes and resolving power]Osnovnye voprosy seismorazvedochnoi apparatury; ustanavlivaiushchiesia protsessy, razreshaiushchaia sposobnost'. Moskva, Gostoptekhizdat, 1962. 335 p. (MIRA 15:11)
(Seismic prospecting--Equipment and supplies)

KUDYMOV, B.Ya.; KUZ'MINA, N.K.; LOVLYA, S.A.

Using the shooting method to increase the productivity of water wells. Razved. i okh. nedr 28 no.2:42-43 F '62. (MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki.

(Wells)

KUDYMOV, B. Ya.

"Geophysical prospecting of oil and gas at less investigated territories"

report to be submitted for the United Nations Conference on the Application of Science and Technology for the Benefit of the Less Developed Areas - Geneva, Switzerland, 4-20 Feb 63.

4

USSR

Volatilization and determination of zinc compounds in biological material. G. I. Kudymov (Moscow Pharm. Inst., Ministry of Health U.S.S.R.). *Aptechnoe Delo* 3, No. 6, 16–23(1954).—100 g. of material was wet-ashed with a mixt. of 20–30 cc. HNO_3 (sp. gr. 1.35) and 25 cc. H_2SO_4 (sp. gr. 1.98). Care was taken to avoid charring. The heating was continued until a colorless or nearly colorless soln. was obtained (4–7 hrs.). The soln. was denitrated with the aid of HCHO. Enough water was added to produce 1–2*N* H_2SO_4 and enough $NH_4(SO_4)_2$ to yield a 1–2% soln. One to two drops of a freshly prepd. 1% soln. of $K_4Fe(CN)_6$ and 1–2 drops of 1% soln. of diphenylamine in concd. H_2SO_4 were added and the soln. was titrated with 0.025*M* $K_4Fe(CN)_6$. The titration was carried out dropwise. When the color changed from blue to yellow-green an excess 1–1.5 cc. of $K_4Fe(CN)_6$ was added and after 1–2 min. the soln. was titrated back with a Zn soln. of known concn. until the green color changed to blue-violet. A. S. Mirkin.

KUDYMOV, G. I.

"Zinc Compounds, Their Isolation, Observation and Determination in Forensic Chemical Investigations." Cand Pharm Sci, Moscow Pharmaceutical Inst, Moscow, 1954, 10 Jan 55. (MR, 24 Dec 54)

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SO: Sum. No. 556 24 Jun 55

SAVEL'YEVA, G.I.; KUDYMOV, G.I.

New method for determining organically bound iodine in pharmaceutical preparations. Med. prom. 14 no.7:36-39 Je '60. (MIRA 13:8)

1. Permskiy farmatsevticheskiy institut.
(IODINE—ANALYSIS)

SAVEL'YEVA, G.I.; KUDYMOV, G.I.

Quantitative determination of thiophene sulfur in ichthyol.
Aptech. delo 12 no.3:62-65 My-Je '63 (MIRA 17:2)

1. Permskiy farmatsevticheskiy institut.

TERENT'YEV, A.P.; VOLODINA, M.A.; KUDYRASHOVA, V.A.

Structure of Schiff's bases of N-arylpyrrolines. Dokl. AN SSSR 164 no.1:115-118 S '65. (MIRA 18:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Terent'yev).

KUDYUKIN, A.

With young Black Sea Fleet sailors. Blok. agit. vod. transp. no.9: 18-19 My '57. (MLRA 10:6)

(Odessa--Merchant seamen)

KUDYUKIN, N.I.

33227. Vinodel'cheskaya Promyshlennost' Moldavii Za 25 Let. Vinodeliye I Vinogradarstvo Moldavii 1949, No. 5, s. 10-13

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

POLYAKOVA, V.I.; OKUNEV,, A.L.; KUDYUKINA, L.N.; BRILYANT, I.Ya., red.

[Painting and decoration of toys made from paper-wood pulp, wood, metal, plastics and other materials] Okraska i rospis' igrushek iz bumazhno-drevesnykh mass, dereva, metalla, plastmass i drugikh materialov. Moskva, Gosmestpromizdat, 1962. 2 v. (MIRA 17:4)

KUDYUKOV, K. V.

Lakes - Kazakhstan

Ancient lake basins of southeastern Kazakhstan and the climatic conditions prevailing during their existence, Izv. AN SSSR. Ser. geog. No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASS.

KUDZEL'KO, A.S.

Standardization of DIA-2M, DIA-3M and DIA-3AM decoder cells. Avtom., telem. i sviaz' 9 no.6:33-34 Je '65. (MIRA 18:8)

1. Starshiy elektromekhanik kontrol'no-izmeritel'nogo punkta Moskovskoy distantsii Oktyabr'skoy dorogi.

KUDZEL'KO, I.N., byvshiy botsman, Geroy ordenov Lenina, Trudovogo Krasnogo Znameni i Krasnoy Zvezdy.

Unforgettable days. Mor.flot 17 no.11:4-5 N '57. (MIRA 10:12)

1.Turboelektrokhod "Baltika".
(Russia--Revolution, 1917-1921)

AMANTAYEV, Ye.; ILYALETDINOV, A.; KUDYSHEV, T.

Effect of simazine and strazine on the microflora and nitrate content of light-colored Chestnut soils of Alma-Ata Province. Agrobiologiia no.3:462-464 My-Je '63. (MIRA 16:7)

1. Kazanskiy nauchno-issledovatel'skiy institut zemledeliya, Alma-Ata.

(Alma-Ata Province--Soils--Nitrogen content)
(Triazine)
(Alma-Ata Province--Soil microorganisms)

KUDZIENE, B.I. [Kudziene, B.]

Alkali resistance of white and raw-stock dyed triacetate silk.
Trudy AN Lit.SSR. Ser. B. no.2:191-199 '65. (MIRA 19:2)

1. Institut khimii i khimicheskoy tekhnologii AN Litovskoy SSR.
Submitted September 25, 1964.

KUDZENE, B.I. [Kudziene, B.]

Study of acetate silk deacetylated by alkali. Trudy AN Lit. SSR. Ser. B no.3:101-110 '64. (MIRA 18:5)

1. Institut khimii i khimicheskoy tekhnologii AN Litovskoy SSR.

NEYMAN, R.B.; KUDZENKO, E.I.

Photometric determination of the interaction between molybdic acid and sulfosalicylic acid in solution. Trudy VGU 57:75-80 '59. (MIRA 13:5)
(Molybdic acid) (Salicylic acid)

KUDZER, Mary-Luiza

Why Salazar is afraid of a Portugese woman? Rab.i sial. 38 no.9:15 S '62. (MIRA 15:9)
(Portugal—Politics and government)

KUDZEWICZ, Z.

Stormy flight. p.13.
SKRZYDLATA POLSKA (Liga Lotnicza) Warszawa
Vol. 11, no. 52, Dec. 1955

So. East European Accessions List Vol. 5, No. 9 September 1956

L 07961-67 EWT(m)/EWP(t)/ETI IJP(c) JD

ACC NR: AR6031893 SOURCE CODE: UR/0058/66/000/006/E100/E100

AUTHOR: Audzionis, A. I.; Batarunas, I. V.; Karpus, A. S.; Kudzhmauskas, Sh. P.

TITLE: Optical properties and band structure of antimony trisulfide single crystals

46
27
B

SOURCE: Ref. zh. Fizika, Abs. 6E788

REF SOURCE: Lit. fiz. sb., v. 5, no. 4, 1965, 481-490

TOPIC TAGS: optic property, absorption coefficient, single crystal, valence band, antimony, antimony trisulfide

ABSTRACT: The authors measured the absorption coefficient of plane-polarized light of thin single-crystal films and Sb_2S_3 single crystals in the photon energy range of 0.6—1.75 ev. It is shown that the maximum of the valence band and the minimum of the conduction band do not coincide. In an approximation of highly bound electrons, models constructed from the energy band structure agree with the experimental data. [Translation of abstract]

SUB CODE: 20/

Card 1/1 egh

KUDZIN, A.L.; MAKOIDZEBA, I.A.

Content and variation of soluble carbohydrates in the organs of vegetative propagation in Acroptilon picris CAM. Dokl. AN SSSR 119 no.3:606-608 Mr '58. (MIRA 11:6)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina. Predstavleno akademikom A.L. Kursanovym.
(THISTLE)

69441
S/139/60/000/01/015/041
E201/E491

24.7900

AUTHORS: Sinyakov, Ye.V., Avramenko, V.P., Kudzin, A.Yu. and Zuyev, A.F.

TITLE: Investigation of Magnetic Properties of Certain Mixed Ferrites

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, Nr 1, pp 80-86 (USSR)

ABSTRACT: The authors investigated magnetic properties of the following mixed ferrite systems:

$nNiAl_2O_4 - 100NiFe_2O_4$ (I) $nCoAl_2O_4 - 100NiFe_2O_4$ (II)

$nNiMn_2O_4 - 100NiFe_2O_4$ (III) $nCoFe_2O_4 - 100MnFe_2O_4$ (IV)

where $n = 0.5, 1, 3, 5, 10, 15, 20, 30, 40$ and is the molar ratio. In these systems one of the components is non-ferromagnetic ($NiAl_2O_4$, $CoAl_2O_4$ and $NiMn_2O_4$), except in the case of IV where both components are ferromagnetic. Samples were prepared employing the usual ceramic techniques; oxides or carbonates of "pure" and "pure for analysis" grades were used. Samples were

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S/139/60/000/01/015/041
E201/E491

Investigation of Magnetic Properties of Certain Mixed Ferrites

annealed at 1380°C for two hours or at 1420°C for one hour. X-ray diffraction patterns showed that all ferrites had spinel structure and were solid solutions (Table 1). The following properties were investigated: the temperature dependences of the initial permeability μ_o, of tan δ and of spontaneous magnetization; the dependences $B = f(H)$, and $\mu = f(H)$; the coercive force and the Curie point. The concentration dependences of μ_o of the saturation magnetization B and of the Curie temperature (θ) are shown in Fig 1 and 2 for systems I and II respectively. Fig 3 shows the temperature dependence of the Q-factor of coils with toroidal cores made of system I ferrites. Fig 4 gives the temperature dependence of μ_o for system III. Fig 5 and 6 show the concentration dependences of μ_o, of B and of θ for systems III and IV respectively. It was found that introduction of a non-ferromagnetic component lowers the Curie temperature, reduces the saturation magnetization B and raises the coercive

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Investigation of Magnetic Properties of Certain Mixed Ferrites

force. These results can be explained using the theory of antiferromagnetism. For system IV ferrites (with both components ferromagnetic) the law of additive variation of properties with concentration was obtained. The losses in all ferrites were due to magnetic polarity reversal. There are 6 figures, 1 table and 12 references, 5 of which are Soviet, 4 English and 3 translations from English into Russian.

ASSOCIATION: Dnepropetrovskiy gosuniversitet (Dnepropetrovsk State University)

SUBMITTED: September 19, 1958

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1

24.7800

36473
S/181/62/004/003/013/045
B102/B104

AUTHORS: Kudzin, A. Yu. and Shapovalov, V.

TITLE: Effect of annealing on the repolarization of barium titanate monocrystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 650 - 652

TEXT: The authors studied the change in shape of the dielectric hysteresis of $BaTiO_3$ single crystals caused by annealing at ~1200°C. The measurements were made in the range 50 cps - 15 kcps with ~0.1 mm thick crystal plates. Part of the samples had not been heated before, the others had been subjected to 1 - 2 hrs heating at 1250°C in a silite furnace. A strong alternating field ($E_\sim$ = 5 kv/cm) heated the sample and changed the shape of the loop. Annealed samples which show a completely distorted loop are affected most by the alternating field: after the field has been applied for some seconds the loop becomes normal and spontaneous polarization P_s rises. $P_s(t)$ at 60 cps shows a peak at about 120°C, above this temperature P_s vanishes abruptly. For samples heated to above the Curie point (140°C)

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Effect of annealing ... S/181/62/004/003/013/045
B102/B104

the shape of the loop depends on the cooling rate; e. g. with 3 deg/min a double loop appears. When cooling slowly down to the Curie point and then cooling rapidly, a triple loop may arise. Holding and increasing the temperature increased the polarization which indicates that not all crystal domains take part in repolarization. Multiple loops can be explained by Abe's model (J. Phys. Soc. Japan, 14, 633, 1959; 15, 795, 1960). To clarify the effect of the atmosphere, experiments were made with samples heated in O_2 at 1250°C and in vacuum at 900°C. In the latter case a double loop appeared, not observed in the former case. A constant electrical field changes the kind of loop distortion. Ye. V. Sinyakov is thanked for discussions. There are 5 figures and 5 references: 3 Soviet and 2 non-Soviet.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: October 21, 1961

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S/181/62/004/005/048/055
B163/B138

AUTHOR: Kudzin, A. Yu.

TITLE: Effect of an addition of nickel on the properties of single crystals of barium titanate

PERIODICAL: Fizika tverdogo tela, v. 4, no. 5, 1962, 1369-1370

TEXT: Earlier experiments with polycrystalline specimens had shown that even small additions of nickel to barium titanate will reduce the dielectric and mechanical losses, Curie temperature, and phase transition temperature from the cubic to the hexagonal modification. As nickel is to some degree soluble in barium titanate and promotes the formation of the hexagonal phase, the existence of a polyphase system cannot be excluded. The experiments were therefore repeated here with single crystals grown from a solution in a potassium fluoride melt. This was kept for one hour at the maximum temperature of 1160°C, and then cooled at the rate of 30° per hour. The barium titanate was produced from specially purified titanium dioxide (99,99%) and chemically pure $BaCO_3$. Nickel was added during the growth in the form of NiO and $NiTiO_3$. The yellow crystals were in the

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shape of right-angled triangular plates 0.1 mm thick, with legs 4 to 5 mm long. Silver electrodes were applied by cathode sputtering. The dependence of the dielectric constant on temperature (from -80°C to +130°C) and nickel content (from 0.13 to 4.7 mole %) was measured at 1 Mc/sec in a field not exceeding 60 v/cm. With increasing nickel content the temperature peaks become flatter and occur at lower temperatures, while the Curie point first falls rapidly, then more slowly. The absolute reduction is rather more than for polycrystals. The slower decrease begins at about 1 mole %, which is approximately the concentration at which the hexagonal phase is formed in polycrystalline specimens. This is still far below saturation. In a BPC-3 (VRS-3) X-ray diffraction apparatus the tetragonality of the unit cell was found to vary from 1.01 to 1.006 with nickel oxide content increasing to 1.5 mole %. Further increase causes a complete change in the character of the X-ray pattern, due to rhombohedral distortion with a very small α angle. The results of the dielectric constant measurements and the structure studies are in qualitative agreement, but the difference in the properties of crystals with NiO or $NiTiO_3$ added cannot yet be explained. There are 2 figures and 1 table.

Effect of an addition of nickel ... S/181/62/004/005/048/055
B163/B138

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet (Dnepropetrovsk State University)

SUBMITTED: January 25, 1962

Card 3/3

24.7802

40577
S/070/62/007/005/014/014
E132/E460

AUTHOR: Kudzin, A.Yu.

TITLE: Dielectric properties of single crystals of barium titanate having traces of added cobalt

PERIODICAL: Kristallografiya, v.7, no.5, 1962, 799-802

TEXT: Non-isomorphous additives to $BaTiO_3$ have not been studied as intensively as strictly isomorphous replacements in spite of the useful properties some generate. Single crystal specimens are essential to ensure that only one phase is obtained. Crystals of $BaTiO_3$ with dissolved Co were grown by Remeyka's method from a solution in KF with cooling from 1160°C at 25°/hour. CoO was more successful than $CoTiO_3$ for introducing the Co impurity. With up to 6 mol % CoO crystals in the form of flakes 0.1 mm thick and 5 mm long were obtained. Up to 10 mol % the crystal composition was the same (approximately) as the melt composition but for 13.4 mol % in the solution the crystals contained 11.5 mol % CoO. Crystals contained about 0.04% K. The dielectric constant was measured at temperatures from -80 to +120°C for a range of compositions. There appears to be a

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maximum d.c. for about 1% added CoO. The unit cell dimensions were measured showing that c decreases and a increases with impurity reaching equality at about 5.5% Co (mol) showing that Co replaces the Ti ion. The magnetic susceptibility increases almost linearly with the impurity content showing that the magnetic moment of the Co ion in the solid solution is about 4.5 Bohr magnetons corresponding to Co^{++}. The (electric) Curie temperature decreases with added Co. There are 4 figures.

ASSOCIATION: Dnepropetrovskiy gosudarstvennyy universitet
(Dnepropetrovsk State University)

SUBMITTED: November 30, 1961

ACCESSION NR: AR4015639 S/0081/63/000/022/0131/0131

SOURCE: RZh. Khimiya, Abs. 22D42

AUTHOR: Kudzin, A. Yu.

TITLE: Apparatus for investigating the magnetic susceptibility of weakly magnetic compounds

CITED SOURCE: Nauchn. zap. Dnepropetr. un-t, v. 77, 1962, 3-5

TOPIC TAGS: magnetic susceptibility, Faraday balance, Curie-Shenevo principle, germanium magnetic susceptibility, silicon magnetic susceptibility

TRANSLATION: A Faraday balance is described for determining the relative magnetic susceptibilities of dielectrics and semiconductors at room temperature, with microscopic measurement of the displacement of the rod and sample. The apparatus utilizes the Curie-Shenevo principle; thus, the maximal displacement of the sample (or standard) is obtained by moving the electromagnet, and the sample consistently drops at the point where $H\partial H/\partial X$ is a maximum. The error in the measurement of magnetic susceptibility is 0.005×10^{-6}. The apparatus was tested with pure samples of Ge and Si. When one of these was used as a standard, the value of the magnetic

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ACCESSION NR: AR4015639

susceptibility of the other agreed with the tabulated value. F. Chernyakovskiy

DATE ACQ: 07Jan64 SUB CODE: CH ENCL: 00

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L 13769-65 EWP(e)/EPA(s)-2/EPF(n)-2/EPA(w)-2/EWP(t)/EWP(b)/EWT(m) Pab-10/Pt-10/
Pu-4 IJP(c)/AFWL/ASD(m)-3/AS(mp)-2/AFMD(t)/ASD(a)-5/SSD/RAEM(i)/ESD(dp)/ESD(t)/ESD(gs)
ACCESSION NR: AP4047348 JD/WH S/0139/64/000/005/0056/0061

AUTHOR: Kudzin, A. Yu.

TITLE: Growth technique and properties of single crystals of barium titanate with certain additives

SOURCE: IVUZ. Fizika, no. 5, 1964, 56-61

TOPIC TAGS: barium titanate, ferroelectric single crystal, nickel tantalate additive, nickel niobate additive, melt grown crystal, crystal dielectric constant, crystal Curie point

ABSTRACT: Ferroelectric properties, dielectric constant, and Curie point have been studied in barium titanate single crystals with $2NiO \cdot Ta_2O_5$ and $2NiO \cdot Nb_2O_5$ additives, which were grown from solution in potassium fluoride melt (Remeica method). The purpose was to explore the effect of growth conditions and of impurity ions with a different valence than that of the ions of the base material, since both factors are known to affect significantly the properties of barium titanate. Dielectric constant ε was measured by the resonance

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