S/076/60/034/011/018/024
B004/B064

AUTHORS: Sanzharovskiy, A. T. and Popova, O. S. (Moscow)

TITLE: The Method of Investigating the Diffusion of Cathodically Reduced Hydrogen Through Metals

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 11, pp. 2601-2602

TEXT: This paper gives a report on diffusion measurements of cathodically reduced hydrogen through metal foils carried out by two methods: a) diffusion through a metallic cathode foil into a space in which the pressure rise was measured with a gauge. b) Measurement of the sag h of a cathode foil isolated on one side. The sag was caused by hydrogen diffusing into the foil. Iron and nickel foils (thickness, 50 μ) were used. Depending on the center of gravity of the chucked foil and as a result of tension, sag in the direction of the anode or in the opposite direction occurs in case b at the same potentials. This joint action of mechanical and diffusion effects requires a careful interpretation of the experimental data. There are 3 figures and 4 references: 2 Soviet.

Card 1/2

POPOVA, O. S.: Master Chem Sci (diss) -- "Aspects of the structure and properties of electrolytic precipitates of implicitly crystalline type". Moscow, 1959. 12 pp (Acad Sci USSR, Inst of Phys Chem), 150 copies (KL, No 11, 1959, 115)

AUTHORS: Popova, O. S., Gorbunova, K. M. SOV/76-32-9-12/46

TITLE: The Structure and Some Properties of Electrolytic Manganese (Stroyeniye i nekotoryye svoystva elektroliticheskogo margantsa)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 9, pp 2020 - 2028 (USSR)

ABSTRACT: The electrolytic solution used contained manganese sulfate and ammonium sulfate. An additional solution of the same composition but with glycerin added was also used. The manganese deposit was investigated using the microscope (Fig 1), the electron microscope (Fig 2), and X-ray apparatus. As the Debyograms show, the manganese deposits, and especially those from the solutions containing glycerin, are almost amorphic (Fig 6). After warming for a short time at about 120°C the manganese appears to have the structure of α-Mn or γ-Mn in the X-ray studies. Whichever modification appears is dependent upon the conditions of the electrolysis. The hydrogen content of the electrolytic deposit was also determined by using the apparatus shown in figure 3. The content was found to be between 5 and 8 cm^3

Card 1/2

The Structure and Some Properties of Electrolytic Manganese SOV/76-32-9-12/46

of hydrogen per gram of metal (Table). The greatest part of the hydrogen escapes up to 125°C, while the rest leaves up to 300°C (Figs 4 and 5). This behavior differs from that of electrolytic nickel (Fig 5). By using an elastic cathode the inner stress of the manganese was determined. According to the conditions of electrolysis this was found to be between 5 and 20 kg/mm^2. There are 6 figures, 1 table, and 30 references, 9 of which are Soviet.

ASSOCIATION: Akademiya nauk SSSR, Institut fizicheskoy khimii, Moskva (AS USSR, Moscow, Institute of Physical Chemistry)

SUBMITTED: April 4, 1957

Card 2/2

137-58-4-7842

Translation from: Referativnyy zhurnal, Metallurgiya 1958, Nr 4, p 31. (USSR)

AUTHORS: Gorbunova, K. M., Popova, O. S., Sutyagina, A. A., Polukarov, Yu. M.

TITLE: Mechanism of Growth and Structure of Precipitates of Metals Produced by Electrical Crystallization (Mekhanizm rosta i stroyeniye osadkov metalla, voznikayushchikh pri elektrokristallizatsii)

PERIODICAL: V sb.: Rost kristallov. Moscow, AN SSSR, 1957, pp 58-66

ABSTRACT: Certain principles of the growth on the cathode of an electrolytic cell of deposits (D) of metal in the form of dense coatings or loose dendritic structures are examined. K. M. Gorbunova shows that when single crystals are formed, an increase in current I results in the $I/\Sigma S$-K ratio remaining constant because of the increase in the surface of growth. This latter results in a transition from growth of the single crystal to the growth of multicrystalline D (a relatively high concentration of discharging ions occurs) or to a growth of dendritic D (a low concentration of discharging ions). Dense polycrystalline D grow when ΣS-S is attained at the cathode. Subsequently, further increase in I can occur only when there is

Card 1/3

Mechanism of Growth and Structure (cont.)

a drop in the concentration of ions at the cathode. At a given I, the ion concentration at the cathode may prove to be close to zero: the maximum diffusion current is attained (MDC). Powder D form upon electrocrystallization under MDC conditions. The particles of the powder D are extremely fine dendrites, the angles between the branches of which are determined by the crystallographic nature of the metal. For Zn powder, the angle is 60°. In dense crystalline D the anisotropy of properties such as the magnetic, the linear compressibility, resistivity, thermal expansion, resistance to corrosion, etc., are determined by texture (orientation of all the crystals of the D in a given crystallographic direction). The authors hold that in the case of D with crystals above a certain size and small internal stresses (IS), it is more accurate to regard texture as "growth texture." Texture comes into being as the result of competition between crystals of different orientations, as the ionic building blocks brought up to the growing crystals are put to use. The change in the texture axis with change in the conditions of electrolysis is explained by the change in the ratios of the growth rates in different directions. The unique adherence of the texture of Zn and Cd D to a 6th-order axis [0001] c on application of an alternating current, with the surfaces bounded not by apices but by the faces of the base, may be explained in terms of the concepts developed by Kaishev and Bliznakov. X-ray and magnetic studies have made it possible to determine

137-58-4-7842

Mechanism of Growth and Structure (cont.)

that IS anisotropy exists in Ni deposits, and also that the IS of Ni is not directly related to the amount of occluded H_2. Introduction of brightening agents in the bath leads to the formation of deposits not having the definite clearly defined boundaries characteristic of crystals, and the D consist of rounded forms.

O. P.

1. Cathodes--Deposits--Structural analysis 2 Metals--Crystallization--Structural analysis

Card 3/3

05814
SOV/76-33-10-12/45

18(7)

AUTHORS: Moiseyev, V. P., Popova, O. S.

TITLE: X-Ray Analysis of Electrolytic Manganese Deposits

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2183-2189 (USSR)

ABSTRACT: Structural transformations in electrolytic manganese deposits have been investigated little so far (Refs 4-9) though they are of great scientific and practical interest. The structural and phase transformations of electrolytic manganese deposits occurring in vacuum heating were subjected to X-ray structural analysis. The deposits were obtained from two baths of the following composition: 1) 150 - 200 g/l of $MnSO_4 \cdot 5H_2O$ + 50 - - 100 g/l of $(NH_4)_2SO_4$ and 2) 150 - 200 g/l of $MnSO_4 \cdot 5H_2O$ + + 50 - 100 g/l of $(NH_4)_2SO_4$ + 20 g/l of glycerin. The hydrogen separated by heating the sample (to 50, 80, 100, 125, 140, 200, 300, 500, and 700 C) was determined in a vacuum device (Ref 4). Kurdyumov's formula and a new equation for calculating the lattice constants from radiographs (obtained for plane polycrystalline samples) were used for the purpose of choosing

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X-Ray Analysis of Electrolytic Manganese Deposits

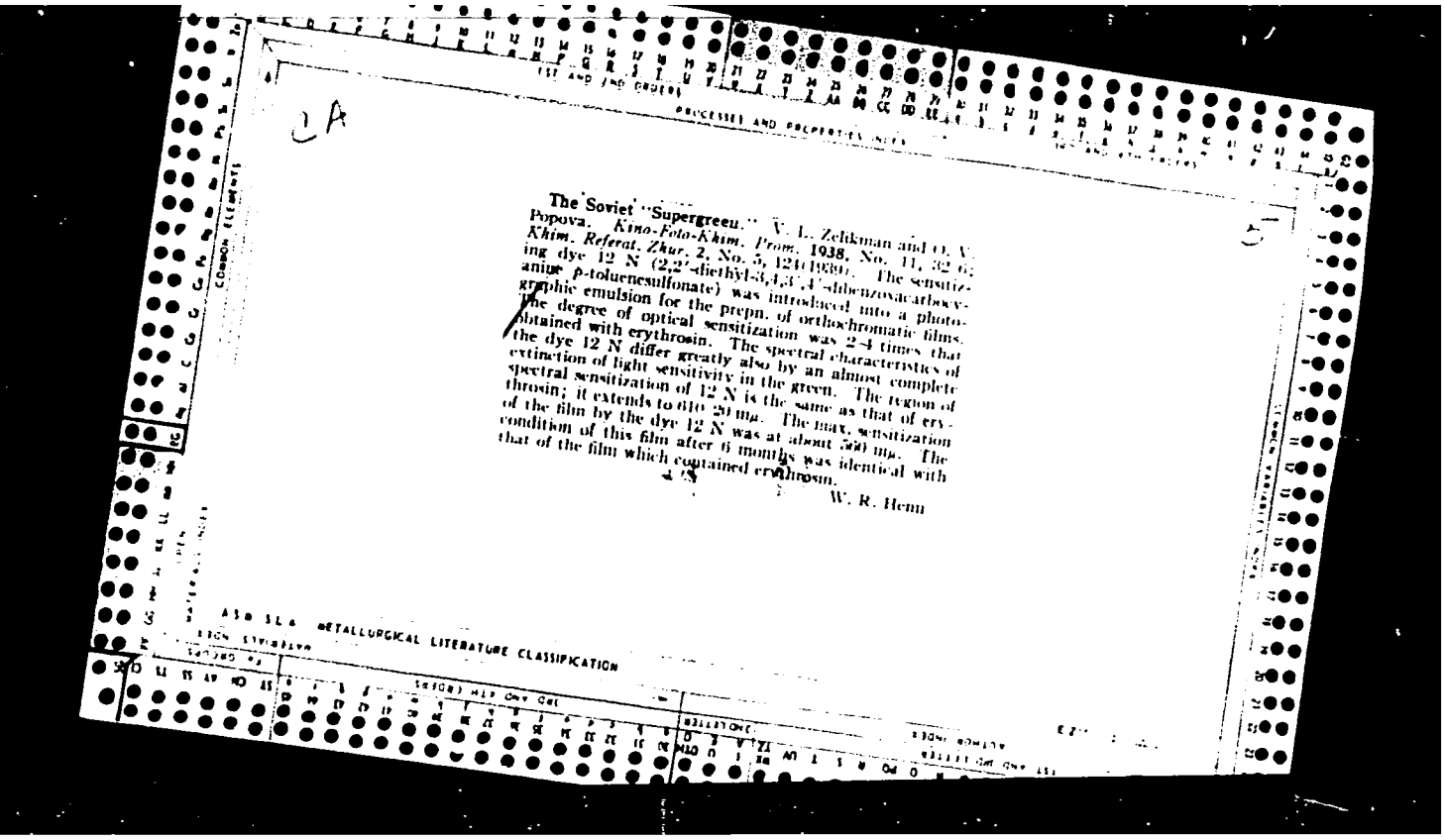
the conditions of X-ray analysis. The radiographs (Fig 2) resemble those of amorphous substances and exhibit a strongly blurred diffusion line and a fairly large background of incoherent scattering. Both allotropic variations, i.e. α-manganese and γ-manganese were obtained, the latter in a 10μ deposit on a silver base in bath (1). It is very unstable and soon passes over into the α-variation (after some hours). Data on the variation in the crystal-lattice constants of α-manganese (Table 1) indicate that different deposits (as to the content in hydrogen and the kinetics of hydrogen separation in vacuum heating) were obtained from the two baths. The deposits may be regarded as a solid solution of hydrogen in α-manganese (with strongly deformed crystal lattice). The afore-mentioned amorphous structure is brought about by the large hydrogen content in the crystal lattice. In vacuum heating, the solid solution decomposes due to the separation of hydrogen and reduction of the crystal-lattice constant. The manganese deposits were found to have an inhibitory effect on the decomposition of austenite which occurs when the temperature of the samples (1,080 C) slowly drops. Radiographs (made by A. T. Sanzharovskiy) of samples obtained by adding SO_2 to the solution indicate

POPOVA, O.V.

Use of intralaryngeal d'arsonvalization in scleroma. Vest.oto-rin. 18 no.5:58-59 S-O '56. (MLRA 9:11)

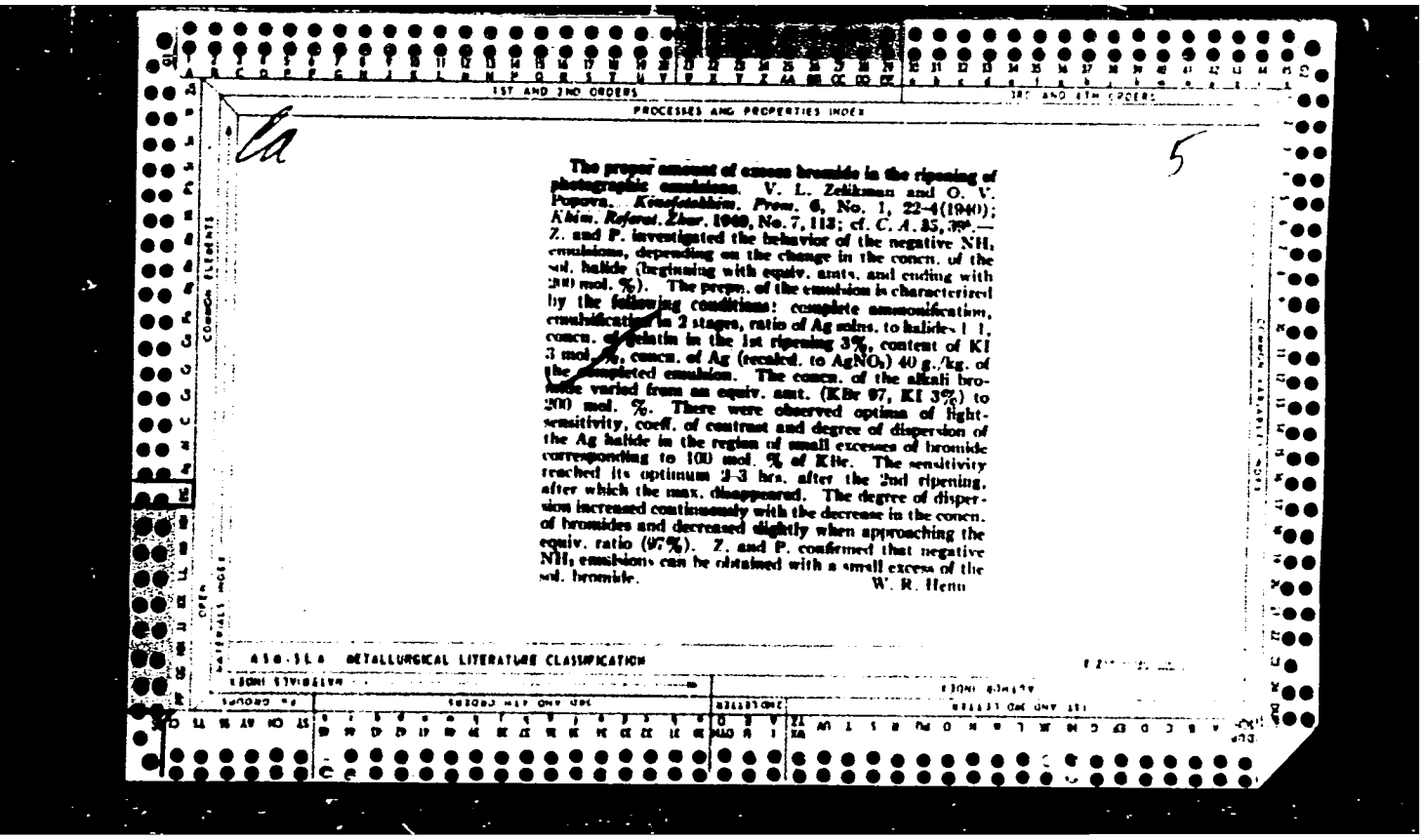
1. Iz kliniki bolezney ukha, gorla i nosa (zav. - doktor meditsinskikh nauk Ye.N.Novak) Stanislavskogo meditsinskogo instituta.

(LARYNX, dis.
rhinoscleroma, ther., intralaryngeal d'arsonvalization)
(ELECTROTHERAPY, in various dis.
d'arsonvalization, intralaryngeal, in rhinoscleroma of larynx)
(RHINOSCLEROMA, ther.
d'arsonvalization, intralaryngeal, in rhinoscleroma of larynx)



The Soviet "Supergreen." V. L. Zelikman and O. V. Popova. *Kino-Foto-Khim. Prom.* 1938, No. 11, 32-6; *Khim. Referat. Zhur.* 2, No. 5, 124(1939). The sensitizing dye 12 *N* (2,2'-diethyl-3,4,3',4'-dibenzoxacarbocyanine *p*-toluenesulfonate) was introduced into a photographic emulsion for the prepn. of orthochromatic films. The degree of optical sensitization was 2-4 times that obtained with erythrosin. The spectral characteristics of the dye 12 *N* differ greatly also by an almost complete extinction of light sensitivity in the green. The region of spectral sensitization of 12 *N* is the same as that of erythrosin; it extends to 610-20 mμ. The max. sensitization of the film by the dye 12 *N* was at about 560 mμ. The condition of this film after 6 months was identical with that of the film which contained erythrosin.

W. R. Henn



1st AND 2nd ORDERS

PROCESSES AND PROPERTIES INDEX

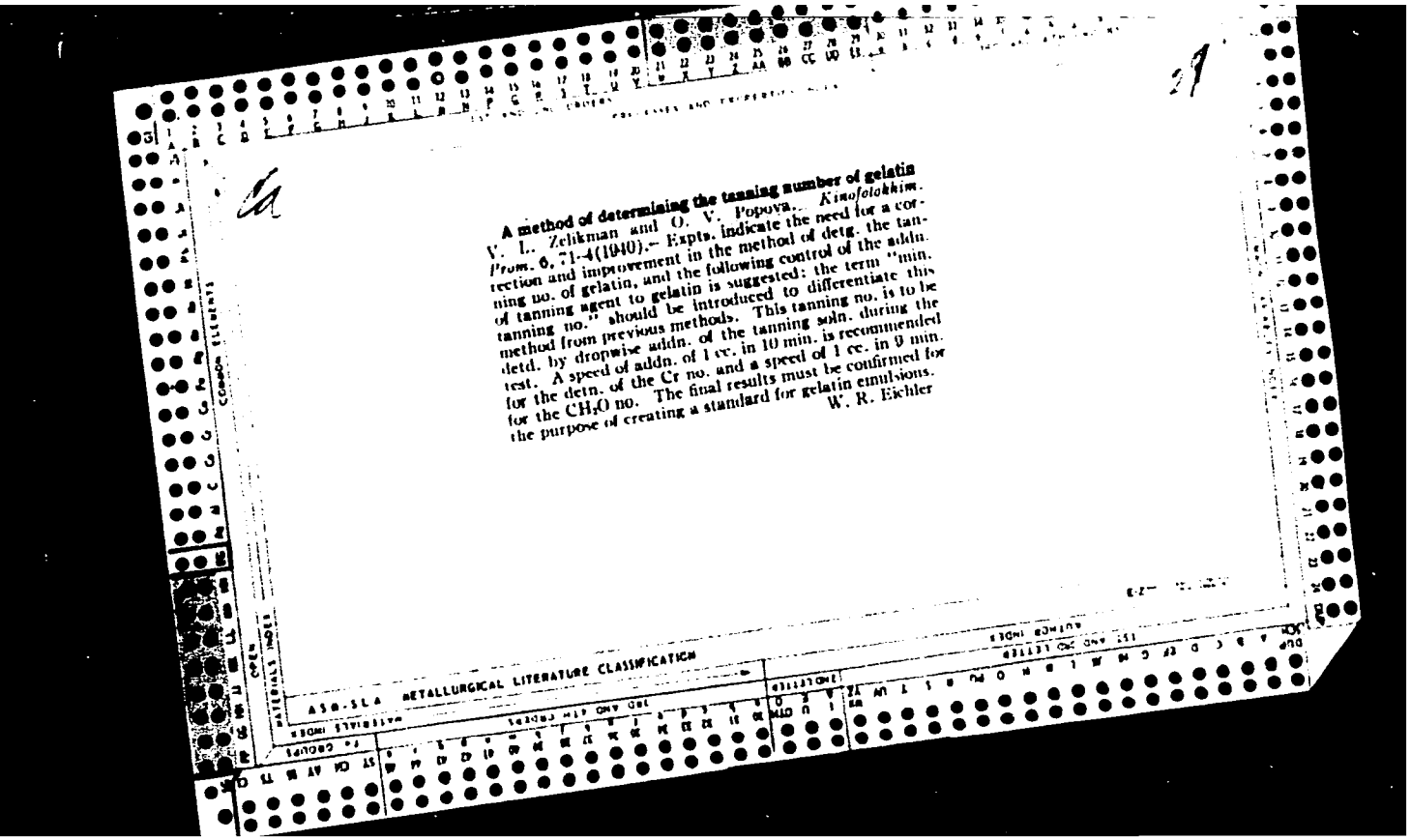
1a

5

The proper amount of excess bromide in the ripening of photographic emulsions. V. L. Zelikman and O. V. Popova. *Konfektsiia. Prom.* 6, No. 1, 22-4(1940); *Khim. Referat. Zhur.* 1940, No. 7, 113; cf. *C. A.* 35, 39[9]. — Z. and P. investigated the behavior of the negative NH₃ emulsions, depending on the change in the concn. of the sol. halide (beginning with equiv. amts. and ending with 200 mol. %). The prepn. of the emulsion is characterized by the following conditions: complete ammoniacation, emulsification in 2 stages, ratio of Ag salts to halides 1:1, concn. of gelatin in the 1st ripening 3%, content of KI 3 mol. %, concn. of Ag (recalcd. to $AgNO_3$) 40 g./kg. of the completed emulsion. The concn. of the alkali bromide varied from an equiv. amt. (KBr 97, KI 3%) to 200 mol. %. There were observed optima of light-sensitivity, coeff. of contrast and degree of dispersion of the Ag halide in the region of small excesses of bromide corresponding to 100 mol. % of KBr. The sensitivity reached its optimum 2-3 hrs. after the 2nd ripening, after which the max. disappeared. The degree of dispersion increased continuously with the decrease in the concn. of bromides and decreased slightly when approaching the equiv. ratio (97%). Z. and P. confirmed that negative NH₃ emulsions can be obtained with a small excess of the sol. bromide.

W. R. Henn

A50-51A METALLURGICAL LITERATURE CLASSIFICATION



A method of determining the tanning number of gelatin

V. L. Zelikman and O. V. Popova. *Kinofotokhim. Prom.* 6, 21-4(1940).— Expts. indicate the need for a correction and improvement in the method of detg. the tanning no. of gelatin, and the following control of the addn. of tanning agent to gelatin is suggested: the term "min. tanning no." should be introduced to differentiate this method from previous methods. This tanning no. is to be detd. by dropwise addn. of the tanning soln. during the test. A speed of addn. of 1 cc. in 10 min. is recommended for the detn. of the Cr no. and a speed of 1 cc. in 9 min. for the CH_2O no. The final results must be confirmed for the purpose of creating a standard for gelatin emulsions.

W. R. Eichler

ACCESSION NR: AP4038605 S/0108/64/019/005/0078/0079

AUTHOR: Blokh, E. L. (Active member); Popov, O. V. (Active member)

TITLE: Nonoptimality of cyclic codes which correct single and detect double errors

SOURCE: Radiotekhnika, v. 19, no. 5, 1964, 78-79

TOPIC TAGS: code, cyclic code, error correcting code, error detecting code, double error detecting code, binary code, Humming code

ABSTRACT: A Humming binary code with $r = 3, 4, 5 \ldots$ check digits and with a minimum distance $d = 4$, which has a length $n = 2^{r-1}$, is an optimum code. The present article proves that: (1) no cyclic code exists which would be equivalent to Humming's binary codes with $d = 4$; (2) no cyclic code exists with $d > 2$ and $r > 3$ check digits which would have a length $n = 2^{r-1}$. Orig. art. has: 2 formulas.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi (Scientific and Technical Society of Radio Engineering and Electrocommunication)

SUBMITTED: 02Apr63 DATE ACQ: 09Jun64 ENCL: 00

SUB CODE: DP NO REF SOV: 001 OTHER: 001

Card 1/1

SULTANOV, Z.A.; BABAYEVA, G.I.; POPOVA, O.V.

Using spent acid for cleaning aromatic compounds. Azerb. neft.khoz. 35 no.8:34 Ag '56. (MLRA 9:10)

(Petroleum--Refining) (Aromatic compounds)

POPOVA, O. V.

4

Increasing the mechanical strength of gelatin photographic layers. S. M. Levi, O. K. Smirnov, and O. V. Popova. U.S.S.R. 105,937, June 25, 1957. Water-sol. glycols with a chain of ≤4 C atoms or their ethers are added in a quantity ≥20 ml./1. of emulsion along with gelatin-tanning substances. This procedure increases the strength of the gelatin.

M. Hoseh

TIMOFEYEVA, A.V.; POPOVA, O.V.

Application of chemistry in footwear manufacture. Kozh.-obuv. prom. 6 no.5:13-14 My '64. (MIRA 17:12)

SMIRNOV, O.K.; LEVI, S.M.; RYBNIKOVA, A.I.; KORNEVA, E.D.; POPOVA, O.V.

Hardening and plasticizing effect of water-soluble ethers of hexamethylol melamine and some mono-, di- and triatomic alcohols and polyglycerins. Part 1: Ethers of hexamethylol-melamine and of mono-, di-, and triatomic alcohols and polyglycerins. Zhur. nauch. i prikl. fot. i kin. 8 no.6:401-404 N-D '63. (MIRA 17:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI) i Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley (NIOPiK).

CHURAYEVA, A.M.; SHEBERSTOV, V.I.; POPOVA, O.V.

Effect of polyethylene glycol on the induction period and subsequent speed of the photographic development. Zhur.nauch. i prikl.fot. i kin. 9 no.2:122-124 Mr-Ap '64. (MIRA 17:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI).

POPOVA, O.V.

Usually large choanal polyp. Zhur. ush. nos. i gorl. bol. 23. no.2:79 Mr-Ap'63. (MIRA 16:8)

1. Iz kliniki bolezney ukha, gorla i nosa (zav. - doktor med. nauk M.S.Medvedovskiy) Ivano-Frankovskogo meditsinskogo instituta.

(NOSE--TUMORS)

LEVI, S.M.; VILENSKIY, Yu.B.; KOCHNEVA, S.N.; POPOVA, O.V.; VERETENOVA, T.N.

Diffusion method of hardening emulsion layers. Zhur.nauch.i prikl. fot. i kin. 7 no.3:161-168 My-Je '62. (MIRA 15:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut (NIKFI) i filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, Shostka.

(Photographic emulsions)

LYUBIMOV, V.I.; KAGAN, Z.S.; VASILEYKO, M.A.; POPOVA, O.Ye.

Decomposition of volatile organic acids by microorganisms of "active sludge". Mikrobiologiia 32 no.4:700-702 Jl-Ag '63. (MIRA 17:6)

1. Lyuberetskaya laboratoriya nauchno-issledovatel'skogo otdela tresta "Mosochistvod.

YEGOROV, N.S.; POPOVA, O.Ye.; BITTEYEVA, M.B.; BULGAKOVA, V.G.; GOFMAN, K.

Influence of the products of vital activity of bacteria on the growth and antibiotic properties of various actinomycetes. Mikrobiologiia 29 no.2:269-275 Mr-Ap '60. (MIRA 14:7)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.
(ACTINOMYCES) (BACTERIA)

GOLUTVINA, L.F., kand. tekhn. nauk; PAVLOV, S.A., doktor tekhn. nauk; IVANOVA, Ye.I., nauchnyy sotrudnik; POPOVA, P.A., nauchnyy sotrudnik; ZADVORNOV, V.P., nauchnyy sotrudnik

Operational properties of fireproof coated materials. Nauch.-issl. trudy VNIIPIK no.14:83-92 '63. (MIRA 18:12)

Popova, P.D.

H-27

Country : BULGARIA
Category : Chemical Technology. Fermentation Industry

Abs. Jour : Ref Zhur-Khimiya, No 11., 1959, No 51415

Author : Dyulgerov, G. M.; Popova, P. D.
Institute : -
Title : Effect of Grape Pressing in a Continuous Press on the Quality of Cognac Distillate

Orig Pub. : Lozarstvo i vinarstvo, 1958, 7, No 5, 38-41

Abstract : The effect of grape pressing in a continuous press (C.P.) on the quality of cognac alcohol has been investigated. With increased pressure, the content of methanol in the distillate increased. Thus, the first outlet connection it was 36% greater than it was in the normal squeezings, from the second outlet-by 61%. Although no significent difference in the chemical composition was discovered, distillate derived from the must of the first, and

Card: 1/2

SNOPKOVA, V.A.; POPOVA, P.P.

Pathogenic staphylococcus carrier state among personnel, parturients and newborn infants in maternity homes (Nos. 4 and 5) in Karaganda. Antibiotiki 9 no.3:276-279 Mr '64. (MIRA 17:12)

1. Kafedra mikrobiologii (zav. - G.P.Mar) Karagandinskogo meditsinskogo instituta, Karagandinskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya i laboratoriya stafilokokkovykh infektsiy (zav. - prof. B.V. Voskresenskiy) Instituta epidemiologii i mikrobiologii imeni N.F.Gamalei.

27682
S/076/61/035/009/005/015
B106/B110

11.2121

AUTHORS: Andreyev, K. K., and Popova, P. P.

TITLE: Burning of pentaerythrytol tetranitrate

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 9, 1961, 1979 - 1984

TEXT: The authors explain the reasons for the different behavior during burning of pentaerythrytol tetranitrate (PETN) as compared with other nitro esters similar with regard to composition and thermochemical characteristics. The experiments were made on pressed specimens of PETN (ρ = 1.25-1.30 g/cm^3) at constant pressure in the pressure range of 16 - 750 atm. The experiments at high pressures were conducted by A. P. Glazkova. PETN is comparatively stable to burning; only at a critical diameter of the charge d = 30 mm, it burns under atmospheric pressure. The burning rate is only 0.023 g/cm^2·sec. (0.28 for nitroglycerine and 0.043 g/cm^2·sec for nitroglycol). Only at a pressure of 16 atm steady burning sets in at room temperature and d = 6 mm. The burning rate is here directly proportional to pressure, and at 30 atm it has a value of ~0.6 g/cm^2·sec. For PETN the combustibility is, therefore, much lower than for nitro-glycerin or nitro-glycol. Nor do two

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Burning of pentaerythrytol tetranitrate

the corresponding value for nitro-glycol. In conclusion, it may be said that the peculiarities during the burning of PETN may be due to the fact that PETN is solid at room temperature. The above-mentioned upper pressure limit may be used for changing burning into explosion. When large amounts of PETN are ignited and the pressure is then increased above the upper critical value, the flame is extinguished, but the heated layer remains and becomes even thicker since exothermic decomposition in it is maintained. Moreover, additional heating by the surroundings heated during burning is also possible. Thus, a flare up of a high amount of explosive may occur which may lead to an explosion, especially when the PETN is in the form of a powder of low density, so that the hot combustion products can penetrate into the interior of the powder. When PETN burns in the molten state, marked pulsation appears at slightly increased pressures (6 - 8 atm), which leads to a strong acceleration of the burning. I. A. Tereshkin is mentioned. There are 3 figures, 1 table, and 3 Soviet references. The reference to the English-language publication reads as follows: G. K. Adams a. G. W. Stocks, Fourth symposium on combustion, The Williams and Wilkins Co., 1953, p. 239.

Card 3/4

POPOVA, P.P.

Effectiveness of prevention of staphylococcal infections in parturients and newborn infants by immunization with native staphylococcal toxoid. Zhur. mikrobiol., epid. i immun. 40 no.10:63-68 O '63. (MIRA 17:6)

1. Iz sanitarno-bakteriologicheskoy laboratorii Karagandinskoy oblasti Kazakhskoy SSR i Instituta epidemiologii i mikrobiologii imeni Gamaley AMN SSSR.

ANDREYEV, K.K.; POPOVA, P.P. (Moskva)

Burning of pentaerythritol tetranitrate. Zhur.fiz.khim. 35 no.9:1979-1984 '61. (MIRA 14:10)

1. AN SSSR, Institut khimicheskoy fiziki.
(Pentaerythritol) (Combustion)

85958

S/020/60/134/005/035/035XX
B016/B054

11.7200

AUTHORS: Andreyev, K. K. and Popova, P. P.

TITLE: Combustibility of Protective Explosives

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 5, pp. 1142-1145

TEXT: The authors report on their investigations of the combustibility of protective explosives which sometimes burn-up instead of exploding. This combustion leads to an evolution of methane which when mixed with air may take fire or explode. The combustibility is determined by critical values of interrelated parameters. They are: 1) The minimum pressure, 2) the minimum temperature, and 3) the minimum diameter of the charge. The authors deal with the critical diameter. The explosives investigated (density 1 - 1.3 g/cm^3) were burned in a conical case (h = 5 cm) made of three layers of glued Cellophane, or in a glass cone, both inside and outside coated with perchloro vinyl varnish. The experiments were made at 100 - 120 atm. The change of the critical diameter with the change in density, and the influence of the latter on the rate of combustion were

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determined. Table 1 shows the composition of the ammonites investigated which contain no nitro ester. On the other hand, pobedite ПУ-2 (PU-2), ВП-1 (VP-1), and ВП-3 (VP-3) contains up to 9% of nitro ester mixture. Fig. 1 shows the experimental results. Hence, the authors conclude that the critical diameter of all explosives investigated (except for the waterproof pobedite VP-3) lies between 7 and 13 mm at all densities and at 100-120 atm. This value lies far below the usual measure of blasting cartridges. The critical diameter of pobedites is smaller, but the combustion rate is higher than that of ammonites. The latter also applies to dynamites. The rate of combustion decreases with increasing density (contrary to statements made for other explosives in Ref. 1). The critical diameter, as a rule, also decreases in spite of the decreasing combustion rate. The authors assume here a considerable effect of the exothermic reaction in the condensed phase on the flame propagation. The critical diameter of pobedite VP-3 could not be reliably measured by means of the method used by the authors. The combustibility of VP-3 proved to be much higher than that of VP-1 at 100-120 atm. This is probably due to the catalytic effect of the mineral components of admixtures added to the saltpeter to make it waterproof. This catalytic effect is, however, not

85958

Combustibility of Protective Explosives S/020/60/134/005/035/035XX
B016/B054

universal. The great difference between the combustibility of VP-1 and VP-3 disappears at lower pressure (20 atm). The authors conclude that the relation between the critical diameter in the mixtures investigated and the combustion rate is more complicated than is generally assumed. The authors' experiments were made with commercial substances. They showed that the combustibility of the individual explosives used in coal mining differs very much, especially at slightly increased pressure. The authors recommend further investigations on this matter. A. P. Glazkova is mentioned. There are 1 figure, 1 table, and 2 Soviet references.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: June 3, 1960, by V. N. Kondrat'yev, Academician

SUBMITTED: June 3, 1960

Card 3/3

POPOVA, P.S.

Studying the nature of water saturation in the Klyazma Reservoir.
Vod. i san. tekh. no.9:7-9 S '58. (MIRA 11:10)
(Klyazma Reservoir--Water--Pollution)

BUDAGOVA, G.G.; BERESLAVICH, T.N.; POPOVA, P.S.

Role of helminths and of intestinal protozoa in bacillary dysentery. Med. paraz.i paraz.bol. no.4:351-353 Jl-Ag '53. (MLRA 6:9)
(Dysentery) (Worms, Intestinal and parasitic)

BUDAGOVA, G.G.; BERESLAVICH, T.N.; POPOVA, P.S.

Work experience of the day hospital for the treatment of helminthiasis. Med.paraz.i paraz.bol. no.6:551-553 N-D '53. (MLRA 6:12)

1. Iz Instituta malyarii i meditsinskoy parazitologii Ministerstva zdravookhraneniya RSFSR (direktor instituta S.N.Pokrovskiy).
(Worms, Intestinal and parasitic)

SADYKOV, S.S.; POPOVA, P.Ya.

Influence of light conditions on the formation of cotton fiber. Uzb.biol.zhur. 6 no.4:5-12'62. (MIRA 16:7)

1. Institut genetiki i fiziologii rasteniy AN UzSSR.
(COTTON) (PLANTS, EFFECT OF LIGHT ON)

YAZYKOV, P.P.; YERMOSHENKO, M.A.; POPOVA, P.Ya.

Effect of the nutrient area and rate of fertilization on cotton yield. Izv. AN Uz. SSR no. 9:31-41 '56. (MIRA 14:5)
(Cotton—Fertilizers and manures)

POPOVA, P. Ya., Candidate Agric Sci (diss) -- "Changes in the quality of raw cotton and fiber as a function of certain conditions of feeding the cotton". Tashkent, 1959. 23 pp (Tashkent Agric Inst, Inst of the Genetics and Physiology of Plants of the Acad Sci Uzbek SSR), 150 copies (KL, No 25, 1959, 137)

SMIRNOV, B.P.; POPOVA, R.A.; DANILOVA, G.P.; NISKANEN, R.A.

Paper chromatography of bile acids in the form of methyl esters (R. $COO.C^{14}H_3$). Biokhimiia 27 no.2:197-201 Mr-Ap '62.
(MIRA 15:8)

1. Laboratory of Lipid Biochemistry, Biological Institute of the Carelian Branch of Academy of Sciences of the U.S.S.R., Petrozavodsk.
(PAPER CHROMATOGRAPHY) (BILE ACIDS)

STUPAKOVA, L.F., inzh.; POPOVA, R.A.

Earth roadbed made of excessively saline soils. Avt. dor. 28
no.2:16-17 F '65. (MIRA 18:6)

85615

S/050/60/000/011/003/005
B012/B063

6.1130
3.5000

AUTHOR: Popova, R. K.

TITLE: Some Characteristics of Fog Formation in the Southeastern European Part of the USSR

PERIODICAL: Meteorologiya i gidrologiya, 1960, No. 11, pp. 29-31

TEXT: Data supplied by 27 weather stations during the years from 1946 to 1955 were used for clarifying the specific characteristics in fog formation in the southeastern European part of the USSR. As many as 5852 cases of compact fog and 1275 cases of transparent fog were studied. All fog formations were divided into four groups: advection fog, advection radiation fog, radiation fog, and frontal fog. The following was established on the basis of these investigations: Advection fog is predominant over all the territory. Of all fog formations observed during the past 10 years, 62% were advection fog and 14% radiation fog, while frontal and advection radiation fog constituted 12% each. According to data by I. V. Koshelenko (Ref. 2) on the central part of the European USSR,

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85615

Some Characteristics of Fog Formation in the Southeastern European Part of the USSR

S/050/60/000/011/003/005
B012/B063

advection fog is mainly observed at the western periphery of the quasisteady anticyclones over southeast part of the USSR (32%) and, more rarely, at the southern periphery of the cyclones (27%). About the same data are supplied by N. V. Petrenko, A. A. Bachurina, and N. N. Romanov (Ref. 4). In the territory concerned, most of the advection fog (78%) is due to the clearly marked advection of the very warm and humid air masses along the south and southeast cyclonic periphery. At the western periphery of the quasisteady eastern anticyclones, however, only 20% of the total advection fog is observed. In the southeastern part of the European USSR a cloudiness reaching down to the ground as fog is observed so often that a clear relationship is observable between days with compact fog and the height of the locality concerned above sea-level. As to its origin, this fog may be advection, advection radiation, or frontal fog. This is illustrated by the comparative data of two weather stations in the region of Saratov: Saratov AMSG and Saratov City. The first is 160 m, and the second 88 m, above sea-level. Twice as many foggy days (excepting those with radiation fog) are observed in the first one. In 220 cases (44%), a cloudiness reaching down to the ground was recorded as fog near the

Card 2/3

Some Characteristics of Fog Formation in the Southeastern European Part of the USSR

S/050/60/000/011/003/005
B012/B063

higher station. In 262 cases with fog simultaneously at both stations, 77% of the fog first formed near the higher station and then dropped. Similar conclusions were drawn by G. A. Ivanova at Dnepropetrovsk and Podgornoye (Ref. 1). The correlation coefficient between the mean multiannual number of days with compact fog, on the one hand, and the sea-level, on the other, amounted to 0.767m calculated for 27 points.

The regression equation reads: $x = \frac{H + 200.4}{8.6}$, where x is the mean multiannual number of foggy days, and H is the sea-level. The total frequency of compact fog, as well as its duration and intensity decrease from northwest toward southeast. Transparent fog is observed rather seldom in the northwestern and western regions of the southeastern European part of the USSR and much more frequently in the regions east of the Volga river. In the former two regions, radiation fog was found to predominate, while east of the Volga river the transparent fog consists not only of radiation fog, but advection and frontal fog as well. There are 4 Soviet references.

Card 3/3

KOKOTOV, Yu.A.; POPOVA, R.F.

Sorption of long-lived fission products by soils and clay minerals. Zhur.prikl.khim. 35 no.6:1242-1245 Je '62. (MIRA 15:7)
(Fission products) (Soil absorption)

S/080/62/035/006/007/013
D204/D307

AUTHORS: Kokotov, Yu. A. and Popova, R. F.

TITLE: The sorption of long-life fission products by soil and clay minerals

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 6, 1962, 1242-1245

TEXT: The sorption of ^{90}Sr, ^{137}Cs and ^{144}Ce on a variety of Soviet soils and clays was studied in continuation of earlier work, by measuring the partition coefficient K_d defined as $\frac{\Gamma}{C}$ where Γ = amount of the ion sorbed by 1 kg of soil or clay and C = amount of the ion in solution, under equilibrium conditions. For ^{90}Sr, the dependence of K_d on the pH of soil suspension was found to be pronounced but varied with the type of soil. Maximum sorption occurred at pH 6 - 8 in soils where considerable substitution of Ca^{2+} by H^+

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The sorption of ... S/080/62/035/006/007/013
D204/D307

could, however, be considerably increased by adding salts to the solution. There are 4 figures and 1 table.

SUBMITTED: May 23, 1961

Card 3/3

S/186/61/003/002/012/018
E111/E452

AUTHORS: Kokotov, Yu.A., Popova, R.F. and Urbanyuk, A.P.

TITLE: Sorption of long-life fission products by soils and clay minerals

PERIODICAL: Radiokhimiya, 1961, Vol.3, No.2, pp.199-206

TEXT: The expansion of the atomic industry and power stations and fall-out from atomic explosions makes the study of reaction of fission products with soils important. The present work gives the first results of an investigation of the most toxic fission products, Sr^{90} and Cs^{137}, by some soils and clay minerals. The distribution coefficient of the isotope between solid and liquid phases K_d was taken to represent sorption. $K_d = \Gamma/C_1$, where Γ is the number of mols of solute sorbed on 1 kg of adsorbent and C_1 is the equilibrium concentration (mols/litre) in the solution after sorption. The coefficient was found from the change in activity of the solution on sorption, measurement after sorption being measured on the liquid freed from solid by centrifuging. The volume of solution was always 50 times the weight of sorbent. Before measurement, solutions of Sr^{90} were diluted with their own volume of 1N HCl to prevent sorption of Y^{90} by the glass and kept

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for 14 days. Activity was then measured in special cells for counting on liquid samples, a type CTC-6 (STS-6) counter being used. Active solutions were prepared from a Sr^{90} solution of high specific activity in 1 N HNO_3 with a salt content of 0.1 mg/mcurie of chemical-reagent purity. The distribution coefficient was measured for six samples of soils of different types: clayey podzolic topsoil, grey soil, chestnut soil, leached black earth, southern black earth and heavy black earth. From the results and published data (Ref.1: V.M.Klechkovskiy, L.N.Sokolova, G.N. Tselishcheva, 5, 136. Atomizdat, M. (1959); Ref.2: N.A.Timofeyeva, A.A.Titlyanova, Izv. AN SSSR, seriya biolog., 1, 111, (1959); Ref.3: J.R.McHenry, Soil Sci.Soc.Amer.Proc., 22, 6, 514 (1958)), it appears that, on the whole, the coefficient is higher for soils with a high exchange capacity, determined in the present work at pH = 6.4 (which is close to the pH of the suspension of all but two of the test soils). The authors note that the values of the coefficient (range 170 ± 30 - 1150 ± 140) determined under their conditions determines the intensity of isotope migration in a soil with water. From the ion-exchange equation (Ref.4: B.P.Nikol'skiy, ZhNKh, 3, 1, 59 (1958)) the

distribution coefficient of Sr^{90} depends finally on that of the macro-component present in the system. For soils this is usually Ca^{2+}, and Fig.1 shows equilibrium values of K_d for Sr^{90} as a function of the logarithm of Ca^{2+} concentration in the original solution for leached black earth (curve 1), southern black earth (curve 2) and Ca^{2+} as kaolin. Fig.2 shows K_d as a function of the logarithm of ratio of the amount of calcium in the system to the exchange capacity of the test sample for kaolin and leached black earth (curves 1 and 2, respectively). Sorption of Sr^{90} could, the results show, be reduced by adding a macrocomponent, in amounts exceeding the exchange capacity of the soil, which competes with Sr^{90}. The authors have studied in this connection the nitrates of strontium, calcium, magnesium, potassium, ammonium and sodium, this being the decreasing order of effectiveness. The authors also show that washing of the root-bearing topsoils with salt solutions would be practicable only for soils of comparatively low exchange capacity and with concentrations (of Ca^{2+} or Mg^{2+}) not less than 0.01 N. The authors also studied the effect of the pH on K_d for their test soils and also kaolin and bentonite. The

results are shown in Fig.3 (curves 1 to 4 relate respectively to heavy black earth, grey soil, kaolin and chestnut earth) and Fig.4 (bentonite and leached black earth represented by curves 1 and 2, respectively). These curves show the complexity of the processes studied and the need for choosing the right pH if soils and clays are used for sorption of Sr^{90} from solutions. Dealing next with Cs^{137} whose known (Ref.1: V.M.Klechkovskiy, L.N.Sokolova, G.N.Tselishcheva. 5, 136. Atomizdat, M. (1959); Ref.5: D.W.Rodes, Soil Sci. Soc. Amer. Proc., 21, 4, 389 (1957); Ref.7: A.A.Titlyanova, N.A.Timofeyeva, Pochvovedeniye, 3, 86, (1959); Ref.9: T.D.Wright, J.Monahan, UKAEA. Research group. Unclassified. AERE E/R 2707. Harwell (1958)) strong sorption on soils and clay minerals the authors attribute to its fixation in the hexagonal voids in the tetrahedral layer of the clay minerals. This effect has been studied by other investigators (Ref.10: H.W. van der Marel, Soil Sci. 78, 3, 163 (1954); Ref.11: R.F.Reitemeier, Advances in agronomy, 3, 113 (1951); Ref.12: O.Ya.Samoylov. Khimich nauki, 4, Izd AN SSSR, M. (1959)). The authors studied Cs^{137} from 0.01 and 0.1 N and sometimes 1 N solutions of nitrates of various cations of the first and second groups of the periodic table, ammonium nitrate and nitric

acid, by clayey podzolic soil, southern black earth and kaolin. The order of decreasing effect on the distribution coefficient of some ions tested is Cs^+, Rb^+, NH_4^+, K^+, H^+. The results showed that micro-quantities of caesium are fixed by soils (kaolin is less effective) and that therefore washing of the root layer of soil is likely to have little effect. There are 4 figures, 3 tables and 12 references: 5 Soviet-bloc and 7 non-Soviet-bloc. The four most recent references to English language publications read as follows: J.R.McHenry, Soil Sci.Soc.Amer.Proc., 22, 6, 514 (1958); D.W.Rodes, Soil Sci.Soc.Amer.Proc., 21, 4, 389 (1957); W.E.Prout, Soil Sci., 86, 1, 13 (1958); R.K.Schulz, R. Overstreet, J.Barshad, Soil Sci., 89, 16, 1 (1960).

SUBMITTED: April 28, 1960

Card 5/7

KOKOTOV, Yu. A.; POPOVA, R. F.

Sorption of long-lived fission products by soils and clay elements. Part 3: Selectivity of soils and clays with respect to Sr^{90} under various conditions. Radiokhimiia 4 no.3:328-334 '62. (MIRA 15:10)

(Strontium--Isotopes) (Soil chemistry)
(Ion exchange)

S/186/62/004/003/012/022
E075/E436

AUTHORS: Kokotov, Yu.A., Popova, R.F.

TITLE: Sorption of long lived fission products by soils and clay minerals. III. Selectivity of soils and clays for Sr^{90} under different conditions

PERIODICAL: Radiokhimiya, v.4, no.3, 1962, 328-334

TEXT: The authors continued their study of the distribution of coefficients of Sr^{90} between aqueous solutions and soils and clays of the USSR. It was found that differences in the dependence on pH of the distribution coefficients for the various soils can be explained by their different contents of the macrocomponent (ion Ca^{2+}). An increase in the quantity of Ca^{2+} in a system leads to a lowering of the height of the maximum of the curve relating the distribution coefficient for Sr^{90} to pH and shifts the maximum towards the higher values of pH. Analogous changes occur when consecutive macrocomponent exchange takes place for the series Na^{+}, Mg^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}. The absence of full correlation between the values of distribution coefficients for Sr^{90} with the exchange capacity of soils and,

Card 1/2

also, changes of the coefficient during dilution of the soil suspensions is explained by the changes in the amount of macro-component (Ca^{2+}) in a system at a constant exchange capacity of the soil. The data obtained can be used to choose for a given soil the conditions giving the best selectivity towards micro-quantities of Sr^{90}. At pH values close to neutral, the best selectivity is exhibited by the soils and clays that have the maximum exchange capacity and contain the minimum quantity of salts. Especially good sorbent under these conditions is the Na-form obtained by washing out Ca^{2+} from a soil with an alkaline NaCl solution, followed with water to pH = 6.5 to 7. For the moderately alkaline media H-forms of clays and black earth are good sorbents for Sr^{90}. In alkaline media a clay mineral from the vermiculite group showed especially high selectivity for Sr^{90}. In acid media clays and soils are not suitable for the sorption of Sr^{90}. There are 6 figures.

SUBMITTED: May 24, 1961

Card 2/2

S/186/62/004/002/009/010
E075/E136

21 7200

AUTHORS: Kokotov, Yu.A., Popova, R.F., Liu Ching Chih and Mao Shih Ch'i

TITLE: Sorption of long-lived fission products by soils and clay minerals. II. Sorption of ^{144}Ce by soils

PERIODICAL: Radiokhimiya, v.4, no.2, 1962, 227-228

TEXT: The authors investigated sorption of ^{144}Ce by two different soils: 1) Southern black earth, and 2) turf - strongly podsol soil (podsol horizon). The sorption from aqueous solution of micro-quantities of ^{144}Ce on these soils as well as the sorption on ion-exchange resin KY-2 (KU-2) from 0.001 N KNO_3 was investigated in relation to pH. It was found that ^{144}Ce is strongly sorbed by the resin in strongly acid solutions and strongly sorbed by the soils in weakly acid solutions. Sorption of ^{144}Ce was decreased considerably on all sorbents in alkaline solutions. The authors investigated also the possibility of desorbing ^{144}Ce from the soils by treating them with salt solutions, nitric acid and various complex-forming

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L 54462-65
ACCESSION NR: AT5013638

UR/0000/65/000/000/0076/0079
541.183:546.36:631.44+552.52+553.677

AUTHOR: Kokotov, Yu. A.; Popova, R. F.

TITLE: Radiochromatographic study of the sorption of trace amounts of Cs-137 by soils, clays, and micas

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, 76-79

TOPIC TAGS: column chromatography, radiocesium sorption, radiocesium desorption, soil column, clay column, mica column, cesium fixation, isotope assimilation

ABSTRACT: The authors carried out radiochromatographic experiments on the desorption of cesium-137 in order to shed some light on the mechanism of sorption of this isotope by soils and clays. An analysis of the chromatograms obtained showed that Cs^{137} is sorbed simultaneously by the two mechanisms of ion exchange (with a relatively high selectivity of sorption) and fixation. The fraction of Cs^{137} fixed during sorption by various clays, clay minerals, micas, and soils was determined. It was found that Cs^{137} is fixed most extensively on vermiculites

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L 54462-65
ACCESSION NR: AT5013638

(particularly on hydrobiotite) and black earth. The lowest fixation was observed on kaolinite and red earth. The ability of soils to fix trace amounts of Cs^{137} is not a function of the mechanical composition of the soil alone, since it is also a function of the mineralogical composition. In the authors' view, differences in the degree of fixation of trace amounts of Cs^{137} are one of the reasons for differences in the assimilation of this isotope by plants on these soils. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 13Feb63 ENCL: 00 SUB CODE: GC, NP

NO REF SOV: 004 OTHER: 007

Card 2/2

KOKOTOV, Yu.A.; POPOVA, R.F.; URBANYUK, A.P.

Sorption of long-lived fission products by the soil and by clayey minerals. Radiokhimiia 3 no. 2:199-206 '61. (MIRA 14:5)
(Strontium—Isotopes) (Fission products)
(Cesium—Isotopes)

ACC NR: AP6032120 (A,N) SOURCE CODE: UR/0346/66/000/010/0030/0033

AUTHOR: Roslyakov, A. A.; Bisenov, K.; Popova, R. G.; Palichev, V. M.; Mukhamed'yarov, F. Sh.; Sal'nikov, F. Ye.

ORG: Alma-Ata Zootechnical-Veterinary Institute (Alma-Atinskiy zootekhnichesko-veterinarnyy institut)

TITLE: Problems in the epizoology and diagnosis of Rabies

SOURCE: Veterinariya, no. 10, 1966, 30-33

TOPIC TAGS: animal disease, infective disease, rabies, precipitation reaction, diagnostic medicine, veterinary medicine

ABSTRACT: Rabies may be diagnosed rapidly using the precipitation reaction, and preventive measures may therefore be undertaken in minimal time. As rabies antigen does not appear in equal quantities in all parts of the brain, it is necessary to take samples from all of them; study of the spinal cord is particularly necessary. In the Gur'yev and some other oblasts of Kazakhstan, Babes-Negri bodies are found infrequently. Study of histological sections also increases diagnostic accuracy, though care must be taken not to mistake other inclusions for Babes-Negri bodies.

Card 1/2

UDC: 619:616.988.21-036.2-07(574.12)

ACC NR: AP6032120

The seasonality of rabies (beginning in December, with highest incidence in January—April) in the Gur'yev oblast is of epizoological interest. It is suggested that prophylactic and preventive measures be undertaken in the fall. A table shows the results of the authors' investigation using a diagnostic complex including examination for Babes-Negri bodies, precipitation reaction, and bioassay. [WA-50; VCBE No. 12]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 011/ OTH REF: 001/

Card 2/2

ACC NR: AP6032120 (A,N) SOURCE CODE: UR/0346/66/000/010/0030/0033

AUTHOR: Roslyakov, A. A.; Bisenov, K.; Popova, R. G.; Palichev, V. M.; Mukhamed'yarov, F. Sh.; Sal'nikov, F. Ye.

ORG: Alma-Ata Zootechnical-Veterinary Institute (Alma-Atinskiy zootekhnicheskoveterinarnyy institut)

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Card 1/2

UDC: 619:616.988.21-036.2-07(574.12)

Card 2/2

L 54530-65 EWT(1)/FCC GW

ACCESSION NR: AR5014445 UR/0169/65/000/005/B106/B106
551.575 (470.44/46)

SOURCE: Ref. zh. Geofizika, Abs. 5B593

15
B

AUTHOR: Popova, R.K.

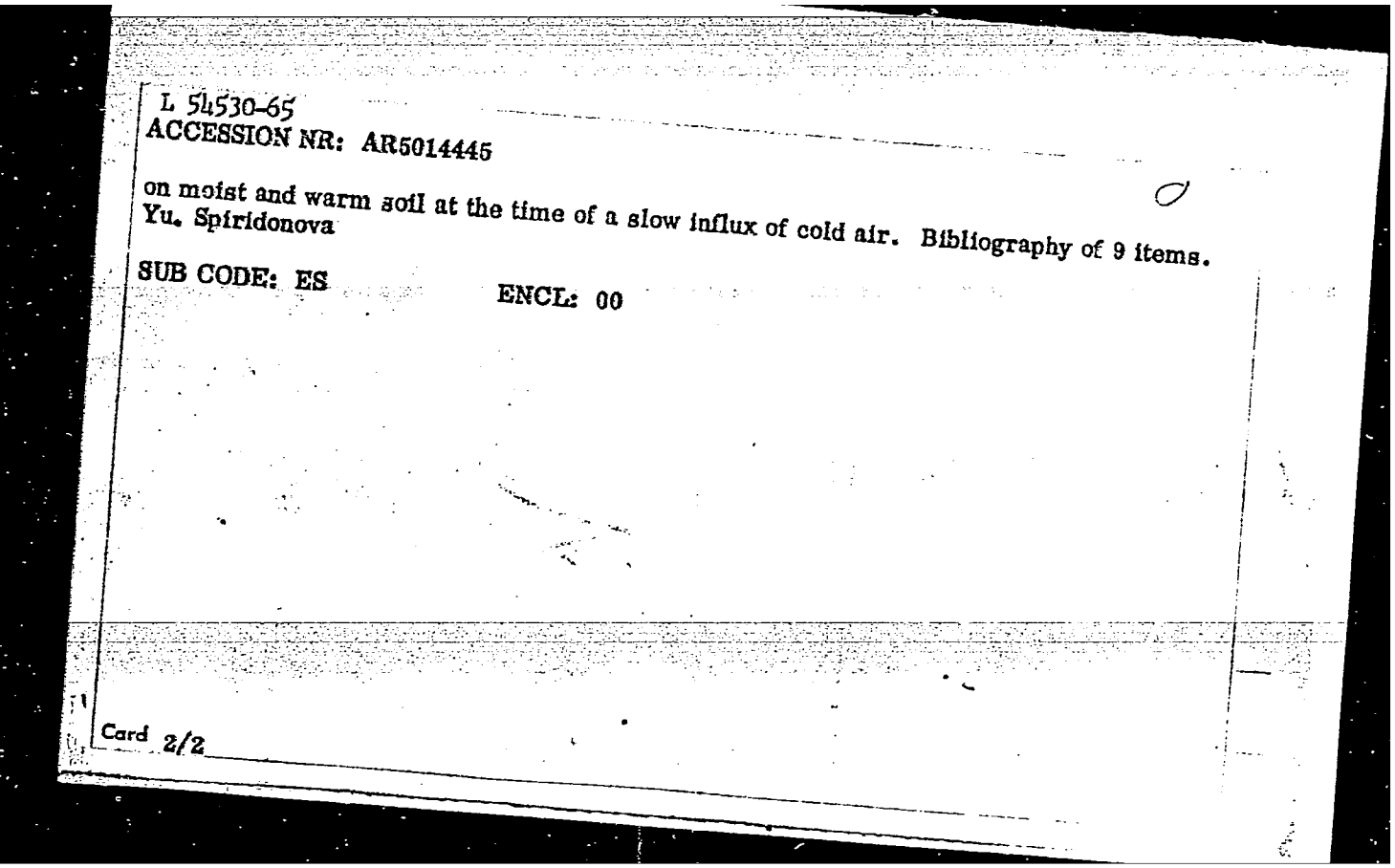
TITLE: Conditions for the formation of advective fogs in the southeastern European part of the SSSR

CITED SOURCE: Sb. 150 let Meteorol. observ. Kazansk. un-ta. Kazan', Kazansk. un-t, 1963, 80-84

TOPIC TAGS: fog, advective fog, climatology, air mass

TRANSLATION: Advective fogs are the predominant type of fog in the southeastern European part of the SSSR in the cold season of the year and develop during the cooling of warm and moist air masses of Atlantic or Mediterranean origin. Synoptic conditions for the formation of fogs and the characteristics of air masses were analyzed for the period from 1946 through 1955. In 43% of the cases advective fogs are the result of thermal advection and the condensation of water vapor in the surface layer of the atmosphere; in the remaining cases they are the result of lowering of clouds to the earth's surface. In the warm half-year, advective fogs develop as a result of evaporation; they occur after the falling of rain

Card 1/2



L 54530-65
ACCESSION NR: AR5014445

on moist and warm soil at the time of a slow influx of cold air. Bibliography of 9 items.
Yu. Spiridonova

SUB CODE: ES ENCL: 00

Card 2/2

GELLER, L.I.; SAKAYEVA, S.Z.; MUSINA, S.S.; KOGAN, Ya.D.; BELOMYTTSEVA, L.A.; OSTROVSKAYA, R.S.; VOLOKHOV, Ya.P.; LUK'YANOVA, Ye.S.; POPOVA, R.M.; MOSKATEL'NIKOVA, Ye.V.

Effect of noise on arterial pressure; etiology of hypertension. Ter. arkh. 35 no.7:83-86 Jl '63 (MIRA 17:1)

1. Iz kliniki (zav. - starshiy nauchnyy sotrudnik L.I.Geller) Ufimskogo nauchno-issledovatel'skogo instituta gigiyeny i professional'nykh zabolevaniy (dir. - kand. med. nauk G.M. Mukhametova).

ANDON'YEV, S.M.; GLAZKOV, P.G. [deceased]; KUCHIN, V.A.; KONDRAT'YEV, Ye.M.; LEVITASOV, Ye.M.; MAKAROV, K.I.; PANKRATOV, F.V.; PEVNYY, N.I.; POKRAS, L.M.; POCHTMAN, A.M.; TESNER, P.A.; SHEYNFAYN, F.I.; SHKLYAR, T.I.; Prinimali uchastiye: BERMAN, M.N.; VARFALOMEYEV, F.L.; ROBIN, M.A.; MOYSEYEVICH, G.I.; SAPIRO, V.S.; ALEKSEYEV, L.M.; FOFOVA, R.S.

Heating Martin furnaces with natural gas using reformers. Gaz. prom. 9 no.11:14-17 '64. (MIRA 17:12)

IVANOVA, V.N.; MIKHAYLOVA, M.I.; POPOVA, R.S.

In'eraction of α,β-unsaturated ketones with aliphatic organomagnesium compounds. Zhur. ob. khim. 34 no.9:3109-3110 S '64.
(MIRA 17:11)

DROKOVA, I.G. [Drokova, I.H.]; POPOVA, R.TS.; TUPIK, N.D. [Tupyk, N.D.]

Carotene content in the alga Dunaliella salina Teod. under the conditions of laboratory cultivation. Ukr. bot. zhur. 21 no.5:44-49 '64. (MIRA 18:2)

1. Otdel biokhimii Instituta botaniki AN UkrSSR.

MAZINA, Ye.G., kand.med.nauk; BERESTENNIKOVA, Ye.V.; OBUKHOVSKAYA, L.T.; POPOVA, R.V.

Child's body reaction to repeated injection of increased doses of BCG vaccine by entereal method. Vop. epid. i klin. tub. 5:37-45 '58. (MIRA 14:12)

(BCG--PHYSIOLOGICAL EFFECT)

POPOVA, R.Ya.; PROTOPOPOVA, T.V.; VINOKUROV, V.G.; SKOLDINOV, A.P.

Functional derivatives of malodnialdehyde and their reactions. Part 14: Condensation of some allyl halides with vinyl ether. Zhur.ob.khim. 34 no.1:114-119 Ja '64. (MIRA 17:3)

1. Institut farmakologii i khimioterapii AMN SSSR.

POPOVA, R.Ya.

Some derivatives of N-tosylurea. Med.prom. 12 no.11:19-20 N'58 (MIRA 11:12)

1. Institut farmakologii i khimioterapii AMN SSSR.
(UREA)

POPOVA, R.Ya.

Some derivatives of arylsulfonylurea. Med.prom. 14 no.6:12-14 Je '60. (MIRA 13:6)

1. Nauchno-issledovatel'skiy institut farmakologii i khimioterapii Akademii meditsinskikh nauk SSSR.
(UREA)

SMIRNOV, B.P.; POPOVA, R.A.; NISKANEN, R.A.

Quantitative paper chromatography of higher fatty acids in the form of methyl esters (R.C·OO·C14H3). Biokhimiia 25 no.2:368-375 Mr-Ap '60. (MIRA 14:5)

1. Laboratoriya biokhimii lipidov Instituta biologii Karel'skogo filiala Akademii nauk SSSR, Petrozavodsk.
(ACIDS, FATTY) (PAPER CHROMATOGRAPHY)

POPOVA, R. A.

"Results of Crossbreeding the Local Horse with the Trotter in Kolkhozes within the Operational Area of the Cherepovets State Breeding Farm." Min Higher Education USSR, Leningrad Agriculture Inst, Leningrad, 1955. (Dissertation for the Degree of Candidate in Agricultural Sciences)

SO: M-955, 16 Feb 56

PHASE I BOOK EXPLOITATION SOV/3589

Sbornik radiokhimicheskikh i dozimetricheskikh metodik (Collection of Radio-Chemical and Dosimetric Methods) Moscow, Medgiz, 1959. 459 p. Errata slip inserted. 9,000 copies printed.

Eds. (Title page): N.G. Gusev, U.Ya. Margulis, A.N. Marey, N.Yu. Tarasenko, Yu.M. Shtukkenberg; Ed. (Inside book): V.I. Labaznov; Tech. Ed.: A.I. Zakharova.

PURPOSE: This collection of articles is intended for physicists, sanitation and public health doctors, chemists and other specialists working in radioactive dosimetry.

COVERAGE: This work discusses the following subjects: (1) principles of organizing sanitation and dosimetric control in institutions where work is carried on with radioactive substances; (2) radio-chemical and chemical methods for determining certain radioactive substances in samples of air, water, soil and foodstuffs; (3) physical methods of measuring contamination of the air by radioactive gases and aerosols, and methods for determining the level of contamination of working surfaces, clothes and leather coverings; (4) methods of measuring external streams of x- and gamma-radiation, and methods of individual dosimetric monitoring; (5) Absolute and relative methods of measuring the activity of solid and liquid radioactive sources. There are four appendixes dealing with methods of calculating the total dosage from sources of ionizing radiation, units of activity, and doses from natural (background) radioactivity in the calcium of foodstuffs. Sanitary regulations observed during transportation, storage, and handling of radioactive substances are discussed, as well as the permissible level of ionizing radiation. The editors thank Yu.V. Sivintsev and D.P. Shirshov. References appear at the end of each chapter.

Ch. V. Physical Methods of Determining Contamination of the Ambient Atmosphere Due to Radioactive Aerosols and Gases 154

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2. Determination of the radioactive dust content of air with the aid of membrane filters (V.K. Levochkin) 169
3. Determination of the concentration of active aerosols with the aid of the electric precipitator type EF-2 (Yu.M. Shtukkenberg and K.S. Kalugin) 185
4. Measurement of active aerosols with the aid of liquid filters (B.M. Semov and Yu.[illegible]) 195
5. Radiation metering of beta-active gases by means of an end-window counter (L.M. Mikhaylov and A.D. Turkin) 196
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POPOV, S.A.; GEL'FAND, A.Ye.

Stresses generated by surface grinding of hard alloys with diamond wheels. Stan.i instr. 32 no.11:35-36 N '61. (MIRA 14:10)
(Grinding and polishing)

POPOVA, S. A.

"A New Method in Stimulating the Action on the Vessels of the Retina and Limb During Hypertonia,"

Vest. Oftalmol., 28, No. 2, 1949. Docent.

S/075/60/015/004/012/030/XX
B020/B064

AUTHORS: Poluektov, N. S. and Popova, S. B.

TITLE: On the Mutual Influence of the Elements Upon the Intensity of Radiation in a Flame. Communication 2. Compounds Formed in the Extinction of Calcium and Strontium Radiation With Aluminum, Zirconium, and Uranium Salts

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 4, pp. 437 - 442

TEXT: An extinguishing influence upon the radiation intensity of Ca and Sr exert, apart from Al, mainly Zr, Be, V, Th, Ti, U, and Cr, which is said to be due to the formation of compounds of the mixed oxides of these elements, and the alkaline-earth metals in the flame, which reduces the concentration of the atoms Ca and Sr in the gases of the flame and the intensity of their radiation. By using two atomizers supplying one flame, the authors showed that the most probable reason for the reduction of the luminous power of Ca and Sr by Al salts is the formation of difficultly volatile compounds of Al_2O_3, CaO, and SrO in the flame at the moment of

evaporation of one drop of aerosol of the analyzed solution. The luminous power of Ca and Sr is not reduced if the aluminum salt is introduced into the flame by a different atomizer. To investigate the composition of the compounds forming between Ca (Sr) and Al, or other extinguishing elements, the method of isomolar series according to Ostromyslenskiy-Job was used, the reduction of the luminous power of the element in the flame being chosen as characteristic value of the formation of the compound. The flame spectrophotometer previously described, which consists of a universal monochromator of the УМ-2 (UM-2) type, a photomultiplier of the types ФЭУ-19 (FEU-19) and ФЭУ-22 (FEU-22), a mirror galvanometer, and an acetylene- and propane-butane-air flame were applied. The mode of interaction between Ca and Sr salts, as well as Zr and U salts was photometrically determined (Table 1). Table 2 shows the composition of the solutions used to determine the composition of the Sr-Zr compound. The curve of the ratio between the atomic numbers of the metals in the Sr-Zr compound is plotted (Fig. 1) on the basis of the photometric results; the photoelectric current is recorded in percent of the maximum

On the Mutual Influence of the Elements Upon the Intensity of Radiation in a Flame. Communication 2. Compounds Formed in the Extinction of Ca[illegible] Strontium Radiation With Aluminum, Zirconium, and Uranium Salts

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B020/B064

as a function of concentration. Table 3 gives the calculation technique for the Ca-Zr compounds with the help of various correction factors. Fig. 3 gives the diagrams obtained from the composition of the compounds of Ca and Sr with Al. The maximum in Fig. 4 (as well as in Figs. 1 and 2) corresponds to a molar ratio of Ca(Sr):Zr = 1:1 (for nitrates). Thus, the compounds in the flame are likely to have the compositions $CaZrO_3$ and $SrZrO_3$. In $CaCl_2$ and zirconium solutions (Fig. 5) the maximum of the curve lies, in the case of a propane-butane flame, at a ratio of Ca:Zr=3:2, where $Ca_3Zr_2O_7$ is likely to be formed, while the curve shows no distinct maximum in the case of the hotter acetylene flame. With Ca and U, compounds of different compositions form, while with Sr and U, compounds with a molar ratio of Sr:U = 3:2, but also 1:1 and 2:1 are formed (Figs. 6,7). There are 7 figures, 3 tables, and 16 references: 5 Soviet, 1 Swedish, 4 German, 3 US, 1 Japanese, and 2 British.

Card 3/4

POLJUEKTOV, N.S.; POPOVA, S.B.; OVCHAR, L.A.

Flame spectrophotometer with a spectrum recorder and its uses. Zhur.anal.khim. 15 no.2:131-137 Mr-Ap '60. (MIRA 13:7)

1. Institut obshchey i neorganicheskoy khimii AN USSR laboratorii v odesse.

(Spectrophotometer) (Flame--Spectra)

S/075/60/015/02/01/004
B005/B006

AUTHORS: Poluektov, N. S., Popova, S. B., Ovchar, L. A.

TITLE: A Recording Flame Spectrophotometer and Its Use

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 2, pp. 131-137

TEXT: Flame spectrophotometers using monochromators of the type УМ-2 (UM-2) (Refs. 1,2) or attachments type СФ-4 (SF-4) (Ref. 3) have several disadvantages for flame-photometric determination of elements in high dilution which are described in the introduction to the present paper. In a previous paper, (Ref. 7), the authors described a recording spectrophotometer with increased spectrum range for the determination of certain rare-earth metals. In the present paper, an instrument of the same type is applied for determining several other elements. Apparatus applied and mode of operation are described in detail. The spectrophotometer consists of a universal monochromator type УМ-2 (UM-2) connected with a mechanism for turning the wave-length drum (Fig. 1) and

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A Recording Flame Spectrophotometer and Its Use

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B005/B006

great advantages over ordinary spectrophotometers, especially for the determination of metals in presence of other elements with molecular spectra or single lines in the spectrum regions at which the metals are analyzed. There are 8 figures, 3 tables, and 14 references, 6 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR, laboratorii v Odesse (Institute of General and Inorganic Chemistry of the AS UkrSSR, Laboratories in Odessa)

SUBMITTED: February 21, 1959

Card 3/3

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Mutual influence of elements on the radiation intensity in a flame. Report No.2: Compounds formed in the quenching of radiation from calcium and strontium by salts of aluminum, zirconium, and uranium. Zhur.anal.khim. 15 no.4:437-442 Jl-Ag '60.
(MIRA 13:9)

1. Institute of General and Inorganic Chemistry, Academy of Sciences, Ukrainian S.S.R., Laboratories in Odessa.
(Calcium compounds--Spectra)
(Strontium compounds--Spectra)

ZAVELEVA, F.D., kand.med.nauk; POPOVA, S.I., klinicheskiy ordinator

Combination of peripheral tuberculous lymphadenitis and tularemia (notes from practice). Vop. epid. i klin. tub. 5:253-254 '58.
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(LYMPHATICS—TUBERCULOSIS) (TULAREMIA)

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Testing Soviet synthetic fibers. Trudy VNIIS no.47:223-231 '62.
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GRINEVICH, K.P.; ZHINKIN, D.Ya.; ZUBKOV, I.A.; POPOVA, S.L.; VOLKOV, A.N.

Polymer materials in the fishing industry. Plast.massy no.11:18-19 '60. (MIRA 13:12)
(Polymers) (Fishing--Implements and appliances)

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

Improvement in the properties of net rigging materials by [illegible] them with the organosilicon preparation F9. Trudy [illegible] no.[illegible] – 216 '62. (MIRA 16:4)

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[Theory and design of linear accelerators]Teoriia i raschet lineinykh uskoritelei; sbornik statei. Moskva, Gosatomizdat, 1962. 347 p. (MIRA 15:10)

1. Akademiya nauk URSR, Kiev. Fiziko-tekhnichnyi instytut.
(Particle accelerators)

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(Omsk Province--Mollusks, Fossil)

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1. Vostochno-Sibirskoy geologicheskiy institut Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom A.L.Yanshinym.
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1. Limnologicheskiy Institut Sibirskogo otdeleniya AN SSSR, Listvennichnoye.

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Bivalve mollusks of the marine families of Solenidae, Mactridae, Cardiidae, and Aloididae in Cenozoic deposits of the Baikal Lake Region. Dokl.AN SSSR 149 no.1:162-165 Mr '63. (MIRA 16:2)

1. Limnologicheskiy institut Sibirskogo otdeleniya AN SSSR, Gosudarstvennyy trest po geologicheskim izyskaniyam na neft' v Vostochnoy Sibiri i Geologicheskiy muzey im. A.P.Karpinskogo AN SSSR. Predstavleno akademikom N.M.Strakhovym.
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Study of the Paleogene and Neogene fresh-water mollusks of the Baikal Lake region and the Soviet Far East. Trudy Lim. inst. 4:151-271 '64.

(MIRA 17:11)

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More about the find of Tertiary marine mollusks in the cis-Baikal region. Izv. AN SSSR. Ser. geol. 30 no.8:118-120 Ag '65. (MIRA 18:9)

1. Institut zemnoy kory Sibirskogo otdeleniya AN SSSR i Limnologicheskiy institut Sibirskogo otdeleniya AN SSSR, Irkutsk.

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