26292

S/190/61/003/008/005/019
B110/B220

Study of the mechanism of ...

1) The polymerization rate is a linear function of the monomer concentration;
2) radiolysis of ethyl chloride at 78°C yields a product closely related to dichlorobutene as to molecular weight (132) and refractive index ($n_D^{20}=1.4812$);

3) at $-78°C$ the polymerization rate of isobutylene "in mass"

($46.7 \cdot 10^{-6}$ mole/l·sec) is lower than in a solution of ethyl chloride (concentration of isobutylene 12.6 mole/l: $71.2 \cdot 10^{-6}$ mole/l·sec). The following mechanism is assumed: The growing carbonium ion ejects a proton which forms a free radical with the negative molecular ion (counter-ion) of the monomer. The participation of the negative monomer ion is proved by the fact that the polymerization is strongly inhibited in the presence of a monomer with electron-acceptor properties. The copolymerization of isobutylene and styrene as well as of styrene and MMA follows the equation:

$$\omega = \left[(\lambda + 1)(r_1 A^2 + 2AB + r_2 B^2) \cdot \omega_a \omega_b\right] / \left[\lambda \omega_b r_1 A^2 + \chi \omega_a \omega_b AB + \omega_a r_2 B^2\right]$$ where

ω is the total rate of copolymerization; A and B are the concentrations of the monomers A and B, respectively; ω_a and ω_b are the rates of separate

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Study of the mechanism of ...

polymerizatic∴ of A and B, respectively; $\lambda = v_a/v_b$ is the ratio of the formation rates of active centers of A and B;

$\chi = (k_{brA+B}/k_{incrA+B} + k_{brB+A}/k_{incrB+A})/v_b$, where k_{incr} = rate of chain growth; k_{br} is the rate of chain rupture. The two unknowns λ and χ can be determined experimentally from ω_a, ω_b, and from the copolymerization rates at different ratios of the monomers. Data obtained for the copolymers of isobutylene (A) and styrene (B): $\lambda = 4$; $\chi = 8 \cdot 10^6$; for styrene (A) and MMA (B) $\lambda = 10$; $\chi = 440 \cdot 10^6$. It was observed that the polymerization rate of styrene increased at -78°C with increasing surface of the reaction vessel. The authors established an effect that is analogous to that of solid admixtures observed by R. Worrall et al. (J. Appl. Rad. a. Isot., 4, 84, 1958). The monomer molecules adsorbed on the surface of the reaction vessel have a higher electron affinity than the molecules in the volume, and are able to capture secondary electrons. Thus, the lifetime of the carbonium ions effecting the polymerization process is prolonged. Moreover, the influence of the surface is confirmed by a reduction of the molecular weight of the

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Study of the mechanism of ...   B110/B220

polymer at -78°C when steel ampullae are used instead of glass ampullae.
S. S. Medvedev is thanked for his interest. There are 2 figures and
7 references: 4 Soviet and 3 non-Soviet. The most important references to
English-language publications read as follows: Ref. 4: A. Shapiro,
V. Stannett, J. Chim. Phys., $\underline{56}$, 830, 1959. Ref. 6: F. R. Mayo, Ch. Walling,
Chem. Revs., $\underline{46}$, 191, 1950. Ref. 7: R. Worrall, S. H. Pinner, J. Polymer
Sci., $\underline{34}$, 229, 1959.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physico-
               chemical Institute imeni L. Ya. Karpov)

SUBMITTED: September 5, 1960

Card 4/4

YAKOVLEVA, M. M.

Yakovleva, M. M.: "On the problem of quality wines of the Tadzhik SSR",
Buulleten' po plodovodstvu, ovoshchevodstvu i vinogradarstvu, No. 9, 1948,
p. 47-74, - Bibliog: 17 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

YAKOVLEVA, M. N.

Povyshenie proizvoditel'nosti truda – vazhneishee uslovie pobedy kommunizma [Increasing the productivity of labor is the most important factor in the victory of Communism].
Rekomend. ukazatel' literatury. Moskva, 1953. 51 p.

SO: Monthly List of Russian Accessions, Vol 7, No 4, July 1954.

YAKOVLEVA, Mariya Nilovna; SHCHEGOLEVA, B.I., redaktor; KHOVANSKIY, I.P.,
tekhnicheskiy redaktor

[What to read about the increase of labor productivity; a discussion
of books] Chto chitat' o povyshenii proizvoditel'nosti truda; beseda
o knigakh. Moskva, Gos. biblioteka SSSR im. V.I.Lenina, 1956. 15 p.
          (Bibliography--Labor productivity)   (MLRA 9:11)

YAKOVLEVA, M.N.; DONSKAYA, G.K., red.; VASIL'YEVA, L.P., tekhn.red.

[What to read in political economy; recommended list of
literature] Chto chitat' po politicheskoi ekonomii; reko-
mendatel'nyi ukazatel' literatury. Book 2. [Socialism]
Sotsializm. 1960. 94 p.   (MIRA 13:7)

1. Moscow. Publichnaya biblioteka.
   (Bibliography--Economics)   (Economics--Bibliography)

YAKOVLEVA, Mariya Nilovna; MISHARINA, V.V., red.; VASIL'YEVA, L.P.,
        tekhn. red.

        [The U.S.S.R. will be the first industrial power of the world.
        A talk on books] SSSR budet pervoi industrial'noi derzhavoi
        mira. Beseda o knigakh. Moskva, 1962. 29 p. (Moscow. Pub-
        lichnaia biblioteka. Dvadtsat' vtoroi s"ezd KPSS - z"ezd
        stroitelei kommunizma, no.4)   (MIRA 16:5)
                (Bibliography--Russia--Economic policy)
                    (Bibliography--Russia--Industries)

eA YAKOVLEVA, M.N.   14

Use of bentonite and other clay coagulants as substitutes for aluminum sulfate in water purification. M. N. Yakov-leva. (Gigiena i Sanit. 1951, No. 7, 20-1.—Some 20 speci-mens of bentonites, subbentonites, and active clays show ef-fective action only if total water hardness is above 7°. Cloudiness is decreased and color is reduced only by the re-moval of suspended matter; the ppt. formed with bentonites amounts to 1-5% by vol. Best bentonite found was that of Azerbaidshan (from Narimanov deposits).   G. M. K.

YARKVLEVA N A

Experimental investigations of the problem of accumulations of copper in sedimentary rocks

solution of the problem of the concn. of copper in sedimentary rocks by the method of exptl. reproduction of some natural processes. Study of the condition of the migration of cations of Cu in natural waters were carried out with H_2SO_4 solns. of Cu, which were allowed to interact with different natural and synthetic waters. Results showed that the migration of Cu is detd. by a series of factors, the activity of which is found to be in proportion to the concn. of Cu in soln. Y. considers the most probable method of accumulation of Cu to be its entrance into the water in the form of colloidal suspensions of basic carbonates. Y. explains the lenticular form of the concn. of Cu in sedimentary deposits as the concn. of Cu during the process of diagenesis and epigenesis of the rocks by means of transportation of Cu from the zones of great soly. of its salts to zones of less soly. in agreement with the principle of Le Chatelier. Chem. analysis data appear in tables. 42 references. G. S. M

AUTHOR: Yakovleva, M. N.   5-6-32/42

TITLE: On the Allite Crust of Erosion in Humid Subtropics of the
                 Trans-Caucasus (Ob allitnoy kore vyvetrivaniya vo vlazhnykh
                 subtropikakh Zakavkaz'ya)

PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody,
                 Otdel Geologicheskiy, 1957, # 6, p 145 (USSR)

ABSTRACT: The author discovered in 1955 an allite erosion crust
                 with a high content of free alumina (up to 40%) and tita-
                 nium (up to 2.6%) in the elevated part of the watershed
                 between the rivers Natanebi and Choloki and also in the
                 region of Chakva. The author studied this crust and the
                 ground waters, and presents his conclusions as to the
                 process and conditions of the crust's origination.

AVAILABLE: Library of Congress

Card 1/1

YAKOVLEVA, M. N.

"The Geochemistry of Aluminum, Titanium, Iron, and Silica Under the Effect Sulfate Weathering (In Connection with Bauxite Origin)" p. 120

Mineralogy and Origin of Bauxites, Moscow, Izd-vo AN SSSR (otd. geologo-geograf. nauk) 1958, 488pp.

This collection of articles by various authors on the mineralogy and geochemistry of bauxites appeared as a result of 1955 conf. on the origin of bauxite (Chairman, Acad. N. M. Stakhov)

YAKOULEVA, M.N.

LINZBURG, F.L.,

21 (0); 5 (0)

SOV/89-7-2-17/24

AUTHOR: Shababkovskiy, V. S.

TITLE: All-Union Symposium on Radiochemistry (Vsesoyuznyy simpozium po radiokhimii)

PERIODICAL: Atomnaya energiya, 1959, Vol 7, Nr 2, pp 175-176 (USSR)

ABSTRACT: A symposium was held in Leningrad from 3 to 5 March 1959. More than 200 participants from different institutes in Moscow, Leningrad, Kiev, Novosibirsk, Tbilisi and Gorkiy attended it. Twentyeight papers were read. The following are mentioned: I. Ye. Starik On the problem of the molecular state of microamounts of radioactive elements in solutions; I. Ye. Starik, N. I. Ampelogova, P. L. Ginzburg, L. I. Ilimenkova, I. A. Skul'skiy, L. D. Shmrdin; Condition of radioactive elements occurring in microconcentrations of solutions (Zr, An, Pa, Po), M. N. Yakovleva, M. A. Shurshalina; Application of the dialysis method for examination of uranium carriers in natural bodies of water; I. I. Paramonov, Ye. V. Lapteva; Complex formation of the multivalent rutherium with chlorine ions. K. B. Zaborenko, A. P. Zakhvalunova; V. V. Fomin; Determination of the composition and the instability constants by ion exchange of the cerium oxalate complexes. A. I. Loavin; Complex formation of plutonium and americium with the anions of ethylene diamine tetra acetic acid (EDTA) and oxalic and phosphoric acid. A. V. Irofimov, L. E. Slvanova; A new method for the determination of ion charges of radioactive elements in solutions by application of ion exchanging resins of different walling capacities. M. B. Vyeokoostrovskaya, M. Rodimov, S. I. Khokialkiy; Confirmation of the co-existence of complex formation between potassium and EDTA by application of the ion exchange and the potentiometric methods. V. I. Idaravko; Determination of the conditions of compounds to be extracted in the organic phase (hydration of uranyl nitrate with water). V. V. Vdovenko, M. P. Abashnavna; Degree of hydration of nitric acid in dibutyl ether of the diethylene glycol. V. V. Vdovenko, I. Kolokolnikov; Degree of solvation of the nitric acid in the dibutyl ether of the diethylene glycol. I. Kolodakin; Determination of the dependency of the distribution coefficients between the organic and the watery phases in order to determine the condition of the substance in the solution and to fixate the concentration range at which complex formation starts. V. I. Paramalov, P. D. ... ... lectured on extraction of hexavalent tungsten with aniline from hydrochloric acids. An. N. Nesmeyanov on substitution of hydrogen in benzol by the recoil atoms T^{12}, As^{76} and Sb^{76}, I^{124}. B. G. Dzantiyev lectured on the recoil atoms from the reactions of $Li^{6}(c,\alpha)T$, $N^{14}(\alpha,p)C^{14}$ in a medium of cyclic hydrocarbons. L. I. ... ... lectured on the influence of the NO_3 and H^+ ions on the reduction velocity of hexavalent plutonium under the influence of its own α-radiation. In the course of thorough discussions it was established that the comprehension of the condition of radioactive elements in solution are of eminent importance for the whole range of radio chemistry. More studies have to be made in this field as were made before. A better coordination of all the institutes which are occupied with this problem will yield good results in the future.

Card 1/3

Card 2/3

YAKOVLEVA, M.N.; SHURSHALINA, M.A.

Field method of determining the forms in which uranium is carried
in natural waters. Radiokhimiia 1 no.4:445-449 '59.
(MIRA 13:1)

(Uranium)

ZONENSHAYN, L.P.; BERTEL'S-USPENSKAYA, I.A.; SAFRONOV, V.S.; NEYMAN, V.B.;
GENDLER, V.Ye.; CHURIKOV, V.S.; YEREMIN, N.I.; KOGAN, B.S.; YAKOVLEVA,
M.N.; LANGE, O.K.; KABANOV, G.K.; KUZNETSOVA, K.I.; SINITSYNA, I.N.;
SMIRNOVA, T.N.; VENKATACHALAPATI, V.; MASLAKOVA, N.I.; BELOUSOVA, Z.D.;
YAKUBOVSKAYA, T.A.; YURINA, A.L.; RYBAKOVA, N.O.; MOROZOVA, V.G.;
BARASH, M.S.; FONAREV, V.I.; NIKONOV, A.A.

Activity of the Geological Sections of the Moscow Naturalists'
Society. Biul. MOIP. Otd. geol. 39 no.6:127-151 N-D '64.
(MIRA 18:3)

YAKOVLEVA, M.N.

Methods for studying the hydrochemical dispersion of flows as
indicators of the ore.potential of the region under investiga-
tion (applicable to mountainous conditions). Biul. MOIP Otd.
geol. 40 no. 6:147-148 N-D '65   (MIRA 19:1)

YAKOVLEVA, M.P.; CHEKHARINA, Ye.A.; SMIRNOVA, I.N.

Detection of tumoral cells in the blood in cancer of the organs
of the respiratory system. Vop. onk. 11 no.2:11-16 '65.

(MIRA 18:7)

1. Iz 2-go khirurgicheskogo otdeleniya (zav. - chlen-korrespondent
AMN SSSR prof. A.I. Rakov), otolaringologicheskogo otdeleniya
(zav. prof. N.A. Karpov), klinicheskoy laboratorii (zav. - dotsent
I.F. Grekh) Instituta onkologii AMN SSSR (direktor - deystvitel'nyy
chlen AMN SSSR prof. A.I. Serebrov).

Yakovleva, M.P.

USSR/General Problems of Pathology - Tumors.   T-5

Abs Jour   :   Ref Zhur - Biol., No 3, 1958, 12784

Author   :   Yakovleva, M.P.

Inst   :   Not given

Title   :   Blood Platelets in Cancer and Other Diseases of the
               Stomach.

Orig Pub   :   Vopr. onkologii, 1955, No 5, 63-71

Abstract   :   In 42 of 48 patients with gastric carcinoma, there was
               an increase in the relative number of platelets (98% on
               the average); in 17 of them, the number of platelets
               was above 100%; in some of them, 150-200%. An absolu-
               te increase in platelets was found in 26 patients, in
               some cases reaching 500,000 cu. mm. Thrombocytosis was
               frequently associated with anemias. The highest plate-
               let counts were found in inoperable patients.

Card 1/2   Iz Z khirurgicheskogo otdeleniya (

USSR/General Problems of Pathology - Tumors.   T-5

Abs Jour   :   Ref Zhur - Biol., No 3, 1958, 12784

          In patients with gastric ulcer (20), a relative increase
          in platelets (49.5%) was found in 7 patients, and an in-
          crease in the number of platelets per cu. mm. in 3 pati-
          ents (227,916 cu. mm. on the average). Among the pati-
          ents with gastritis (20) the average relative number of
          platelets was 48%, and the average absolute number was
          227,916; there was a rise in the absolute number in one
          patient and a rise in the relative number in 4. Platelet
          morphologic changes (poikilocytosis, anisocytosis, vacuo-
          lization and pyknosis) were more significant in cancer
          patients.

          Iz 2 Khirurgicheskogo otdeleniya (zav.- prof. A. I. Rakov).
          Instituta onkologii AMN SSSR (Dir.- chlen korr. AMN SSSR prof.
          A. I. Serebrov).

Card 2/2

YAKOVLEVA, M.P.

Counting thrombocytes in blood by means of a fluorescence
microscope. Lab. delo 3 no.1:21-24 Ja-F '57   (MLRA 10:4)

1. Iz II khirurgicheskogo otdeleniya (zav.-prof. A.I. Rakov)
Instituta onkologii AMN SSSR, Moskva.
         (BLOOD PLATELETS) (FLUORESCENCE MICROSCOPE)

YAKOVLEVA, M. P., Cand Med Sci -- (diss) "Changes in thrombocytes in cancer of the stomach, the lungs, and the mammary gland." Leningrad, 1960. 19 pp; (Ministry of Public Health USSR, Central Scientific Research Inst of Medical Radiology); 250 copies; price not given; (KL, 28-60, 166)

YAKOVLEVA, M.S.; KRASILOVA, Z.L.

Heat content of some vanadium oxides. Vest LGU 16 no.16:136-
139 '61.   (MIRA 14:8)
          (Vanadium oxide—Thermal properties)

L 17722-63   EWP(q)/EWT(m)/BDS   AFFTC/ESD-3   RH/JW/JD/JG

ACCESSION NR: AP3004075   S/0076/63/037/007/1631/1633

64

59

AUTHORS: Yakovleva, M. S.; Ariya, S. M.

TITLE: Possibility of studying the thermodynamics of oxides by measuring the emf   of galvanic cells with solid electrolytes

SOURCE: Zhurnal fizicheskoy khimii, v. 37, no. 7, 1963, 1631-1633

TOPIC TAGS: galvanic cell, gas phase, CaO, zirconium dioxide, thorium oxide, lanthanum oxide, emf, titanium, vanadium

ABSTRACT: The measurement of the moving electrical forces in a galvanic cell is applied in cases where the equilibrium of oxides is shifted and cannot be investigated with the gas phase. In this case one of the electrodes consists of the same material as the investigated solid oxide. The systems ZrO_2-CaO or ThO_2-La_2O_3 are used as the solid electrolytes which at a high temperature possess a high anionic conductivity while the electronic conductivity is practically nil. The electromotive forces found experimentally are lower than the ones that should exist if the emf was really a function of the chemical potential of the oxygen volume in the oxide. In all cases when the emf did not correspond to the chemical potential of oxygen at the electrodes, the internal resistance of cells were

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L 17722-63

ACCESSION NR: AP3004075

5

found to be very high. This high resistance is connected with the formation of a film of high resistance. Titanium and vanadium oxides are typical of such high resistance. The formation of high resistivity films takes place during the disproportionation of interspace oxides of titanium. The lowering of internal resistance of a non-reducible oxide in a hydrogen atmosphere can be explained by the fact that the film does not form in higher oxides in a hydrogen atmosphere. This is a further confirmation that the high resistance of cells is due to the formation of films. Thus, during the application of emf method it is necessary to control the internal resistance of cells which may increase due to the formation of film. "The authors express their gratitude to Ya. V. Vasil'yev for taking part in this work and the discussion of results." Orig. art. has 1 table and 3 formulas.

ASSOCIATION: Leningradskiy gosudarstvenny*y universitet (Leningrad state univer-sity)

SUBMITTED: 26Sep62   DATE ACQ: 15Aug63   ENCL: 00

SUB CODE: CH   NO REF SOV: 007   OTHER: 006

Card 2/2

YAKOVLEVA, M. V., Cand Tech Sci -- (diss) "Research into the temper-
ature field in the concrete mass of hydraulic structures." Kiev, 1960.
16 pp with graphs; (Ukraine Inst of Water Economy Engineers); 150 cop-
ies; price not given; (KL, 22-60, 140)

DYKOV, V.T.; YAKOVLEVA, V.V.

Investigation of the adsorption of dissolved substances by natural sorbents. Trudy DFAN SSSR. Sor. khim. no.4:60-76 '60.

(Adsorption)

(MIRA 14:10)

YAKOVLEVA, M.V.

Investigating the temperature field in block concrete. Inzh.-fiz.
zhur. no.11:93-96 N '60.   (MIRA 13:11)

1. Inzhenerno-stroitel'nyy institut, g.Kuybyshev.
   (Concrete construction)   (Heat--Conduction)

ZALEVSKIY, N.I.; KULIKOVA, A.N.; KUL'VINOVA, L.A.; SHISHMAREVA, O.Ya.;
YAKOVLEVA, M.V.

Porous structure and physicochemical properties of natural
sorbents of some deposits of Far East. Trudy DVFAN SSSR.
Ser.khim. no.7:26-30 '65.   (MIRA 18:12)

SAMOYLOV, B.N., dots.; BITYUTSKIY, A.I., inzh.; YAKOVLEVA, M.V.,
kand. tekhn. nauk, red.

[Calculation of suspension and guy supported roofs; a
textbook for course and diploma projects for students
majoring in "Industrial Construction and Civil Engineer-
ing"] Raschet visiachikh i vantovykh pokrytii; uchebno.
posobie dlia kursovogo i diplomnogo proektirovaniia stu-
dentov spetsial'nosti "Promyshlennoe i grazhdanskoe
stroitel'stvo." Kuibyshev, Jiibyshevskii inzhenerno-
stroitel'nyi in-t, 1964. 89 p.   (MIRA 18:4)

YAKOVLEVA, M.Ya.

New modification of Zimmermann's reaction. Trudy Ukr. nauch.-issl.
inst. eksper. endok. 19:421-429 '64.   (MIRA 18:7)

1. Iz otdela patofiziologii i otdela sinteza gormonov Ukrainskogo
instituta eksperimental'noy enkokrinologii.

LOBANOVSKAYA, L.I.; MAYOROVA, B.O.; MIRSAGATOVA, R.S.; YURCHENKO, M.Z.;
YAKOVLEVA, M.Ya.; YANKELEVICH, D.Ye.

Diabetes mellitus and pregnancy. Trudy Ukr.nauch.-issl.inst.
eksper.endok. 18:141-174 '61.   (MIRA 16:1)
(DIABETES)   (PREGNANCY, COMPLICATIONS OF)

PERSHINA, M.N., prof., doktor sel'skokhoz. nauk; YAKOVLEVA, M.Yu., sta:shiy
nauchnyy sotrudnik

Biological cycle of ash substances in Chestnut soils. Izv. TSKHA
no.4:122-129 '64.   (MIRA 17:11)

1. Kafedra pochvovedeniya Sel'skokhozyaystvennoy akademii imeni
Timiryazeva.

YURCHENKO, M.Z.; YANKELEVICH, D.Ye.; YAKOVLEVA, M.Ya.

17-ketosteroid content in the urine of healthy women and in women
with diabetes mellitus during normal and complicated pregnancy.
Trudy Ukr. nauch.-issl. inst. eksper. endok. 19:59-66 '64. (MIRA 18:7)

1. Iz otdela patofiziologii Ukrainskogo instituta eksperimental'noy
endokrinologii.

Investigation of opaque zirconium glazes with an electron microscope. V. S. Fadeeva and M. R. Yakovleva. Doklady Akad. Nauk S.S.S.R. 81, 607-9(1951).—Opaque ZrO_2 glazes, contg. 13% ZnO and 12.8% ZrO_2, were fired to 1250-1300°. A polarizing microscope showed small spots in connection with a nonequil. distribution of the crystn. phase. Replicas of the glaze surface were obtained by making lacquer impressions. The optimum thickness of the lacquer replicas was 500-700 A. The lacquer layer was removed from the glaze surface by allowing a gelatin soln. to solidify on the lacquer surface. Since the lacquer has a greater affinity for the gelatin than for the glaze, it was removed with the gelatin. The optical magnification obtained was 20,000-30,000. It was observed that the larger part of the glaze surface contained crystals of Zn spinel, 0.01-0μ in size. These crystals were arranged in groups and occupied about 10% of the total area. Some elongated cubes were shown to consist of zircon crystd. from the melt in the form of idiomorphic crystals. A Debye-gram taken for a given glaze contained, besides a zircon line, also gahnite lines: 1.42 A. (av. intensity) and 2.80 A. (weak intensity). The electron microscope, with the polarizing microscope and x-rays, appears to be an effective means of studying structures of glaze surfaces to det. the causes of flaws, and for the development of new methods of annealing and new types of glazes.   Gladys S. Mary

YAKOVLEVA, M.Ye.

Electron micrographic investigation of the surface of dull zirconium glazes. V. S. Fadeeva and M. R. Yakovleva. *Voprosy Petrog. i Mineral. Akad. Nauk S.S.S.R.* 2, 353-7 (1963).—Opaque Zr-Zn glazes sometimes showed cryst. spots of 1 mm. diam., that were investigated by the replica method, nitrocellulose films being used; the method of prepg. these replica is extensively described. The contrasts of the electron micrographs are improved by shadow-casting with Cr metal vapor in the cathode vacuum tube, under an impact angle of 15°. The thickness of the Cr layer is in max. 70 to 100 A. The photomicrographs show triangular crystal forms of 0.01 to 6 μ diam. that are identified as gahnite ($ZnO.Al_2O_3$), with typical [111] forms, and spinel twins. Crystals of andesine and of prismatic zircon, $ZrSiO_4$ (up to 15 μ length) were independently identified by petrographic-microscopic methods. The $ZrSiO_4$ is evidently recrystd. from a soln. in the molten glaze (max. temp. of application 1300°). Gahnite and zircon were also identified by their x-ray interference lines. — W. Eitel

YAKOVLEVA, M. Ye.

J. of Am. Cer. Soc.
I Feb. 1954
Whiteware

Matl ②

Opaque glazes for sanitary ware. Z. A. NOSOVA AND M. E. YAKOVLEVA. *Steklo i Keram.*, 10 [3] 11-17 (1953).—Zircon can be used as an opacifier in glazes if the shapes are fired once. A prerequisite of complete opacity is uniform distribution of small crystals of zircon in the glass of the glaze. A satisfactory batch consists of 93.7% frit and 6.3% clay. The frit consists of pegmatite 46.8, quartz sand 10.6, zircon 16.1, dolomite 6.2, chalk 6.2, ZnO 5.4, calcined kaolin 5.5, and Na$_2$SiF$_6$ 3.2%. This glaze is satisfactory if the ware has 15 to 20% nepheline concentrate and is fired once at 1150° to 1230°C. When fired at 1250° to 1300°, the degree of opacity decreases and small pits appear on the surface. For these higher temperatures, the glaze composition should be changed. 8 photomicrographs.   B.Z.K.

Low-melting opaque glazes.   Z. A. Nosova AND M. E. Yakov-
leva.   Doklady Akad. Nauk S.S.S.R., 91 [1] 137-39 (1953).—
Investigation of zirconium glazes established the following facts:
Opacity is determined by the presence in the glass of a uniformly
distributed finely crystalline phase, the composition of which
depends on the chemical composition of the glaze. If SiO_2 is
52.3% or less and $Na_2O + K_2O$ is 13 to 24%, baddeleyite (ZrO_2)
crystallizes. If SiO_2 is 54% or more and $Na_2O + K_2O$ is not
ovt. 20%, zircon $(ZrSiO_4)$ crystallizes; if alkalis exceed 20%,
however, the zircon, added to the charge in an amount of 20%,
does not crystallize upon cooling of the frit or glaze. Both zircon
and baddeleyite consist mostly of isometric grains, but in firing at
1200° to 1250°C. idiomorphic crystals are also observed. Ex-
tent of opacity is directly proportional to the amount of zircon
which passes into the melt and which crystallizes from it in the
form of fine grains, uniformly distributed within the glass. The
glazes are characterized by nonuniform distribution of the crystal-
line phase on the surface layer. The grain size of the crystalline
phase is the same in the depth and on surface sections rich in glass;
grains are larger on surface sections where crystals accumulate.
Grains increased in size with temperature from 1100° to 1250°.
The underglaze layer consisted mostly of glass with rare small
areas of baddeleyite.   B.Z.K.

YAKOVLEVA, M. E.

USSR/Chemistry - Porcelain

Card   : 1/1 Pub. 104 - 4/12

Authors   : Nosova, Z. A. and Yakovleva, M. E.

Title   : Dull-finish glazing for parts in sanitary constructions

Periodical   : Stek. i ker. 11/7, 9 - 14, June 1954

Abstract   : A description is given of extensive experimentation in the production
                 of dull-finish glazing through the use of tin oxide. Figures are fur-
                 nished as to the temperatures involved, percentages of ingredients used
                 and procedures followed with scientific explanation of the mechanical
                 causes of the opaque effect. In experiments both microscopic and x-ray
                 methods were used in an effort to produce the greatest degree of white-
                 ness and precise data were compiled. Tables; illustrations.

Institution   : ...

Submitted   : ...

YAKOULEVA, M. E.

USSR/Engineering – Ceramic materials

Card 1/1   Pub. 104 - 3/8

Authors   :   Beznosikova, A. V.; Yakovleva, M. E.; and Lundina, M. G.

Title   :   Changes in phase composition during the kilning of goods made of
                easily fusible clay

Periodical :   Stek. i ker. 3, 7-11, Mar 1955

Abstract   :   An investigation was conducted to determine the changes in phase composi-
                tion of easily fusible clays of various mineralogical composition and
                kilning sensitivity during the heating process. The basic admixtures
                of easily fusible clays were quartz, carbonates, mica, ferrous hydro-
                xide, field spar, epidote, etc. The results obtained are described.
                Four USSR references (1938-1951). Tables

Institution :   .....

Submitted   :   .....

YAKOVLEVA, M. E.

USSR/Chemistry - Ceramics

Card 1/1   Pub. 22 - 34/54

Authors   :   Nosova, Z. A., and Yakovleva, M. E.

Title   :   Microscopic investigation of the dullness of boro-lead glazings

Periodical :   Dok. AN SSSR   100/3, 529-531, Jan 21, 1955

Abstract   :   The dullness of ceramic plates (tile) treated with boro-lead glazing
                was investigated microscopically and the results obtained are tabulated.
                Three references: 2 USSR and 1 German (1946-1952). Tables, illustrations.

Instituion :   All-Union Scientific Research Institute of Structural Ceramics

Presented by: Academician A. G. Betekhtin, August 11, 1954

I. *YAKOVLEVA. M. YE*

USSR/Chemical Technology. Chemical Products and their Application.   J-12
      Glass. Ceramics. Building Materials.

Abs Jour Referat Zh.-Kh., No 8, 1957, 27648

Author : M.K. Gal'perina, M. Ye. Yakovleva.
Inst   :
Title   : Black Glaze for Tiles

Orig Pub: Steklo i keramika, 1956, No 10, 26-29

Abstract: It is established on the basis of performed experiments that
      the use of black pigments containing Cr_2O_3 for the production
      of black glaze is not suitable, because this oxide furthers
      the crystallization of cobalt ferrite. Black pigments con-
      sisting of a mixture of MnO_2, Fe_2O_3 and CoO give positive re-
      sults. The following composition of a black glaze for tiles
      of a burning temperature of 1160 to 1180° is recommended
      (in %): frit No 1 - 73; CoO - 3.6; MnO - 1.6; Fe_2O_3 - 1.6;
      felspar - 10.5; quartz sand - 2. The chemical composition of

Card   : 1/2   -48-

USSR/Chemical Technology. Chemical Products and their Application.   J-12
    Glass. Ceramics. Building Materials.

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27648

    frit No 1 is mentioned (in %%): SiO_2 - 22.6; Al_2O_3 - 2.3; Cao -
    7.5; K_2O - 3.9; PbO - 3.9; B_2O_3 - 8.4.

Card   : 2/2   -49-

YAKOWLEWA, M. E.

Poland/Chemical Technology - Chemical Products and Their Application. Silicates.
Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62282

Author: Nosowa, Z. A., Jakowlewa, M. E.

Institution: None

Title: Opaque Glazes for Sanitary-Building Articles

Original
Periodical: Zmetnione szkliwa dla wyrobow sanitarno-budowlanych, Szklo i
ceram., 1956, 7, No 3, 83-87; Polish

Abstract: A translation. See Referat Zhur - Khimiya, 1955, 12191

Card 1/1

YAKOVLEVA, M. Ye.

"Reaction of Some Silicate Glazing Melts with Ceramics at $1000^\circ - 1250^\circ$ Firing Temperatures"   p. 441

Transactions of the Fifth Conference on Experimental and Applied Mineralogy and Petrography, Trudy ...Moscow, Izd-vo AN SSSR, 1958, 516pp.

reprints of reports presented at conf. held in Leningrad, 26-31 Mar 1956. The purpose of the conf. was to exchange information and coordinate the activities in the fields of experimental and applied mineralogy and petrography, and to stress the increasing complexity of practical problems.

72-58-6-10/19

AUTHOR: Yakovleva, M.Ye.

TITLE: The Interaction Between Glazings and Ceramics at Burning Temperatures of 1000-1250° (Vzaimodeystviye glazurey s keramikoy pri temperature obzhiga 1000-1250°)

PERIODICAL: Steklo i Keramika, 1958, Vol. 15. Nr 6, pp. 30-36 (USSR)

ABSTRACT: At the NIIstroykeramik the investigation of this interaction was carried out by the petrographical method. For this purpose three frits were developed by the laboratory of the Sanstroyfayans: The alkaline silicates, lead silicates, and alkaline boron sili- cates. The molecular formulae are given. The glazings consisting of 95% frit and 5% kaolin were applied to a fayence body and were burned at temperatures of 1000, 1150 and 1250°. The chemical ana- lyses of initial- and burned glazings are given in table 1 (analysts: N.V.Rodnikova and M.N.Rybinskaya). The coefficients of thermal dilatation (table 2) for fayence and frits were deter- mined by means of a dilatometer, and those of initial and burned glazings by calculation method developed by A.A.Appen (Ref 1). Tensions occurring in glazings depend on the burning temperature. The modification of the dilatation coefficient is connected with

Card 1/3

The Interaction Between Glazings and Ceramics at
Burning Temperatures of 1000-1250°

the modification of the chemical composition of the glazing
during burning. X-ray analyses were carried out by A.V.
Beznosikova. Fig. 1 schematically shows the interaction between
glazing and fayence, which is also described. Refraction of light
of glazed glass changes with the thickness of the glazing surface,
as well as with the temperature of burning (table 3). If the
chemical analyses of the glazing are re-calculated, taking the
volatilizing lead oxide into account, the values of alumina and
silica are obtained (table 4). The interaction between fayence and
an alkaline boron silicate glazing is shown in fig. 1. Burning of
the glazing on fayence is accompanied by a considerable change of
its composition owing to the volatilization of sodium and boron
and enrichment by alumina. This also leads to a modification of
the thermal dilatation coefficient. Figs. 2, 3, 4 and 5 show the
various kinds of crystallization in the zone of contact of
glazing and fayence. The authoress concludes as follows: The
durability of the glazing on a ceramic body is due to agreement
among its thermal dilatation coefficients; the intensity of reac-
tion between glazing and body depends entirely upon their chemical
compositions as well as upon burning temperature and on the

Card 2/3

72-58--6--10/19

The Interaction Between Glazings and Ceramics at
Burning Temperatures of 1000-1250°

duration of burning. The modification of the thermal dilatation
coefficient of an alkaline silicate glazing within the tempera-
ture interval of 1000-1250° is connected with the volatility of
Na_2O; the intense interaction between glazing and body can be
accompanied by a considerable development of the crystal phase
in the intermediate zone, which may exercise both a positive and
a negative effect on the connection between glazing and body.
There are 5 figures, 4 tables, and 4 references, 1 of which is
Soviet.

ASSOCIATION: NIIstroykeramika (NII Building Ceramics)

1. Ceramic materials--Temperature factors   2. Ceramic materials
--Stresses   3. Ceramic materials--Chemical reactions   4. Ceramic
materials--Crystallization

Card 3/3

AUTHORS: Yakovleva, M. Ye., Beznosikova, A. V.,   SOV/72-58-9-10/26

TITLE: Microstructure of Faience and Semi-Porcelain Baked at
            1100 - 1300°(Mikrostruktura fayansa i polufarfora, obozh-
            zhennykh pri 1100 - 1300°)

ABSTRACT: This investigation of microstructure was carried out
            using the glass manufactured in Works at Kirov and
            Lobnya   for Structural Sanitation Ceramics. It included
            X-ray structure analyses and petrographical methods.
            The composition of the batches and the chemical analyses
            of the glasses investigated are given in tables 1 and 2.
            Subsequently the preparation of the test batches is
            described in detail. The percentage of mullite, cristo-
            balite and of quartz contained in baked bodies was de-
            termined by X-ray analyses. Table 3 gives the chemical
            composition of baked new Swiss clay (novoshveytsarskaya glina)
            and of Prosyanovskiy kaolin. The phase composition of
            these two raw materials at a temperature of 1150° can be
            taken from table 4. This is followed by a description of
Card 1/4   fayence formation. The phase composition of porcelain

Microstructure of Faience and Semi-Porcelain Baked at SOV/72-58-9-1o/2o
1100-1300°

and values of water absorption and the coefficient of
expansion in the baking temperature range of 1100-1300°
are presented in table 5 and figure 1, the results of
the microscopical analysis of porcelain are compiled
in table 6. The structure of porcelain at a temperature
of 1300° is portrayed in figure 2. Figure 3 shows a
feldspar grain during glass formation. The mullite
content of the body increases with a rise of the baking
temperature, reaching 31% at 1300°. The amount of feldspar,
quartz cristobalite and mullite contained in semi-porcelaine,
values of the water absorption and the coefficient of
expansion in the baking temperature range of 1100-1300°
are given in table 7 and figure 4. The results of the
microscopical analysis of the semi-porcelain can be seen
from table 8. The opinion of P.P.Budnikov and Kh.O.
Gevorkyan (Ref 1) concerning the mullite crystallization
is considered to be wrong.This hypothesis, that the
mullite crystallization in the feldspar grain is the
result of a migration of alumina, was uttered even earlier
Card 2/4   by V.V.Lapin (Ref 1). In the laboratory of the sanstroy-

Microstructure of Faience and Semi-Porcelain Baked at   SOV/72-58-9-10/20
1100-1300°

fayansa NIIstroykeramiki experiments were carried out
with finely ground quartz and feldspar, which were added
to the batch. Data concerning the wet milling processes
and the baking processes at a temperature of 1280°
are given in table 9. There is a reason to believe
that potassium oxide exerts a double influence upon
the development of cristobalite: 1) The development
of cristobalite is obstructed in favor of the amorphous
silicic acid of the dissociated kaolinite and 2) the
transformation of the modification of crystalline silicic
acid quartz into cristobalite according to the increase
of the fineness of grain, is favored. There are 6 figures,
9 tables, and 2 references, 2 of which are Soviet.

ASSOCIATION: NIIstroykeramika (Scientific Research Institute of
Structural Ceramics)

Card 3/4

IAKOVLEVA, M. E. and KIRILLOV, I. I.

Shire razmakh sotsialisticheskogo sorevnovaniia i stakhanovskogo dvizheniia. [A wider scope of socialist competition and Stakhanov movement]. (Vodnyi transport, 1939, no. 6, p. 5-7).   DLC: HE561.R8

YAKOVLEVA, M. Ye.

"Differentiated Gabro-Diabase Intrusion of Mt. Chernaya in the Upper Course of the Pyasino River, Taimyr Peninsula", Dok. AN, 55, No. 9, 1947

CM

Differentiated gabbro-diabase intrusion of Lake Khet,
Lower Taimyr Peninsula   M. K. Yakovleva   Doklady
Ikad. Nauk S.S.S.R. 59, 511 (1948)—Sill of a gabbro-
diabase magma, in flat-inclined extension above Upper-
Silurian layers, accompanied by interesting contact-
metamorphic rocks (with diopside, biotite, cordierite,
and garnet), are related to abyssal calcite and monticellite-
bearing larnite-merwinite and gehlenite-monticellite rocks.
The sill is differentiated, with a distinct gravitative en-
richment of the mafic minerals in the lower parts, the
leucocratic in the upper parts.   The chem. analyses show
that in the lower parts SiO_2, Al_2O_3, Fe_2O_3, CaO, Na_2O,
and K_2O decrease in the same measure as FeO and MgO
increase.   The rocks are classified according to Zava-
ritskii's system (C.A. 22, 4080); the prismatic granular
upper parts are acid, with silica, the underlying prismatic
ophitic gabbro-diabase is intermediate, the pankidiophitic
gabbro-diabase is weakly undersatd., while the picritic
rocks are strongly undersatd.   All these types are low in
alkalies, with a distinct predominance of Na_2O over K_2O.
The mineralization is in a strict parallelism with these
chem. characters; optical details of the following minerals
are given: olivine, augite, orthorhombic pyroxene, pigeo-
nite, plagioclase, and anorthoclase.   The orthorhombic
pyroxene is only an accessory mineral in the upper parts of
the sill, but markedly enriched in the intermediate, and
especially in the picritic parts.   Quartz and microgranite
appear only in the upper parts, like titano-magnetite.
Chromite is exclusively observed in the picritic rocks.
                                                W. Eitel

YAKOVLEVA, M.E.

USSR.

Petrographic investigation of the clays of the Troshinsk deposits on the eastern slope of the Middle Ural Mts. M. E. Yakovleva. *Voprosy Petrog. i Mineral. Akad. Nauk* (1953).—The clay deposits on the right bank of River Neiva near Nev'yansk are characterized by the progressive kaolinization of sericite and quartz-sericite schists, with an excellent preservation of primary schist structures. Quartz veins intersect the clay rocks in all directions. Many of the sericite schists have been previously described as muscovite and hydromica rocks, with quartz, rutile, green amphibole, albite, and epidote as accessories. In the fractions below 0.5 μ, kaolinite and halloysite have been identified by thermal analysis. Leucoxene is a by-product of the weathering process. Most striking are porphyroblastic structures preserved in the mica and kaolinite parts of the rocks. Authigenic tourmaline in well-developed crystals of 20 to 100 μ length, with γ = 1.638 to 1.660, and α = 1.616 to 1.621, weak pleochrosim, is sometimes an accessory, with rutile in the mica-enriched parts of the clays, and hydromica with β = 1.670, birefringence 0.010. Another type of relict structures is shown by phenocrysts of primary feldspar of the porphyric mother rock which have been changed to pseudomorphs of sericite in a micro-faulted quartz-clay-carbonate-hydrogoethite matrix. The quant. compn. of the clay rocks was detd. by differential thermal analysis. The results of chem. bulk analyses are compared with quant. calcns. of the mineral compn., with kaolinite and muscovite as the chief constituents. Hydromicas could not be calcd. as such, but appear in the results for kaolinite and muscovite. The industrial usefulness of the clays is influenced by their relatively moderate refractoriness (sintering temp. 1150° to 1200°) and by the low binding capacity which makes addns. of plastic clays indispensable. They have been proved good for the manuf. of floor tiles and slabs, even for facing tiles, glazed with a dull glaze.   W. Eitel

GINZBURG, A.I.; YAKOVLEVA, M.Ye.

Some phenomena of the redeposition of spodumene in pegmatites.
Trudy Min. muz. no.11:3-12 '61.
(MIRA 16:7)

(Pegmatites)   (Spodumene)

KOROVYAKOV, I.A.; YAKOVLEVA, M.Ye.

Differential intrusion in the Panskiye heights of the central
part of the Kola Peninsula. Min.syr'e no.4:75-99 '62.
(MIRA 16:4)

(Kola Peninsula—Rocks, Igneous)

BARSANOV, G.P.; YAKOVLEVA, M.Ye.

     The color of minerals. Trudy Min. muz. no.14:32-78 '63.
                                 (MIRA 16:10)

         (Color of minerals)

BARSANOV, G.P.; YAKOVLEVA, M.Ye.

Tourmaline of dravite composition. Trudy Min. muz. no.15:39-80
'64.

(MIRA 17:11)

BABANOV, G.F.; YAKOVLEVA, M.Ya.

Tourmaline of scherlaceous composition. Trudy Min.muz. no.16:3-44
                                                    (MIRA 18:8)
'65.

YAKOVLEVA, M.Ye.; RAZMANOVA, Z.P.; SMIRNOVA, M.A.

     Lepidolite with a small angle of optical axes. Trudy Min.muz. no.16:
287-292 '65.
                                                           (MIRA 18:8)

ZUNDE, I., kand. sel'khoz. nauk, otv.red.; PETERSONS, E., kand.
sel'khoz. nauk, red.; YAKOVLEVA, N., kand. biol. nauk,
red.; GUTMANIS, K., kand. biol. nauk, red.; MELEHINA, A.,
kand. sel'khoz. nauk, red.

[Economically useful plants] Tautsaimnieciba derigie augi.
Riga, Latvijas PSR Zinatnu akad. izd-ba. Vol.2. 1963.
194 p. [In Latvian]   (MIRA 17:6)

1. Akademiya nauk Latviyskoy SSR. Biologicheskiy institut
(for Petersons).

YAKOVLEVA, N., kand. biolog. nauk

Control of the green mosaic of cucumbers. Zashch. rast. ot vred.
i bol. 10 no.12:50-51 '65.   (MIRA 19:1)

1. Vsesoyuznyy sel'skokhozyaystvennyy institut zaochnogo obrazo-
vaniya, Balashikha, Moskovskoy oblasti.

KOSTINA, Z. I., kand.med.nauk; YAKOVLEVA, N.A.

Case of senile tuberculosis complicated by the middle lobe syndrome.
Probl. tub. 42 no.12:59-60 '64.   (MIRA 18:8)

1. Kafedra legochnogo tuberkuleza (zav. - prof. A.Ya.TSigel'nik)
1-go Leningradskogo meditsinskogo instituta imeni I.P.Pavlova.

BEKLEMISHEV, N.D.; KASYMOVA, Kh.A.; SHYREVA, Ye.A.; KLYUCHNIKOVA, Ye.A.
  MOSHKEVICH, V.S.; TLEULIN, S. Zh.; YAKOVLEVA, N.A.

State of the health of people inoculated with live antibrucellosis
vaccines. Izv. AN Kazakh. SSR. Ser. med. nauk no.1:84-90 '64
                                        (MIRA 17:7)

BEKLEMISHEV, N.D.; KASYMOVA, Kh.A.; SHNYREVA, Ye.A.; KLYUCHNIKOVA, Ye.A.;
    MOSHKEVICH, V.S.; TLEULIN, S.Zh.; YAKOVLEVA, N.A.;ZENKOVA, N.F.

State of health in persons vaccinated with live antibrucellosis
vaccines. Zhur. mikrobiol., epid. i imm. 41 no. 2:139-140 F '64.
                                                    (MIRA 17:9)

1. Kazakhskiy institut krayevoy patologii AMN SSSR, Alma-Ata.

BARANOV, Ye.G.; TANGAYEV, I.A.; YAKOVLEVA, N.A.

      Study of the process of the displacement of ores and
      rocks in blasting under conditions of complex deposits.
      Izv. AN Kir. SSR. Ser. est. i tekh. nauk 5 no.1:7-23 '63.
                                (MIRA 16 : 11)

YAKOVLEVA, N. A.

Cand Tech Sci - (diss) "Study of the coupling of reinforcement
with thermosito-concrete." Moscow, 1961. 15 pp; (Academy of
Construction and Architecture USSR, Central Scientific Research
Inst of Concrete and Reinforced Concrete); 185 copies; price not
given; (KL, 6-61 sup, 229)

YAKOVLEVA, N.A.

Influence of health resort factors and radon baths on the condition
of the cardiovascular system in hypertensive patients. Trudy Inst.
kraev.pat. AN Kazakh. SSR 7:131-147 '59.   (MIRA 13:3)
          (ALMA-ATA--HEALTH RESORTS, WATERING PLACES, ETC.)
          (RADON--THERAPEUTIC USE)   (HYPERTENSION)

YAKOVLEVA, N.A.

Influence of single-stage radon baths on the condition of the
cardiovascular system in hypertensive patients. Izv. AN Kazakh.
SSR. Ser. med. i fiziol. no.2:102-107 '59   (MIRA 13:3)
        (HYPERTENSION) (RADON--THERAPEUTIC USE)
            (CARDIOVASCULAR SYSTEM).

YAKOVLEVA, N.A.; YUSHKIN, N.P.

Genesis of the Shor-Su sulfur deposit. Uzb.geol.zhur.
6 no.3:37-44 '62.   (MIRA 15:6)

1. Glavnoye upravleniye geologii i okhrany nedr pri Sovete
Ministrov UzSSR.
                    (Shor-Su region--Sulfur)

YAKOVLEVA, N.A.

Treatment of patients with joint diseases at the Ayak-Kalkan
Mineral Springs. Trudy Inst.kraev.pat.AN Kazakh. S.S.R.
11:90-97 '62.   (MIRA 16:4)
                         (JOINTS—DISEASES)
                  (ALMA-ATA PROVINCE—BATHS, MEDICATED)

YAKOVLEVA, N. D.

"The Significance of the Turning Green of Tubers on the
Phase Development and Yield of Potatoes." Cand Biol Sci, Inst
of Botany imeni V. L. Komarov, Acad Sci USSR (Apr-Jun 54).
(Vest Ak Nauk, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR
Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

RADCHENKO, S.I.; YAKOVLEVA, N.D.

Nonphotosynthetic function of chlorophyll in plants. Bot.zhur. 46
no.6:790-802 Je '61.   (MIRA 14:6)

1. Botanicheskiy institut imeni V.L.Komarova AN SSSR, Leningrad.
                          (Chlorophyll)

YAKOVLEVA, N.D., nauchnyy sotrudnik

Advantages of treating potatoes with formalin before planting.
Zashch. rast. ot vred. i bol. 7 no.3:43 Mr '62.   (MIRA 15:11)

1. Tiraynonskaya selektsionno-opytnaya stantsiya Latviyskogo instituta
zemledeliya.
          (Latvia--Seed potatoes) (Formaldehyde)

FEDOROV, A.M.; YAKOVLEVA, N.F.

Frequency errors of compensating diode voltmeters. Izm. tekh.
no.8:35-37 Ag '65. (MIRA 18:9)

S/126/62/014/006/016/020
E073/E420

24.7200

AUTHORS: Borovik, Ye.S., Yakovleva, N.G.

TITLE: The influence of texture on the magnetic properties of mixed ferrites of barium and strontium

PERIODICAL: Fizika metallov i metallovedeniye, v.14, no.6, 1962, 927-930

TEXT: Of the statistically isotropic mixed ferrites, the ferrite $BaO_{.75}SrO_{.25}O.6Fe_2O_3$ has the highest magnetic energy, reaching 1.45×10^6 Gauss Oe.   Mixed ferrites of this system which were statistically anisotropic, due to texture, were investigated from the point of view of determining the possibility of increasing the residual induction B_r and maximum magnetic energy $(BH)_{max}$.   The anisotropy was produced by applying a magnetic field (5500 Oe at the beginning, 10000 Oe at the end) during the process of pressing the powder-water mixture; after which the powder was additionally compressed (4 tons/cm^2) in the same die.   The pressings were then dried and sintered at 1100 to 1260°C for 1 hour.   To permit accurate determination of the influence of the anisotropy, identical isotropic specimens were produced by

Card 1/2

24,2200

AUTHORS: Borovik, Ye.S., Yakovleva, N.G.

TITLE: Investigation of the magnetic properties of binary
             systems of the mixed ferrites lead-barium and
             lead-strontium

PERIODICAL: Fizika metallov i metallovedeniye, v.15, no.1, 1963,
             151-153

TEXT: The investigation of the binary system $Ba_{1-x}Pb_xO.6Fe_2O_3$
and $Sr_{1-x}Pb_xO.6Fe_2O_3$ may lead to new high-coercivity materials.
These ferrites were produced by solid-phase reaction between
ferric oxide and carbonates of barium, strontium and lead. Mixed
Ba-Pb ferrites were produced from the powders $BaCO_3$, $PbCO_3$ and
Fe_2O_3, whilst Sr-Pb ferrites were produced from the powders
$SrCO_3$, $PbCO_3$ and Fe_2O_3 in weight ratios corresponding to the
respective stoichiometric compositions.   The powders were
carefully mixed with water for several hours and then roasted for
5 hours at 900°C; blanks were pressed from the roasted powders
and sintered for 1 hour at various temperatures to produce
cylindrical specimens 0.7 to 1 cm long and about 0.16 cm^2 cross-
Card 1/3

Investigation of the magnetic ...

section. The magnetic properties were measured in fields of up to 7000 Oe. The maximum magnetic energy $(BH)_{max}$ for the mixed ferrites did not exceed appreciably the respective value of the pure barium ferrite, whatever the sintering temperature, but for the sintering temperatures of 1200 and 1230°C it was considerably greater than that of the pure lead ferrite. $(BH)_{max}$ reached 1.5×10^6 gauss Oe for ferrites with $x < 0.5$ and a sintering temperature of 1230°C. B_r showed a nonmonotonic dependence on composition for all the sintering temperatures; the maximum residual induction was 3000 gauss for $Ba_{0.25}Pb_{0.75}O.6Fe_2O_3$ and a sintering temperature of 1230°C.   With increasing lead content the coercive force of mixed Ba-Pb ferrites decreased and the coercive force also decreased with increasing sintering temperature from 1100 to 1230°C.   For the ferrite $Sr_{1-x}Pb_xO.6Fe_2O_3$ the best results were obtained with a sintering temperature of 1200°C, 1.55×10^6 gauss Oe for $(x \sim 0.25)$.   For these compositions as well as for compositions with $x \sim 0.75$ the maxima on the $(BH)_{max} = f(x)$ curves were observed for all the sintering temperatures.   With optimum sintering B_r reached
Card 2/3

Investigation of the magnetic ...
S/126/63/015/001/026/029.
E073/E420

2800 to 2900 gauss for mixtures with low contents of Pb. The coercive force of Sr-Pb ferrites decreased with increasing Pb content; the absolute values of $_IH_c$ decreased with increasing sintering temperature. The results show that these mixed ferrites are of practical interest as good, hard ferromagnetic materials and it is advisable to investigate the ternary system of the mixed ferrites barium, strontium and lead. There are 4 figures.

ASSOCIATION: Khar'kovskiy gosuniversitet im. A.M.Gor'kogo (Khar'kov State University imeni A.M.Gor'kiy)

SUBMITTED: April 4, 1962

Card 3/3

L 13406-63   EWP(q)/BDS/EWT(1)/EWT(m)/EED-2 AFETC/ASD JD

ACCESSION NR: AP3000093   S/0126/63/015/004/0511/0517

AUTHOR: Borovik, Ye. S.; Yakovleva, N. G.

TITLE: Magnetic properties of the ternary composite ferrites of barium, strontium, and lead

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 4, 1963, 511-517

TOPIC TAGS: ternary ferrite system, ferrite magnetic property, Ba, Sr, Pb, highly coercive ferromagnetic material

ABSTRACT: The present work is a continuation of an earlier investigation by the authors. However, in the present case ternary instead of binary systems of composite Ba, Sr, and Pb ferrites were analyzed. The goal was to produce higly coercive ferromagnetic materials. A new technique was used in the preparation of hexagonal ferrites. It differed from the standard procedure in the the first stage (a preliminary annealing of $BaCO_3$ and Fe_2O_3 powder) was omitted. The relations between the magnetic properties of the ternary ferrite systems to the ferrite composition were determined. The variations in the maximum magnetic energy in a ternary system were also defined and are illustrated in a trilinear chart. The magnetic properties of the best triple-ferrite compositions were

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L 13406-63
ACCESSION NR: AP3000093

tabulated, as were the calculated lattice constants for certain hexagonal ferrites. The authors conclude that the changes in the technique used considerably improve the properties of the compounds. The optimal sintering temperature was 1230C maintained for one hour. According to X-ray analysis, the composite ferrites of binary and ternary systems represent solid replacement solutions with a hexagonal lattice. The increase in BH is due mostly to the increase in residual induction and to an improvement in the hysteresis loop. The reason for this improvement is not clear and requires further study. In conclusion the authors express their appreciation to B. Ya. Pines, for valuable advice and the discussion of the results. Orig. art. has: 2 tables and 6 figures.

ASSOCIATION: Khar'kovskiy gosudarstvenny*y universitet im A. M. Gor'kogo (Kharkov State University)

SUBMITTED: 14Jun62   DATE ACQ: 12Jun63   ENCL: 00

SUB CODE: 00   NO REF SOV: 005   OTHER: 004

Card 2/2

L 18522-63   EWT(1)/EWP(q)/EWT(m)/BDS/EED-2   AFFTC/ASD/ESD-3   JD/JG

ACCESSION NR: AP3000112   8/0126/63/015/004/0633/0635

AUTHORS: Borovik, Ye. S.; Yakovleva, N. G.   65

TITLE: Magnetic properties of mixed anisotropic Ba, Sr, and Pb ferrites   64

SOURCE: Fizika metallov i metallovedeniye, v. 15, no. 4, 1963, 633-635

TOPIC TAGS: magnetic property,   ferrite , anisotropic ferrite ,Ba, Sr, Pb, barium,
strontium, lead

ABSTRACT: The influence of grain orientation on the magnetic properties of mixed
ferrites was studied. The textured samples were prepared from the isotropic
ferrites by the wet grinding, pressing between the poles of an electromagnet, and
sintering. Their magnetic properties were measured in the direction of the magnetic
field imparted during the texturing process. The average values of the magnetic
parameters obtained for several sample groups of given compositions are tabulated.
The maximum magnetic energies of all the ternary systems approach the high level
found in anisotropic Ba ferrite. The textured ferrite $Sr_{0.75}Pb_{0.25}O \times 6Fe_2O_3$ has
the highest magnetic energy of 4.4×10^6 gauss-ergs. Since the hysteresis loops
obtained are not ideally rectangular, the authors conclude that the magnetic proper-
ties of the ferrites may be advanced further by improving the texturing procedure.
Orig. art. has: 2 figures and 1 table.

Card 1/2/ ASSN: KHAR'KOV STATE UNIVERSITY

GRISTAN, Ye.L.; TURETSKIY, Ya.M.; Prinimali uchastiye: KOLOSKOVA, V.G.;
    PESHINA, M.A.; YAKOVLEVA, N.I.; VAYKHEL', A.A.

    Dressing iron ores and retreating magnetite concentrates by the
    re-flotation method with anion collectors. Gor. zhur. no.12:47-
    40 D '61.   (MIRA 15:2)

    1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy
    metallurgii im. I.P.Bardina, Moskva.
                        (Iron ores)
                        (Flotation)

YAKOVLEVA, N.I., inzh.

Hydraulic-fill construction of dams with a free slope.
Trudy VNIIGiM 35:147-156 '60.   (MIRA 14:9)
                         (Dams)

YAKOVLEVA, N.I., inzh.

Density of earth-fill dikes. Gidr. stroi. 32 no.6:38-41 Je '62.
(MIRA 15:6)
(Dikes (Engineering))

YAKOVLEVA, N.I., inzh.

Results of studies of alluvium on one side of dikes. Gidr.stroi.
33 no.4:21-26 Ap '63.   (MIRA 16:4)
                        (Alluvium)

ACCESSION NR: AT4016873   S/2C31/63/000/143/0096/0103

AUTHOR: Yakovleva, N.I.

TITLE: Air temperature changes in the 500-200 millibar layer

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy*, no. 143, 1963, Voprosy* chislennogo prognoza i structura meteorologicheskikh poley (Problems in numerical forecasting and structure of meteorological fields), 96-103

TOPIC TAGS: meteorology, air temperature, nonadiabatic factor, atmospheric pressure, atmospheric heat flux equation, troposphere, stratosphere

ABSTRACT: An attempt is made to use charts of absolute pressures aloft to determine at least the relative relation of terms in the heat conductivity equation in the upper half of the troposphere. AT_{500}, AT_{300}, and AT_{200} charts were used. Change in the temperature of an air particle $\delta\, T_p$, moving horizontally along an isobaric surface, is determined from the heat conductivity equation

$$\delta T_n = \left(\frac{\partial T}{\partial t}\right)_p + \vec{v}\,(\nabla T)_p = -\,w_p(\gamma_a - \gamma) + \frac{1}{c_p \rho}\cdot\frac{dQ}{dt}.$$

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ACCESSION NR: AT4016873

where Υ is the vertical temperature gradient, w is vertical velocity, the last term on the right-hand side characterizes nonadiabatic processes (radiational and turbulent). Determination of components of (1) at heights near the tropopause on the basis of AT-chart data is difficult. On the left-hand side of the equation the value $\delta\, T_p$ and its two components -- local change $\frac{\partial T}{\partial t}$ and advective change $\vec{v}\,(\nabla T)$ -- are determined by the trajectory method using AT-charts for the whole of Europe. Constructed trajectories are used for determination of the advective and local components. The map corresponding to the time of the initial point of the trajectory is used for determining the temperature at this initial point and at another point whose coordinates correspond to the end point of the trajectory at the end of 24 hours. The difference in these temperatures on the single chart represents the advective change of temperature in 24 hours -- $\delta\, T_A$. By knowing the temperature at the point whose coordinates correspond to the end point of the 24-hour trajectory for a particular time and for the preceding 24 hours it is possible to find the local temperature changes -- $\delta\, T_t$. Sixteen trajectories were constructed for the warm season and 10 for the cold season for 1959 and 1960. In the summer each trajectory was traced for 2 to 4 days; in the winter -- 4 to 6 days. About 100 daily temperature changes ($\delta\, T_p$, $\delta\, T_A$, $\delta\, T_t$) were found for the three isobaric surfaces mentioned.

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ACCESSION NR: AT4016873

Mean absolute values of temperature change, their "standards" and the mean square deviation of each measurement from the mean were determined and tabulated. The table shows that the mean absolute values δT_A and δT_t and the value of their sum δT_p have the same order of magnitude at a particular level. These data are compared with data from similar studies. The air temperature changes associated with vertical move-ments are evaluated. The nonadiabatic terms in equation (1) are considered insofar as data permit; it is desirable to take them into account, but further studies on this problem are mandatory. Orig. art. has: 3 tables and 5 formulas.

ASSOCIATION: Glavnaya geofizicheskaya observatoriya (Main Geophysical Observatory)

SUBMITTED: 00

DATE ACQ: 20Feb64

ENCL: 00

SUB CODE: AS

NO REF SOV: 008

OTHER: 004

Card 3/3

YAKOVLEVA, N.I.

Calculating evaporation from the surface of water under various
boundary conditions. Trudy GGO no.33:85-93 '52.   (MIRA 11:1)
(Water cycles)

YAKOVLEVA, N. I., YUDIN, M. I. and BUDYKO, M. I.

"Evaporation From Irrigated Regions and Evaporability".

Meteorol. i Gidrologiya, No 1, pp 7-10, 1954.

    Computations of evaporability for large and small irrigated territories
under various climatic conditions are considered. It is pointed out that in
the determination of evaporability from small territories under conditions of
a dry climate one must take into account the dependence of evaporation
upon the dimensions of the wetted surface, since evaporability from large
wetted territories is markedly less than from small areas. The difference
in the magnitudes of evaporability appears mainly for irrigated areas of
less than one kilometer extent, especially for areas of less than 100
meters size. Under conditions of a wet climate the difference in evapora-
tion from large and small wetted surface is small. The presence of blow-
through forest belts in irrigated fields ensures decrease of evaporation
from fields by 7-14%, thus lessening the irrigation norm.
(RZhGeol, No 11, 1955)

SO: Sum No 884, 9 Apr 1956

YAKOVSLEVA, N. I.

"Analysis of Night Cooling and Forecasting of First Autumn Frosts".
Meteorol. i gidrologiya, No 3, pp 21-24, 1954.

The role of individual factors, mainly effective radiation and wind, are investigated for their influence in lowering the temperature. The author employs the method of Berlyand (Izv. AN SSSR, ser. geofiz., No 2, 1953), which is based upon the solution of the equations of turbulent heat exchange in air and heat conduction in soil. Verification of the Berlyand method in forecasting of first autumn frosts revealed mean error in the forecast of soil temperature 1.4° and air temperature 1.2°. (RZhGeol, No 8, 1955)

SO: Sum No 884 9 Apr 1956

Yakovleva, N.I.

36-71-8/16

AUTHOR: Yakovleva, N. I.

TITLE: Calculating Changes of Temperature, Humidity and Heat
Balance Components at the Surface of Water Bodies
(Raschët izmeneniy temperatury i vlazhnosti vozdukha i
sostavlyayushchikh teplovogo balansa poverkhnosti
vodoyëma)

PERIODICAL: Trudy Glavnoy geofizicheskoy observatorii
1957, Nr 71, pp. 112-128 (USSR)

ABSTRACT: To the determination of changes in temperature and humidity
and also to the turbulent imbalance existing between the ground
and large, water-covered areas and in determining the evapora-
tion over variously blanketed areas, a full mathematical treat-
ment is given. Basic parameters such as air temperature, humid-
ity, differences in the thermal currents, total radiation,
albedo of the ground were used. The effect of wind is also
taken into account. The calculations are reduced to simplest
formulas and graphs. As an illustration of these semi-empirical
methods, the Aral Sea in the semidesert conditions of Central
Asia was selected because of its well-expressed trends of winds,
(89 percent) and the Rybinsk Water Reservoir, a shallow sea was
selected to represent well-humidified climatic conditions. A
similar technique may used to establish the meteorological

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Calculating Changes of Temperature, Humidity and Heat (Cont.)

characteristics and heat currents of shallow reservoirs. Heat accumulating over large masses of water is a source of considerable instability and affects the calculations. There are 10 figures, 9 tables and 7 references of which 6 are USSR.

AVAILABLE: Library of Congress

Card 2/2

YAKOVLEVA, N. I.   Cand Phys-Math Sci -- (diss) "☆ Transformation of Air Under the Influence of ☆ Water Surface." Len, 1957. 7 pp 22 cm. (Main XXXXXXXXXXXX Administration of Hydrometeorological Service XXXXXXXX Attached to the XXXXXXXXX Council of Ministers USSR, Main Geophysical Observatory im A. I. Voyeykov), 100 copies (KL, 25-57, 107))

- 117 -

YAKOVLEVA, N.I.

PHASE I BOOK EXPLOITATION   SOV/2440

Vsesoyuznyy gidrologicheskiy s"yezd, 3rd, Leningrad, 1957.

Trudy...t. III: Sektsiya gidrologii (Transactions of the 3rd All-
Union Hydrological Convention. v. 3: Hydrophysics Section)
Leningrad, Gidrometeoizdat, 1959. 470 p. Errata slip inserted.
2,000 copies printed.

Sponsoring agency: Glavnoye upravleniye gidrometeorologicheskoy
sluzhby pri Sovete Ministrov SSSR.

Resp. Ed.: V.A. Uryvayev; Ed.: V.S. Protopopov; Tech. Ed.: M.I.
Beymina.

PURPOSE: This work is intended for meteorologists, hydrologists, and
hydrophysicists, particularly those engaged in the study of snow
and ice and evaporation processes.

COVERAGE: This book contains papers on hydrophysics which were pre-
sented and discussed at the Third All-Union Hydrological Conference
in Leningrad, October 1957. The Conference published 10 volumes
on various aspects of hydrology of which this is number 3. The
editorial board in charge of the series include: V.A. Uryvayev
(Chairman), O.A. Alekin, Ye.V. Blizhnyak (deceased), O.N. Borzuk,
M.A. Velikanov, L.K. Davydov, A.P. Domanitskiy, G.P. Kalinin, B.M.
Kritskiy, B.I. Kudelin, L.F. Manoim, M.F. Menkel', B.P. Orlov,
I.V. Popov, A.K. Proskuryakov, D.L. Sokolovskiy, O.A. Spengler,
A.I. Chebotarev, and S.K. Cherkavskiy. This volume is divided in-
to 2 sections: the first contains reports from the subsection
for the study of evaporation processes, and the second contains
reports from the snow and ice subsection. References accompany
each article.

Krillova, L.V. [Candidate of Physical and Mathematical Sciences,
GGI Leningrad]   Radiation Balance of Water Bodies   42

Vorontsov, P.A. [Candidate of Geographical Sciences, GGO Lenin-
grad] Certain Characteristics of Meteorological Conditions Over   59

Yakovleva, N.I. [Junior Scientific Worker, GGO Leningrad] The
Effect of Water Surface on the Air Transformation   59

Dmitriyeva, M.G. [Candidate of Geographical Sciences, TGI
Moscow] Infiltration Into Deep Beds in Relation to the Determina-
tion of Evaporation   64

Konstantinov, A.R., and V.P. Pushkarev [Candidates of Physical
and Mathematic Sciences, GGI Leningrad] Basic Trends in the
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Voloburyev, V.B. [Corresponding Member of the Azerbaydzhan Aca-
demy of Sciences, Doctor of Agricultural Sciences] Relation Be-
tween Soils and the Hydrological Conditions   84

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Determining Evaporation by the Heat Balance Method Using the Data
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the Gradient Method for Determining Evaporation From the Ground
and Its Application Within the Station Network   95

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Sciences, VNIGL GGI Valday] Computing Evaporation From the Ground
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Struzer, L.R. [Candidate of Physical and Mathematical Sciences,
GGI Leningrad] Estimating the Error in the Existing Methods for
Determining Evaporation From the Ground   110

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Sciences, Institute of Forestry, Uspenskoye] Computing Total
Evaporation of the Taiga Zone as Exemplified by the Forest Range
of the Kadnokovskye Forest District in the Vologodskye Oblast'   119/12

3,5000 (2205, 1093 oNLy)

3,5140 (2305,2405)

21108

S/531/60/114/001/003

AUTHOR: Yakovleva, N.I.

TITLE: Some Quantitative Characteristics of the Development of Cyclones

SERIAL: Glavnaya geofizicheskaya observatoriya. Trudy, no. 103, 1960.
Voprosy dinamicheskoy meterologii, 47-60

TEXT: The problem of cyclone development is studied on the assumption that the prin-
cipal factors determining change in time in a three-dimensional geopotential field are
advection of absolute vorticity and advection of temperature. The approach is the
same as employed by I. P. Vetlov (Ref. 1: Trudy Tsentral'nogo instituta prognozov, no.
61, 1957). Thirty cyclones were studied -- 18 in winter and 12 in summer -- of which
half were deepening and half were filling-in. Data were taken from the surface and
the 850, 700, 500, and 300 mb levels; a triangular grid with points spaced 300 km apart
was used. The following interrelated factors in cyclone development are analyzed in
great detail for the 30 cases: 1) advection of absolute geostrophic vorticity; 2)
advection of the value Ω'_z (which represents a correction to geostrophic vorticity), 3)
total value of advection of absolute vorticity; 4) geostrophic advection of temperature.
Conclusions: Additional careful research is required to understand cyclone development
because it is clear that consideration of advection of absolute vorticity and advection

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