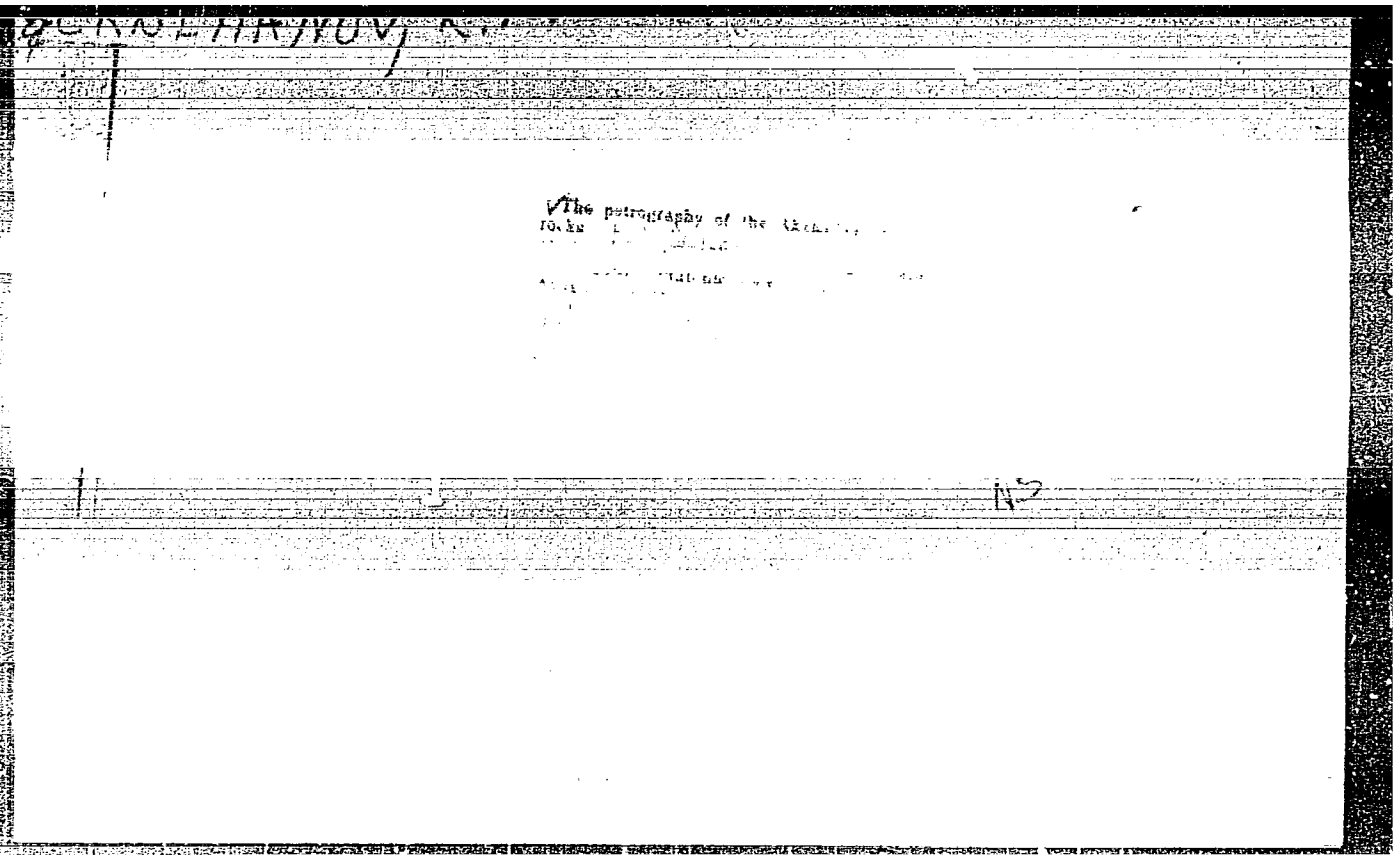
ERDY, Janosne

Factory general school - in two shifts. Munka 12 no.11:28 N '62.

1. Duna Cipogyar muvelodesi hazanak igazgatoja.



ZIMANI, Y. [Zimányi, J.]; ERE, Ya.; POCH, L.; SENTPETERI, I.

Circular polarization of γ- quanta in the B^{10} (d, pγ)B^{11} reaction. Zhur. eksp. i teor. fiz. 40 no.2:709-711 F '61. (MIRA 14:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut fiziki Akademii nauk Vengerskoy Narodnoy Respubliki, Budapesht.
(Nuclear reactions)

[redacted]

(EREB, Ilona

In the spirit of international proletarian solidarity.
Hungarian TU no.7:2-3 Jl '61.

1. Assistant Head of the CGHTU International Department.

SZARKOWSKA, Ludmila; ERECINSKA, Maria

Energy-linked reduction of the mitochondrial nicotinamide-adenine dinucleotides by choline and sarcosine. Acta biochim. Pol. 12 no.2:179-186 '65

1. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warszawa.

ERECINSKA, Maria; SZARKOWSKA, Ludmila [deceased]

The influence of energy on the reduction of ubiquinone in ox heart mitochondria. Acta biochim. Pol. 12 no.4:291-297 '65.

1. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warszawa.

ERECINSKI, K.

Salyrgan in the treatment of protoplasmic collapse in acute diarrheas in infants. Pediat. polska 27 no.3:297-308 Mar 1952. (CLML 23:2)

1. Of the First Pediatric Clinic (Head--Prof. St. Popowski, M.D.) of Lodz Medical Academy.

[illegible]
(70[illegible])

Klin. Chorob [illegible] A.M. Lodz. Opis kliniczny [illegible] Heine-Medina z uwzglednieniem epidemiologii podczas epidemii w 1951 roku [illegible] Clinical description of the course of Heine-Medin disease and its epidemiology during the epidemic in 1951 in Lodz and the Lodz province Pediat. Polska 1952, 27/7 ([illegible]-[illegible]00) Graphs 1 Tables 6

The report is based on 145 cases in children. In no case was a hospital infection noted. There was no evidence of the role of food, flies or water (bathing in rivers) as possible sources of infection. In only one case might contaminated fruits have been incriminated. Most cases occurred late in summer and early in autumn, the age group form 1 to 3 years being the most frequently affected. All 145 cases were admitted with various degrees of paralysis, mostly of the lower extremities. The ascending form of the disease was observed in 8 cases. There were 6 deaths from the disease, 38 left hospital completely recovered, 61 were discharged with great improvement, 39 with improvement, while 5 cases showed no improvement.

Anderstein - Galveston (XX,7,8)

SO: EXCERPTA MEDICA, VOL. 6, NO. 2, SECTION VIII [illegible]

Of the First Pediatric Clinic (Head-- Prof. S. Popowski, M. D.) and of the Second Pediatric Clinic (Head--Prof. F. Redlich, M. D.), Lodz Medical Academy.

ERECINSKI, Kazimierz; KAMINSKA, Maria

Rheumatoid arthritis in light of clinical observations. Pediat. polska 32 no.6:679-690 June 57.

1. Z I Kliniki Chorob Dziecięcych A. M w Gdansku Kierownik: r prof. dr med. K. Erecinski. Adres: Gdansk-Wrzeszcz, ul Debinki 7a.
(ARTHRITIS, RHEUMATOID, in inf. & child
manifest. & ther. (Pol))

[redacted]

ERECINSKI, Kazimierz; MIROSLAWSKI, Witold

Nutrition of premature infants. Pediat. polska 32 no.7:767-776 July 57.

1. Z I Kliniki Chorob Dziecicych A. M. w Gdansku Kierownik: prof. dr. med. K. Erecinski i z I Kliniki Poloznictwa i Chorob Kobiecych A. M. w Gdansku Kierownik: prof. dr. med. S. Metler. Adres: Gdansk, ul. Debinik 7, I Klinika Chorob Dzieci A. M.

(INFANT NUTRITION
feeding of premature inf. (Pol))
(INFANT, PREMATURE
feeding (Pol))

ERECINSKI, Kazimierz; MIEROSLAWSKI, Witold

Treatment of sphyxia neonatorum by intra-rectal administration of oxygen. Pediat. polska 33 no.1:71-75 Jan. 58.

1. Z I kliniki Chorob Dzieciecych A.M. w Gdansku. Kierownik: prof. dr med. K. Erecinski. i z I Kliniki Poloznicze j A.M. w Gdansku. Kierownik: doc dr med. S. Metler. Adres: Gdansk-Wrzeszcz, ul. Debinki 7a. Klinika Chorob Dzieciecych A.M.

(ASPHYXIA NEONATORUM, ther.
oxygen ther., intra-rectal admin. (Pol))
(OXYGEN, ther. use
asphyxia neonatorum, intra-rectal admin. (Pol))

ERECINSKI, Kazimierz; GOLEDZINOWSKA, Lucja; SKARZYNSKA, Halina

Immediate results of combined hormone and salicylate therapy of acute rheumatic disease in children. Reumatologia Polska no.3: 111-116 '60.

1. Z I Kliniki Dziececej AMG Kierownik: prof. dr med. K. Erecinski
(RHEUMATIC FEVER ther)
(ADRENAL CORTEX HORMONES ther)
(SALICYLATES ther)

BIENIEK, Barbara; BIENIEK, Wlodzimierz; BRECINSKI, Kazimierz

Problem of anti-diphtherial vaccination in children with tuberculosis. Pediat.polska 35 no.1:39-46 Ja '60.

1. Z Panstwowego Sanatorium Przeciwgruzliczego dla Dzieci w Gdansku-Oliwie. Dyrektor: dr. W. Bieniek, Konsultant: prof.dr. K. Brecinski.
(TUBERCULOSIS in infant & child.)
(DIPHTHERIA immunol.)
(VACCINATION)

ERECIŃSKI, Kazimierz; BITTEL-DOBRZYNSKA, Nadzieja; MOSTOWIEC, Stanislaw

Progeria syndrome in 2 brothers. Polski tygod. lek. 16 no.21: 806-809 22 My '61.

1. Z Przychodni Endokrynologii Dziecięcej i z I Kliniki Chorob Dziecięcych A.M. w Gdansku; kierownik: prof. dr K. Erecinski.

(PROGERIA genetics)

ERECINSKI, Kazimierz; WALCZYNSKI, Zbigniew

Sudden death in children. Pol. tyg. lek. 17 no.2:54-57 8 Ja '62.

1. Z I Kliniki Chorob Dzieci AM w Gdansku; kierownik prof. dr med. K. Erecinski.
(DEATH SUDDEN in inf & child)

ERECINSKI, Kazimierz; LESIEWSKA, Jadwiga; SZCZUROWNA, Marta

Schoenlein-Henoch syndrome in the light of clinical cases. Pol. tyg. lek. 17 no.16:601-602 16 Ap '62.

1. Z Kliniki Chorob Dzieci AM w Gdansku; kierownik: prof. dr K. Erecinski.

(PURPURA case reports)

ERECINSKI, Kazimierz; SWICOWA, Klementyna; SZCZUROWNA, Marta

Encephalitis in measles, erysipelas and chickenpox. Pediat Pol 37 no.2:129-136 F '62.

1. Z I Kliniki Chorob Dzieci AM w Gdansku Kierownik: prof. dr med. K. Erecinski.

(CHICKENPOX compl) (MEASLES compl)
(ERYSIPELAS compl) (ENCEPHALITIS in inf & child)

ERECINSKI, Kazimierz; WALCZYNSKI, Zbigniew

On the problem of the organization of hospitals in the field. I.
Pediat Pol 37 no.2:205-210 F '62.

(PEDIATRICS hosp & clin)

ERECINSKI, Kazimierz; BITTEL-BOBRZYNSKA, Nadzieja, STOLARCZYK, Julian

Chronic pyelonephritis in children. Pol. przegl. chir. 35 no.11: Supplement:1307-1313 N'63

1. Z I Kliniki Chorob Dzieci AM w Gdansku (kierownik: prof.dr. K. Erecinski) i z Zakladu Anatomii Patologicznej AM w Gdansku (kierownik: prof.dr.W.Czarnocki).

ERECINSKI, Kazimierz; MALECKA-DYMNICKA, Stanislawa; BIENIEK, Barbara

Evaluation of the effectiveness and toxicity of cardiac drugs in children according to our material. Pediat. pol. 38 no.9: 711-721 Ag '63.

1. Z I Kliniki Chorob Dzieci AM w Gdansku; kierownik: prof. dr. med. K.Erecinski.

ERECINSKI, Kazimierz; KULCZYNSKA, Krystyna

Results of the treatment of chronic arterial hypertension in children. Pediat. Pol. 40 no.7:669-675 Jl '65.

1. Z I Kliniki Chorob Dzieci AM w Gdansku (Kierownik: prof. dr. med. K. Erecinski).

ERECINSKI, Kazimierz; KULCZYNSKA, Krystyna

Diagnosis and treatment of chronic arterial hypertension in children. Pediat. Pol. 40 no.7:745-755 Jl '65.

EREGA, Jure

Prof. Kruno Tonkovic, winner of the Nikola Tesla Award for 1962. Građevinar 14 no.7:225-229 Jl '62.

EREGA, Jure

Prof. Kruno Tonkovic winner of the Nikola Tesla Award for 1962. Gradevinar 14 no.7:225-229 Jl'63.

ERSKAYEV, V.P.; GERCHUK, M.P.

Synthesis of preserving, disinfecting, and wetting surface-active substances from a group of quaternary ammonium salts. Khim.nauka i prom. 2 no.5:666 '57. (MIRA 10:12)

1.Institut narodnogo khozyaystva im. G.V. Plekhanova.
(Bactericides) (Surface-active agents)
(Ammonium compounds, Substituted)

FREKAYEV, V. P., Cand Chem Sci (diss) -- "The synthesis of surface-active, antimicrobal quaternary ammonium salts". Moscow, 1959. 14 pp (Min Higher and Inter Spec Educ RSFSR, Moscow Inst of Fine Chem Technology im M. V. Lomonosov), 150 copies (KL, No 9, 1960, 123)

AUTHORS: Erekayev, V.P. and Gerchuk, M.P. SOV/80-59-1-43/44

TITLE: Synthesis of Quadruple Ammonium Salts From the Broad Fraction of High-Molecular Fat Alcohols Obtained by the Oxidation of Oil Paraffin Hydrocarbons (Sintez chetvertichnykh ammoniyevykh soley iz shirokoy fraktsii vysokomolekulyarnykh zhirnykh spirtov, poluchayemykh okisleniyem neftyanykh parafinovykh uglevodorodov)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Nr 1, pp 235-237 (USSR)

ABSTRACT: The authors developed a practical method for obtaining quadruple ammonium salts which makes it possible to produce them in large-scale mass. They used the broad fraction of the high-molecular fat alcohols obtained by the catalytic oxidation of paraffin hydrocarbons as an initial raw material according to the method developed in the Institut nefti AN SSSR (Petroleum Institute of the AS USSR) by Bashkirov with collaborators [Ref. 7]. It was found out that the diethylalkylbenzylammonium and alkylpyridine salts obtained in this way possess bactericide, bacteriostatic, fungicide, wetting, surface-active and preserving properties.
There are 2 tables, and 24 references, 9 of which are Soviet, 3 German, 3 French, 6 English and 3 American.

Card 1/2

SOV/80-59-1-43/44

Synthesis of Quadruple Ammonium Salts From the Broad Fraction of High-Molecular Fat Alcohols Obtained by the Oxidation of Oil Paraffin Hydrocarbons

ASSOCIATION: Moskovskiy institut narodnogo khozyaystva imeni G.V. Plekhanova (Moscow Institute of National Economy imeni G.V. Plekhanov)

SUBMITTED: April 15, 1957

Card 2/2

EREKAYEV, V.P.

Obtaining quaternary ammonium salts from new types of raw material.
Med.prom. 13 no.10:20-26 O '59. (MIRA 13:2)

1. Moskovskiy institut narodnogo khozyaystva imeni G.V. Plekhanova.
(AMMONIUM SALTS)

GERCHUK, M.P., doktor khim.nauk; ERSKAYEV, V.P.

Synthesis of cationic quaternary ammonium salts from alcohols produced by the oxidation of paraffin hydrocarbons. Masl.-zhir. prom. 25 no.4:19-21 '59. (MIRA 12:6)

1. Institut narodnogo khozyaystva imeni G.V.Plekhanova.
(Surface active agents) (Ammonium compounds)
(Paraffins)

EREKA'EV, V.P.; GERCHUK, M.P.

Synthesis of quaternary ammonium salts from a wide fraction of macromolecular fatty alcohols produced by the oxidation of petroleum paraffinic hydrocarbons. Zhur.prikl.khim. 32 no.1:235-237 Ja '59. (MIRA 12:4)

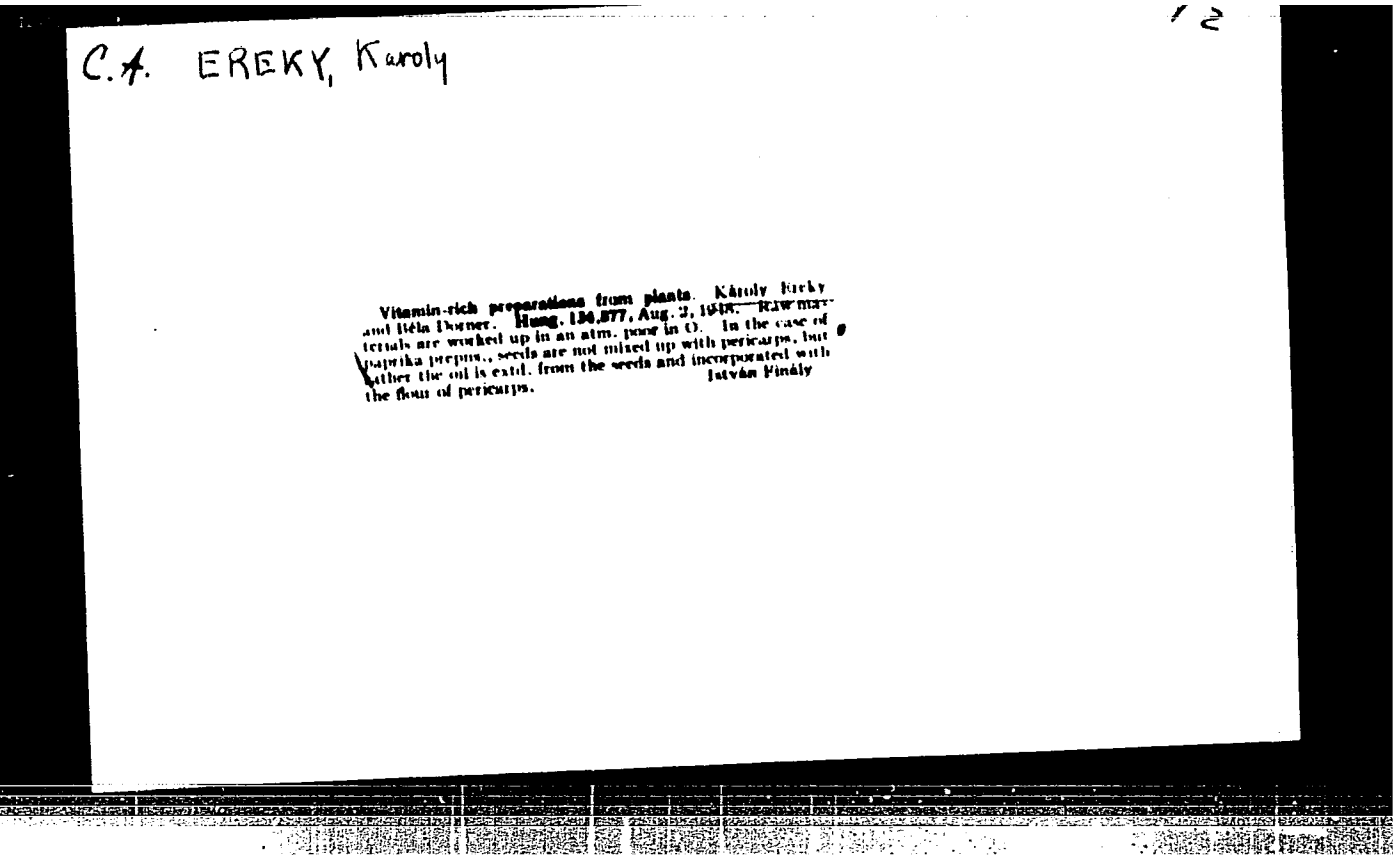
1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut narodnogo khozyaystva imeni G.V.Plekhanova.
(Ammonium compounds)

EREKAYEV, V.P.

EREKAYEV, V. P.; GERCHUK, M.P.

Quaternary ammonium salts. Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.3:486-491 '61. (MIRA 14:10)

1. Moskovskiy institut narodnogo khozyaystva imeni Plekhanova, kafedra obshchey khimii.
(Ammonium compounds as disinfectants)



C.A. EREKY, Karoly

12

Vitamin-rich preparations from plants. Károly Ereky and Béla Ihorner. Hung. 130,877, Aug. 3, 1948. Raw materials are worked up in an atm. pour in O. In the case of paprika prepns., seeds are not mixed up with pericarps, but rather the oil is extd. from the seeds and incorporated with the flour of pericarps.

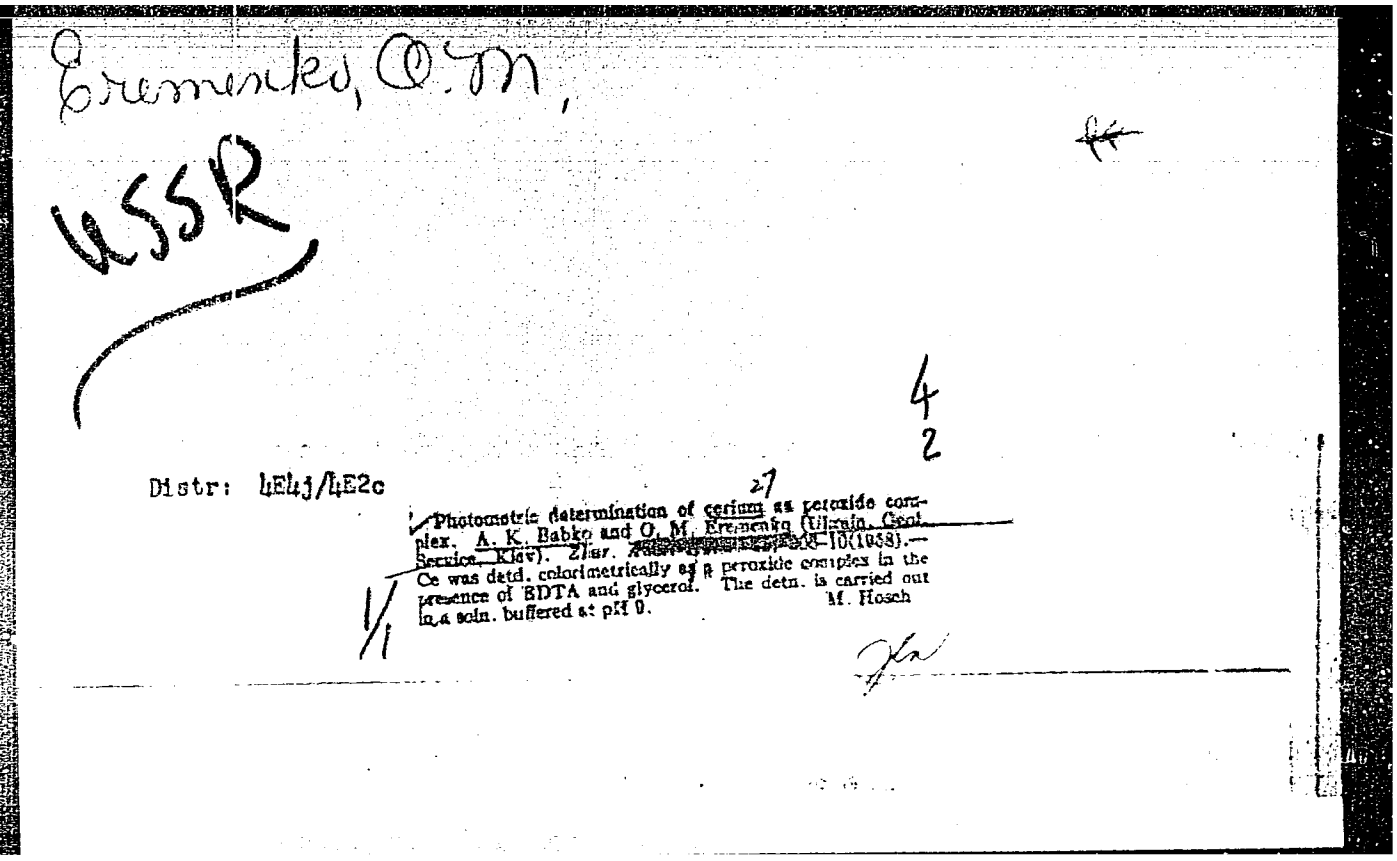
István Pinály

EREKY, Vilmos; SOREG, Istvan; GODO, Bela

Static and dynamic examination of transmitting tubes. Hir techn 15 no.3:77-85 Mr '64.

1. Research Institute of the Telecommunication Industry, Budapest.

ERELIS, P. S. Cand Med Sci -- (diss) "The Spread of Hypertension and ~~Some~~ Characteristics of Its Pathogenesis, Clinical ~~Aspects~~, and Therapy in ~~the~~ Mazheykskiy Rayon (Lithuanian SSR)." Vil'nyus, 1957, 19 pp 22 cm. (Vil'nyus State Univ im V. Kapsukas, Medical Faculty, Chair of the Propedeutics of Internal Diseases), 100 copies (KL, 18-57, 99)



Eremenko, O. M.,

USSR

4
2

Distr: 4E4j/4E2c

27

Photometric determination of cerium as peroxide complex. A. K. Babko and O. M. Eremenko (Ukrain. Geol. Service, Kiev). Zhur. [illegible] 10(1938).— Ce was detd. colorimetrically as a peroxide complex in the presence of EDTA and glycerol. The detn. is carried out in a soln. buffered at pH 0. M. Hosch

1/1

EREMENKO, V.V.; BELYAYEVA, A.I.

Characteristics of the absorption spectrum of manganese fluoride crystals. Fiz. tver. tela 5 no.10:2877-2884 O '63. (MIRA 16:11)

1. Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR, Khar'kov.

L 10916-66 EWT(l)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/MW/JW/GG

ACC NR: AP6002036 SOURCE CODE: GE/0030/65/012/002/0627/0638

AUTHOR: Eremenko, V. V.; Popkov, Yu. A.

ORG: Physico-Technical Institute of Low Temperatures of the Ukrainian Academy of Sciences, Kharkov

TITLE: Magnetooptical investigation of antiferromagnets

SOURCE: Physica status solidi, v. 12, no. 2, 1965, 627-638

TOPIC TAGS: antiferromagnetic material, fluoride, carbonate, Zeeman effect, magnetic field, absorption spectrum, single crystal, magnetooptics

ABSTRACT: An experimental study was made of the effect of high magnetic fields on the structure of the optical absorption spectra of Mn^{2+} and Co^{2+} in single crystals of antiferromagnetic fluorides and carbonates and in single crystals of of fluorides of mixed content containing both ions simultaneously. The investigation was conducted at temperatures much lower than the temperature of antiferromagnetic ordering (T = 20.4 and 4.2K) in magnetic fields up to 1.7×10^5 Oe. The magnetooptical effects in the fluorides are associated with spin-flipping of the magnetic sublattices by the external field. This may be due to a significant spin-orbital exchange in states (the final states for the optical transitions responsible for the absorption bands) which respond to the reestablishment of the antiferromagnetic structure by the external field. Zeeman splitting and shifting of some absorption lines was observed in antiferromagnetic carbonates in which

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ACC NR: AP6002036

the magnetic structure cannot be changed by the external field. This was attributed to the fact that the internal field H_E, perpendicular to the C_3 axis of the crystal, affects some excited states of Mn^{2+} and Co^{2+} to a lesser degree than the external field H parallel to the C_3-axis, even though $H<<H_E$. Orig. art. has: 6 figures and 2 tables.

[CS]

SUB CODE: 20 / SUBM DATE: 04Sep65/ ORIG REF: 012/ OTH REF: 017/ ATD PRESS: 4170

Card 2/2

ACC NR: AP7001974 SOURCE CODE: GE/0030/66/018/002/0683/0686

AUTHOR: Eremenko, V. V.; Matyushkin, E. V.; Petrov, S. V.

ORG: Physico-Technical Institute of Low Temperatures of the Ukrainian Academy of Sciences, Khar'kov

TITLE: Study of energy transfer from 3d to 4f electrons in antiferromagnetic crystals of manganese fluoride doped with europium 3 ions

SOURCE: Physica status solidi, v. 18, no. 2, 1966, 683-686

TOPIC TAGS: crystal, luminescence, electron energy, doped crystal, energy transfer, manganese fluoride, europium, ion, antiferromagnetic material, manganese compound, fluoride

ABSTRACT: In order to determine the effect of magnetic ordering of the spins of excited Mn^{2+} ions on the efficiency of the energy transfer from 3d electrons of Mn^{2+} to 4f electrons of Eu^{3+}, the spectrum and luminescence intensity of the antiferromagnetic crystals $MnF_2:Eu^{3+}$ are investigated experimentally for temperatures between 20 and 90K. This range includes the magnetic ordering temperature $T_N(\approx 68K)$. At the temperature $T_H(\approx 0.5T_N)$, corresponding to the

ACC NR: AP7001974

spin ordering of the excited Mn^{2+} ions, the luminescence intensity due to these ions shows a sudden increase while the luminescence intensity due to the Eu^{3+} ions suffers a sudden decrease. This indicates that an anomalous change occurs in the transfer of energy between the Mn^{2+} and Eu^{3+} ions due to the condensation of the local magnetic vibrations of the optically excited Mn^{2+} ions. Orig. art. has: 3 figures. [Authors' abstract]

[DW]

SUB CODE: 20/SUBM DATE: 13Sep66/ORIG REF: 003/OTH REF: 007/

Card 2/2

RAICU, P.; EREMIA, P.

Comparative research on the biology of the blossoming of the double hybrid maize Warwick 401, its simple hybrids, and consanguineous lines. Studii cerc biol veget 13 no.2:243-260 '61.
(EEAI 10:11/12)

1. Comunicare prezentata de Al. Priadcencu, membru corespondent al Academici R.P.R.

(Corn(Maize)) (Hybridization)

MICU, D.; MAXIMILIAN, Stefania; EREMIA, Rodica; PILAT, L.

Research on the hematological changes in personnel in radiological services. Stud. cercet. med. intern. 3 no.2:225-231 '62.
(RADIOLOGY) (BLOOD radiation effects)
(BONE MARROW radiation effects) (RADIATION INJURY)

EREMIA, Rodica

PILAT, L.

ROMANIA

MD

Department of Labor Hygiene and Professional Diseases of the Institute for Medicine and Pharmacy, Bucharest (Catedra de Igiena a Muncii si Boli Profesionale, I.M.F. Bucuresti).

Bucharest, Igiena, Revista de Igiena si Sanatate Publica, No 5, Vol XI, Sep-Oct 62, pp 403-410.

"Investigations on the Exposure to Ionizing Radiations of the Personnel in Radiological Laboratories." (Research done in the Department of Labor Hygiene and Professional Diseases of the Institute for Medicine and Pharmacy, Bucharest.)

Co-authors: RAFAILA, Emilia; EREMIA, Rodica

NICULESCU, T., MD, Department of Labor Hygiene and Professional Diseases of the Institute for Medicine and Pharmacy, Bucharest)

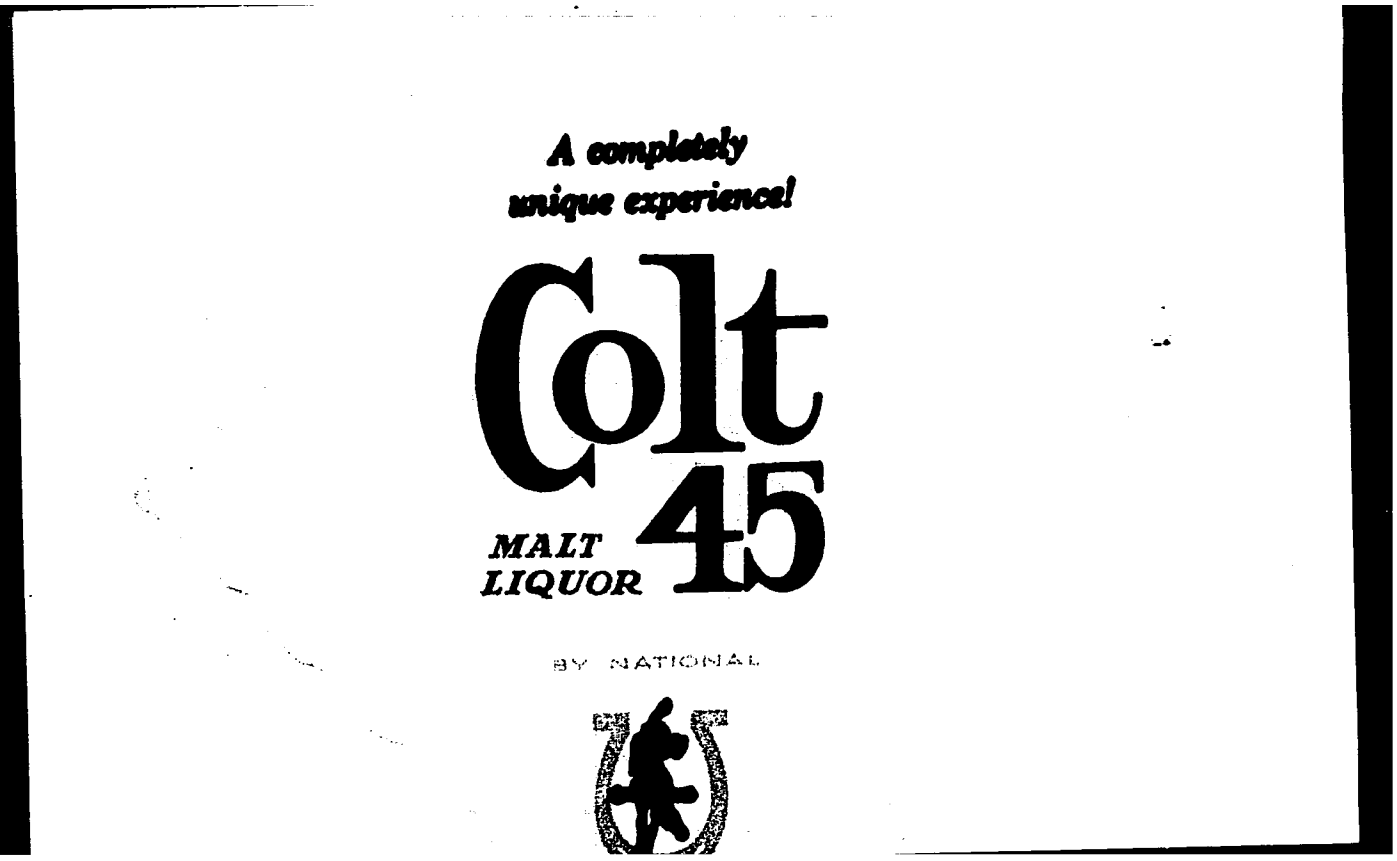
Abs Jour: Ref Zhur-Biol., No 12, 1958, 54844.

Author : Eremias, Vladimir.
Inst : Not given.
Title : How to Select and Pair Breeding Pigeons.

Orig Pub: Chovatel, 1957, No 3, 36-37.

Abstract: The article provides advice to the breeding of pigeons. The principal factors in the coupling of pigeons are considered to be: state of health, exterior, marked breed characteristics and precise data on the productive qualities of both partners.

AFTER A HARD DAY OF SCANNING, YOU'LL BE BETTER OFF WITH .....



CHICHUA, G., arkhitektor; ERENBURG, A., inzh.

Produce polymer materials for construction. Zhil. stroi. no.9:2-5 '65. (MIRA 18:11)

ALEKSANDROV, V.I.; CHERNOBAYEV, B.P. EREMBURG, A.A.; BUBYAKIN, A.A.

AT-2M fertilizer spreaders with one regulator. Trakt. i sel'khozmash. no.11:32-35 N '58. (MIRA 11:11)

1. Ryazanskiy zavod sel'skokhozyaystvennogo mashinostroyeniya.
(Fertilizer spreaders)

NIKOL'SKIY, V.N., kand. tekhn. nauk; SPIVAK, N.Ya., kand. tekhn. nauk; BAULIN, D.K., inzh.; BUADZE, V.Sh., inzh.; KREYTAN, V.G., kand. tekhn. nauk; PERMYAKOV, S.I., kand. tekhn. nauk; USOV, A.L., inzh.; KOSHKIN, V.G., kand. tekhn. nauk; MARAVIN, B.L., inzh.; ERENBURG, A.I., inzh.; KOCHESHKOV, V.G., inzh.; RUBANENKO, B.R., glav. red.; ROZANOV, N.P., zam. glav. red.; ONUFRIYEV, I.A., red.; YUDIN, Ye.Ya., red.; NASONOV, V.N., red.; ISIDOROV, V.V., red.; MAKARICHEV, V.V., red.; FINKINSHTEYN, B.A., inzh. red.;

[Prefabricated floor and ceiling structures] Poly i perekrytiia industrial'noi konstruktsii. Moskva, Gosstroiizdat, 1963. 71 p. (MIRA 16:12).

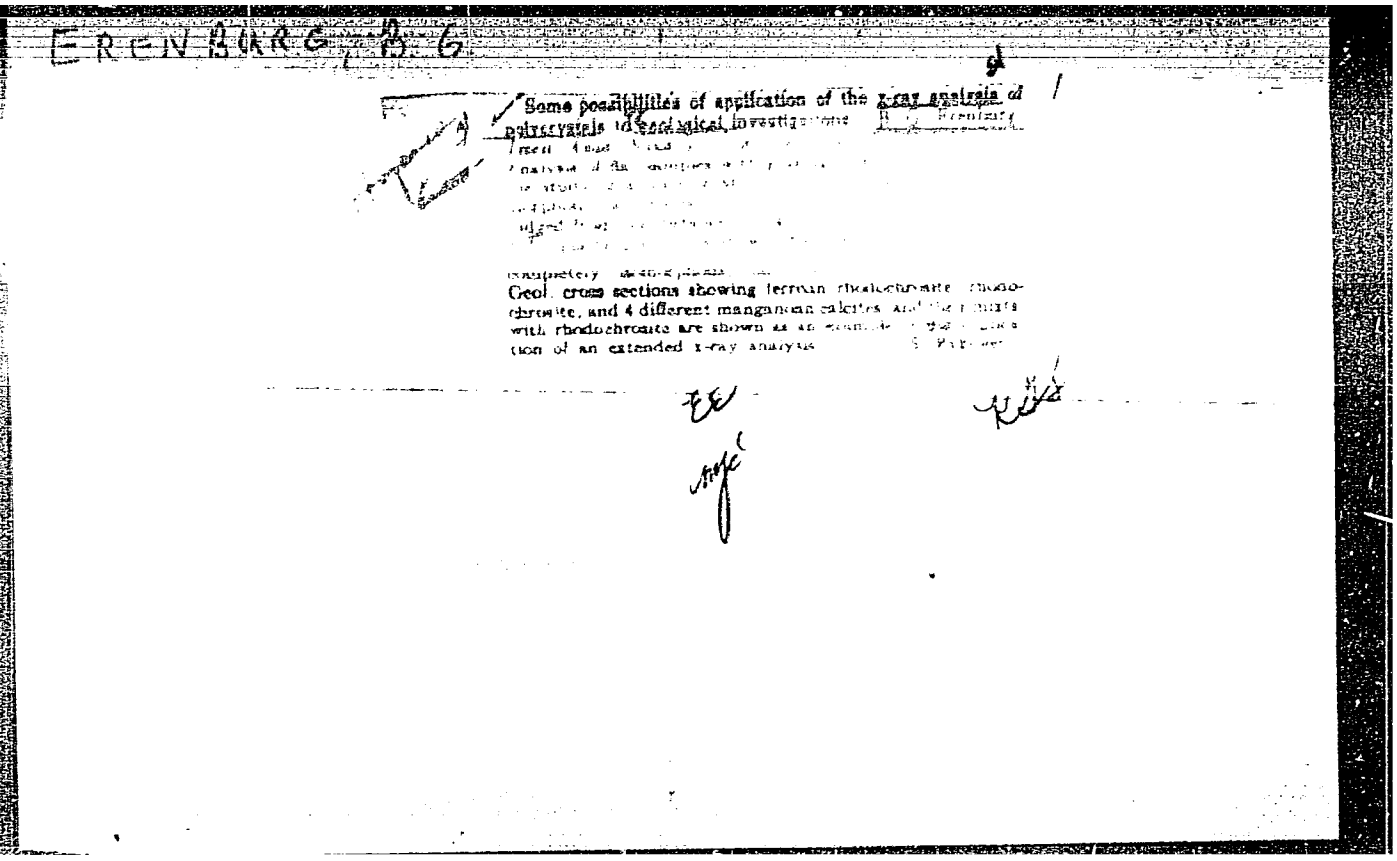
1. Akademiya stroitel'stva i arkhitektury SSSR. TSentral'nyy nauchno-issledovatel'skiy i eksperimental'no-proyektnyy institut industrial'nykh zhilykh i massovykh kul'turno-bogatykh zdaniy. 2. Nauchno-issledovatel'skiy institut stroitel'noy fiziki i ograzhdayushchikh konstruktsii (for Nikol'skiy, Usov). 3. TSentral'nyy nauchno-issledovatel'skiy i eksperimental'no-proyektnyy institut industrial'nykh zhilykh i massovykh kul'turno-bogatykh zdaniy (for Buadze, Baulin, Spivak, Kreytan, Kocheshkov). 4. Vsesoyuznyy nauchno-issledovatel'skiy institut novykh stroitel'nykh materialov Akademii stroitel'stva i arkhitektury SSSR (for Erenburg).

(Floors) (Ceilings)

KOSHKIN, Viktor Gavrilovich, kand. tekhn. nauk; ERENBURG, Aleksandr Isaakovich; DANTSIN, Matvey Isaakovich, inzh.; SHTOFENMAKHER, Berta Moiseyevna, inzh.; ZOKHIN, Grigoriy Iosifovich

[Polyvinyl chloride linoleum on a felt base used for heat and sound insulation; practices of the Mytishchi Combine for Synthetic Building Materials and Products] Polivinilkhloridnyi linoleum na teplo- i zvukoizoliatsionnoi voilochnoi osnove; opyt Mytishchinskogo kombinata sinteticheskikh stroitel'nykh materialov i izdelii. Moskva, Stroiizdat, 1964. 16 p. (MIRA 18:5)

1. Zamestitel' direktora Vsesoyuznogo nauchno-issledovatel'skogo instituta novykh stroitel'nykh materialov (for Koshkin). 2. Glavnyy inzhener laboratorii Vsesoyuznogo nauchno-issledovatel'skogo instituta novykh stroitel'nykh materialov (for Erenburg). 3. Rukovoditel' laboratorii Nauchno-issledovatel'skogo instituta zhelezobetonnykh izdeliy, stroitel'nykh i nerudnykh materialov Glavnogo upravleniya promyshlennosti stroitel'nykh materialov i stroitel'nykh detaley (for Dantsin). 4. Glavnyy tekhnolog laboratorii Nauchno-issledovatel'skogo instituta zhelezobetonnykh izdeliy, stroitel'nykh i nerudnykh materialov Glavnogo upravleniya promyshlennosti stroitel'nykh materialov i stroitel'nykh detaley (for Shtofenmakher). 5. Direktor Mytishchinskogo kombi- [illegible] stroitel'nykh materialov i izdeliy (for Zokhin).



ERENBURG, B. G.

Some possibilities of application of the x-ray analysis of
polycrystals to geological investigations

Geol. cross sections showing ferrian rhodochrosite, rhodo-
chrosite, and 4 different manganoan calcites
with rhodochrosite are shown as an
tion of an extended x-ray analysis

5(2) SOV/78-4-8-31/43

AUTHOR: Erenburg, B. G.

TITLE: On the Continuity of the Isomorphic Series $CaCO_3$ - $MnCO_3$
(O nepreryvnosti izomorfnogo ryada $CaCO_3$ - $MnCO_3$)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 8, pp 1898-1902 (USSR)

ABSTRACT: In publications on natural carbonates of the isomorphous series $CaCO_3$ - $MnCO_3$ the opinion is expressed that this series is continuous (Refs 1,2). Hitherto, however, only few experimental data have been available which confirm this opinion. L. Vegard (Ref 4) reports on the spectroscopic investigation of artificial Ca-Mn carbonate mixtures and arrives at the conclusion that Ca and Mn substitute each other only within narrow limits. In order to clarify this problem 9 samples of different composition of $CaCO_3$-$MnCO_3$ mixtures and also the two pure components were spectroscopically investigated. The results are shown in table 1. Table 2 shows the parameters computed of the hexagonal and rhombohedral elementary cells.

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SOV/78-4-8-31/43

On the Continuity of the Isomorphic Series $CaCO_3$ - $MnCO_3$

Figure 1 shows that the parameters of the rhombohedral elementary cells change continuously with the composition from pure $CaCO_3$ to pure $MnCO_3$; this may hold as definite confirmation of the continuity of this system. A systematic error in the table by Ph. Krieger (Ref 3) is pointed out. The interplanar distances for manganous calcites are too high in the case of calcite and manganous calcites poor in manganese. There are 1 figure, 2 tables, and 5 references, 2 of which are Soviet.

SUBMITTED: April 30, 1958

Card 2/2

KARPENKO, M.V.; SKOBELEV, Yu.D.; ERENBURG, B.G.

X-ray diffraction method of studying the composition of skarn garnets in iron ore deposits. Geol.i geofiz. no.12:48-56 '61. (MIRA 15:5)

1. Rentgenovskaya laboratoriya Zapadno-Sibirskogo geologicheskogo upravleniya, Novokuznetsk.
(Gornaya Shoriya--Garnet) (X rays--Diffraction)

ERENBURG, B.G.

Standard X-ray diagrams of the individual carbonates of the calcite and dolomite group. Rent. min. syr. no.2:94-104 '62. (MIRA 16:11)

1. Zapadno-Sibirskoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedr SSSR.

ERENBURG, L.S.

X-ray analysis of siderites containing calcium. Zap.Vses.min. ob-va 91 no.5:595-603 '62. (MIRA 15:11)

1. Zapadno-Sibirskoye geologicheskoye upravleniye.
(X-ray crystallography) (Siderite) (Calcium)

EHRENBURG, B.G.; SAMOYLOV, O.Ya.

Structural parameters of calcite-type carbonates and the nature of the Me - O bond. Zhur.strukt.khim. 4: no. 6:868-871 N-D '63. (MIRA 17:4)

1. Institut obshchey i neorganicheskoy khimii imeni Kurnakova AN SSSR i Zapadno-Sibirskoye geologicheskoye upravleniye.

SHVAY, L.P.; KRIVOSHEYA, V.A. [Kryvosheia, V.O.]; MESYATS, I.A. [Mesiats, I.O.]; ERENBURG, G.A. [Erenburg, H.O.]

Some problems of hydrogeological conditions in the Dnieper-Donets Lowland in connection with oil and gas potentials. Geol.zhur. 22 no.5:80-85 '62. (MIRA 15:12)

1. Glavnoye geologicheskoye upravleniye UkrSSR.
(Dnieper-Donets Lowland—Petroleum geology)
(Dnieper-Donets Lowland—Gas, Natural—Geology)

MESYATS, I.A.; ZAKHARCHENKO, G.M.; ERENBURG, G.A.

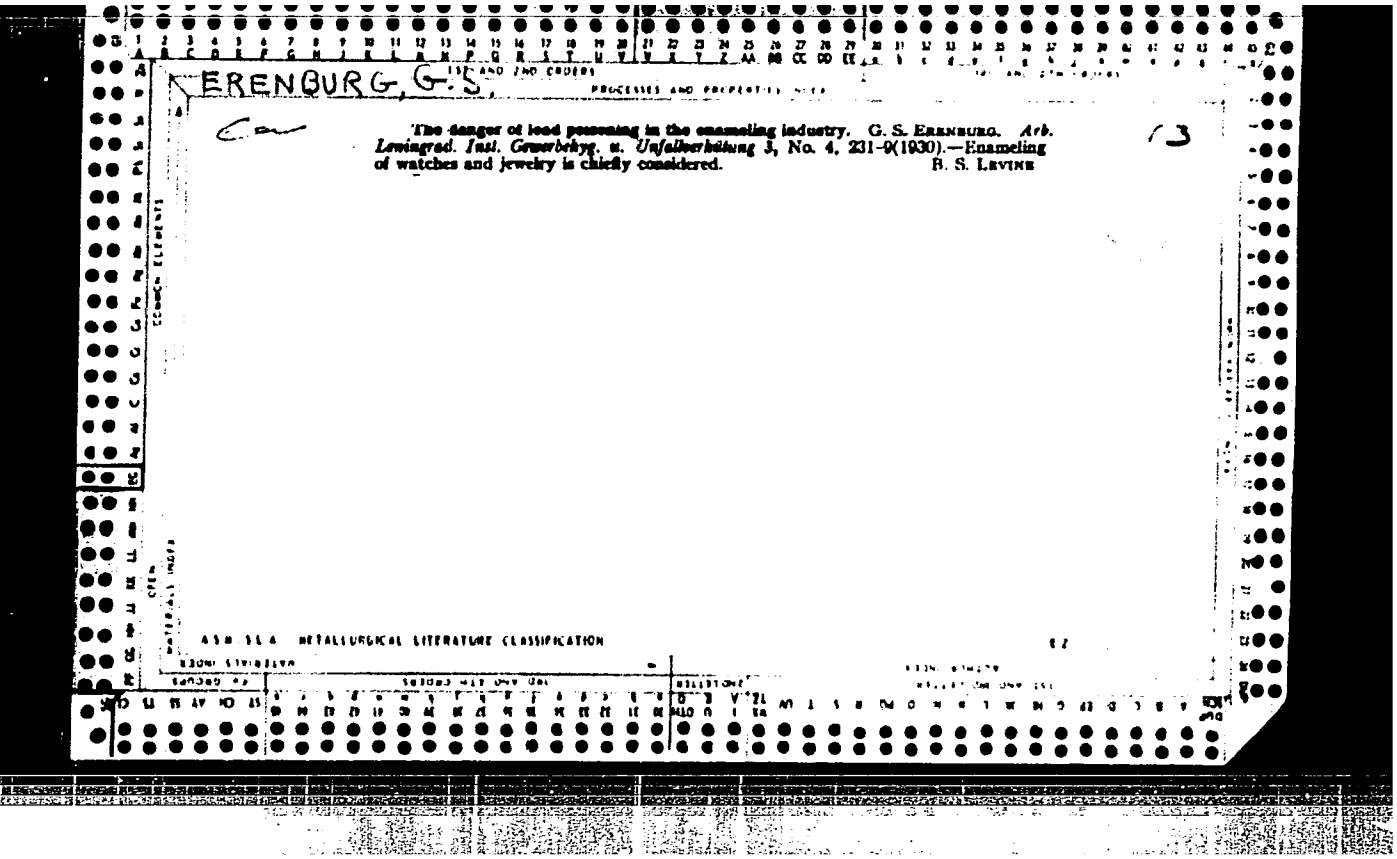
Sub-Cretaceous marl aquifer in the Pogichevka region. Neft. i gaz.prom. no.1:20-21 Ja-Mr '65. (MIRA 18:8)

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

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

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

(Building--Details)



ERENBURG, G. S.

The danger of lead poisoning in the enameling industry. G. S. Erenburg. *Arb. Leningrad. Inst. Gewerbehyg. u. Unfallverhütung* 3, No. 4, 231–9(1930).—Enameling of watches and jewelry is chiefly considered. B. S. Levine

EREMBURG, G. S., KRASNOGORSKAIA, M. N., LIFSCHITZ, I. I., LYKHINA, E. T.

Gravimetric and quantitative methods of determination of dust in industry. Gig. sanit., Moskva No. 7, July 50. p. 3-5

1. Of the Aerosol Laboratory, State Scientific-Research Institute of Labor Hygiene and Occupational Diseases in Leningrad.

CLML 19, 5, Nov., 1950

EHRENBURG, Il'ya; MOLOK, Yu.A., red.; SHILINA, Ye.I., tekhn.red.

[Impressions of India; Japanese notes; Reflections in Greece] Indiiskie vpechatleniia; IAponskie zametki; Razmyshleniia v Gretsii. Moskva, Gos.izd-vo "Iskusstvo," 1958. 127 p. (MIRA 12:5)

(India--Description and travel)
(Japan--Description and travel)
(Greece--Description and travel)

EHRENBURG, Il'ya

"I photographed only those subjects which expressed my feelings and thoughts." Sov.foto 21 no.9:25-27 S '61. (MIRA 14:9)
(Ehrenburg, Il'ia Grigor'evich, 1891-)

SHCHERBAN', A.N.; FURMAN, N.I.; TARASEVICH, V.N.; NATANZON, Ya.V.; ERENBURG, I.I.

Thermopile groups of a single-chamber thermocatalytic transducer for the IM-2, IM-3, IMT-1, IM-3M, and AMT-2 automatic mine methanometers. Ugol' Ukr. 7 no.4:20-22 Ap '63. (MIRA 16:4)

1. Institut teploenergetiki AN UkrSSR (for Shcherban', Furman, Tarasevich, Natanzon). 2. Zavod "Krasnyy metallist" (for Erenburg).
(Mine gases—Measurement) (Transducers)

KRAVCHENKO, V. S., doktor tekhn. nauk; KARPOV, Ye. F., kand. tekhn. nauk; BIRENBERG, I. E., inzh.; ERENBURG, I. I., inzh.

AMT-2 thermocatalytic methane analyzer. Ugol' Ukr. 7 no.4: 38-39 Ap '63. (MIRA 16:4)

1. Institut gornogo dela im. A. A. Skochinskogo (for Kravchenko, Karpov). 2. Gosudarstvennyy proyektno-konstruktorskiy institut avtomatizatsii rabot v ugol'noy promyshlennosti (for Birenberg). 3. Konotopskiy zavod "Krasnyy metallist" (for Erenburg).

(Mine gases—Measurement) (Transducers)

ERENBURG, I G.

NESMEYANOV, A.N.; TOPCHIYEV, A.V.; KURCHATOV, I.V.; SKOBEL'TSYN, D. .; KAPITSA, P.B.; IOFFE, A.F.; VINOGRADOV, A.P.; ERENBURG, I.G.; TIKHONOV, N.S.; FADEYEV, A.A.; FRANK, I.M.; VEKSLER, V.I.; KORNEYCHUK, A.Ye.; POPOVA, N.V.; LEBEDEVA, Z.A.; VASILEVSKAYA, V.L.; PETROVSKIY, I.G.; ALEKSANDROV, A.D.; ARTSIMOVICH, L.A.; MESHCHERYAKOV, M.G.

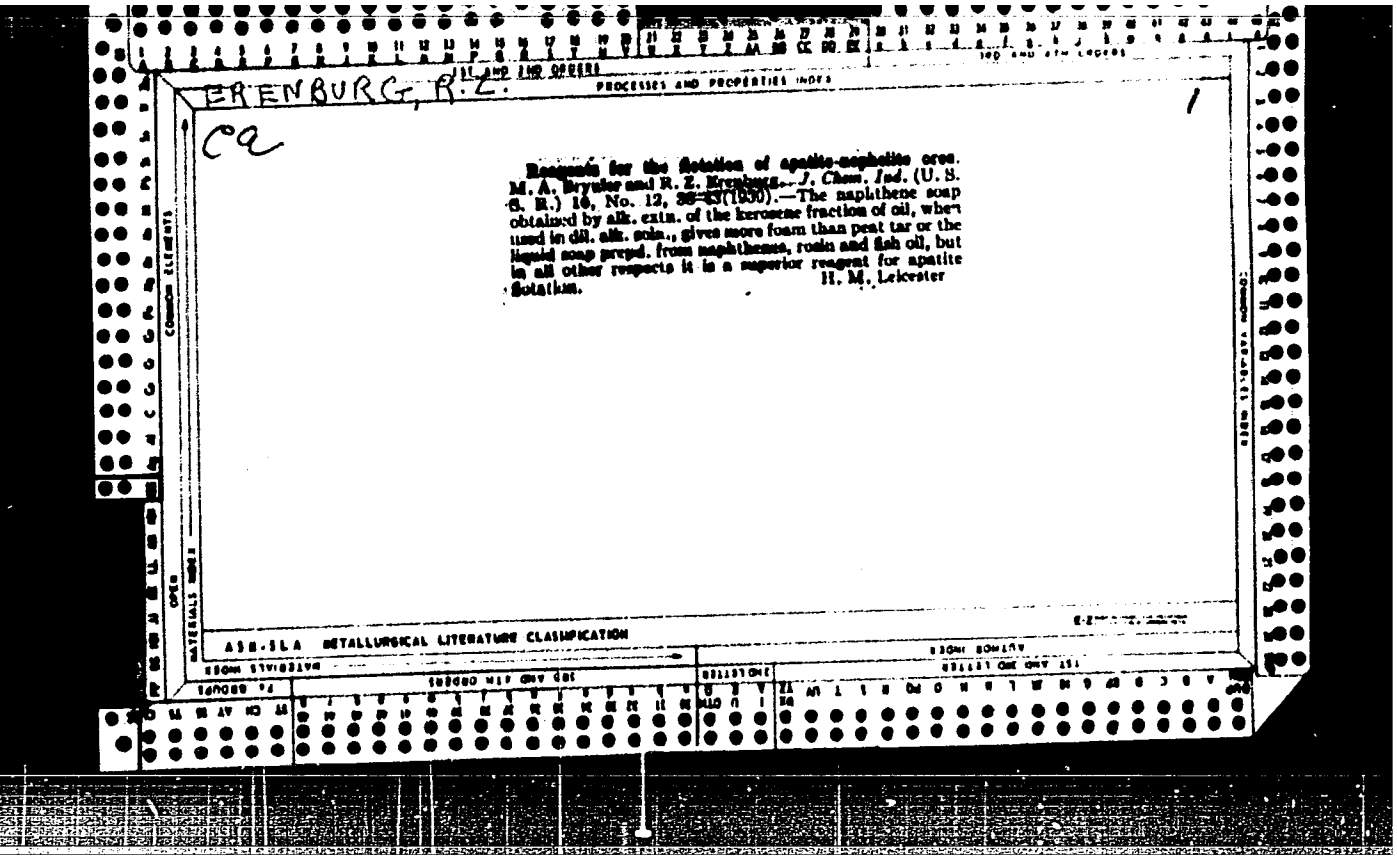
Irene Joliet-Curie; obituary. Vest.AN SSSR 26 no.4:73-72 Ap '56. (Joliet-Curie, Irene, 1897-1956) (MLRA 9:7)

Ehrenburg, I.I

SHCHERBAN', A.N.; FURMAN, N.I., inzhener; ZAYTSEV, V.I., inzhener; ERENBURG, I.I., inzhener; BARZILOVICH, P.P., inzhener.

Automatic continuous duty methane testers. Bezop.truda v prom. 1 no.8:25-29 Ag '57. (MLRA 10:8)

1.Deystvitel'nyy chlen AN USSR (for Shcherban') 2.Institut gornogo dela AN USSR (for Shcherban', Furman) 3. Zavod "Krasnyy metallist" (for Zaytsev, Erenburg) 4.Glavukruglemash (for Barsilovich) (Methane) (Gas detectors)



ERENBURG, R. Z.

Ca

1

Reagents for the flotation of apatite-nepheline ores. M. A. Bryusler and R. Z. Erenburg. *J. Chem. Ind.* (U. S. S. R.) 16, No. 12, 38-43(1939).—The naphthene soap obtained by alk. extn. of the kerosene fraction of oil, when used in dil. alk. soln., gives more foam than peat tar or the liquid soap prepd. from naphthenes, rosin and fish oil, but in all other respects it is a superior reagent for apatite flotation.
H. M. Leicester

PROCESSES AND PROPERTIES INDEX

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

EHRENBURG, R. Z.

USSR/Minerals - Flotation, Processes 11 Aug 51

"Floatability of Mineral Grains of Various Coarseness in Respect to the Density of Flotation Suspension," V. I. Klassen, R. Z. Ehrenburg

"Dok Ak Nauk SSSR" Vol LXXIX, No 5, pp 855-857

Investigates possibility of regulating floatability of mineral particles by changing content of solid phase in suspension. Analysis of floatability kinetics of native sulfur, used in expts, reveals that floatability of coarse grains is improved with dilu of suspension. Fine grains are better floating

210T74

USSR/Minerals - Flotation, Processes 11 Aug 51 (Contd)

in suspensions of higher density. Presents results of investigation graphically. Submitted by Acad P. A. Rebinder.

210T74

ERENBURG, R. Z.

"Investigation of the Flotation of Native Sulfur Ores." Cand Tech Sci, State Sci Res Inst of Mined Chemical Raw Materials, Min of Chemical Industry, USSR, Moscow, 1954. (KL, No 8, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

AUTHORS: Klassen, V. I., Doctor of Technical Sciences, 64-58-3-6/20
Erenburg, R. Z., Candidate of Technical Sciences

TITLE: On the Use of Regulator Reagents in the Flotation of Natural Sulfur Ores (O primenenii reagentov-regulyatorov pri flotatsii samorodnykh sernykh rud)

PERIODICAL: Khimicheskaya Promyshlennost', 1958, Nr 3, pp 24-27 (USSR)

ABSTRACT: Investigations were made of the influence of sodium pyrophosphate and soda with water glass on the flotation of the principal minerals of natural sulfur, as these reagents had already been proposed by some authors, the latter by L. I. Stremovskiy. K. F. Beloglazov and N. V. Zashikhina (Leningrad Mining Institute) had already observed that by saponine, tanin, and ferric hydroxides the flotation properties of natural sulfur are decreased, whereas the sodium salts of phosphoric acid and soda with water glass do not render the sulfur surface hydrophile, and on the other hand the finely dispersed mud which usually deteriorates the flotation selectivity is peptized and thus the flotation is improved. The present investigations were made according to the method of "tangential repulsion of small bubbles". Together with that a quantitative

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On the Use of Regulator Reagents in the Flotation of Natural Sulfur Ores 64-58-3-6/20

determination of the adhering sodium silicates and of the sodium pyrophosphate was made at the surface of the mineral grains. The mentioned experimental results show that the mixture of soda and water glass has a strong hydrophilic effect on the surface of the vein minerals, whereas sodium pyrophosphate strongly decreases the adherence of small air bubbles at the mineral surface, with the exception of sulfur which is only rendered hydrophile by great additional quantities (10-15 kg per ton). By means of the reagents mentioned above the loss in sulfur can be decreased from 4.5% to 1.5%, and the yield of the concentrates can be increased from 79% to 94%. In this connection sodium pyrophosphate has a stronger selective restraining effect on the vein minerals and shows good results according to a flotation scheme with 3 kg per ton. There are 6 figures, 3 tables.

1. Sulfur ores--Processing 2. Minerals--Flotation 3. Reagents --Performance 4. Flotation--Test results

Card 2/2

KLASSEN, V.I., doktor tekhn. nauk; [redacted], kand. tekhn. nauk.

Use of controllers in the flotation of native sulfur ores. Khim. prom. no.3:152-155 Ap-My '58. (MIRA 11:6)
(Sulfur) (Flotation)

L 39613-66 EWP(f)/ETC(m)-6 WW/WE/GD-2

ACC NR: AT6004451 (N) SOURCE CODE: UR/3188/64/000/072/0034/0044

AUTHOR: Erenburg, S. G. (Engineer)

ORG: LIVT

TITLE: Investigation of starting processes of internal combustion engines

SOURCE: Leningrad. Institut vodnogo transporta. Trudy, no. 72, 1964. Sudovyye silovyye ustanovki (Marine power plants), 34-44

TOPIC TAGS: shipbuilding engineering, internal combustion engine, marine engine

ABSTRACT: The theoretical study of processes related to the starting of marine diesel engines is presented. The study begins with the analysis of factors influencing the pressures at starting, such as the air and the compression pressures. The air pressure governs the r.p.m. variation in time while the compression pressure determines the conditions of ignition and combustion. The variation of pressure in cylinder at starting was determined by the rate of the air flow through the starting throttle. For calculation, this starting process was broken up into two periods of which the first period covered the intake of air at constant volume (no revolution of crankshaft) while during the second period the

Card 1/3 UDC: 621.431.74.05.004

air was pressed into a variable volume (engine movement started). The flow of air from the compressed air cylinders to the engine cylinder (via piping and throttles) was expressed by an equation which was expanded for further calculations and determination of the time needed for development of the air pressure. In these calculations, it was assumed that initial pressures and temperatures in the compressed air cylinders were constant and that the process in the engine cylinder was of an adiabatic nature. The differentiation of gas equation was made at constant volume. A formula for calculation of the time was derived for atmospheric pressure of 1 kg/sq cm and initial temperature of 290 C (in compressed air cylinders). Various physical and operating factors influencing the pre-starting time period were enumerated. The dependence of this time period upon the starting air pressure was illustrated by an experimental curve obtained for the 6ChRP25/34 engine. The maximum pressure in the engine cylinder was determined by expanding and transforming the classical gas equation. The atmospheric pressure of 1 kg/sq cm and an adiabatic compression were assumed. The losses of pressure through piston rings were taken into account and formulated. Their effect on the maximum pressure was graphically illustrated. The variation of the maximum pressure with the changing position of the piston in the cylinder was also illustrated by using the experimental results obtained in testing the 6ChRP25/34 engine. The magnitude of compression

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ACC NR: AT6004451

pressure was determined by using the equation of air energy balance in the cylinder. Polytropic changes of compression with a constant exponent were assumed for calculation. Polytropic curves showing the dependence of compression upon the engine speed were presented for the 6ChRP25/34 engine. The effect of losses on the compression was the greatest at low speeds. Calculations of losses were made by using a special nomographic chart. The analysis and tests showed that the compression pressure depended upon the engine temperature and the extent of wear on the pistons and cylinders. Orig. art. has: 5 graphs and 22 formulas.

SUB CODE: 13, 21/ SUBM DATE: None / ORIG REF: 002 / OTH REF: 000

Card 3/3

ERENBURG, V.G.

Using X-ray analysis in geological investigations. Razved. i okh.nedr 21 no.1:19-29 Ja-F '55. (MLRA 9:12)

(X-rays--Industrial applications) (Prospecting)

To be submitted for the International Symposium on Macromolecular Chemistry, Montreal, Canada, 27 Jul -1 Aug 1961.

USSR

BIRSHTEYN, T. M., Institute of High Molecular Chemistry, Academy of Sciences USSR, Leningrad, jointly with KRIGBAUM, W. R., and KANEKO, M., Duke University, Durham, N.C. - "Elasticity of cube lattice chain networks" (Group 2)

DOGADKIN, Boris A., and DONTSOV, A. A., Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov - "Interaction of polyethylene with sulphur" (Groups 4-5)

KARGIN, Valentin A., Head, Laboratory of Colloidal Chemistry, Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "The formation of big crystal structures in polymers and their properties" (Group 2. Invited lecture)

KRENTSEL', B. A., TOPCHIYEV, A. V., and SAKALO, L. A., Institute of Petroleum, Academy of Sciences USSR, Moscow - "Polymerization of some epoxy compounds" (Group 3-B)

MEDVEDEV, Sergey S., SPIRIN, YU. A., AREST-YAKUBOVICH, A. A., POLYAKOV, D. K., and GANTMAKHER, A. R., Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "Polymerization catalyzed by lithium and lithium alkyl" (In German) (Group 3-B)

NAMETKIN, N. S., TOPCHIYEV, A. V., and POLAK, L. S., Institute of Petrochemical Synthesis, Academy of Sciences USSR, Moscow - "On the catalytic polymerization and radiochemistry of allylsilans" (Group 3-A)

PIOTROVSKIY, K. B., All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev, Leningrad - "Temperature effect on polymer structure in diene polymerization by alkali metals" (Group 3-B)

PODDUBNYY, I. Ya., and [illegible], Ye. G., All-Union Scientific Research Institute of Synthetic Rubber, Leningrad - "Study of branching in regular isoprene polymers" (Group 1)

PODDUBNYI, I. Ya. MOSEVITSKIY, M. [illegible] RABINERZON, M. A., and PERCHKOV, A. N., All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev, Leningrad - "Nature of molecular-weight distribution and properties of styrene-butadiene rubbers depending on polymerization conditions" (Group 3-A)

PRAVEDNIKOV, A. N., TELESHOV, Ye. N., YING, Shu-k'ang, and MEDVEDEV, S. S., Scientific Research Physico-Chemical Institute imeni L. Ya. Karpov, Moscow - "Investigation of the mechanism of radiolysis of polymers containing quaternary atoms of carbon" (Group 4-5)

TSVETKOV, Viktor N., Institute of High Molecular Compounds of the Academy of Sciences USSR, Leningrad - "Stereo-regularity and optical anisotropy of macromolecules" (Group not specified)

USMANOV, Khamdam U., and SUSHKEVICH, T. I., Academy of Sciences UzSSR, Tashkent, Uzbekistan - "The investigation of the cotton cellulose polydispersity according to the molecular weight" (Group not specified)

YENIKOLOPYAN, N. S., Institute of Chemical Physics of the Academy of Sciences USSR, Moscow - "On the kinetics of formaldehyde polymerization and polyformaldehyde degradation" (Group 3-B)

PODDUBNYY, I.Ya.; ERENBURG, Ye.G.

Characteristics of branching of isoprene polymers having a regular structure. Vysokom.soed. 4 no.7:961-967 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka imeni S.V. Lebedeva.
(Isoprene)

ACCESSION NR: AT4033977 S/0000/63/000/000/0003/0008

AUTHOR: Poddubny*y, I. Ya.; Erenburg, Ye. G.; Kartasheva, G. G.

TITLE: The weight and dimensions of polyhexafluoroamyleneadipinate macromolecules

SOURCE: Geterotsepny*ye vy*sokomolekulyarny*ye soyedineniya (Heterochain macromolecular compounds); sbornik statey. Moscow, Izd-vo "Nauka," 1963, 3-8

TOPIC TAGS: polyhexafluoroamyleneadipinate, fluorinated polyester, macromolecule, molecular weight, polymer, polymer weight, polymer dimensions, fluorinated polyester

ABSTRACT: To fill the existing gap in reliable data on the weight and dimensions of macromolecules of fluorinated polyesters, the authors undertook to determine the weight, dimensions and flexibility of, and molecular weight distribution in, macromolecules of polyhexafluoroamyleneadipinate. In the 16 fractions, obtained from two adipinate samples by fractional precipitation with methyl alcohol, the molecular weight was determined indirectly from the characteristic viscosity and light scattering which were measured with a conventional Ostwald viscosimeter for volatile solvents at 20C and a Tsvetkov visual polarization nephelometer,

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ACCESSION NR: AT4033977

respectively, and substituted in the expression

$$cH/\tau = 1/\overline{M}_w + 2A_2c \qquad (1)$$

where $\overline{M}_w$ is the mean molecular weight of the fraction, c is concentration in g/100 ml, τ is the solution turbidity, A_2 is the second virial coefficient, and H is the optical constant of the system. Benzene was found to be an ideal thermodynamic solvent at 20C and was used in the tests. A curve of the molecular weight distribution shows that the polymer possesses a relatively low polydispersion ($\overline{M}_w/\overline{M}_n = 1.27$) and molecular weights of 60000 and 77000 (two samples). "The authors thank I. M. Dolgopol'skiy and A. A. Dobina for providing the samples." Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Vsesoyuzny*y nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Scientific Research Institute of Synthetic Rubber)

SUBMITTED: 18Apr62 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: OC NO REF SOV: 006 OTHER: 011

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S/020/63/148/002/036/037
B124/B186

AUTHORS: Poddubnyy, I. Ya., Erenburg, Ye. G., Chernova-Ivanova, Ye. P., Kartasheva, G. G.

TITLE: The effect of the association of polybutadiene macromolecules in different solvents

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 2, 1963, 384-387

TEXT: The sizes of macromolecules of highly branched potassium butadiene rubber and of linear cis-polybutadiene (the latter being prepared in the presence of a complex catalyst) were investigated using a light-scattering method. Both in solvents with nearly ideal thermodynamic properties and in relatively good solvents aggregation of the dissolved macromolecules was observed. The molecular weights $\overline{M}_w$ and the mean-square radii of the polymer clusters were determined with the polarization nephelometer and a photometric device described by V. N. Tsvetkov et al. (ZhETF, v. 26, 245 (1954)). In addition, the number-average molecular weights $\overline{M}_n$ were determined by the osmotic pressure method and the characteristic viscosities were measured

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for each fraction. The results obtained for potassium butadiene rubber fractions in methyl ethyl ketone are given in Table 1, and those for cis-polybutadiene in dioxane and methyl butyl ketone in Table 2. In the former case, the association of the dissolved macromolecules decreases with an increase in temperature, whereas in the latter case this does not hold, and the association is doubled on transition from methyl butyl ketone to dioxane. The behavior of the above-mentioned polymers in octane, decane, dichloroethane, octene, cyclohexene, and chloroform was tested. Thus, association of macromolecules in solutions of butadiene polymers takes place also in good solvents and is accompanied by a considerable increase in the aggregate size, which is independent of temperature. The peculiar behavior with regard to association of the mentioned polymers in good solvents is explained as due to the presence of a considerable number of strong polarizable double bonds in the molecular chains. There are 3 figures and 3 tables. The most important English-language reference is: W. Cooper, G. Vaughan, J. Polym. Sci., v. 50, 159 (1961).

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev)

PRESENTED: September 18, 1962, by V. A. Kargin, Academician

SUBMITTED: August 26, 1962

Table 1. Size and molecular weight of potassium butadiene rubber macromolecules at different temperatures.

Legend: (1) Number of the fraction; (2) Temperature, °C; (3) $M' \cdot 10^3$ (without regard to asymmetry); (4) $\phi' \cdot 10^{-21}$ (ϕ' = Flory's constant).

(1) № фракции	(2) Т-ра, °С	$M' \cdot 10^3$ (3) (без учета асиммет-рии)	$\overline{M}_w \cdot 10^{-3}$	$\overline{M}_w / \overline{M}_n$	$[\eta]$	$(\overline{r^2})^{1/2}$, Å	$\Phi' \cdot 10^{-21}$ (4)
B-1	46	1,660	2,260	2,3	1,53	450	32
2	48	1,060	1,390	1,4	1,56	410	31
($\overline{M}_n = 980 \cdot 10^3$)	61	890	1,100	1,1	1,73	370	43
B-2	38	2,000	2,700	3,0	—	430	—
2	48	1,000	1,240	1,4	—	370	—
($\overline{M}_n = 910 \cdot 10^3$)	60	830	1,000	1,1	—	360	—

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Table 2. Size and molecular weight of cis-polybutadiene macromolecules in different Θ-solvents.

Legend: (1) Number of the fraction; (2) Solvent; (3) Temperature, °C; (4) Dioxane; (5) Methyl butyl ketone.

(1) № фракции	(2) Растворитель	(3) Т-ра, °С	$\overline{M}_w \cdot 10^{-3}$	$\overline{M}_w/\overline{M}_n$	[η]	$(\overline{r^2})^{1/2}$, Å	$\Phi \cdot 10^{-21}$	$A_2 \cdot 10^4$
Д-2	(4) Диоксан	21	1,040	2,1	1,45	430	19	2,7
1		25	1,050	2,1	—	430	—	4,6
($\overline{M}_n = 500 \cdot 10^3$)		30	1,100	2,2	—	460	—	6,7
		40	1,100	2,2	—	460	—	10,0
Д-3	(4) Диоксан	20	1,500	3,9	1,48	570	12	0
2	(5) Метилбутилкетон	25	700	1,8	1,37	410	14	8,0
($\overline{M}_n = 390 \cdot 10^3$).		50	750	1,9	—	450	—	15,0

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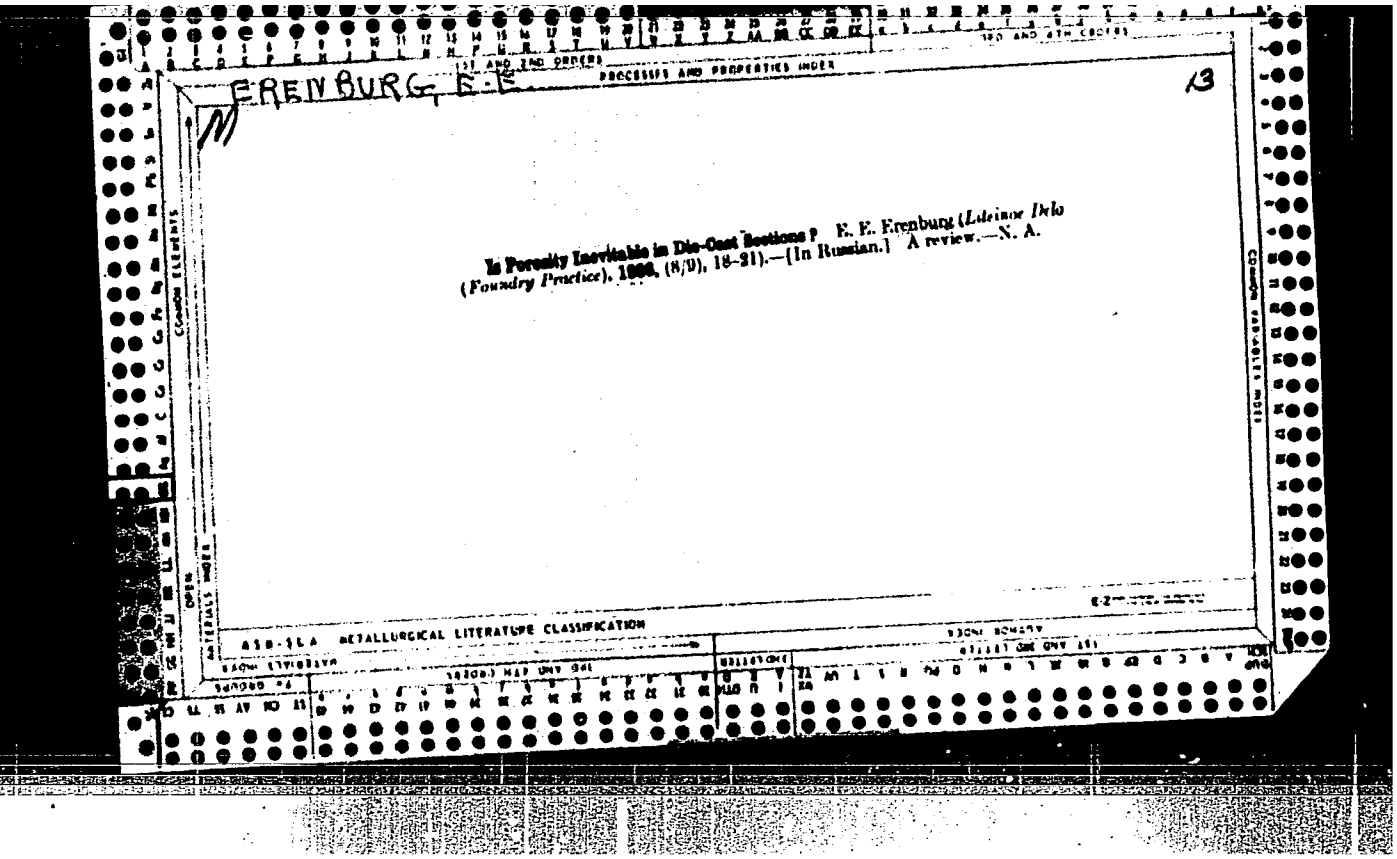

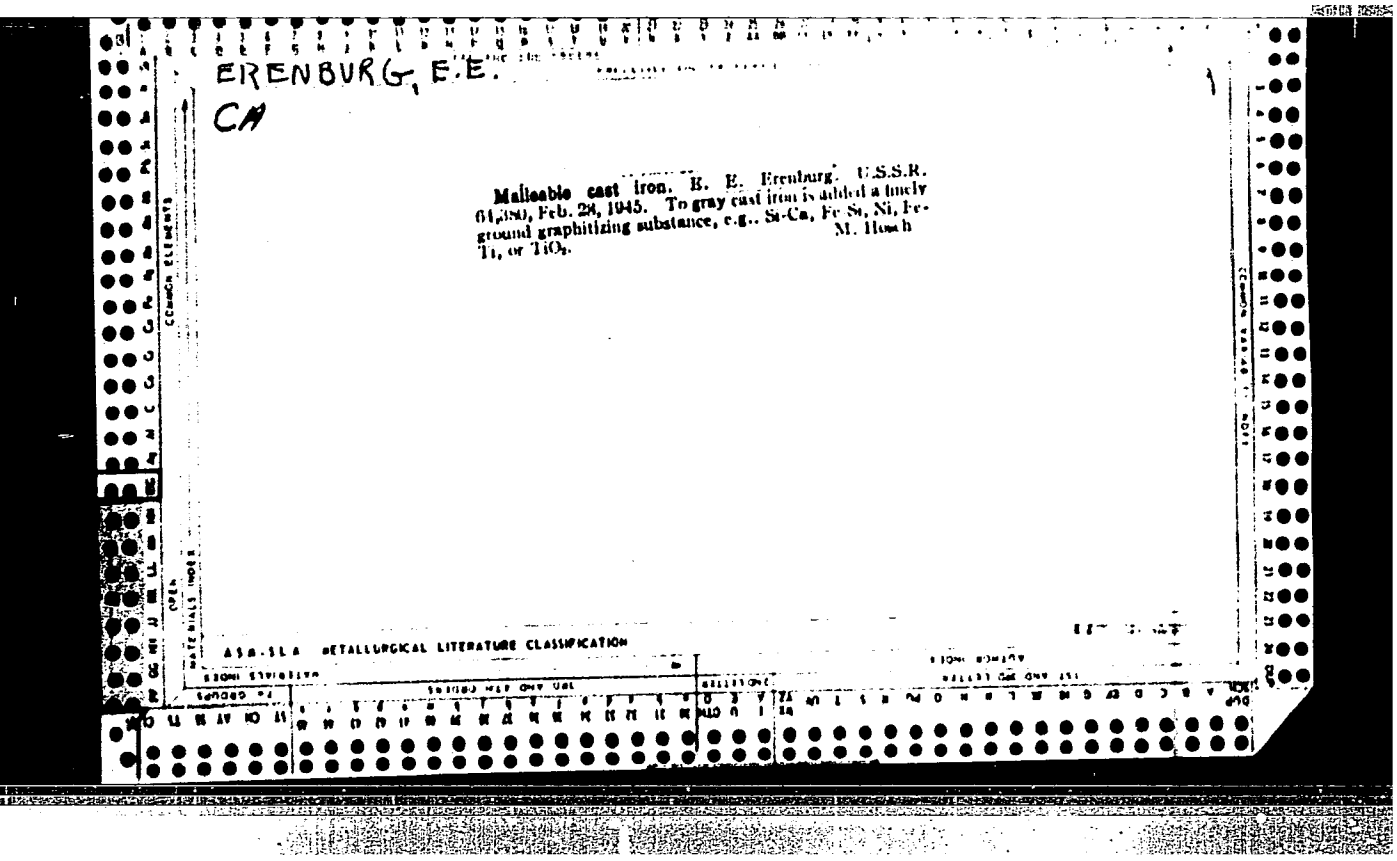

ERENBURG, B.E.

CA

Malleable cast iron. B. E. Erenburg. U.S.S.R. 61,380, Feb. 28, 1945. To gray cast iron is added a finely ground graphitizing substance, e.g., Si-Ca, Fe-Si, Ni, Fe-Ti, or TiO_2. M. Hosch

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

EHRENBURG, E.E., kandidat tekhnicheskikh nauk; BYKOV, V.M., inzhener.

[Pipe casting] Truboliteinoe proizvodstvo. Izd.3., perer.i dop. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953. 411 p. (MLRA 6:7)
(Iron-founding)

YERENBURG, E.E.

USSR.

1746. USE OF CUPOLA THERMOANTHRACITE FOR MELTING CAST IRON. Erenburg, E.E. (Litein. Proizv. (Found. Ind., U.S.S.R.), 1954, (2), 24-26). In the experiments described, various fuels for the cupola were compared using the following procedure: The fuel under test was stacked to a height of 1800 mm in a previously heated cupola 400 mm in dia. After 10-20 min the height of the bed was levelled off and the blast admitted. Durations of the descent of the column to the tuyere level and the hearth level were determined for four types of coke, three types of anthracite, peat, and charcoal. From the results it is concluded that cupola 'thermoanthracite' (produced by a fairly rapid heat treatment of anthracite) is an excellent cupola fuel.

I.S.I.

PONOMAREV, Viktor Aleksandrovich; PASTERNAK, Nina Aleksandrovna; [illegible], Yelizar Yefimovich; CHERNYSKIY, Ye.A., retsenzent; SILAYEV, A.F., red.; UVAROVA, A.F., tekhn. red.

[Increasing labor productivity in casting sections] Povyshenie proizvoditel'nosti truda v liteinykh tsekhakh. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 249 p. (Iron founding) (MIRA 11:9)

EREMBURG, G., PODUBNYY, I. Ya

"Structure of the macromolecules of synthetic rubbers," a paper presented at the 9th Congress on The Chemistry and Physics of High Polymers, 28 Jan-2 Feb 57, Moscow, Polymer Research Inst.

B-3,084,395.

SOV/20-120-3-27/67

AUTHORS: Poddubnyy, I. Ya., Erenburg, Ye. G., Starovoytova, Ye. I.

TITLE: On the Structure of the Vulcanisation-Network in Carboxyl-Containing Polymers (O stroyenii setki vulkanizatov karboksilsoderzhashchikh polimerov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 3, pp. 535-538 (USSR)

ABSTRACT: As is known, the physical and mechanical properties of rubber are dependent upon the molecular structure of the initial polymers. The structure of the vulcanization network is not of a less importance in this respect. Such rubber kinds are of special interest for the examination of the latter, the macromolecules of which contain small amounts of functional groups, as for example carboxy groups. (Ref 1). When such polymers are vulcanized with metal oxides, highly elastic rubber types are produced with an extraordinary high elasticity in unfilled mixtures. The specific physical and mechanical properties of such vulcanisates are apparently connected with the particular nature of the structure of their

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On the Structure of the Vulcanisation-Network in Carboxyl-Containing Polymers

vulcanization network. This structure was determined by the authors by means of an equilibrium swelling method (Ref 3). It appears from the results of the work that the vulcanization of carboxyl-containing polymers by metal oxides is practically not connected with the formation of normal chemical compounds, which correspond to the structure of medium magnesium-, potassium-, and zinc salts of high-molecular acids. All the more probably the "salt network" is produced (according to an assumption by V. A. Kargin) because of the formation of compounds of the type of basic salts, which on the grounds of their bad solubility in the polymer either form crystalline agglomerates or remain linked with the oxide particles distributed in the polymer. In this case the strength of the vulcanization bindings should be dependent upon the solubility of these salts in the polymer, that is to say, that it should decrease with increasing solubility. The authors determined that the solubility of the salts decreases considerably in the order Mg > Ca > Zn by choosing magnesium-, potassium-, and zinc oleates and isooctane as compounds representing a model of the system "high-molecular salt - polymer". This fact proves the above

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mentioned view concerning the nature of the cross links produced in the vulcanization, which apparently play the part of a peculiar "active filling substances". There are 3 figures, 1 table, and 3 references, 2 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva
(All-Union Scientific Research Institute of Synthetic Rubber imeni S. V. Lebedev)

PRESENTED: January 31, 1958, by V. A. Kargin, Member, Academy of Sciences, USSR

SUBMITTED: December 16, 1957

1. Synthesis rubber--Structural analysis 2. Polymers--Applications 3. Vulcanization--Analysis 4. Metal oxides--Applications

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S/190/60/002/011/006/027
B004/B060

AUTHORS: Poddubnyy, I. Ya., Erenburg, Ye. G.

TITLE: A Study of the Ramification of Butadiene Rubbers

PERIODICAL: Vysokomolekulyarnyye soyedineniya, 1960, Vol. 2, No. 11, pp. 1625 - 1634

TEXT: In order to provide evidence of a ramification in the macromolecules of butadiene rubbers, the authors started from P. J. Flory's theory (Ref. 12) and determined the intrinsic viscosity $[\eta]$ in the "ideal" solvent. Flory's equation is written down: $[\eta] = \Phi'(\overline{r^2})^{3/2}/M$ (1), where M is the molecular weight of the polymer, $\overline{r^2}$ the mean square radius of the coiled molecule, Φ' Flory's universal constant. The following derivation is made for ramified molecules: $[\eta]^{2/3}/M^{1/3} = K^{2/3}g + 2C_M\psi_1 K^{5/3}(1 - \theta/T)(Mg^{5/2}/[\eta])$ (2a). $K = \Phi'(r_0^2)^{3/2}$, C_M is a constant (independent of the molecular weight) for the polymer - solvent system concerned, g is the

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ratio of the mean square $\overline{r^2_{\nu o}}$ of the radius of the ramified macromolecule versus the square r^2_o of the radius of the nonramified one. ψ, denotes the mixing entropy, θ is the temperature at which the free energy of polymer - solvent mixing is equal to the free energy of formation of an ideal solution. At $T = \theta$, consequently, the free energy of interaction of the segments of the polymer chain with one another and with the molecules of the solvent is vanishing. For linear chains and $T - \theta$ the function $[\eta]^{2/3}/M^{1/3} = f(M/[\eta])$ is a straight line which is parallel to the axis of abscissas. This function has to be a curve in ramified molecules. The value for g can be determined directly from the intrinsic viscosity: $g = [\eta]^{2/3}/M^{1/3}K^{2/3}$ (3). This assumption was checked by means of butadiene rubbers, prepared in the gaseous phase at 0°, 40°, and 60°C with potassium as a catalyst: СКВ-0 (SKV-0), СКВ-40 (SKV-40), and СКВ-60 (SKV-60). Fractions with different molecular weights were obtained through precipitation by methanol. The molecular weights were determined by osmosis. Methyl ethyl ketone was used at 42°C as an ideal solvent. θ was determined from function $T = \theta(1 - b/M^{1/2})$ (4). T_m is the critical temperature for

the complete mixing of the polymer with the solvent. Here, $b = (V_1/\bar{v})^{1/2}\psi_1$, V_1 being the molecular volume of the solvent, $\bar{v}$ the specific volume of the polymer. The diagram $[\eta]^{2/3}M^{1/3} = f(M/[\eta])$ (Fig. 2) was set up on the basis of the measured $[\eta]$ and M:

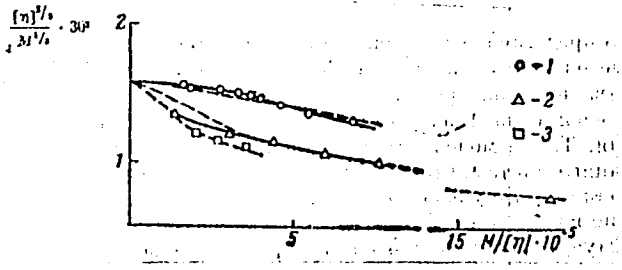

Fig. 2: The function $[\eta]^{2/3}M^{1/3} = f(M/[\eta])$ 1=SKV-0, 2 = SKV-40, 3 = SKV-60.

A sample prepared at 0°C already has ramifications in the molecule. The g calculated by equation (3), the number of nodes per molecule and the density ρ of ramification are indicated in Table 3:

A Study of the Ramification of Butadiene Rubbers

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Образец 1	Номер фракции 2	Молекулярный вес 3	$g'[\eta]$	g	Число узлов на молекулу 4	Плотность разветвления $\rho \cdot 10^3$ 5
СКВ-0	2a	980 000	0,822	0,663	6,0	0,33
	1	720 000	0,847	0,700	4,7	0,36
	3	578 000	0,898	0,783	2,9	0,27
	4	480 000	0,924	0,830	2,1	0,24
	5	410 000	0,937	0,855	1,7	0,22
	7	348 000	0,950	0,883	1,3	0,21
	8	269 000	0,962	0,907	1,05	0,21
	11a	117 000	0,968	0,925	0,75	0,34
	9	95 000	0,982	0,955	0,45	0,26
СКВ-40	4	1 280 000	0,472	0,300	58,0	2,44
	5	543 000	0,626	0,436	22,0	2,17
	6	420 000	0,675	0,485	16,1	2,09
	7	292 000	0,733	0,550	11,6	2,13
	8	184 000	0,765	0,588	9,3	2,70
	9	44 000	0,848	0,700	4,7	5,90
СКВ-60	6	182 000	0,708	0,520	13,5	4,0
	7	108 000	0,740	0,558	11,2	5,6
	8	70 000	0,778	0,605	8,5	6,7

Table 3: 1 = sample, 2 = No. of fraction, 3 = molecular weight, 4 = number of nodes per molecule, 5 = density of ramification.

With a rise in the temperature of polymer production, ramification also increases. The fairly constant values of fractions with molecular weight prove that fractionation has taken place only according to the molecular weight, not according to the degree of ramification. The difference ΔE of the activation energies for growth and

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