"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, Leopold; RACHTAN, Krystyna (Warszawa)

Engineering, economics, and organization as combined in capital building investments. Przegl budowl i bud mieszk 33 no.4: 214-216; 229 Ap'61

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, Leopold, mgr.; RACHTAN, Krystyna, mgr.

Pattern of the organization of the management of construction and assembling enterprises and their services as well as their working methods. Przegl budowl i bud mieszk 34 no.7:436-438 Jl '62.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KĘDZIERSKI, Leopold, mgr.

Methods of research on the organization of building assembling enterprises. Przegl budowl i bud mieszk 34 no.9:565-567 S '62.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, Leopold, mgr

Organization and supervision of building and assembling production based on a system of preliminary building documentation. Przegl budowl i bud mieszk 33 no.2:117-119 F '61.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, M.

SA

64

1041. **Organization and methods of controlling the protective earthings in district power stations.** HELLMANN, W. AND KEDZIERSKI, M. *Przegl. Elektrotech.*, 24 (*No.* 6) 182-4 (1948) [illegible].—Three methods of measuring the earthing resistance are discussed. Details of the "potential drop" method and the routine of measurement are given. A. BCZ.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

[illegible], M.

The yesterday, today, and tomorrow of automotive transportation in Poland, p. 27. (MOTORYZACJA, Warszawa, Vol. 10, no. 1, Jan. 1955.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

28(5) PHASE I BOOK EXPLOITATION POL/3235

Drewnowski, Kazimierz, (Deceased), Marian Kędzierski, Radoslaw Ladziński, Tadeusz Oleszyński, Tadeusz Pietruszyński, Zofia Świeykowska, Andrzej Szulce and Stanislaw Trzetrzewiński.

Pomiary elektryczne (Electric Measurements) Warszawa, PWN, 1959. 622 p. Errata slip inserted. 5,200 copies printed.

Ed.: Stanislaw Trzetrzewiński.

PURPOSE: This is a textbook for students of polytechnical institutes. It may also be used as a manual in electrical laboratories of institutes of higher education, and in scientific research and plant laboratories.

COVERAGE: The work consists of two parts: the first part outlines the theory of electrical measurements, the second deals with methods of measurements and measuring systems. The original manuscript was prepared by Professor K. Drewnowski, who died in 1952. The book was completed on the basis of this material by his former students. Part I of the book was written by Professor Doctor T. Trzetrzewiński. Part II was written as follows: Chapters 1, 6 and

Card 1/9

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

7 by Zofia Świeykowska, Chapters 2, 3 and 4 by Andrzej Szulce, Chapters 5 and 11 by Tadeusz Pietruszyński, Chapters 8 and 9 by Radoslaw Ladziński, Chapter 10 by Tadeusz Oleszyński and Chapter 12 by Marian Kedzierski. References are given after some chapters.

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

[illegible]

[illegible]

[illegible] Zhur-Biologiya, No. 1, 1960, [illegible]

Author : [illegible]

[illegible]

TITLE : Study of the Effect of Meteorological Conditions on Vegetation and Frost Resistance of [illegible]

ORIG. PUB. : [illegible]

ABSTRACT : No abstract

CARD : [illegible]

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

WIERZBICKA, M.; KEDZIERSKI, S.

On the dormancy state of some species of Cyclopoida under experimental and natural conditions. Polskie arch hydrobiol 12 no. 1:47-80 '64.

1. Department of Experimental Hydrobiology, Nencki Institute of Experimental Biology, Warsaw.

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, W.

"Putting the work of shop mechanics in the state clothing industry on a piecework basis." p. 224. (Odziez, Vol. 4 No. 11, Nov 53, Lodz)

SO: Monthly List of East European Accessions, Vol. 3 No 6 Library of Congress Jun 54 Uncl

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, W.

"Kinds and Types of Machines in the Garment Industry." p. 34, (ODZIEŻ, Vol. 5, No. 2, Feb. 1954. Lodz, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, W.

"Stitching Machine, the Major Machine of the Garment Industry." p. 43, (ODZIEZ, Vol. 5, No. 3, Mar. 1954. Lodz, Poland.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, W.; KALIWODA, F.

Imperfections occurring in rotary stitchers of light and medium types and means of eliminating them, p. 52. (ODZIEZ, Lodz, Vol. 6, no. 3, Mar. 1955.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KUCHIEWSKI, W.

Management of machines and electric power in the clothing industry. p. 64.
ODZIEŻ, Lodz, Vol. 6, no. 4, Apr. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

S/261/62/000/004/002/002
I006/I206

AUTHOR: Kędzierzawski, Jan

TITLE: Centrifugal fan GC-37

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 34. Kompressory i kholodil'naya technika, no. 4, 1962, 9, abstract 34.4.71. "Energ. prezemysł.", v. 9, no. 6, 1961, 221-224 (Polish)

TEXT: The compressor and fan plant of the PNR developed the centrifugal fan GC-37, notable for noiselessness, small size and high efficiency. The fan rotor has the following design characteristics: leading edge diameter of intake vanes $D_2 = 0.4$ m; diameter ratio $D_1/D_2 = 0.85$; relative width of vane trailing edge $b_2 = b_2/D_2 = 0.5$; relative width of volute $B = B/D_2 = 0.75$; setting angle of vane trailing edge $\beta_2 = 180°$; number of vanes $z = 30$; rotor speed $n = 735$ rpm. The fan intake is designed to allow suction either from the surrounding medium or by attachement of a suction duct. Minimum resistance of fan suction, and also a smoothed out velocity distribution in the intake channel are obtained by profiling the entrance as a lemniscate with a small loss coefficient. In order to facilitate replacement of vanes the rotor is constructed of two parts — a disk and a crown of vanes of constant width attached to it. The spiral chamber is provided with a movable strip to change the radius along whole circumference. In order to obtain uniform action of the rotor, the chamber strip is determined by the condition of constant static head along the

Card 1/2

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rotor circumference. The GC-37 fan characteristic reduced to normal conditions at 735 rpm is presented. A non-dimensional characteristic of centrifugal and axial fans designed earlier by the Heat-Technology Institute is given, as well as that of centrifugal fans — the Soviet Ц 10-51 (Ts 10-51) and the German NRF design of Prof. Laakso. There are 6 figures and 1 table.

[Abstracter's note: Complete translation.]

Card 2/2

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KMDZIERZAWSKI, Jan, agr inz.

Utilization of model research in fan design. Pt. 2.
Gosp paliw 12 no.4:Suppl.:Biul inst techn ciepl 12 no.4:
143-146 Ap'64.

1. Compressor, Fan, and Pump Factory, Lodz.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIERSKI, Jan, mgr inż.

Utilization of model research in fan design. Pt.2. Biul Inst techn cieplnej 12 no.4:143-146 ap '64.

1. Department of Compressors, Fans and Pumps of the Institute of Heat Engineering, Lodz.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIOR, Emil (Krakow, ul, Bol. Prusa 2 m 14.)

Dupuytren's type of fracture of the ankle. Polski przegl. chir. 29 no.8:811-815 Aug 57.

1. Z Przychodni i Lecznicy Urazowej W. S. P. R. w Krakowie Kierownik naukowy: prof. dr J. Zaremba Praca wplynela: XII. 1956 r.

(ANKLE, fractures,
Dupytren's type (Pol))

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA, J.

KEDZIORA, J. Sidzina Podhalanska. p. 16, No. 2, Feb. 1956. Warszawa, Poland
Turysta

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA, Marek, mgr. (Krakow)

Sinters in the Krakow Voivodeship. Przegl budowl i bud mieszk 35 no.11:623-624 N'63.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

MOYCHO, W.; GUBANSKI, M.; KEDZIORA, T.

Tobacco mosaic virus (TMV) inhibitors in lichens. Bul Ac Pol biol 8 no.5:209-212 '60. (EEAI 9:11)

1. Department of Plant Physiology, Lodz University. Presented by K.Bassalik.

(TOBACCO)
(MOSAIC DISEASE)
(LICHENS)
(VIRUSES)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA, W.

Production base of the prefabrication of large-sized sections in mass home building.

p. 29 (Budownictwo Przemyslowe) Vol. 4, no. 5, May, 1955, Warszawa, Poland

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

4200

621.873.7 : 624.057.728

Kędziora W. Moving Tower Cranes on the Building Site of Development Scheme A—11.

„Przesuwanie żurawi wieżowych na budowie osiedla A-11". Przegląd Budowlany. No. 4, 1955, pp. 124—126, 7 figs.

On the building site of development scheme A-11 at Nowa Huta, near Cracow, two methods were employed for moving tower cranes over wide curves. In the first the drag rope was attached to the rear constructional element of the crane, and a plank placed between this line and the fore element. The plank transmitted part of the force to the front part of the base during motion and caused an additional rotation of the crane. The second method, worked out by the Institute of Building Organisation and Mechanisation, consisted in provisionally mounting an extra wheel (a fifth) to the base. This wheel ran on a third rail specially laid for the purpose. In this operation, two wheels of the crane were lifted and the crane moved, being supported at three points. In the model illustrated the radius of the curve of the third rail is determined by descriptive and analytical methods. Construction sketches to show how the crane is moved are included. This system of moving ensures uniform and continuous motion.

Mech

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA, W.; SZUBERT, E.

Experimental stations of the Institute of Organization and Mechanization of Building.
p.179
(PRZEGLAD BUDOWLANY, Vol. 28, No. 4, Apr. 1956, Warsaw, Poland)

SO: Monthly List of East European Accessions (FEAL) LC, Vol. 6, No. 9, Sept. 1957, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA, Z.

"Card of Fish in Winter Reservoirs." p. 17, (GOSPODARKA RYBNA, Vol. 6, No. 2, Feb. 1954. Warszawa, Poland.)

SO: Monthly List of East European Accession, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA, Z.

Cyprinoid, a sport fish, p. 21. (GOSPODARKA RYBNA, Warszawa, Vol. 7, no. 2, Feb. 1955.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 6, Jun. 1955, Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA, Z.

Kedziora, Z. The carp as an object for angling. p.22.

GOSPODARKA RYBNA

Vol. 7, no. 5, May 1955 Warszawa, Poland

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 5, No. 10 Oct. 56.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZIORA Z

KEDZIORA, Z.

KEDZIORA, Z. Cyprinus. p. 20. The world catch of fish and its utilization. p. 21. Activities of the Inland Fishing Institute. p. 22. From the life of the Fishing Work Cooperative of Warszaw Voivodeship. p. 23. (S). Fishing superstitions and customs in the world. p. 24. How whales were caught in the time of Marco Polo. p. 25.

Vol. 7, no. 7, July 1955
GOSPODARKA RYBNA
AGRICULTURE
Poland

So: East European Accession, Vol. 6, No. 5, May 1957

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEDZMANOVIC, Zlatimir; DORDEVIC, Slobodan.

Optic nerve atrophy caused by expansive processes of the paranasal sinuses. Srpski arh. celok. lek. 91 no.6:583-588 Je'63.

1. Klinika za bolesti ociju Medicinskog fakulteta Univerziteta u Beogradu (upravnik: prof. dr. Ivan Stankovic) i otorinolaringoloska klinika Medicinskog fakulteta Univerziteta u Beogradu (upravnik: prof. dr. Srecko Padvinec).

*

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEEL, C. G.

CALCULATION OF CUTTING TIMES AND TH OXYGEN AND ACETYLENE CONSUMPTION IN FLAME CUTTING, C. G. KEEL, (SVAROVANI, 1949, vo. 9, Mar., pp. 32-34) (in Czech) Cutting times and gas consumptions given in the literature have been used for compiling tables giving average values for manual and machine flame cutting, and nomograms are worked out which permit the determination of maximum and minimum times and gas consumption for flame-cutting operations. EG

KEERIG, Yu. Yu.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

Apparatus for determining the physical properties of urine (urocolorimeter). Lab. delo 7 no.1:57 Ja '61. (MIRA 14:1)
(URINE—ANALYSIS AND PATHOLOGY) (COLORIMETRY)

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEERNIK, H.

Widening the productive area of hog houses. p. 282.

SOTSIALISTLIK POLLUMAJANDUS. (Pollumajanduse Ministeerium)
Tallinn, Estonia. Vol. 13, no. 6, June 1958.

Monthly list of East European Accessions (EEAI) Vol. 9, no. 1, Jan. 1960.

Uncl.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

ACCESSION NR: AT4015833 S/2807/62/000/197/0155/0165

AUTHOR: Keerus, Kh. V.; Saar, M. M.; Tiysmus, Kh. A.

TITLE: On the stability of certain materials in liquid aluminum

SOURCE: Tallinn. Politekhnicheskiy institut. Trudy*, Seriya A, no. 197, 1962. Issledovaniye i proyektirovaniye induktsionny*kh nasosov dlya transporta zhidkikh metallov (Study and design of induction pumps for the transmission of liquid metals) Sbornik trudov, no. 1, 155-165

TOPIC TAGS: material stability, liquid aluminum, porcelain, quartz, sitall, graphite, corundum, magnesite, protective covering, pump duct

ABSTRACT: There are practically no systematized data on the interaction between aluminum and other materials and on the properties of structural materials capable of lengthly resistance to the action of molten aluminum, as required in electromagnetic pumps used in circulating it. The article discusses the behavior of porcelain, quartz, the pyroceramic sitall, graphite, corundum and magnesite in molten aluminum; protective coverings of metals (including aluminum oxide); and the design and technology of manufacture of a pump duct. The results of the study are no solution of the problem of developing a fully reliable duct for aluminum, but they permit the author to state that further investigation of

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

ACCESSION NR: AT4015833

metal coverings may yield positive results and a solution of the problem. Work must also be continued on producing a satisfactory ceramic or graphite duct for aluminum.
Orig. art. has 1 diagram, 4 photos and a table of proposed composition of protective enamels.

ASSOCIATION: Tallinskiy Politekhnicheskiy institut (Tallin Polytechnical Institute)

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: ML NO REF SOV: 002 OTHER: 007

Card 2/2

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

KEES, H.

More pork year by year. p. 406

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inzynierow I Technikow Sanitarnych Orgrzewnictwa i Garownictwa) Warszawa, Poland
Vol.13, no.9, Sept. 1958

Monthly list of East European Accession (EEAI) LC, Vol.9, no.2, Feb. 1960

Uncl.

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEEVALLIK, E.J.; ROSTOVTSEV, M.I., kandidat ekonomicheskikh nauk

Vandra. Nauka i zhizn' 22 no.9:27-28:37 S '55. (MLRA 8:12)

1. Direktor Vyandraskoy opytnoy stantsii Instituta zhivotnovodstva i veterinarii Akademii Nauk Estonskoy SSR (for Keevallik)
(Vändra--Stock and stockbreeding)

Card : 1/1

KEFALA, A.P.

Per unit cost of prospecting for resources. Sov. geol. 7 no.4:126-130 Ap'64. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya.

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

[illegible]

KEFCHIYAN, R. Ya. "The treatment of lung abscesses," (Report to the Smolensk Therapeutic Society on 24 October 1947), Trudy Smol. gos. med. in-ta, Vol. II, 194[illegible], p. 206-13.

SO: U-4393, 19 August 53, (Letopis 'Zhurnal 'nykh Statey', No. 22, 1949).

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1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

19

The influence of water vapor and of arsenic on the proc-
ess of fusion of the charge of heavy baryta crown glass.
V. V. Vargin and A. A. Kefeli. *Optiko-mekh. Prom.* 6,
No. 1, 3-5 (Jan., 1937). *Chem. Zentr.* 1937, I, 2427 8.—
The action of steam on the fused frit promotes the evapn.
of B_2O_3 and thus changes the compn. of the glass. At
4 normal pressure the formation of Ba borates, which occurs
at low temps., is accelerated, as is also the formation of
borosilicates at temps. above 700°. As_2O_3 alone or in the
presence of steam accelerates somewhat the decompn. of
the $BaCO_3$ as well as the soln. of SiO_2 and the formation of
borosilicates. The effects of the As_2O_3 and the steam are
additive. The acceleration of the fusion process through
their combined effects is essentially less than that pro-
duced by an increase of 120° in the furnace temp.
5 M. G. Moore

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Antimony ruby glass. P. B. Bukarinova and A. A. Kefeli. *Stekolnaya Prom.* 15, No. 8-9, 28-31(1936). Soda lime glasses are satisfactory for the production of antimony ruby. The optimum concentrates of Sb, S and C are: (a) with 1.5% Sb_2O_3, 0.15-1.5% S and 1.25-0.15% C; (b) with 3% Sb_2O_3, 0.50-1.5% S and 1.5-0.5% C. Soda lime glasses contg. 0.5% Sb are not suitable for obtaining antimony ruby as they are very dark and are little permeable to visible light. With the introduction of small amts. of S and C, glasses remain yellow, with larger concns. they become dark and little permeable. The rubies produced are in the majority of cases dark red. Curves of spectral absorption of the visible part of the spectrum have a gentle slope, which fact distinguishes them from selenium ruby, however, they have a great similarity to those of copper ruby. Antimony ruby can be used as decorative and signal red glass. Zinc glasses are unsuitable for antimony ruby because Zn combines with S during melting and forms a compd. which is too stable. M. V. Condoide

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

Thermal stability of Se ruby. P. V. BUKARINOVA AND A. A. KEFELI. *Stekolnaya Prom.*, 1940, No. 11-12, pp 21-30; *Khim. Referat. Zhur.*, 4 [6] 94 (1941).—The authors investigated the effect of B_2O_3 on the color of Se ruby and on the increase of its thermal resistance. The B_2O_3 was added in place of Na_2O. The glasses prepared contained 5, 10, 15, and 20% B_2O_3 and, correspondingly, 20, 15, 10, and 5% Na_2O. The authors recommend a glass of the following composition: SiO_2 67, B_2O_3 15, ZnO 10, Na_2O 8, Se 0.6, CdS 0.8, and $CdCO_3$ 1%. See "Antimony. . ." *Ceram. Abs.*, 19 [6] 135 (1940). M Ho.

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CA

19

Coloration of glass by compounds of cobalt. A. A. Kellel. *Doklady Akad. Nauk S.S.S.R.* 57, 61-4(1947).—Silicate glass is colored intense blue by Co; the color is little affected by compn. of the glass and the abs. curve is that of the blue Co ion. In a series of glasses R_2O-3 SiO_2, the intensity of abs. max. rises steadily with an increase of ionic radius of the alkali metal R. Li interacts most strongly with O ions, weakening the bonding between O and Co and hence reducing the intensity of color. In glasses $R_2'O$-RO-5SiO_2, where R' is Na or K and R is bivalent metal, such a regularity is no longer observed; regardless of proportions of alk. and acidic components, the character of the abs. curves remains the same. Borate and borosilicate glasses change their abs. characteristics, however; as the B_2O_3 content rises the color becomes pink with Co ions of coordination no. 6, while at low B content the color is blue, characteristic of coördination no. 4. Here B oxides enter the structural lattice of the glass. G. M. K

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CA

19

Effect of added halide salts on the spectral absorption of glasses colored with cobalt. A. A. Kefeli. *Doklady Akad. Nauk S.S.S.R.* 58, 1051-4(1947).—To glasses of compn. K_2O-(5, 10, or 20)B_2O_3-65SiO_2 contg. 0.1 part Co oxide, were added KF or KCl at 2-6 wt. % concn., KBr at 0.5-2%, and KI 1-2%. The addns. bring about the appearance of new bands, particularly near 650 mμ, and generally increase absorption, although not in all glasses. Since the change is assocd. with formation of CoX_4 ions, it is explained by color change only in cases in which Co has coördination no. 4. KCl and KBr give the greatest effect, KI the least, while KF gives almost no change. G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

Kefeli, A.A.

AUTHOR: Syritskaya, Z. M.

S/072/60/000/03/021/023
B003/B008

TITLE: 3rd All-Union Conference on the Vitreous State

PERIODICAL: Steklo i keramika, 1960, Nr 3, pp 43-46 (USSR)

ABSTRACT: The 3rd All-Union Conference on the Vitreous State was held in Leningrad at the end of 1959. It was organized by the Institut khimii silikatov AN SSSR (Institute of the Chemistry of Silicates AS USSR), Vsesoyuznoye khimicheskoye obshchestvo imeni D. I. Mendeleyeva (All-Union Chemical Society imeni D. I. Mendeleyev) and Gosudarstvennyy opticheskiy institut imeni S. I. Vavilova (State Optical Institute imeni S. I. Vavilov). More than 100 reports on the structure of glass, investigation methods of the vitreous state, the mechanism of vitrification and physicochemical and technical properties of glasses were delivered. The Conference was opened by Academician A. A. Lebedev.

At the 7th meeting, 6 reports dealt with glasses as semiconductors, 9 with the coloring of glasses and the influence of radiation and 4 reports with technical properties of glasses. V. V. Vargin and T. N. Veynberg, "Coloring of Glasses in Connection With Their Structure". N. I. Vlasova, Ye. I. [illegible], A. A. Kefeli, "Absorption Spectrum of the Co^{2+} Ion as Indicator for the Coordination of Boron and Aluminum in Glasses". V. P. [illegible] and N. V. Berbash reported on the change of the spectral absorption of glasses of simple composition under the influence of gamma rays. G. O. Karapetyan reported on the influence of the structure of glasses on spectral and chemical properties of the Cer-ions. N. F. [illegible] reported on the role of the admixtures and the crystalline state of the lattice in the coloring of quartz glass by gamma radiation. L. M. Blyumen and R. L. Shuster reported on the physicochemical nature of pore formation in silicate melts (foam glass, ceramite). Ye. V. Yermolayeva reported on physico-chemical investigations of melts of refractory oxides in a state of equilibrium. I. P. [illegible], "The Importance of the Vitreous Phase in the Formation of the Ceramic Body and the Cement Clinker". V. A. Presnov reported on the physico-

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chemical fundamentals of the fusing of glass and metal. The 8th meeting dealt with physical chemistry and mechanical properties of glass. K. S. Yevstrop'yev, G. M. Bartenev and S. K. Dubrovo made comprehensive reports. A. A. Appen reported on the fundamental structural parameters which determine the properties of the glass. A. V. Gladkov, V. A. Rutobyl'skaya, V. V. Tarasov reported on research results of the polymeric structure of inorganic glasses. L. I. Demkina reported on peculiarities of the expansion of oxides in silicate glasses. V. G. Slavyanskiy reported on the subject: "The Energy of Covalent Bonds in Glass and Their Role in the Process of the Viscous Flux". Z. M. Syritskaya reported on physico-chemical properties of alumophosphate glasses. Yu. A. Shmidt reported on the dependence of the properties of alkali silicate glasses on the composition. Z. N. Shcheglova reported on: "Investigation of the Dependence of the Optical Properties of Phosphate Glasses on the Composition". A. K. Yakkhind reported on the subject: "The Periodic System and the Optical Constants of Glass". M. S. Aslanova reported on: "Mechanical Properties of Glass Fibers". G. M. Bartenev, A. S. Yeremeyeva made a report on the mechanical properties of inorganic glasses in the anomalous interval and on their structure. Ye. I. Koslovskaya reported on the elastic properties of glasses and on the influence of the composition of the glasses on their mechanical

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properties. A. V. Abramyan reported on the subject: "Leaching of Molten Glasslike Basalts by Aqueous Solutions of Acids and the State of the Oxides in the Structure of Glass Basalts". S. M. Brekhovskikh and V. N. Sesorova reported on synthesis and investigation of hafnium silicate glasses. S. K. Dubrovo reported on physicochemical properties of gallium silicate glasses. V. A. Dubrovskiy and T. S. Dubrovskaya reported on the surface film forming on calcium-sodium glass in the acidic, neutral and basic medium. The following persons reported at the final meeting: V. P. Kokorina on the influence of the alkaline earth oxides on the chemical stability of glasses in a humid atmosphere; L. Ya. Mazelev on vitrification and properties of borate glasses; B. P. Nikol'skiy, Ye. A. Materova and V. V. Moiseyev on the reaction of electrode glasses with solutions. Doctor Vogel and Roetger spoke as guests from Eastern Germany. Academician N. V. Belov, M. A. Bezborodov, I. I. Kitaygorodskiy, and E. K. Keler also spoke at the final meeting.

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15.2120

86493
S/078/60/005/008/028/031/XX
B023/B066

AUTHORS: Kefeli, A. A., Galant, Ye. I., Vlasova, N. I.

TITLE: Spectrophotometric Method of Estimating the Coordination of Boron and Aluminum in Some Types of Glass

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 8, pp. 1768-1773

TEXT: The authors investigated the spectral absorption of aluminoborosilicate glasses which were colored with Co^{2+} compounds in the presence of chlorine. The authors applied the "haloid effect" (Ref. 5, Fig. 1). They proved that the coordination of boron and aluminum in glass can be estimated from the changes in spectral absorption. Two systems were investigated: $K_2O - B_2O_3 - SiO_2$ and $K_2O - B_2O_3 - Al_2O_3 - SiO_2$. Their compositions may be seen from a table on p. 1769. The spectral absorption of these types was measured with an СФ-4 (SF-4) spectrophotometer in the spectral region 400-700 mμ. Fig. 2 shows the change of the optical density as a function of Al_2O_3 contained in these types. It follows from this that

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Spectrophotometric Method of Estimating the Coordination of Boron and Aluminum in Some Types of Glass

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S/078/60/005/008/028/031/XX
B023/B066

the haloid effect increases with increasing Al_2O_3 content. The maximum effect appears in a glass with a constant content of Al_2O_3 and K_2O content, that is, at $\psi = 0$ $\left(\psi = \frac{K_2O - Al_2O_3}{B_2O_3}\right)$. The authors thus confirm the general view of the role of aluminum in aluminoborosilicate glass. They found that in glass containing much boron and less alkali oxide $\left(\frac{R_2O}{B_2O_3} < 0.2\text{-}0.3\right)$, boron is present in ternary and quaternary coordination. The spectrophotometric method also allows to estimate other structural changes, such as the coordination of Al^{3+} ions and the interaction between trigonal, octahedral, and tetrahedral elements of the glass structure. There are 4 figures, 1 table, and 5 references: 3 Soviet, 1 US, and 1 British.

ASSOCIATION: Gosudarstvennyy opticheskiy institut (State Optical Institute)

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

95 2120 1142, 3109, 3309

23348 S/058/61/000/006/035/063
A001/A101

AUTHORS: Vlasova, N.I., Galant, Ye.I., Kefeli, A.A.

TITLE: Absorption spectrum of Co^{2+} ions as an indicator of coordination of boron and aluminum in silicate glasses

PERIODICAL: Referativnyy zhurnal. Fizika, no. 6, 1961, 224, abstract 6D272 (V sb. "Steklopobrazn. sostoyaniye", Moscow-Leningrad, AN SSSR, 1960, 368-372, Discus. 377 - 379)

TEXT: The authors investigated absorption spectra of boron-silicate and alumino-silicate glasses colored by Co^{2+} in presence of chlorine. It was found out that Co^{2+} is present in these glasses in the form of coordination groups $[CoO_4]$, $[CoO_6]$ and $[CoCl_4]$, the ratios between which are caused by different coordination states of B and Al in the glass structure. It is shown that the spectrophotometric method of quantitative determination of equilibria between the coordination forms of Co^{2+} makes it possible to determine different coordination groups of B and Al in glasses.

[Abstracter's note: Complete translation] T. Veynberg

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

S/080/62/035/002/018/022
D204/D302

AUTHORS: Dubrovo, S. K. and Kefeli, A. A.

TITLE: Problem of the coordination of Ga and Al in glass-forming silicates

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 2, 1962, 441-443

TEXT: A study of the coordination numbers of Ga in five simple glasses containing Na_2O, Ga_2O_3 and SiO_2 and of Al in 2 glasses composed of Na_2O, Al_2O_3 and SiO_2, motivated by the almost complete absence of data in this field. A spectrophotometric method was employed, adding 0.1% of NiO (by weight) to each glass, to act as an indicator by virtue of the formation of either a blue $[NiO_4]$ or a yellow $[NiO_6]$ complex. It is assumed that the coordination numbers of Ga or Al correspond to those of Ni^{2+}. Absorption spectra in the 400 - 700 mμ region were observed, by measuring the optical density

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of glasses (in 1 mm thicknesses) in relation to the $\frac{R_2O_3}{Na_2O}$ ratio (n). It was found that in the gallosilicate glasses, the coordination number of Ga was 6 when n = 1.66, but absorption bands corresponding to $[NiO_4]$ appeared when n was reduced to 1.0 - 0.60. Similar results were obtained for the aluminosilicates, but the tendency towards tetrahedral coordination appeared greater than in the case of Ga. There are 3 figures, 1 table and 9 Soviet-bloc references.

SUBMITTED: May 15, 1961

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, A.I.

SOV/124-58-5-5933

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 141 (USSR)

AUTHOR: Kefeli, A.I.

TITLE: Metrical Relationship of Polygons and Polyhedra on the Basis of the "Conditional Constants". Application to Mechanics (Metricheskiye sootnosheniya mnogougol'nikov i mnogogrannikov na baze uslovno-postoyannykh. Prilozheniya k mekhanike)

PERIODICAL: Tr. Penzensk. industr. in-ta, 1955, Nr 3, pp 95-140

ABSTRACT: On the basis of the author's concept of "conditionally constant quantities" a metrical relationship betweeen quadrangles, polygons, and polyhedra is derived. The results are utilized in proving the theorems of the polyhedron, polygon, and parallelogram of forces and also in determining the stress patterns in the beams of a trapezoidal framework.

V.A. Troitskiy

1. Beams--Stresses 2. Stress analysis
3. Mathematics

Card 1/1

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, A.S.

Study of circum-well space using the method of forward waves. Geol. i geofiz. no.3:140-146 '65. (MIRA 18:6)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

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L 06597-67 EWT(1) GW/GD

ACC NR: AT6005059 (N) SOURCE CODE: UR/0000/65/000/000/0118/0126

AUTHOR: Kefeli, A. S.

ORG: none

TITLE: A study of the velocities of seismic waves in the northwestern part of the Rudnyy Altay

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut geologii i geofiziki. Metodika seysmorazvedki (Methods of seismic prospecting). Moscow, Izd-vo Nauka, 1965, 118-126

TOPIC TAGS: seismology, seismic wave, seismic wave propagation/ Rudnyy Altay

ABSTRACT: Personnel of the Institute of Geology and Geophysics, Siberian Branch of the Academy of Sciences USSR, studied the velocities of seismic waves in the northwestern part of the Rudnyy Altay, a typical polymetallic ore region (1961—1963). There are three general types of rock in the area: metamorphosed, Devonian, ore-bearing, volcanic-sedimentary rocks, Lower Paleozoic metamorphosed shales and sandstones, and primarily acidic Hercynian intrusives. These formations are covered b y relatively thin (0—150 m) sedimentary rocks and numerous outcrops. Velocities were studied in 12 boreholes (by seismic logging) in 7 areas and on rock outcrops (parametric measurements on

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ACC NR: AT6005059 0

short bases—100 m), only for longitudinal waves and to depths of 800 m, using standard procedures. TNT charges (0.2—2 kg) were detonated in holes 5—20-m deep or in nearby shallow bodies of water at various distances from the boreholes usually not more than 300 m). Special attention was given to obtaining accurate shot times. Instruments included SIS-49 seismographs and SS-24P seismic stations (two-filtration, open-channel, and 45—90). Control seismographs and one receiver were set up near the shot holes or bodies of water. There was no cable or casing noise. Measurements made on the Paleozoic outcrops were carried out on short bases, supplemented by azimuthal and cross-shaped arrays to study velocity anisotropy; seismographs spaced 10-m apart for longitudinal waves and 5-m apart for transverse waves (which were generated by sledgehammer blows). Instrumentation in these cases included a receiver rigidly attached to the sledgehammer, SPM-16 receivers, and standard SS-24P seismic stations (filtration of 30—45). Analysis of the results of these measurements indicates that the propagation velocity of seismic waves varied in a wide range, being slowest in the granites (generally 2200—2400 m/sec for the longitudinal waves) and in the Devonian volcanic and sedimentary rocks (2700 m/sec for longitudinal waves and 1300 m/sec for transverse waves). Orig. art. has: 5 figures and 2 tables. [ER]

SUB CODE: 08/ SUBM DATE: 30Sep65/ ORIG REF: 005

Card 2/2 mLE

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, A.N.

Method for the solution of an inverse problem of seismic prospecting in case of thin-layer media. Geol. i geofiz. no.5:100-103 '65. (MIRA 18:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, A.S.

Determination of the parameters of continuous media based on boreholes observation data. Geol. i geofiz. no.4:144-149 '65. (MIRA 18:8)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, I.Ye.

Brief review of works on anatomy published in journal "Russkii vrach". Arkh. anat., Moskva 29 no.2:64-73 Mar-Apr 1952. (CIML 23:2)

1. Assistant. 2. Of the Department of Normal Anatomy (Head -- Honored Worker in Science Prof. M. S. Spirov), Kiev Order of the Red Banner of Labor Medical Institute.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, I.Ye.

Blood vessels in the pia mater of the spinal cord. Vop. neirokhir. 27 no.2:35-40 Mr-Ap '63. (MIRA 17:2)

1. Kafedra normal'noy anatomii (zav. - prof. M.S. Spirov) Kiyevskogo meditsinskogo instituta.

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ARKHIPOVICH, A.A. [Arkhypovych, A.A.]; KEFELI, I.Ye. [Kefeli, I.IE.]

Anastomoses of the pelvic arteries in a dog. Dop. AN URSR no. 6:821-823 '64. (MIRA 17:9)

1. Kiyevskiy meditsinskiy institut. Predstavleno akademikom AN UkrSSR V.G.Kas'yanenko [Kas'ianenko, V.H.].

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PROCESSES AND PROPERTIES INDEX

25

B

Structure of Skeleton Catalysts and Their Production. (In English.) G. G. Urazov, L. M. Kefely, and S. L. Leichuk. *Comptes Rendus de l'Academie des Sciences de l'URSS*, v. 55, no. 6, 1947, p. 509-511.

The mechanism of selective removal of one of the constituents of an alloy in order to produce a "skeleton-type" catalyst (as done in the production of Raney nickel) was studied by means of X-ray diffraction techniques. Conditions necessary to prepare active-skeleton catalysts, as deduced from results of the investigation, are summarized.

A56-51A METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

10

B

An Investigation Into the Structure of the Nickel Skeleton Catalyst. (In English.) G. G. Urazov, L. M. Kefely, and S. L. Lelchuk. *Comptes Rendus de l'Academie des Sciences de l'URSS*, v. 55, no. 8, 1947, p. 735-738.

Gives results of study made to determine whether changes take place in the lattice when Al atoms are removed from Ni_2Al_3, or whether the voids remain in place. It was found that the remaining nickel atoms rearrange to form a side-centered nickel lattice.

COMMON ELEMENTS

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, L. M., PETROV, D. A., AND LEL'CHUK, S. L.

"Investigation of the Structure of the Copper Skeleton Catalyst," Dok. AN, 57, No. 6, 1947

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KETELI, L.M.

Röntgenographic study of the structure of skeleton catalysts. L. M. Keteli. *Problemy Kinetiki i Kataliza, Akad. Nauk S.S.S.R., Geterogennyi Kataliz*, 210-14 (1949); cf. *C.A.* 46, 10822c.—Single crystals of $CuAl_2$ and Ni_2Al_3 were oriented in an x ray goniometer, and Al was leached out with alkali, without removing the crystal from the goniometer. After leaching, the Cu and Ni residue formed typical Debye patterns of disoriented fine crystals of the corresponding metal, with some weak lines of the residual $CuAl_2$ or Ni_2Al_3. The size of Cu crystals was 100-1000 of Ni, 10 A. Similar crystals were obtained in removal of Mg from single crystals of Cu_2Mg with 15% HCl. Size of the disoriented Cu crystals in this case was 100 A. No recrystn. was observed at low temp. Andrew Dravnieks

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CA

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Attempts at using the method of microhardness in physicochemical analysis of metal systems. S. A. Pogodin, L. M. Kefeli, and E. S. Berkavich. *Izvest. Sektora Fiz.-Khim. Anal., Inst. Obshchei i Neorg. Khim., Akad. Nauk S.S.S.R.* 17, 193-9(1949).—Six basic types of compn.-microhardness are derived for 2-component systems: (1) the components *A* and *B* are mutually sol. in all proportions; (2) *A* and *B* crystallize in their pure states from a liquid phase; (3) *A* and *B* form a compd. A_mB_n; (4) *A* and *B* form a limited solid soln. with a eutectic; (5) the components form a daltonide A_mB_n which combines with its components to yield a limited solid soln., and in addn. 2 solid solns. are formed based on *A* and *B*, resp.; and (6) in addn. to 2 solid solns., based on *A* and *B*, resp., form a berthollide. The above was tested experimentally on the systems Sn-Mg and Pb-Mg. No solid solns. based on Mg_2Sn were found. There was found a small region occupied by a solid soln. based on Mg_2Pb. M. Hosch

Inst. Gen. & Inorg. Chem. im. Kurnakov, AS USSR
Inst. Machine Studies, AS USSR

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

POGODIN, S.A.; KEFELI, L.M.

Study of solid solution of the Mg-Pb-Sn system rich in magnesium. Izv. Sekt. fiz. khim. anal. 18:86-91 '49. (MIRA 11:4)

1. Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova AN SSSR.

(Magnesium) (Lead) (Tin)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

USSR/Chemistry - Catalysts 11 Apr 52

"Concerning the Pyrophoric Properties of Skeleton Nickel Catalyst," L. M. Kefeli, S. L. Lel'chuk, Phys Chem Inst imeni Karpov

"Dok Ak Nauk SSSR" Vol LXXXIII, No 5, pp 697-699

Pyrophoric nickel catalyst does not "burn" in the air after the hydrogen adsorbed on it has been removed. However, upon removal of hydrogen it also loses its catalytic activity, and this activity cannot be restored by treating the catalyst with hydrogen. X-ray investigations demonstrated that

218T6

USSR/Chemistry - Catalysts (Contd) 11 Apr 52

the structure of the Ni-lattice is not changed by the removal of hydrogen; consequently, hydrogen must be absorbed on the surface.

218T6

KEFELI, L. M.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, L. M.

USSR/Chemistry - Catalysts 21 Apr 52

"The Degree of Dispersion of Skeleton Nickel Catalysts," L. M. Kefeli, N. G. Sevast'yanov

"Dok Ak Nauk SSSR" Vol LXXXIII, No 6, pp 863, 864

The change in the deg of dispersion of skeleton nickel catalysts is shown as a function of the concn of alkali, the complete dissolving of aluminum from Ni_2Al_3, and the temp of leaching. The findings are illustrated by tables and by X-ray photographs of various catalyst samples.

223T5

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, L. M.

231T5

USSR/Chemistry - Catalysts May 52

"The Structure of Skeleton Catalysts," L. M. Kefeli, S. L. Lel'chuk, G. S. Zhdanov's Lab, Phys Chem Inst imeni Karpov

"Dok Ak Nauk SSSR" Vol 84, No 2, pp 285-288

Authors state that X-Ray diagrams and other evidence show that when a solid soln such as $CuAl_2$, Ni_2Al_3, Cu_2Mg, or Cu-Zn has one of its components leached out, there is a regrouping of the atoms of the remaining metal into the

231T5

metal's original lattice, forming a single-phase, finely despersed catalyst. State that Ni_2Al_3, when treated with alkali, regroups to form a cubic lattice and not a hexagonal one as other authors believed it to be. Oxidation of a Ni catalyst is possible when it comes in contact with air, since the adsorbed hydrogen, being in atomic form, combines with the oxygen and the heat from this reaction causes a partial oxidation. Note that this can be avoided by slowly oxidizing the hydrogen under water. Presented by Acad G. G. Urazov 12 Mar 52.

231T5

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, L.M.

USSR/Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. Physico-Chemical Analysis. Phase Transitions B-8

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3730

Author : Kefeli L.M. Kefeli L.M.
Inst : Academy of Sciences USSR - Sci Res Physico Chem Inst. im L. Ya. Karpov
Title : X-Ray Investigation of Structural Transformations of Solid Solutions on Selective Dissolution in Electrolytes.

Orig Pub : Dokl. AN SSSR, 1955, 105, No 5, 1010-1013

Abstract : X-ray investigation of structural changes in Mg-Al and Cu-Zn alloys on selective dissolution in caustic alkali and sulfuric acid. It was found that solid solutions with a metal compound base disintegrate: in addition to formation of crystal lattice characteristic of the insoluble component (with complete elimination of anodic constituent) there are observed intermediate phases impoverished in anodic constituent. On selective dissolution of a solid solution with a simple substance base, a

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, L. M.

KEFELI, L. M. --"Investigation of Structural Transformations of Intermetallic Compounds and Solid Solutions with Selective Dissolutions in Electrolytes." Min Chemical Industry USSR. Moscow, 1956. (Dissertation for the Degree of Doctor in Chemical Sciences.)

So.: Knizhnaya Letopis', No 7, 1956.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

Determination of the thickness of anodic oxide films with a Linnik double microscope. L. M. Keleli. *Zavodskaya Lab.* 22, 62-4(1956).—The method used does not destroy the film nor the sample, is very rapid, and permits detn. of thickness on many parts of the sample, by use of the mobile microscope stand. Some results are presented. Some defects and porosities of films 10- and 30-μ thick are visible. The time consumed in making one measurement varied between 30 min. and 1 hr. W. M. Sternberg

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, Lidiya Markovna for Doc Chem Sci on the basis of dissertation defended 7 July 58 in Council of Order of Labor Red Banner Sci Res Phys Chem Inst im Karpov, entitled "Study of structural conversions of intermetal compounds and solid solutions during selective diffusion in electrolytes." (BMVISSO USSR, 1-61, 25)

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

AUTHORS: Zhdanov, G. S., Kefeli, L. M.

TITLE: An Investigation of the Texture of Copper Obtained in the Leaching of $CuAl_2$ by the Method of Pole Figures (Issledovaniye tekstury medi pri vyshchelachivanii $CuAl_2$ metodom polyusnykh figur)

76-32-3-26/43

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol 32, Nr 3, pp 666 - 669 (USSR)

ABSTRACT: It was noticed that copper in a polycrystalline dispersed form remains behind in the leaching out of aluminium from alloys. Radiographic investigations showed condensed spots, which indicate a certain orientation of the copper crystals. The method mentioned in the title was employed for the investigation of the crystal orientation, because it is convenient and objective. A schematically drawn representation of the arrangement in the method of investigation according to the pole figures is given. From the data of the method of investigation, follows that the crystal sample was leached for 1-1o minutes with a 2o% lye at 4o-5o°C. For obtaining

Card 1/2

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

AUTHOR: Akopdzhanov, R. G.; Vaynshteyn, E. Ye.; Keyer, N. P.; Kefeli, L. M.; Rukhadze, Ye. G.

TITLE: X-ray K-absorption spectra of copper in some catalytic chelate polymers

SOURCE: Kinetika i kataliz, v. 5, no. 4, 1964, 616-623

TOPIC TAGS: copper, K-absorption spectrum, chelate, sodium bis-dithiocarbamate, chelate polymer, copper chelate polymer, catalysis, X-ray analysis

ABSTRACT: Polychelates of copper synthesized from sodium bis-dithiocarbamates containing a Cu(SS) chelate unit were investigated by X-ray spectral analysis. The optimal conditions for the study of the fine structure of the principal K-region absorption of copper in polychelates are obtained by working with absorbents having a density of 3.5-5 mg/cm^2; for the study of the fluctuation in an ultra fine structure this should be 10 mg/cm^2. The data on the K-region absorption of metallic copper obtained in these experiments were in good agreement with the spectrum registered by a double-crystal spectrometer. The reproducibility of data in three parallel experiments (the points lay on a single curve) for polychelates with two different radicals $R_5=(C_6H_4)_2$ and $R_3=(CH_2)_6$ was also plotted. When the structure of the X-ray absorption spectrum of a Cu^{2+} ion in aqueous solution was compared with that of copper in some oxygen- and sulfur-containing inorganic compounds (CuS, Cu_2O),

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the general form of the long-wave structure of the spectrum was found to be essentially independent of the change in the ionic charge. It depended rather on the nature of the bond of the electrons in the absorbing atom and the atoms in its close vicinity in the metal or its compounds, especially on the participation in this bond of the electrons with p-symmetry. Upon transition from the spectrum of the metal to that of the oxide, there is a regular shift (~1.5 e.v.) of the spectrum toward the short-wave side. It can be assumed that the valence of copper in the polymers studied is close to unity. Analysis of the long-wave fine structure of the X-ray K-spectra of copper in polychelates in comparison with the spectrum of the metal revealed a change in the valence of copper atoms in polychelates depending on the organic radical in the polymer chain. This change can be due to a change in the degree of overlapping of the sp-functions of electrons producing the bond between the copper atom in the chelate and additives, such as sulfur atoms. In polychelates containing R_4 and R_5 aromatic radicals in the polymer chain, the absorption spectra show a decrease in intensity in the initial and medium regions, as compared to those of metal. In the spectra of polymers containing R_2 and R_3 organic aliphatic radicals, the intensity of absorption is increased in these regions. The difference in the effect of aromatic and aliphatic radicals in the polymer chain on the nature of the reaction of copper with the additives in polychelates is also revealed by the change in the catalytic activity of these polychelates. "The authors thank V. I. Petrosyan for supplying the copper foil."

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

L 36631-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM
ACCESSION NR: AP5001514 S/0020/64/159/005/1059/1061

AUTHOR: Anufriyenko, V. G., Mamayeva, Ye. [illegible], Kessler, N. P., Kefeli, L. M., [illegible], Ye. G., Terentyev, A. I. [illegible] SSSR

[illegible] EPR spectra of Cu(II) α-thiopicolinanilide complex

[illegible] SSSR, Doklady, v. 159, no. 5, 1964, 1059-1061

TOPIC TAGS: chemical structure, electron paramagnetic resonance, chelate complex, copper alpha thiopicolinanilide complex

ABSTRACT: It is of great importance to investigate the electronic structure of monomeric links of chelate polymers. This article presents the results of the investigation of the EPR spectra of Cu(II) α-thiopicolinanilide complex (CuII-TPA) [illegible] crystalline state and in solutions. The structure of this complex, which [illegible] analog of chelate polymers, is shown in figure 1. This complex [illegible] as a brown crystalline precipitate by reacting α-thiopicolinanilide with [illegible] acetate in a methanolic medium. The EPR spectrum of CuII-TPA is shown in figure 2. It is concluded on the basis of this work that CuII-TPA is a

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L 30631-65

ACCESSION NR: AP5001514

2

planar complex in which the Cu-N bond and the Cu-S bond are predominantly [illegible] Orig. art. has 3 figures

ASSOCIATION: Institut kataliza Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Catalysis of the Siberian Branch of the Academy of Sciences, SSSR); [illegible]

[illegible] 01Aug64 [illegible]

[illegible] 007 OTHER: [illegible]

Card 2/2

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

EPR spectrum of polycrystalline Cu-II TPA complex at room temperature

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

L 3294-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) GG/JD/JG

ACCESSION NR: AP5024361 UR/0286/65/000/015/0026/0026
66.065.5

36
B

AUTHOR: Klevtsov, P. V.; Kefeli, L. M.

TITLE: Preparation of single crystals. Class 12, No. 173202

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 26

TOPIC TAGS: single crystal, iron molybdate, crystal growth

ABSTRACT: An Author Certificate has been issued for a preparative method for iron molybdate single crystals by hydrothermal synthesis at 450—500C. The method involves the growing of crystals from oxides (Fe_2O_3 - $3MoO_3$) or from iron-molybdenum catalyst powder in an aqueous solution of ferrous chloride. [BO]

ASSOCIATION: none

SUBMITTED: 16Jul64 ENCL: 00 SUB CODE: SS

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4113

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APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KLEVTSOV, P. V., KLEVTSOVA, R.F.; KEFELI, L.M.; PLYASOVA, L.M.

Forms of growth and symmetry of iron molybdate $Fe_2(MoO_4)_3$ crystals. Izv. AN SSSR. Neorg. mat. 1 no.6:918-923 Je '65. (MIRA 18:8)

1. Institut neorganicheskoy khimii i Institut kataliza Sibirskogo otdeleniya AN SSSR.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

MASLYKHIN, V.M.; KEFELI, L.M.; KEYYER, N.P.

Electron paramagnetic resonance spectra generated in the adsorption of oxygen on rutile. Kin. i kat. 6 no.1:180-181 Ja-F '65. (MIRA 18:6)

1. Institut kataliza Sibirskogo otdeleniya AN SSSR.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

PLYASOVA, L.M.; KEFELI, L.M.

Structure of aluminum oxides. Kin. i kat. 6 no. 6:1080-1084 N-D '65 (MIRA 19:1)

1. Institut katal za Sibirskogo otd[illegible]ya AN SSSR. Submitted September 10, 1964.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

ACCESSION NR: AP5013059 UR/0190/65/007/005/0847/0853

[illegible]

TITLE: X-ray absorption spectra of copper in some chelates (intracomplex) mole- [illegible] and polymers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 5, 1965, 847-853

[illegible] x ray spectrum, chelate, polymer, [illegible]

[illegible]

type 2(N, S [illegible] and 2(N, O)Cu was determined. The chelate structures studied were

Card 1/4

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

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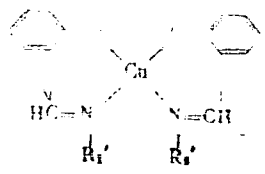

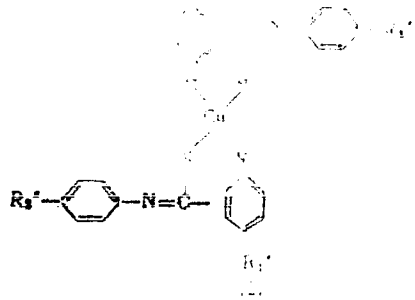

where R_1', R_2', R_1'', and R_2'' are different aliphatic and aromatic radicals. The experimental results are summarized in Fig. 1 on the Enclosure. The magnitude of the effect of radicals of the fine structure is in the order $Cl \leq H \leq CH_3 < OCH_3 \leq C_6H_5 - NH_2$. It is found that different radicals affect the energy state of the metal atom to a different extent, and their activity is found to be additive. The effect of polymerization on the x-ray fine structure of the central atom is analogous to the effect of increased chain-[illegible] in the monomer.

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[illegible] graphs and [illegible]

[illegible] Institut katalizа (Ins[illegible]

NO REF SOV: 009 OTHER: 010

Card 3/4

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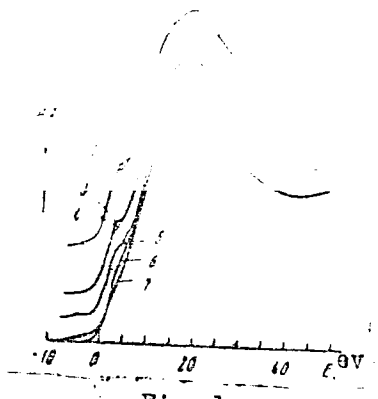

Fig. 1.

Comparison of the fine structure absorption spectra of the K x-rays of copper for chelate molecules of type [illegible] with different radicals R_1' and R_2'.

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, T. YA.

N. N. Shorygina and T. Ya. Kefeli - "Fission of lignin by metallic sodium in liquid ammonia. IV." (p. 1199)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1920, Vol. 20, No. 7.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KHENLI, T. YA.

"Investigation of Aromatic Products Obtained by Decomposition of Ligin With Metallic Sodium in Liquid Ammonia." Thesis for degree of Cand. Chemical Sci. Sub. 17 Feb 49, Inst of Organic Chemistry, Acad Sci USSR

Summary 82, 18 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949. From Vechernyaya Moskva, Jan-Dec 1949.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

PROCESSES AND PROPERTIES INDEX

Syntheses in the field of new antimalarial substances. Derivatives of glutaconaldehyde. I. L. Knunyants and T. Ya. Kefeli. *J. Gen. Chem.* (U.S.S.R.) 15, 628-31 (1945)(English summary).—The reaction of aminoquinolines with dinitrophenylpyridinium chloride leads to unsym. amine derivs. of glutaconaldehyde, while the reaction with the pyridine bromocyanide gives the symmetrically constituted dyes. The reaction products obtained from 6-methoxy-8-aminoquinoline with pyridine bromocyanide, analogous to certain antimalarials and differing from these in unsatn. along the C chain between the amino groups, were not active antimalarials. 1-(2,4-Dinitrophenyl)pyridinium chloride (3 g.) and 5.6 g. 6-methoxy-8-aminoquinoline were mixed with 18 cc. abs. EtOH and refluxed for 30 min.; after standing 1 hr. there formed a dark-red cryst. ppt. which was filtered off and washed with Et_2O to give 80% *N-[5-(6-methoxy-8-quinolylamino)-2,4-pentadienylidene]-2,4-dinitroaniline-HCl*, m. 132-4° (from MeOH); a similar reaction, using 6-aminoquinoline gave *N-[5-(6-quinolylamino)-2,4-pentadienylidene]-2,4-dinitroaniline-HCl*, violet-red, m. 120-8° (from MeOH); repetition of the latter reaction with boiling for 2.5 hrs. resulted in resoln. of the initial ppt. with formation of a green soln.; evapn. of this, extn. of the residue with Me_2CO, and crystn. of the residue from $CHCl_3$ gave *pyridine chloroquinolate* (1-(6-quinolyl)-pyridinium chloride), m. 98-100°. 1-(Phenylmethylamino)-1,3-pentadien-5-al (1.5 g.) in 18 cc. EtOH was mixed with 1.2 g. 6-aminoquinoline in 5 cc. EtOH and allowed to stand for 2 hrs. after which there was slowly added 0.5 cc. concd. HCl to yield the *hydrochloride of N-[5-(6-quinolylamino)-2,4-pentadienylidene]aniline-HCl*, (methylphenyl)[5-(6-quinolylamino)-2,4-pentadienylidene]ammonium chloride-HCl), red, m. 157-9° (from dil. MeOH and a little HCl). A similar reaction with 6-methoxy-8-aminoquinoline gave the *corresponding Me deriv.*, cherry red, m. 110-17° (from dil. MeOH and HCl). Freshly distd. pyridine (1 g.) and 4.5 g. 6-methoxy-8-aminoquinoline in 25 cc. Et_2O treated with 1.35 g. CNBr in 10 cc. Et_2O, with cooling, gave after several minutes an abundant ppt. of *RNHCH:CHCH:CHCH:NR.HBr* (R = 6-methoxy-8-quinolyl), violet, m. 130-1° (from EtOH); the above reaction with 6-aminoquinoline gave 75.8% of RNHCH:CHCH:CHCH:NRHBr, (R = 6-quinolyl), cherry-violet, m. 125-6° (from EtOH). 1-(2,4-Dinitrophenyl)pyridinium chloride (25 g.) in 250 cc. EtOH was treated with 50 g. 33% Et_2NH, stirred for a few min., warmed for 30 min. to 60-70°, after removal of much of the EtOH, the residue was treated with 150 cc. cold water, filtered, and the filtrate treated with 20% NaOH and extd. with Et_2O to give 28.4% *5-diethylamino-2,4-pentadienal*, b. 150-1°. This aldehyde (1 g.) in 2 cc. EtOH was added to 1.11 g. 6-methoxy-8-aminoquinoline, heated for 10-15 min. to 50-60°, cooled, and then treated with 0.6 cc. concd. HCl; addn. of Et_2O and rubbing induced the product to solidify and yielded *N-[5-(6-methoxy-8-quinolylamino)-2,4-pentadienylidene]ethylimine-EtCl* (diethyl[5-(6-methoxy-8-quinolylamino)-2,4-pentadienylidene]ammonium chloride), m. 61-4°, sol. in water, EtOH, Me_2CO, and insol. in Et_2O. G. M. Kosolapoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, T. Ya

Mar 1948

USSR/Chemistry - Lignin
Chemistry - Separation

"Splitting of Lignin by Metallic Sodium in Liquid Ammonia. II.," N. N. Shorygina, T. Ya. Kefeli, Lab of Cellulose and Lingnin, Inst Org Chem, Acad Sci USSR, 6 pp

"Zhur Obshch Khim" Vol XVIII (LXXX), No. 3

Molecular weight of lignin is decreased by separation of molecules by hydrogen bonds. Supplementary processing of copper ammonia lignin with liquid NH_3 does not alter composition of lignin. Separation of $ROCH_3$ bond in lignin by a solution of Na in liquid NH_3 proceeds slowly and does not come to a satisfactory conclusion. Submitted 12 February 1947.

PA 69T5

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8"

"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

KEFELI, T. YA.

USSR/Chemistry - Lignin Sodium Aug 49

"Cleavage of Lignin by Metallic Sodium in Liquid Ammonia, III," N. N. Shorygina, T. Ya. Kefeli, A. F. Semechkina, Lab of Cellulose and Lignin, Inst of Org Chem, Acad Sci USSR, 8¼ pp

"Zhur Obshch Khim" Vol XIX, No 8

In decomposition of cuprammonium lignin with metallic sodium in liquid ammonia, approximately 8% of dihydroeugenol is produced and can be extracted with ether from aqueous alkaline solution. Action of metallic Na in liquid NH_3 on coniferyl alcohol produces same substance with approximately 86% yield. In view of latter reaction, authors suggest that dihydroeugenol is produced from lignin in the first reaction by hydrogenation of the product of its decomposition, formed according to Shorygin reaction. Submitted 27 Mar 48.

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Cleveage of lignin by metallic sodium in liquid ammonia. N. N. Shorygina, T. Ya. Kefeli, and A. F. Semechkina. *Doklady Akad. Nauk S.S.S.R.* 64, 689-92 (1949); cf. *C.A.* 43, 3000i. Lignin (10-15 g.) in 400 ml. liquid NH_3 contg. 60-75% (of the lignin wt.) of Na at −33° (kept until the color is discharged) gave products of low mol. wt. Cu-NH_3 lignin gives 28% unimol. products, contg. about 65% *dihydroeugenol* (*benzoate*, m. 74.5°, *phenylurethan*, m. 122°), about 1.6% of a *hydrocarbon*, $C_{15}H_{14}$, and about 12% of a phenol, $C_{10}H_{14}O_3$, which is probably *1-(4-hydroxy-3-methoxyphenyl)propylcarbinol*; this is a possible source of dihydroeugenol, as coniferyl alc. and NH_3-Na yield this substance in 80% yield. The gradual decrease in the mol. wt. of lignin from 4500 to 2000 by the Na cleavage indicates the presence of many "free" ether linkages and that lignin can be basically constructed of β-hydroxyhydroconiferyl alc. or β-hydroxyconiferyl alc. units; the latter appears to be more probable.

G. M. Kosolapoff

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CA

Cleavage of lignin with metallic sodium in liquid ammonia. IV. N. N. Shorygina and T. Ya. Kefeli (Cellulose, Lignin Lab., Inst. Org. Chem., AKad. Nauk USSR, Moskva). Akad. Nauk SSSR, Otdel. Khim. Nauk 1950, 1288(1050). cf. C. A. 44, 3018b. Treatment of cupraammonium lignin with Na in liquid NH_3 (see previous papers) yielded, among other substances, some 13% phenolic material extractable by Et_2O from acid aq. soln. The product is indistillable, contains 1 MeO and 2 OH groups, and has the compn. $C_{11}H_{16}O_4$. Methylation with Me_2SO_4 in 2 N NaOH gave a yellow oily methylation product, b. 135-40°, which on oxidation with $KMnO_4$ in Me_2CO-H_2O yielded veratric acid. Hence the initial phenolic substance was *1-(4-hydroxy-3-methoxyphenyl)-2-propanol* (I); its *dibenzoate* (by the Schotten-Baumann method) m. 90-5° (from dil. EtOH), while the *bis(3,5-dinitrobenzoate)* m. 130-45° (from dil. EtOH), and the *bis(phenylurethan)* m. 103-8° (from C_6H_6-petr. ether). *Dihydroconiferyl alc.* (prepd. according to Nomura and Hotta, C. A. 22, 3884), m. 65-70°, b. 162-3°, yields a *bis(phenylurethan)*, m. 124-6°, and a *dibenzoate*, m. 63-4°; hydrogenation of coniferyl alc. over Raney Ni in EtOH gave the *dihydro deriv.* identical with the above; oxidation with $KMnO_4$ failed to yield any AcOH. Oxidation of I readily yielded 73% AcOH. Addn. of 15 g. vanillin to 1 MgII (from 21.5 g. EtI) gave diconiferyl, b. 250°, m. 181° (from EtOH), its *benzoate*, m. 101°; this product forms exclusively with 2 moles EtMgII, especially if the mixt. is heated. When 1.5 moles EtMgII were used without heating, the product was an oil yielding 2 benzoates, one, m. 180°, was not studied, the other, m. 112-17° (from EtOH), was the *dibenzoate* of *1-4-hydroxy-3-methoxyphenyl-1-propanol, bis(phenylurethan)*, m. 110-15° (from C_6H_6-petr. ether). The results confirm the structure for I cited above. G. M. Kosolapoff

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The cleavage of lignin with metallic sodium in liquid ammonia. IV. N. N. Shorygina and F. Ya. Kefeli. *Gen. Chem. U.S.S.R.* 20, 1243-52(1950)(Engl. translation). —See *C.A.* 45, 13304. R. M. S.

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SOV/4982

International symposium on macromolecular chemistry, Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i avtoreferaty. Sektsiya 1. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960; Papers and Summaries. Section I.). [Moscow, Izd-vo AN SSSR, 1960] 346 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for chemists and researchers interested in macromolecular chemistry.

COVERAGE: This is Section I of a multivolume work containing scientific papers on macromolecular chemistry in Moscow. The material includes data on the synthesis and properties of polymers, and on the processes of polymerization, copolymerization, polycondensation, and polyrecombination. Each text is presented in full or summarized in French, English, and Russian. There are 47 papers, 28 of which were presented by Soviet, Rumanian, Hungarian, and Czechoslovakian scientists. No personalities are mentioned. References accompany individual articles.

Tinyakova, Ye. I., B. A. Dolgoplosk, T. G. Zhuravlyova, R. N. Kovalevskaya, and I. N. Kurenkova (USSR). The Synthesis of Cis- and Trans-Diene Polymers on Oxide Catalysts and a Study of Their Structure and Properties 13

Kefeli, T. Ya., G. P. Korolev, Yu. M. Milkovskaya (USSR). Synthesis and Polymerization of Esterified Polyacrylates 47

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Zil'berman, Ya. N., A. Ye. Kulikova, and N. M. Teplyakov (USSR). New Method of Preparation of Polyesters and Their Oligomers 64

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Vanshenkin, A. A., Ye. P. Velikikova, M. G. Krakovyak, L. V. Kukharova, and G. A. Gladkovskiy (USSR). On the Synthesis and Properties of Crystalline Polymers of the Types of Poly-p-Xylylene and Polyphenylenemethyl 90

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Mushina, Ye. A., A. I. Perel'man, A. V. Topchiyev, and B. A. Krentsel' (USSR). Synthesis of Crystalline Polyvinylcyclohexane 118

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Solomon, O. F., M. Dimonie, E. Ambrush, and M. Tomescu (Rumania). Polymerization of Vinylcarbazol in the Presence of Butyllithium and Titanium Chloride Type Catalysts 131

Korshak, V. V., S. L. Sosin, and V. P. Alekseyeva (USSR). On the Preparing of the New Types of Linear Polymers by the Reaction of Polyrecombination 141

Nametkin, N. S., A. V. Topchiyev, and S. G. Durgar'yan (USSR). The Synthesis of Organosilicon Polymers on a Complex Catalyst $(C_2H_5)_3Al+TiCl_4$ 152

Kolesnikov, G. S., S. L. Davydova, and N. V. Klimentova (USSR). Germanium-Containing Polymers 156

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Koton, M. M., T. M. Kiselyova, and F. S. Florinskiy (USSR). The Effect of Chemical Structure on the Polymerization Activity of the Unsaturated Organometallic Compounds 167

Vol'kenshtein, M. V. (USSR). Cooperative Processes in the Polycondensation of Biopolymers 202

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"APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000721420007-8

S/190/62/004/010/008/010
B101/B186

AUTHORS: Korolev, G. V., Berlin, A. A., Kefeli, T. Ya.

TITLE: Polymerization in highly viscous media, and three-dimensional polymerization. II. Study of the initial polymerization stage of polyacrylate esters

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 4, no. 10, 1962, 1520-1527

TEXT: The effect of the viscosity of the medium on the initial polymerization rate w_o and on the constant k_t of chain termination in polyacrylate esters was studied. Polymerization took place at 50°C and 0.5% by weight of dicyclohexyl peroxy-dicarbonate (I) in bulk, in benzene solution and in highly viscous II; w_o was measured by methods described previously (Author's certificate no. 137304, class 421, 335, Byulleten' izobreteniy, 1961, no. 7). The following data were found:

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Oligomer or monomer	Viscosity at 25°, cst	$w_o \cdot 10^{-2} \cdot min^{-1}$ in bulk	50% II	75% II	kt, l/mole·sec in bulk
III	10	3	5	8	$2.3 \cdot 10^6$
IV	95	7	9.8		$3.6 \cdot 10^5$
V	60	4	4.3	8	$1.9 \cdot 10^6$
VI	1000	17.5	14		$1.4 \cdot 10^5$
VII	115	5	6	8	$6.4 \cdot 10^5$
VIII	55	3		7.5	$2.3 \cdot 10^6$
IX		0.75	1	1.2+)	$4.0 \cdot 10^7$

+) 80% II. II = IDF-2 dimer consisting of diethylene glycol, phthalic acid, and isobutyric acid, which is not capable of radical-chain polymerization and has a viscosity of 800-900 cst; III = TGM-3, dimethacrylate triethylene glycol; IV = MGF-9, dimethacrylate-(bis-tri-

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ethylene glycol)-phthalate; V = MDF-1, methacrylate-diethylene glycol phthalate; VI = MDF-2 methacrylate-(bis-diethylene glycol)-phthalate; VII = MBF-1, methacrylate-butanediol phthalate; VIII = MDA-1, methacrylate-diethylene glycol adipinate; IX = MMA, methyl methacrylate. The dependence of w_0 on the viscosity proves the chain termination to take place in the diffusion region. Conclusions: (a) At low-degree conversion, the constant k_g of chain growth hardly depends on the length of the oligomer chain, except in the cases of steric hindrance occurring for example in high telomers; (b) k_t decreases considerably as the viscosity of the medium increases; (c) with equal viscosity, k_t hardly depends on type and length of the oligomer chain. The apparent difference in polymerizability of the compounds studied, is thus caused by the difference in viscosity of the medium. For III - VIII, k_t was $(3-4)\cdot 10^5$ 1/mole·sec in 75% II, whereas for IX, k_t was $\approx 10^7$ in 80% II. This is explained by the different diffusion coefficients in the esterification of methacrylic acid with CH_3 or with a long oligomer chain. The experimental determination of w_0 at different concentrations of I yielded $w_0 \sim [I]^{0.5}$ according to

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S/064/62/000/012/003/006
B119/B180

AUTHORS: Berlin, A. A., Kefeli, T. Ya., Korolev, G. V.

TITLE: Polymerizable oligomers

PERIODICAL: Khimicheskaya promyshlennost', no. 12, 1962, 12 - 22

TEXT: The article reviews Western and Soviet research work carried out between 1951 and 1962 on polymerizable oligomers. Special attention is paid to the synthesis and chemical properties of unsaturated oligoesters, oligomeric polybutadienes, and oligomeric polysiloxanes, and to the polymerization kinetics of oligomers in general. There are 54 references.

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BERLIN, A.A.; KEFELI, T.Ya.; KOROLEV, G.V.

Polymerizable oligomers. Khim.prom. no.12:870-880 D '62.
(MIRA 16:2)

(Esters)
(Polymerization)

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L 2941-66 EWT(m)/EPF(c)/EWP(j)/T/EWA(c) WW/RM

ACCESSION NR: AP5024403 UR/0286/65/000/015/0082/0082

AUTHOR: Berlin, A. A.; Ragimov, A. V.; Kefeli, T. Ya.

TITLE: Preparative method for heat-resistant polymers. Class 39, No. 173412

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 15, 1965, 82

TOPIC TAGS: heat resistant polymer, ion exchange resin, esterification catalyst, semiconducting polymer, electron exchange resin

ABSTRACT: An Author Certificate has been issued for a preparative method for heat-resistant polymers from diazo compounds. To obtain a polymer with redox and ion-exchange properties, bisdiazotized benzidinesulfonic acid is reacted with quinones, e.g., benzoquinone. The polymer can be used as an esterification catalyst which simultaneously inhibits resinification and prepolymerization. [SM]

ASSOCAATION: none

SUBMITTED: 22Feb62 ENCL: 00 SUB CODE: OC,GC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4110

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L 13812-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6002470 (A) SOURCE CODE: UR/0191/66/000/001/0003/0006

AUTHORS: Berlin, A. A.; Kefeli, T. Ya.; Belkin, A. A.; Ragimov, A. V.; Liogon'kiy, B. I.; Brikenshteyn, Kh. A.

ORG: none

TITLE: On the catalytic and inhibiting influence of certain polysulfophenylquinones on the telomerization condensation reaction

SOURCE: Plasticheskiye massy, no. 1, 1966, 3-6

TOPIC TAGS: polymer, polymerization, catalytic polymerization, high polymer, polymerization kinetics, polymerization rate

ABSTRACT: The catalytic and inhibiting effects of polysulfophenylquinone (obtained by reacting p-benzoquinone with bis-diazotized benzidine-disulfo-2,2' acid (PSFKh-3) in the mole ratio of 1:3) on the condensation telomerization of digoesteracrylates, dimethylmethacrylate of diethylene glycol (MD) and dimethylmethacrylate-bis-diethyleneglycol)phthalate (MDF-1) were studied. The method used was that described by A. A. Berlin, T. Ya. Kefeli, and G. V. Korolev (Khim. prom., No. 12, 12, 1962). The kinetics of water elimination during the synthesis of MD in the presence of sulfuric acid and PSFKh-3, and the effect on PSFKh-3 of the ion exchange properties of synthesized esters were investigated. The experimental

Card 1/2 UDC: 678.764.43:678.044.1:547.567

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L 13812-66

ACC NR: AP6002470

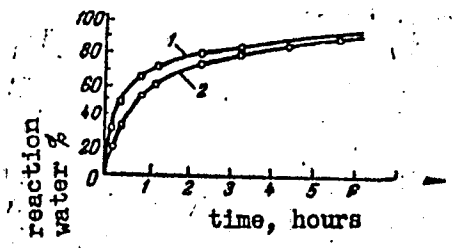

Fig. 1. Kinetics of elimination of water reaction during the synthesis of MD. 1 - in presence of sulfuric acid; 2 - in presence of PSFKh-3.

results are presented in tables and graphs (see Fig. 1). It was found that the highest yield of polymer was obtained for an initial catalyst concentration of 25 wt. % and for catalyst particle size < 0.25 mm. Orig. art. has: 1 table, 3 graphs, and 1 equation.

SUB CODE: 07,11/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 002

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