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3RD AND 4TH ORDERS

KRAYNOVA, A.N.

Ca

11C

The significance of rhamnose for the differential di-
agnosis of Pasteurella pestis and P. pseudotuberculosis
rodentium Pfeiffer. A. N. Krainova. *Vestnik Mikro-*
biol. Epidemiol. Parasitol. 18, No. 1-2, 91-101(in French,
101)(1939).—The plague strains of the South-Eastern
regions of U. S. S. R. and of the Chinese and Mongolian
strains after being passed successively through a medium
contg. rhamnose (2-18 times) acquire the property of
decompg. this carbohydrate after 24 hrs., similar to the
action of *P. pseudotuberculosis* strains. The Indian,
Italian and EV strains remained rhamnose-neg. under the
same exptl. conditions. The newly acquired property
was very stable and remained unchanged for 1.5 years.
The relation of the newly obtained varieties toward bac-
teriophage remained unchanged. Passages through animal
organisms had no effect on the ability of these strains to
decomp. rhamnose (except the strain 300). The strains
from the South-Eastern regions of U. S. S. R. and the
Chinese and Mongolian strains are more similar to *P.*
pseudotuberculosis in their biochem. properties than are
the strains obtained from India, Italy and Madagascar.
The reaction of the plague strains toward rhamnose is not
qual., but is quant. The strains did not decomp. lactose,
sucrose, raffinose and dulcitol, in spite of numerous pas-
sages through peptone media with these carbohydrates.
W. R. Henn
Twelve references.

COMMON ELEMENTS

MATERIALS INDEX

OPEN

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

KOROBKOVA, Ye.I.; VERENINOVA, N.K.; KALACHEVA, N.F.; PETROVA, B.Yu.; KRAYNOVA, A.N.

Studies on a combined vaccine prepared from killed Vibrio comma and Pasteurella pestis. Zhur. mikrobiol. epid. i immun. 29 no.11:38-45 N '58. (MIRA 12:1)

1. Iz Instituta mikrobiologii i epidemiologii Yugo-Vostoka SSSR (Mikrob).
(CHOLERA, immunol.
vaccine from killed Vibrio comma & Pasteurella pestis (Rus))
(PLAGUE, immunol.
same)

KRAYNOVA, K.M.; LOMAKO, A.V.

Colorimetric method of determining the TiO content. Khim.volok.
no.4:69-71 '60.
(MIRA 13:10)

1. Serpukhovskiy zavod.
(Rayon spinning) (Titanium oxide)

KRAYNOVA, K.M.; LOMAKO, A.V.

New method of cleaning steel spinnerets. Khim.volok. no.3:68 '61. (MIRA 14:6)

1. Serpukhovskiy zavod.
(Serpukhovo--Spinning machinery)

KANTER, D.TS.; LEYNI, A.A.; GRIMM, Ye.G.; KRAYNOVA, K.M.

Method for stock dyeing of acetate rayon. Khim. volok. no.3: 46-50 '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna (for Kanter, Leyni). 2. Serpukhovskiy zavod (for Grimm, Kraynova).

(Dyes and dyeing--Rayon)

GORELIK, B.M.; BUKHINA, M.F.; KRAYNOVA, L.A.; RATNER, A.V.

Regularities of the transition from deformation in rubber rings or end-bound rubber cylinders to the axial strain of the cylinder. Kauch.i rez. 22 no.2:25-27 F '63. (MIRA 16:2)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.
(Rubber--Testing)
(Strains and stresses)

GORELIK, B.M.; BUKHINA, M.F.; KRAYNOVA, L.A.; RATNER, A.V.

Studying the compression of round cross-section sealing rings with lubricated surfaces. Kauch. i rez. 24 no.8:21-24 '65. (MIRA 18:10)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.

KRAYNOVA, L.P.

Studying the isotope composition of waters from high-mountain sources. Uzb. geol. zhur. 8 no.6:83-85 '64. (MIRA 18:11)

1. Institut geologii i geofiziki imeni Kh. M. Abdullayeva AN UzSSR.

UKLONSKIY, A.S., akademik; GLUSHCHENKO, V.M.; KOLESNIKOVA, V.N.; KRAYNOVA, L.P.

Preliminary data on a study of the total isotope content of waters from the Fedchenko Glacier. Dokl. AN Uz.SSR no.7:11-13 '58. (MIRA 11:10)

1. Institut geologii AN UzSSR. 2. AN UzSSR (for Uklonskiy).
(Fedchenko Glacier--Water--Isotopes)

UKLONSKIY, A.S.; GLUSHCHENKO, V.M.; KRAYNOVA, L.P.; KVYATKOVSKAYA, V.V., red.

[Isotope composition of waters in Uzbekistan] Izotopnyi sostav vod Uzbekistana. Tashkent, Izd-vo "Nauka" UzSSR, 1965. 80 p. (MIRA 18:3)

GLUSHCHENKO, V.M.; KRAYNCVA, L.P.

Total isotopic composition of atmospheric precipitation. Zap. Uz. otd. Vses. min. ob-va no.16:8-10 '64. (MIRA 18:6)

GRINBERG, Ya.M.; KRAYNOVA, M.V.; FETISOV, V.N.

Treatment of diabetes mellitus with chemotherapeutic preparations.
Klin.med. 38 no.7:56-60 '60. (MIRA 13:12)
(DIABETES)

KOPP, TS.M.; KOSHELEVA, A.V.; KRAYNOVA, M.V. (Kuybyshev)

Oscillations of blood fibriongen during reserpine therapy. Klin. med. 39 no.3:82-83 Mr '61. (MIRA 14:3)

1. Iz fakul'teskoy terapevticheskoy kliniki (zav. - prof. N.Ye. Kavetskiy) Kuybyshëvskogo meditsinskogo imstituta (dir. - kand. med.nauk D.A. Voronov).
(FIBRINOGEN) (RESERPINE)

VOROSHILOV, Ye.A.; KRAYNOVA, N.I.

Possibility of the simultaneous exploitation of certain reservoirs in the Sabunchi series of the Surakhany field. Nefteprom. delo no.10:17-19 '63. (MIRA 17:6)

1. TSekh nauchno-issledovatel'skikh i proizvodstvennykh rabot Neftepromyslovogo upravleniya "Ordzhonikidzeneft'".

KRAYNOVA, N.K.

Case of periarteritis nodosa. Vrach.delo no.3:279 Mr'58 (MIRA 11:5)
(ARTERIES--DISEASES)

KRAYNOVA, V. I.

"The Chlorine Content of the Blood and Urine and the Content of Calcium and Potassium in the Blood Serum During Experimental Pneumonia." Cand Vet Sci, Leningrad Veterinary Inst, Min Higher Education USSR, Leningrad, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

KRAYNOVA, V. I., GAVRICHENKOV, A. I., DOLMATOVICH, V. M., SHCHERBAKOV, A. F., GOLUBEV, I. YE., GRIGORYEV, I. F.

"Hog immunisation against cholera by means of avirulent lapinised dry virus-vaccine out of strains avirulent dry vaccine."

Veterinariya, Vol. 37, No. 10, 1960, p. 29

Kraynova - Cent Vet Sci - Belorussia, NIVI

GOLUBEV, I.Ye., prof.; GRIGOR'YEV, I.F., kand.veterin.nauk; KRAYNOVA, V.I., kand.veterin.nauk; GAVRICHENKOV, A.I., kand.veterin.nauk; DOLMATOVICH, V.M., veterinarnyy vrach; SHCHERBAKOV, A.F., veterinarnyy vrach

Immunization of swine against cholera with avirulent lapinized dry strain ASV viral vaccine. Veterinariia 37 no.10:29-32 O '60. (MIRA 15:4)

1. Belorusskiy nauchno-issledovatel'skiy veterinarnyy institut.
(Hog cholera) (Vaccination)

KRAYNOVA, V. V.

"The Clinicopharmacological Action of 'Dibazol' During Hypertension." Cand Med Sci, Khar'kov Medical Inst, Khar'kov, 1955. (KL, No 15, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

KRAYNOVA, V.V., kand.med.nauk

Treatment of hypertonia with hexonium. Trudy Khar. med. inst. no.52:85-90 '59. (MIRA 14:11)

(HYPERTENSION) (HEXOMIUM)

KRAYNOVA, Z.M.

All-Union conference on acetylene. Khim. prom. 41 no.2:70
F '65. (MIRA 18:4)

KRAYNOVA, Z.M.

All-Union conference on the conversion of hydrocarbon gases. Khim. prom. 41 no. 12:932-933 D '65 (MIRA 19:1)

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Micro chromatographic detection of cadmium. I. M. Korenman and Z. V. Kralnova (Gor'ky State Univ.). *J. Applied Chem.* (U.S.S.R.) 19, 611(1946)(in Russian). —Treat the soln. to be tested with excess KCN, and pass over a column of activated silica gel; only $K_2Cd(CN)_4$ and $KAg(CN)_2$ are adsorbed among the complex cyanides which are decomposable by $(NH_4)_2S$. Elution of the column by KI soln. leads to partial sepn. of the 2 salts; the development is done by $(NH_4)_2S$ soln. The yellow CdS color is readily visible. In the presence of Cd and Ag the color is orange, while Ag in absence of Cd gives black to gray color.

G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KRAYNOVA, Z. V.,

"Coprecipitation of Certain Cations with Oxquinolates of Zinc and Copper." (Dissertation for Degree of Candidate of Chemical Science) Min Higher Education, Gor'kiy State U, Chair of Analytic Chemistry, Gor'kiy, 1955

SO: M-1036, 28 Mar 56

KRAYNOVA, Z.V

Coprecipitation with certain complex compounds prepared by the action of organic precipitating agents. I. M. Korenman, A. A. Tumanov, Z. I. Glazunova, Z. V. Krainova, and M. N. Baryshnikova (State Univ., Gorki). *Zhur. Neorg. Khim.* 1, 563-73(1956).—By the method of radioactive indicators the copptn. of Zn, Cd, and Hg with copper anthranilate; of Zn and Cd with copper oxyquinolate; of Zn with dipyridinecadmiumbromide and dipyridinecadmiumthiocyanate; of Cd with tetrabromomercurate of antipyrine; and of Hg with tetrabromocadmiumate of antipyrine. In certain cases the copptn. is due to adsorption and in others it is due to isomorphism, the latter being predominant. The effect of exptl. conditions on the copptn. was detd. J. Rovtar Leach

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KRAYNOVA, Z.V.

5(2); 21(5) PHASE I BOOK EXPLOITATION SOV/1900

Akademiya nauk SSSR. Komissiya po analiticheskoy khimii

Primeneniye radioaktivnykh izotopov v analiticheskoy khimii (Use of Radioactive Isotopes in Analytical Chemistry) Moscow Izd-vo AN SSSR, 1958. 366 p. [Series: Its: Trudy, t. 9 (12)] Errata slip inserted. 3,000 copies printed.

Resp. Ed.: I.P. Alimarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.N. Yermakov; Tech. Ed.: T.V. Polyakova.

PURPOSE: The book is intended for chemists and chemical engineers concerned with work in analytical chemistry.

COVERAGE: The book is a collection of the principal papers presented in Moscow at the Second Conference on the Use of Radioactive Isotopes. The problems discussed at the Conference included coprecipitation, aging, and solubility of precipitates, determination of the instability constants

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of complex compounds, separation of rare earth metals, and ion-exchange chromatography. No personalities are mentioned. There are 351 references, 175 of which are Soviet, 33 German, 19 French, 8 Swedish, 2 Hungarian, and 2 Czech.

TABLE OF CONTENTS:

Use of Radioactive Isotopes (Cont.) SOV/1900

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5(2, 3) SOV/153-2-2-3/31

AUTHORS: Korenman, I. M., Kraynova, Z. V., Milushkova, L. A.

TITLE: Coprecipitation of Cobalt With Copper Hydroxyquinolinate (Soosazhdeniye kobal'ta s oksikhinolinatom medi)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 2, pp 161-164 (USSR)

ABSTRACT: Hydroxyquinoline is used in many fields of analytical chemistry, especially in the quantitative analysis. The problem mentioned in the title has not yet been sufficiently investigated. In the present paper, the authors discuss the influence of various factors on the process mentioned in the title. A cobalt-salt preparation marked with Co^{60} was used for this purpose. The precipitation conditions of cobalt were first investigated. It should be mentioned that the publication references on the pH-values, at which cobalt hydroxyquinolinate is precipitated, do not quite agree with each other (Ref 1 versus Ref 2). To evaluate the pH-influence on the said precipitation, the authors put forward equation (1). By the derivation of further equations (2) and (3), the authors

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Coprecipitation of Cobalt With Copper Hydroxyquinolinate SOV/153-2-2-3/31

come to the conclusion that at pH 3 - 4 a complete cobalt-hydroxyquinolinate precipitation is brought about, whereas at pH 1 - 2 a considerable quantity of cobalt remains in the solution. This rule was confirmed by observations of the authors. Analogous computations for the precipitation of copper quinolinate show that this compound is completely precipitated, even from very acid solutions (pH around 1). Consequently, it may be asserted that copper and cobalt can be separated by precipitation by means of hydroxyquinolinate if the cobalt is not coprecipitated. The data shown in the figure (on p 162) demonstrate that the cobalt coprecipitation rises with an increase in the pH-value. Table 1 shows the results of several experiments concerning the influence of the cobalt quantity on its coprecipitation. The figure, and table 1, show that at the pH-value mentioned the absolute quantity of coprecipitated cobalt rises with a rising Co^{2+}-concentration, whereas its relative quantity decreases. Table 2 shows the temperature influence on the coprecipitation mentioned in the title. By a rise in temperature, the mentioned

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Coprecipitation of Cobalt With Copper Hydroxyquinolinate

coprecipitation is practically not changed. The influence of a 3rd component, the lanthanum sulphate, was also investigated; further, starch and gelatin. All these substances were able to reduce the cobalt coprecipitation to a small extent (by 4 - 5%). The cobalt separation on a previously prepared pure copper quinolinate sediment can also decide the problem of the character of coprecipitation. It was ascertained that the cobalt main quantity is isomorphically coprecipitated, and only 4 - 6% of cobalt are absorbed by the sediment. The hydroxyquinoline method is recommended for the separation of copper from several cations including cobalt (Refs 5, 6). Table 3 shows that in the separation of copper from small cobalt quantities, up to 20% of the cobalt quantity present in the solution may be contained in the hydroxyquinolinate sediment. There are 1 figure, 3 tables, and 6 references, 5 of which are Soviet.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet imeni N. I. Lobachevskogo; Kafedra analiticheskoy khimii

Card 3/4

SOV/153-2-2-3/31

Coprecipitation of Cobalt With Copper Hydroxyquinolinate

(Gor'kiy State University imeni N. I. Lobachevskiy; Chair of Analytical Chemistry)

SUBMITTED: January 23, 1958

Card 4/4

KORENMAN, I.M.; TUMANOV, A.A.; KRAYNOVA, Z.V.

Study of the precipitation and coprecipitation of some hydroxyquinolinates by means of radioactive tracers. Trudy kom. anal. khim. 11:198-208 '60. (MIRA 13:10)

1. Gor'kovskiy gosudarstvennyy universitet im. N.I.Lobachevskogo.
(Quinolinol) (Cobalt--Isotopes) (Zirconium--Isotopes)
(Precipitation (Chemistry))

KRAYNOVICH, N.Ye.

Machining of square holes. Stan.i instr. 24 no.7:36 Jl '53. (MLRA 6:8)
(Metal work)

KRAYNOVICH, Ya.A., inzh. (Tashkent)

From the experience in training mechanization personnel. Put' i put.khoz. 6 no.12:21 '62. (MIRA 16:1)
(Railroads--Employees--Education and training)

KHAYNOVSKAYA, F. M.

Dissertation: "Vitamin B in the Comprehensive Treatment of Pylorospasm and Hypotrophies of Different Etiology in Children of an Early Age." Cand Med Sci, Kiev order of Labor Red Banner Medical Inst imeni Academician A. A. Bogomolets, 3 Jun 54. Pravda Ukrainy, Kiev, 22 May 54.

SO: SUM 284, 26 Nov 1954

KRAYNOVSKAYA, F.M., kandidat meditsinskikh nauk

Case of alkaptonuria. Pediatriia 39 no.5:77-78 S-O '56. (MLRA 10:1)

1. Iz kafedry propedevtiki detskikh bolezney (zav. kafedroy - dotsent Ye.I.Koshel'-Pleskunova) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo instituta imeni akad. A.A.Bogomol'tsa (dir. - dotsent I.P.Alekseyenko).

(ALKAPTONURIA, in infant and child,
case report (Rus))

KRAYNOVSKAYA, F.M. [Krainovs'ka, F.M.], kand.med.nauk

Clinical aspects and treatment of diabetes mellitus in children. Ped., akush. i gin. 20 no.4:3-9 '58. (MIRA 13:1)

1. Kafedra propedevtiki detskikh bolezney (zav. - O.I. Koshel'-Pleskunova) Kiyevskogo ordena Trudovogo Kransogo Znameni meditsinskogo instituta im. akad. A.A. Bogomol'tsa (direktor - Yo.F. Shamray).

(DIABETES)

KRAINSKAYA - IGNATOVA, V.N.

EXCERPTA MEDICA Sec.4 Vol.11/4 Med.Microb. etc. April58

1026. COMBINED USE OF IMMUNO-HAEMATOLOGICAL METHODS FOR INVESTIGATION OF ISOSENSITIZATION AND THE CHOICE OF SUITABLE TECHNIQUES (Russian text) - Krainskaya-Ignatova V.N. and Yakovenko L. T. Ukrainian Inst. for Blood Transfusion and Emergency Surgery, Kharkov - PROBL. GEMATOL. PEREL. KROVI 1956, 1/6 (38-43) Tables 1

The systematic investigation of iso-immune antibodies by the combined use of various immuno-haematological methods has demonstrated a new form of these antibodies, which the authors have named salt-agglutinoids. Change in the various forms of iso-immune antibodies is not limited merely to conversion of complete antibodies into incomplete hyperimmune antibodies but extends also to the cryptagglutinoids and salt-agglutinoids. Antibodies with various properties may exist in human iso-immune sera. In investigating them we must use not any one method but a combination of basic immuno-haematological methods of investigation with techniques, the choice of which is dictated by the properties of the serum under examination (its thermo-activity, avidity and titre). Whether a positive result will be obtained by one or other method of investigation depends basically not upon the virtues of the method but upon the properties of the specimen under examination. In an examination for isosensitization, the investigation of sera must not be limited merely to the detection of iso-immune antibodies; it must be directed also to the determination of that form of antibodies which is appropriate to the stage and degree of sensitization of the patient. References 11.

Krymskii - Moscow (S)

KRAYNSKIY, N.V.

Modification of silver impregnation. Zh. nevropat. psikhiat., Moskva 53 no.3:232-234 Mar 1953.
(CLML 25:1)

1. Author deceased. 2. Biophysics Laboratory of the Ukrainian Psychoneurological Institute.

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Utilization of the Uzbekistan alunites as raw material for the production of sulfuric acid. A. N. Tseitlin and A. Ya. Krainyaya. *Trudy Khar'kov. Khim. Tekhnol. Inst. im. S. M. Kirova* 4, 39-47(1944).—The siliceous rock contains 50-60% alunite, $K_2Na_2SO_4.Al_2(SO_4)_3.4Al(OH)_3$. Its thermal dissocn. (detd. by absorption of the gas evolved in alkali and titration) increases sharply from 600 to 800°, reaching at that temp. from 57% (in 1/2 hr.) to 68% (in 4 hrs.); at 1000°, the dissocn. is 67% and 72%, resp.; above 1000°, further rise of the temp. gives only an insignificant increase of dissocn. The compn. of alunite, SO_3 29.2, Al_2O_3 22.74, K_2O 3.88, Na_2O 4.1, corresponds to a mol. ratio $SO_3:Al_2O_3:K_2O:Na_2O = 4.93:3:0.55:0.89$; if one assumes that only $Al_2(SO_4)_3$ undergoes dissocn. at 800° and that only 1.15 moles Al_2O_3 out of the total 3 is bound in sulfate (implying that all K_2O and Na_2O are sulfate), the limiting degree of dissocn. is 72%, very close to the exptl. finding. If the alunite is formulated as $Al_2(SO_4)_3.2Al_2O_3.K_2SO_4$ (or Na_2SO_4).$6H_2O$, the max. dissocn. is 75%, also close to exptl. In terms of time, dissocn. increases with time at 600°; at 800° it is complete in 1 hr., at 1000° in about 1/2 hr. In an air stream, the gas contains 10% SO_2, 90% SO_3; in a stream of O_2 it is all SO_3. At const. temp. and within a given time interval, the rate of dissocn. is a function of grain size, e.g., 800°, 2 hrs., grain size less than 1.25, 1.5-2.0, 2.5-3.0, more than 3.0 mm., dissocn. 66.9, 62, 57, 56, 52.3%. Industrial production of H_2SO_4 from this raw material will best be carried out in muffle furnaces at 800-850°; concd. H_2SO_4 can possibly be obtained directly through combination of the SO_3 with the H_2O of the mineral; the 10% SO_2 present in the roasting gas, plus that produced through dissocn. of SO_3, will have to be oxidized catalytically. Another possible process is heating in a revolving furnace with oxidation by the nitrose method. N. Thon

ASA-SLA METALLURGICAL LITER

PROCESSES AND PROPERTIES INDEX

CA

The process of combustion of sulfur. A. N. Tsetlin and A. Ya. Kralnyaya. *Trudy Khar'kov. Khim.-Tekhnol. Inst. im. S. M. Kirova* 5, 87-103(1945)(in Russian).—(1) Rates of evapn. of liquid S were measured, by weighing, in 20-min. runs in a stream of air (in N_2 above 200°) flowing at v = 2, 3, 4, and 6 l./min.; only at the highest v is it necessary to pre-heat the air; pre-heating of the S should be done in the thermostat itself, for not over 10 min.; losses of S on cooling are not over 1-2%, the re- producibility 5-6%. From the amt. G of S evapd. in v min. from a surface area f(= 8.1(sq. cm.)) the coeff. of evapn. is given by Dalton's formula $kf = G/v(p-p')$ where p = equil. vapor pressure of S at the given temp., p' = the prevailing partial pressure of S; the coeff. of intensity of evapn. is $k' = G/fv$. At const. v, k decreases with rising temp., k' increases; e.g., at 140, 200, 220, 280°, v = 2, kf = 1.0, 0.58, 0.34, 0.25 l./mm. Hg/hr., k' = 0.070, 0.762, 1.004, 4.760 g./sq.m./hr.; at 140, 180, 200, 220, 250°; v = 6, kf = 2.36, 1.40, 1.47(!), 0.72, 0.91 (!), k' = 0.181, 0.810, 1.320, 2.170, 7.360; the de- crease of k with rising temp. is evidently due to the fact that $(p-p')$, i.e., the driving force of the evapn., increases faster than G; it indicates that the thickness of the gaseous diffusion layer over the liquid S increases with rising temp. and can be linked to some extent with the increase of the viscosity of the liquid. Owing to the deviations of k, its dependence on the temp. cannot very well be repre- sented by a general formula of the type $\log K = (A/T) +$ B; smoothing the deviations, it is very roughly $\log kf =$ $(1300/T) - 5.5$; but the change of k' can be expressed, at const. v, by formulas $\log k' = a \log t - b$, with the values of a and b: 6 and 14, 6.5 and 14.84, 6.4 and 14.48, for v = 2, 4, 6, resp.; at const. temp., one has $k' = m v^n$, with the values of m and n: 0.043 and 0.82, 0.27 and 0.69, 0.45 and 0.78, 0.63 and 0.7, 2.21 and 0.67, at 140, 180, 200, 220, 280°, resp.; plots of the lines $\log k'$ against $\log v$ at different temps. show them to be very nearly parallel, with the striking exception of the line for 180° which may be linked with the max. of the viscosity of liquid S at that temp. (2) Rates of combustion of S vapor were measured at 600, 800, and 970-990°, in a quartz tube in a combustion furnace connected with the evapn. furnace (kept at t_e = 140, 160, 180, 200, or 300°), in 20-min. runs, v = 2 l./min. and the const. calcd. by $k'' = (2.3/v) \log [1/(1-x)]$ where x = fraction of S reacted, detd. by titration of the SO_2 formed. Only at about 1000° is the combustion nearly complete, leaving 3-4% of the S unreacted; at lower temps. only 70-80% is burned. Plots of $\log k''$ against $1/T$ are straight lines for each t_e; from data at t_e = 140°, one has $\ln k'' = 5.12 - 8700/RT$ (T = abs. temp. of combustion) 8700 cal./mole being the activation energy E; this permits calcn. of x at a given moment by $\log (1 - x) = -k''v/2.3$. Data show that the degree of combustion falls markedly with rising t_e, e.g., from 96.3 to 80% between t_e 140 and 180°, in combustion at 1000°; this fall is more pro-

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ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION nounced at higher temps. of combustion, thus, it is 28.3% at 1000° but only 6% at 600°; likewise, with t_s increasing from 140 to 180°, the const. k'' decreases 2.5 times at 1000° but only 1.18 times at 600°; for t_s = 180°, the formula is $\ln k'' = 2.48-4400/RT$, i.e., E is only 4400 cal. as against 8700 for t_s = 140°. Plots of log k'' against $1/T$ show again a striking anomaly for the line of t_s = 180° which does not fit the pattern of the lines t_s = 140, 160, and 200°; although the latter tend to converge in the direction of increasing $(1/T)$, the t_s 180° line starts below the 200° line (too low k'' for the given temps.) and crosses it before reaching its normal position between the 160° and the 200° lines. Also, the fall of k'' with increasing t_s is slowed down distinctly between t_s 180° and 200°. With the S being evapd. in a stream of N_2 (v = 2), and O_2 (0.5 L./min.) added only before entering the combustion furnace, resulting in 20% O_2 in the gas mixt., only 2-3% of the S was oxidized at t_s = 250-300°; five-fold increase of the length of oxidation, through 5-fold reduction of the rate of N_2 and of O_2, raised it only to 4-4.6%, as against 91% combustion with t_s 140° under the same conditions. In combustion at 800°, 0.78 sec., t_s = 140, 160, 180, 200, 300°, the degrees of combustion were 74.6, 68.8, 68.9, 57.2, and 3.2%, k'' = 1.80, 1.50, 1.35, 1.12, and 0.06, resp. (3) At too-low t_s (140°), too much air (800 cu.m./kg. S) is needed for evapn. as compared with the 10 cu.m. necessary for the combustion of that amt.; to reduce the amt. of air to 10 cu.m./kg. S, one would have to evap. at 230-240° at which t_s subsequent combustion is too slow; consequently, the optimum industrial procedure should begin evapn. at a low temp. and complete it at a higher temp. (4) In free combustion of liquid S in air, the mean rate is k''' = 15.6 kg./sq.m./hr. In a tube, in a stream of air, inflammation begins above 200°; k''' rises rather slowly with the temp., more markedly with v and also with the length of the combustion, e.g., v = 2, 5 min., 250 and 300°, k''' = 20.7 and 34. The latter rate is close to the rate of evapn. of liquid S near the b.p. (380°) in N_2 at v 2, 20 min., k''' = 37.4. Combustion of liquid S clearly takes place in the gas film adjacent to the liquid surface, and its rate is detd. by that of evapn.; that the rate of combustion seems to vary relatively little with the temp. in the furnace is doubtless due to the fact that the temp. at the phase boundary is actually higher and rather close to the b.p. of S. Increased velocity of the air stream acts both by the increased supply of O_2 and the increase of the rate of desorption of the products. The effect of prolonged combustion is due to gradual rise of the temp. in the flame zone.

N. Thon

KRAYNYAYA, A. YA.

23286. Ob optimal'nom sostave nitroz v. bashennom proizvodstve sernoy kisloty. Trudy zhark. khim - Tekhnol. in-ta im. Kirova, vyp. 7, 1949, c.69-82.
Bibliogr: 12 Nazv.

SO: LETOPIS' NO. 31, 1949.

5 (1, 2) SOV/153-2-2-16/31

AUTHOR: Kraynyaya, A. Ya.

TITLE: Denitration Kinetics of Nitrosylsulphuric Acid (Kinetika denitratsii nitrozy)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1959, Vol 2, Nr 2, pp 225-230 (USSR)

ABSTRACT: This work was carried out under the supervision of A. N. Tseytlin. There exists a number of articles on the subject mentioned in the title (Refs 1-5). It was found that nitrosylsulphuric acid represents a rather firm chemical compound. The process of denitration of nitrosylsulphuric acid consists of two successive processes: a. hydrolysis of nitrosylsulphuric acid and b. diffusion of trioxide of nitrogen (Refs 2, 3 et al) escaping from the solution in its gas phase. Up to now no investigations dealt with the study of the denitration process and the simultaneous production of concentrated oxide of nitrogen. The elaboration of a method of producing sulphuric acid and nitric acid simultaneously (already partly applied in other countries, Ref 16), requires the study of the processes mentioned in the title in a larger range of temperatures, concentrations and of the methods of denitration themselves.

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In the combination scheme of producing both acids (Ref 17), worked out by the author herself, a partial denitration of concentrated nitrosylsulphuric acid is suggested. In doing so, 100 % oxides of nitrogen will be yielded and used for the production of concentrated nitric acid. The experiments were carried out at a temperature of 200° and with a concentration of trioxide of nitrogen in nitrosylsulphuric acid up to 10 %, according to the method of thermal decomposition without reducing substances or gases which dilute the oxides of nitrogen. Figure 1 shows the laboratory plant for the investigation of the kinetics mentioned in the title. Figure 2 and table 1 give the results regarding the degree of denitration of nitrosylsulphuric acid, as well as the amount of denitrated oxides of nitrogen (kg/m^2 hour). With an increased concentration of oxides of nitrogen in the original nitrosylsulphuric acid from 2.1 % to 4.34 %, the degree of the denitration doubles at a temperature of 120°. At a temperature of 200° it is 1.2 times as high. The degree of denitration increases even more with an increased concentration of the oxides of nitrogen. The quicker movement of the nitrosylsulphuric acid usually reduces the degree of denitration the more, the lower the temperature. Figure 2 explains the dependence of the total amount of the escaping oxides of nitrogen upon the temperature and upon the original concentration of N_2O_3 in the nitrosylsulphuric acid. As expected, the amount of the separated oxides of nitrogen is increased by a higher temperature and by a growing content of N_2O_3, a more, the higher the content of N_2O_3 in the acid. The denitration mechanism of the nitrosylsulphuric acid is shown in three successive processes. As can be seen from the information given in table 2, the rate of denitration depends upon the N_2O_3 content of the nitrosylsulphuric acid. This speed is not set by the resistance of the boundary layer: liquid - gas, as it is not proportional to the first degree of the N_2O_3 concentration in the liquid. Table 2 gives the values of the denitration constants k_2 and k_3 in their dependence upon the temperature, upon the original concentration of the N_2O_3 and

H_2SO_4 content, computed from the formulas (1) - (3). The coefficients of the rate of denitration computed by means of formula (3) are registered in figure 3. Figure 4 gives the dependence k_2 upon the temperature and upon the H_2SO_4 content. From the results the conclusion may be drawn that the purely thermal method of the decomposition of nitrosylsulphuric acid has to be carried out at high temperatures, not to be maintained right to the end. There are 5 figures, 2 tables, and 17 references, 15 of which are Soviet.

ASSOCIATION: Khar'kovskiy inzhenerno-ekonomicheskiy institut; Kafedra khimicheskoy tekhnologii (Khar'kov Engineering and Economics Institute, Chair of Chemical Technology)

SUBMITTED: January 28, 1958

KRAYNYAYA, A. Ya., Cand Tech Sci -- (diss) "Research into the kinetics of denitration of nitrose." Khar'kov, 1960. 16 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Khar'kov Polytechnic Inst im V. I. Lenin, Khar'kov Construction Engineering Inst); 175 copies; free; (KL, 24-60, 132)

KRAYNYAYA, A Ya

PHASE I BOOK EXPLOITATION SOV/5604

Atroshchenko, Vasiliy Ivanovich, Iosif Il'ich Gel'perin, Anatoliy Petrovich Zasorin, Viktor Ivanovich Konvisar, Antonina Yakovlevna Kraynyaya, Agnessa Grigor'yevna Leybush, and Anism Rudol'fovich Yastrebenetskiy

Metody raschetov po tekhnologii svyazannogo azota (Computational Methods in the Technology of Combined Nitrogen) Khar'kov, Izd-vo Khar'kovskogo univ., 1960. 302 p. 5,000 copies printed.

Ed. (Title page): V.I. Atroshchenko; Ed.: D.A.Vaynberg; Tech. Ed.: V.S. Zadorozhnyy.

PURPOSE: This textbook is intended for graduate students in chemical technology institutes, and may also be used by engineering and technical personnel of the chemical industry.

COVERAGE: The book describes computational methods used in the industrial production of hydrogen, nitrogen, synthetic ammonia, urea, nitric acid, and methanol. Problems in the refining of natural gas are also reviewed. The computations involve material and heat balances and the determination of

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dimensions of equipment and its design, based on equations of chemical reactions and thermodynamic computations of possible yields or reaction rates per se. Equations and formulas for determining reaction rates are also given. Plant outputs, flow sheets, and technical characteristics are included. The supplement includes an equilibrium state (vapor phase) diagram of a nitrogen-oxygen system; entropy diagrams for ammonia, air, nitrogen, and oxygen; graphs of heat capacity, viscosity, and heat conductance vs. temperature (0 - 350° C) for nitrogen-hydrogen-ammonia mixtures at $P = 300$ atm; a viscosity vs. percentage composition graph of $CO + H_2$ mixture at 50 - 400° C; diagrams of CH_4, CO_2, CO, N_2 and H_2 solubility in CH_3OH at 300 atm and 25° C; a compressibility coefficient vs. temperature (25 - 250° C) graph of $CO + 2\ H_2$ mixtures at 250 and 300 atm; a nomogram of physical constants; enthalpy vs. temperature diagrams for alcohols, olefins and methanol; and tables of rate constants, partial pressures, heat contents of solutions, viscosities of gases, average molecular heat capacities of various gases and vapors at different pressures, rate constants of the oxidation of nitric oxide by oxygen at different temperatures, etc. The authors are affiliated with the Khar'kovskiy politekhnicheskiy institut imeni V.I. Lenina (Khar'kov Polytechnic Institut imeni V.I. Lenin) and the Gosudarstvennyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza (State Institute for the Nitrogen Industry and Products of Organic Synthesis). The Introduction and Chs. V, X, and XI were written by V.I. Atroshchenko; Ch. I, by A.G. Leybush; Chs. II, III, VI, and VII, by A.R. Yastrebenetskiy; Ch. IV, by I.I. Gel'perin; Chs. VIII and XIV, by V.I. Konvisar; Chs. IX and XIII, by A.P. Zasorin; and Ch. XII, by A. Ya. Kraynyaya. No personalities are mentioned. References, mainly Soviet, accompany individual chapters.

TABLE OF CONTENTS:

TSEYTLIN, A.N.; KRAYNYAYA, A.Ya.

Denitration of nitrose by water vapor in bubble-type towers.
Izv.vys.ucheb.zav.;khim.i khim.tekh. 5 no.2:297-302 '62.
(MIRA 15:8)

1. Khar'kovskiy politekhnicheskiy institut imeni Lenina i
Khar'kovskiy inzhenerno-ekonomicheskiy institut.
(Nitrose) (Denitration) (Plate towers)

KRAYNYUK,B., inzhener

Molding multiple hollow panels from stiff concrete. Stroi. mat. izdel. i konstr. 1 no.5:25-29 My '55. (MIRA 8:11)
(Concrete slabs)

KRAYNYUK, G.G. [Krainiuk, H.H.]

Circuits of signaling devices on transistors. Kat.karp.zemletrus. no.5:52-56 '59. (MIRA 15:11)
(Seismometry--Equipment and supplies)

GOGOLIN, V.K., inzh.; KRAYNYUK, K.F., inzh.

Specialized mobile unit for technical servicing of tower cranes.
Mekh. stroi. 19 no.9:27-28 S '62. (MIRA 15:9)
(Cranes, derricks, etc.--Maintenance and repair)

[illegible], I.

Collective Farms

Size of field brigades on collective farms. Sots. sel'.khoz. [illegible], [illegible]. [illegible], [illegible].

Monthly List of Russian Accessions, Library of Congress, August 19[illegible]2. Unclassified.

LIFANOV, P., otvetstvennyy za vypusk, YUSUPOV, G.G., otvet.red.; LIFANOV, P.K., red.; POGREBINSKAYA, K.A., red.; KRAYNYUK, P.K., red.; KHODASEVICH, V.G., red.; KHAMRAYEV, L., red.; BARKOVSKIY, I.I., red. YUGINBURG, S.M., red.; KOGAN, V.S., tekhn.red.

[Economy of Samarkand Province; a statistical manual] Narodnoe khoziaistvo Samarkandskoi oblasti; statisticheskii sbornik. Samarkand, 1958. 95 p. (MIRA 11:9)

1. Samarkand (Province). Oblastnoye statisticheskoye upravleniye (Samarkand Province--Statistics)

KRAYNYUKOV, G.A.

Device for machining cams on milling machines. Mashinostroitel' no.8:16 Ag '63. (MIRA 16:10)

KONEV, F.A.; KRAYNYUKOV, N.I.; KOVALENKO, V.S.

Determination of the durability of the capillaries of small ampules. Med. prom. 14 no.5:42-44 My '60. (MIRA 13:9)

1. Khar'kovskiy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut.

(DRUG INDUSTRY)

L 43575-65 EWG(j)/EWT(l)/EWT(m)/EWP(e)/EPF(c)/EWP(i)/EPR/T/EEC(b)-2/EWP(b)
Pr-4/Ps-4/Pi-4 IJP(c) WW/GG/WH

ACCESSION NR: AT5009569 Z/0000/62/000/000/0021/0024 47

(5) 46

AUTHOR: Bakradze, R. V.; Dolgopolova, A. V.; Kraynyukov, N. I.; Sysoyev, L. A. B+1

TITLE: Crystallization of compounds of the type A(II) B(VI)

SOURCE: Konference o monokrystalech. 4th, Turnov, 1961. Sbornik referatov. Turnov, VUM, 1962, 21-24

21

TOPIC TAGS: single crystal cultivation, cadmium sulfide crystal, cadmium selenide crystal, sublimation, directed solidification, dislocation density, crystal electrical conductivity, crystal photosensitivity

ABSTRACT: After reviewing the methods of preparation of single crystals of $A^{II} B^{VI}$ compounds reported in the literature, the authors describe the techniques they employed in growing single crystals of cadmium sulfide by sublimation and single crystals of cadmium sulfide and selenide from melts. The cadmium sulfide crystals were grown at 800-1150C in a quartz tube; they were in the form of hexagonal prisms (800-1150C) and rectangular plates (850-950C). The cadmium sulfide and selenide crystals were grown in a graphite container at 1800C and under 200 atm of argon, directed solidification being used; cylindrical ingots were thus obtained. The dislocation density of cadmium sulfide

L 43575-65

ACCESSION NR: AT5009569

was found to be 10^5 cm^{-2}. The electrical conductivity and photosensitivity of all three types of crystals were measured. Orig. art. has: 9 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov Khar'kov (All-Union Scientific Research Institute of Single Crystals)

SUBMITTED: 00 ENCL: 00 SUB CODE: SS

NO REF SOV: 004 OTHER: 013

Card 2/2

32486

24,2600

S/181/62/004/003/036/045
B108/B104

AUTHORS: Sysoyev, L. A., and Kraynyukov, N. I.

TITLE: Preparation of photosensitive cadmium sulfide crystals from a melt under inert-gas pressure

PERIODICAL: Fizika tverdogo tela, v. 4, no. 3, 1962, 807-809

TEXT: Preparation of cadmium sulfide crystals is hampered by technical difficulties owing to the aggressivity of its vapor. The Fig. shows a device for growing CdS crystals from a melt under 200 atm of argon. The specimens obtained had a diameter of 12 and a height of 10 - 25 mm. Their dark resistivity was 0.03 - 0.04 ohm·cm without photosensitivity. In a few specimens, dark resistivity was even $6.0 \cdot 10^9$ ohm·cm with slight photosensitivity. The low dark resistivity is probably due to the enrichment in cadmium over the stoichiometric ratio. In order to increase photosensitivity the crystals were annealed in various atmospheres which increased the dark resistivity up to 10^{11} ohm·cm and photosensitivity to $\alpha = 5.0 \cdot 10^6$. $\alpha = (\rho_d - \rho^*_{ill})/\rho_{ill}$, ρ_d is the dark photosensitivity, ρ_{ill}

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S/181/62/004/003/036/045
Preparation of photosensitive cadmium ... B108/B104

the photosensitivity at an illumination of 10^4 lux. There are 1 figure, 1 table, and 8 references: 2 Soviet and 6 non-Soviet. The four most recent references to English-language publications read as follows: R. Frerichs. Phys. Rev., 72, 594, 1947; L. C. Greene et al. J. Chem. Phys., 29, 1375, 1958; W. E. Medcalf, R. H. Fahring. J. Electrochem. Soc., 105, 719, 1958; A. Addamiano. J. Phys. Chem., 61, 1253, 1957.

SUBMITTED: November 19, 1961

Legend to the Fig.: (1) Autoclave, (2) argon cylinder, (3) conductor, (4) reducing valve with thermocouple terminals, (5) ЭПД -12 (EPD-12) electronic potentiometer, (6) РНО -250-10 (RNO-250-10) transformer, (7) ОСУ -20/6 (OSU-20/6) transformer.

Card 2/3

SYSOYEV, L. A.; KRAYNYUKOV, N. I.; SKOROBOGATOV, B. S.; SAZONOVA, S. A.

Luminescence of zinc sulfide single crystals grown from a melt. Opt. i spektr. 13 no.6:859-861 D '62. (MIRA 16:1)

(Zinc sulfide crystals—Growth)
(Zinc sulfide—Spectra)

L 35599-65 EWA(c)/EWT(m)/EWP(b)/T/EWP(t) IJP(c) JD

ACCESSION NR: AP5007610 S/0363/65/001/001/0077/0079 24 23

AUTHOR: Kraynyukov, N. I.; Sysoyev, L. A.; Pantaler, R. P.; Kharchenko, L. N. 6

TITLE: Purification 16 of compounds of the type AII BVI from oxygen-containing impurities

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 1, 1965, 77-79

TOPIC TAGS: single crystal 16, crystal cultivation, zinc 27 sulfide 27, cadmium 27 sulfide, sulfate impurity

ABSTRACT: For growing single crystals of the type $A^{II}B^{IV}$ (ZnS, CdS, etc.), the dust obtained by either the "wet" or "dry" method, with 0.8 to 1.5% oxygen-containing compounds, is not sufficiently pure. A new method was therefore developed for producing the sulfides, namely, high-temperature heating of the metals in an atmosphere of pure hydrogen sulfide. Quartz ampoules, cleaned with nitric acid, washed 10-15 times with distilled water and dried in an oven at 100-120C, were loaded with 500g of the metal and placed into an oven. A stream of hydrogen sulfide at atmospheric pressure and a rate of 1-2 cc/sec. was passed over the samples, the temperature was raised to 1050C for production of CdS and 1200C for ZnS, and held for 18 hours. Sulfates were extracted in water, and acid and basic sulfates in a buffered ammonia solution before determination. The

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L 35599-65

ACCESSION NR: AP5007610 /

content of oxygenated compounds in both ZnS and CdS was less than 0.0001%. Orig. art. has: 2 tables.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, khar'kov (All-union monocrystals scientific research institute)

SUBMITTED: 06Jul64 ENCL: 00 SUB CODE: IC, SS

NO REF SOV: 010 OTHER: 004

Card 2/2

L 9401-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) JD

ACC NR: AP5026737 SOURCE CODE: UR/0286/65/000/017/0013/0013

21/
B

INVENTOR: Kisil', I. I.; Kraynyukov, N. I.

ORG: none

TITLE: Ampoule for growing single crystals with high melting temperatures. Class 12, No. 174171 [Announced by the All-Union Scientific Research Institute of Single Crystals (Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 13

TOPIC TAGS: single crystal, single crystal growing

(b)

ABSTRACT: This Author Certificate introduces a cylindrical ampoule with a conic bottom used for growing single crystals such as cadmium sulfide. To intensify the crystal growing and to enable repeated use of the ampoule, it is equipped with an exchangeable diaphragm which has an opening for sampling the single-crystal seed. Orig. art. has: 1 figure. [AZ]

SUB CODE: 20/ SUBM DATE: 10Nov63/ ATD PRESS: 4153

Card 1/1 UDC: 548.55

L 28337-66 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6013076 SOURCE CODE: UR/0048/66/030/004/0668/0670

AUTHOR: Bezol', V.S.; Gavrilov, F.F.; Panov, V.P.; Kraynyukov, N.I.

54
B

ORG: none

19 18

TITLE: Investigation of scintillation processes in ZnS:Ag single crystals /Report, Fourteenth Conference on Luminescence held in Riga 16-23 September 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 4, 1966, 668-670

TOPIC TAGS: scintillation, crystal phosphor, zinc sulfide, radioluminescence, stimulated emission, crystal decay, emission spectrum

ABSTRACT: Although in general the regularities evinced in radioluminescence of ZnS:Ag single crystals can be explained in the framework of the same energy band diagram as that invoked for interpreting the photo- and cathodoluminescences of this phosphor, the much higher excitation density in the case of radioluminescence gives rise to some distinctive effects. The present work, accordingly, was devoted to experimental investigation of the influence of the excitation density along the particle track on the thermostimulated emission (glow curves), decay time, emission spectrum and electroquenching. The specimens were relatively large ZnS:Ag (about 3×10^{-5} g/g Ag) single crystals grown from a melt. The excitation was produced by Pu^{239} and ThC-ThC' alpha particles, protons, deuterons, gamma rays and Hg ultraviolet. The glow curves (reproduced in a figure) were recorded after excitation with 2 MeV and 5 MeV alphas

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L 28337-66

ACC NR: AP6013076 0

and with UV. All three glow curves have peaks at -150°, but only the glow curve obtained after UV excitation exhibits a broad peak located just below 0°C. The trap depth corresponding to the -150°C peak is estimated as 0.25-0.28 eV. The persistence of the scintillation falls off with increasing excitation density along the track in agreement with the theoretical curve adduced by the authors. The intensity in the short wavelength part of the radioluminescence spectrum increases with increasing excitation density for all forms of excitation. Electroquenching (quenching by a dc field) was found to be analogous to temperature quenching. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 00 ORIG REF: 004/ OTH REF: 001

Card 2/2 ℓℓ

KRAYNYUKOV, V.I.

Idle run stopping device for lathes. Stroi.i dor.mashinostr. no.11: 35-36 N '56. (MLRA 9:12)

1. Elektromonter Nikopol'skogo mashinostroitel'nogo zavoda imeni Lenina.
(Lathes--Attachments)

KRAYNYUKOVA, A. YA.

USSR/Geophysics- Carboniferous Nov/Dec 52

"Problem of the Study of Anthracite Coal of High Degrees of Carbonification, " L.I. Bogolyubova, A. Ya. Kraynyukova and L. Ye. Shterenberg

Iz Ak Nauk SSSR, Ser Geol" No 6, pp 127-129

Discuss investigation of the geology of coal and carbonification under the guidance of Yu. A . Zhemchuzhnikov, in which authors developed procedures for studying the various grades of coal (coking, lean,etc.) and also indicated possibilities of obtaining transparent microsections of thes coals.

PA 241T52

KRAYNYUKOVA, K.G.; VALIKHANOV, Sh.Ye.

Problems of school construction in Alma-Ata. Trudy Kazakh. fil. ASia no.2:49-63 '60. (MIRA 15:2)
(Alma-Ata--Schoolhouses)

KRAYOVAN

YUGOSLAVIA / Chemical Technology. Fermentation Industry. H

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 75439.

Author : Krayovan, Mautner.
Inst : ~~Not given.~~
Title : Production of Lactic Acid in Yugoslavia.

Orig Pub: Kemija u industriji, 1957, 6, No. 3, 83-87.

Abstract: A method was worked out for the production of lactic acid by fermenting the molasses from the beet sugar industry. To shorten the time of the production from 5 to 1 day, stimulators for growth and thermally stable compounds were used, which have been prepared from malt. A scheme for the technological process is furnished.

Part I, see: R. Zh. Khim., 1958, 51762.

Card 1/1 57

STUDIC, J.; TUCAKOVIC, M.; PAVLOVIC, M.; KRAYOVAN, R.

Comparative results of artificial pneumothorax applied during 1948-1950 and 1951-1953 and secondary effects of tuberculostatic drugs. Tuberkuloza, Beogr. 12 no.4:16-23 '60.

1. Institut za tuberkulozu JNA (nacelnik, pukovnik prof. dr. J. Studic).

(PNEUMOTHORAX ARTIFICIAL statist.)
(ANTITUBERCULAR AGENTS ther.)

AUTHORS: Krayshovskiy, I. and Shandor, U. SOV/70-4-2-29/36

TITLE: The Preparation of Thin Plates of Anthracene (Izgotovleniye tonkikh antratsenovykh plastinok)

PERIODICAL: Kristallografiya, 1959, Vol 4, Nr 2, p 260 (USSR)

ABSTRACT: Anthracene plates are grown from the gas phase. The apparatus described is used for working them to shape. A brass plate 5 mm thick is cut to the required crystal shape and about 10-20 holes of diameter 1 cm (sic. but should probably be 1 mm for a 4 cm diameter crystal plate as appears from the drawing). One side of the brass plate is covered by a brass cup connected to a filter pump. An anthracene plate is put on top of the brass and is held on by the difference in air pressure and can be worked to shape by machine. The accuracy is sufficient for making smaller plates for assembly into a larger mosaic (the device is simply a vacuum plate as used on printing presses).

Card 1/2

The Preparation of Thin Plates of Anthracene SOV/70-4-2-29/36

There is 1 figure.

ASSOCIATION: Budapesht, Institut meditsinskoy fiziki
(Budapest, Institute of Medical Physics)

SUBMITTED: November 5, 1958

Card 2/2

KRAYTENBERG, V.B.

Hydroplastic clamp for fastening measuring instruments. Stan. i instr. 32 no.4:39 Ap '61. (MIRA 14:3)
(Fastenings)

KOCHNEV, Yu.A.; [illegible], B.L.; [illegible], V.S. (Saratov)

Examining the stressed state of a cylindrical container on a model. Stroi.mekh. i rasch.soor 7 no.5:49-52, 3 of cover '65.

(MIRA 18:10)

KRAYTIROV, D. A.

Buildings, Prefabricated

Advance technology in prefabricated housing plants. Les. prom. no. 5, May 1952.

1952
9. *Monthly List of Russian Accessions*, Library of Congress, August ~~1953~~ Uncl.

KRAYTS, S.V. [deceased]

Some peculiarities of the clinical method in psychiatry. Zhur.nevr. i psikh. 57 no 1:124-131 '57. (MIRA 10:3)

1. Kafedra psikhiatrii (zav. - prof. O.V.Kerbikov) II Moskovskogo meditsinskogo instituta.
(PSYCHIATRY
clinical aspects)

KRAYTS, Z.S.

TUROVA-POLYAK, M.B.; KRAYTS, Z.S.; TRESHCHOVA, Ye.G.

Isomerization of polymethylene hydrocarbons under the influence of aluminum chloride. Part 19: Isomerization of 1,3,5, n-trimethylcyclohexane and isopropylcyclohexane. Zhur. ob. khim. 26 no.10:2732-2738 O '56.
(MIRA 11:3)

1. Moskovskiy Gosudarstvennyy universitet.
(Isomerization) (Cyclohexane)

SOV/20-124-6-19/55

5(3)

AUTHORS: Nesmeyanov, A. N., Academician, Lutsenko, I. F., Krayts, Z. S., Bokovoy, A. P.

TITLE: The Vinyl Esters of Phosphorous Acid (Vinilovyye efiry fosforistoy kisloty)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 6, pp 1251 - 1254 (USSR)

ABSTRACT: The known representatives of the unsaturated esters of phosphorous acid, which are not numerous, are compounds of the allyl series (Refs 1,2). As far as the general methods of synthesis of these esters cannot be used for the production of the acid mentioned in the title not one representative of vinyl esters of this acid is known. In order to be able to investigate the conditions and the isomerization direction the authors have produced both, compounds of the series $(RO)_2POCH = CH_2$ and $ROP(OCH= CH_2)_2$ and trivinyl phosphate. For this purpose they used the acylation reaction of α—monomercurized oxo-compounds (Ref 3) which as it is known proceeds by transfer of the reaction center. Although chloro-mercuri

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acetaldehyde reacts with diethyl-chloro phosphite already in the cold, the yields in vinyl esters are very small since it is a well-known fact that esters of phosphorous acid react with sublimate (Ref 4). In oder to avoid this difficulty the authors carried out a reaction of diethyl-chloro phosphite with mercuri bisacetaldehyde in isopentane. The reaction was, however, not carried out until the formation of the sublimate but only until the formation of chloro-mercuri acetaldehyde. In this connection dialkyl vinyl phosphite was obtained in a yield of about 40%. It was of advantage to add not more than 0.1 mole of the mercury-organic compound and the amine into the reaction vessel at once. After the addition of an equivalent amount of chlorine phosphite the next portion of the two substances initially mentioned is added. In connection with the synthesis of alkyl vinyl phosphite from Menshutkin chloric anhydride and mercuri bisacetaldehyde already at the beginning of the reaction a strong polymerization takes place. This polymerization can be suppressed by the addition of an equivalent quantity of bases and the alkyl divinyl esters may be obtained in a 50-60% yield. The interaction of dialkyl-chloro

The Vinyl Esters of Phosphorous Acid SOV/20-124-6-19/55

phosphite with mercuri bisacetaldehyde in the presence of a base leads to still higher yields in dialkyl vinyl phosphites (60-70%). In all cases triethyl amine was used as base, except for the case of methyl derivatives for the synthesis of which diethyl aniline was used. Trivinyl phosphite was produced from phosphorus trichloride in a similar way. Finally, the properties and reactions of vinyl phosphites are described. An experimental part gives the usual data. There are 1 table and 4 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

SUBMITTED: November 25, 1958

Card 3/3

S/020/60/132/03/34/066
B011/B008

5.3630

AUTHORS: Lutsenko, I. F., Krayts, Z. S.

TITLE: Arbuzov's Regrouping of the Vinyl Esters of Phosphorous and Phenylphosphinic Acids 1

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 3, pp. 612-614

TEXT: The authors state that the vinyl esters of the phosphorous acid can, as expected, be isomerized only very difficultly to vinyl esters of the phosphinic acids, as compared with the trialkyl phosphites. A 4 to 6-hour heating with methyl iodide was necessary for the isomerization of the various dialkyl vinyl phosphites produced by the authors. The same process takes 20 hours at 100°C when using ethyl- and butyl iodide and is concluded to less than 50%. The reaction had therefore to be carried out in soldered tubes at 120-150°C for 8 hours. In this way the authors obtained the following alkylvinyl esters of the phosphinic acids (Table 1): ethylvinyl ester of the methylphosphinic acid, butylvinyl ester of the butylphosphinic acid, divinyl ester of the methylphosphinic acid, di-iso-

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Arbuzov's Regrouping of the Vinyl Esters
of Phosphorous and Phenylphosphinic Acids

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B011/B008

propenyl ester of the ethylphosphinic acid, ethylvinyl ester of the acethylphosphinic acid, divinyl ester of the benzoylphosphinic acid, and divinyl ester of the phenylphosphinic acid. Furthermore, the addition product of the methyl iodide to the divinyl ester of the last mentioned acid was produced. Alkyldivinyl phosphites are isomerized to divinyl esters of the alkylphosphinic acids only under sharper conditions. Divinyl ester of the ethyl-, propyl- and butylphosphinic acids were obtained by heating of alkyldivinyl phosphites in soldered tubes at 130-160°C (for 8 hours) with alkyl iodide which contains the same radical as the phosphite. When the radical of the halogen-alkyl was a different one, a mixture of the phosphinic-acids-esters developed. Trivinyl phosphite is not isomerized with methyl iodide. Resinification takes place in the soldered tube at 120-125°C. Arbuzov's regrouping thus takes its course in the case of the monovinyl- and divinyl phosphites under splitting off of the alkyl radical. The vinyl radical, however, was split off in no case. Based on these data it could be expected that Arbuzov's regrouping of the divinyl ester of phenylphosphinic acid will also be impeded. A crystalline addition product develops from the

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Arbuzov's Regrouping of the Vinyl Esters of Phosphorous and Phenylphosphinic Acids

S/020/60/132/03/34/066
B011/B008

reaction of this ester with methyl iodide. Iodine is precipitated at the heating of this addition product and resinification sets in. Slight heating occurs when dialkylvinyl phosphite and acyl halides are mixed. The reaction is terminated at room temperature within 48 hours. Vinyl esters and α-ketophosphinic acids were produced by distilling off (Table 1). Still sharper conditions are necessary for the reaction of the alkyldivinyl phosphites with acyl halides (benzoyl chloride with butyldivinyl phosphite, for example). There are 1 table and 2 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: January 7, 1960, by A. N. Nesmeyanov, Academician

SUBMITTED: January 6, 1960

S/020/60/135/004/024/037
B016/B066

AUTHORS: Lutsenko, I. F., and Krayts, Z. S.

TITLE: Phosphoric and Phosphinic Esters of Enols

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 4, pp. 860-863

TEXT: In addition of their papers (Ref. 1) the authors studied the effect of acid chlorides of phosphoric and phosphinic acid upon α-mercurized aldehydes and ketones. They found that the acid chlorides of phosphoric acid do not react with organomercury compounds in ethereal or benzenic medium contrary to the chlorides of acids of trivalent phosphorus. They proved, on the other hand, that salts (NaI, KCl and others) readily split the metal - carbon bond in the mercurized aldehydes and ketones (Ref. 2). The authors used this variant in the case of acid chlorides of phosphoric and phosphinic acid. The salt obtained by dissolving these acid chlorides in pyridine reacts easily, already in the cold, not only with mercury bisacetaldehyde, but also with the organomercury salts of ketones. The ester of phosphoric or phosphinic acid with the enol form of the carbonyl compound is formed in this connection

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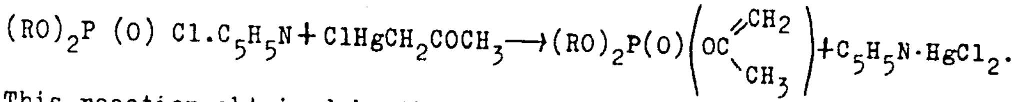
Phosphoric and Phosphinic Esters of Enols

S/020/60/135/004/024/037
B016/B066



$$(RO)_2P(O)Cl.C_5H_5N + ClHgCH_2COCH_3 \longrightarrow (RO)_2P(O)\left(OC\begin{matrix}{=}CH_2\\ \diagdown CH_3\end{matrix}\right) + C_5H_5N \cdot HgCl_2.$$

This reaction obtained by the authors permits the formation of phosphoric acid esters with one, with two, and with three unsaturated groups, and of phosphinic acid esters both with one and with two of these groups in a yield of 50 - 85 %. The authors carried out this reaction with α-mercurized derivatives of the following compounds: acetaldehyde, acetone, diethyl ketone, cyclopentanone, cyclohexanone. Further with the following halogen phosphorus compounds: methyl-, ethyl-, and butyl-dichlorophosphates, diethyl- and dibutyl chlorophosphates, the acid chloride of ethyl phosphinic acid and of ethoxy-ethyl phosphinic acid, and phosphorus oxychloride. It is difficult to isolate the enol esters from the reaction mixture in the presence of the mercury salts, since the latter cause polymerization and resinification. The authors removed these salts in the following manner: the principal amount of the mercury salt which was precipitated after termination of the reaction as a pyridine complex, was filtered off. Hydrogen sulfide was bubbled through the filtrate with pyridine excess:

$$Hg_2Cl_2 + H_2S + 2C_5H_5N \longrightarrow HgS + 2C_5H_5N \cdot HCl$$

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Phosphoric and Phosphinic Esters of Enols S/020/60/135/004/024/037
B016/B066

Mercuric sulfide and pyridine hydrochloride were filtered, the filtrate was decomposed by distillation. Table 1 gives yields and constants of the resultant enol esters. There are 1 table and 3 Soviet references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: June 23, 1960, by A. N. Nesmeyanov, Academician

SUBMITTED: June 22, 1960

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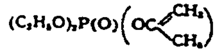
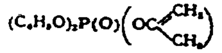
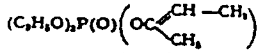
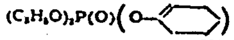
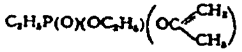
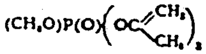
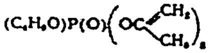
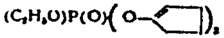
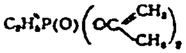
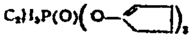
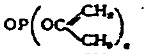
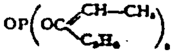
S/020/60/135/004/024/037
B016/B066

Соединение 1	Выход. % 2	Т-ра кип., °С/мм 3
 $(C_2H_5O)_2P(O)\left(OC\begin{matrix}{=}CH_2\\ CH_3\end{matrix}\right)$	57	77,5—78°/3
 $(C_4H_9O)_2P(O)\left(OC\begin{matrix}{=}CH_2\\ CH_3\end{matrix}\right)$	53	115—116°/3
 $(C_2H_5O)_2P(O)\left(OC\begin{matrix}{=}CH-CH_3\\ CH_3\end{matrix}\right)$	84	90—91°/2
	85	116—117°/2
 $C_2H_5P(O)(OC_2H_5)\left(OC\begin{matrix}{=}CH_2\\ CH_3\end{matrix}\right)$	77	67—67,5°/3
 $(CH_3O)P(O)\left(OC\begin{matrix}{=}CH_2\\ CH_3\end{matrix}\right)_2$	39	79—80°/3
 $(C_4H_9O)P(O)\left(OC\begin{matrix}{=}CH_2\\ CH_3\end{matrix}\right)_2$	51	94,5—95°/2
 $(CH_3O)P(O)\left(OC\begin{matrix}{=}CH-CH_3\\ CH_3\end{matrix}\right)_2$	50	106—107°/2
	74	139—140°/2
 $C_2H_5P(O)\left(OC\begin{matrix}{=}CH_2\\ CH_3\end{matrix}\right)_2$	64	71,5—72°/3
	70	131—132°/2
 $OP\left(OC\begin{matrix}{=}CH_2\\ CH_3\end{matrix}\right)_3$	51	80—80,5°/2,5
 $OP\left(OC\begin{matrix}{=}CH-CH_3\\ C_2H_5\end{matrix}\right)_3$	76	125,5—126°/2
$OP(OCH{=}CH_2)_3$	86	58—58,5°/4

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S/020/60/135/004/024/037
B016/B066

n_D^{20} 4	d_4^{20} 5	MR_D	
		найд. 6	выч. 7
1,4198	1,0715	45,84	46,05
1,4300	1,0056	64,29	64,50
1,4298	1,0428	55,02	55,26
1,4521	1,1029	57,30	57,68
1,4318	1,0349	44,64	44,92
1,4331	1,1011	45,37	45,58
1,4353	1,0355	59,08	59,42
1,4488	1,0449	63,70	64,03
1,4763	1,1406	63,90	64,25
1,4455	1,0394	48,75	49,07
1,4892	1,1138	62,80	63,15
1,4428	1,0720	53,95	54,33
1,4588	1,0107	81,75	82,03
1,4289	1,1209	40,50	40,48

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S/020/60/135/004/024/037
B016/B066

Найдено, % 6			Вычислено, % 7		
C	H	P	C	H	P
43,45	7,88	15,77	43,30	7,78	15,96
52,51	9,18	12,10	52,78	9,26	12,38
48,64	8,43	13,71	48,65	8,62	13,94
51,26	8,05	12,83	51,30	8,18	13,22
47,02	8,43	17,23	47,19	8,48	17,39
44,00	6,73	16,08	43,75	6,82	16,12
51,28	8,29	12,93	51,28	8,18	13,23
53,21	8,44	12,34	53,21	8,52	12,48
55,40	7,52	12,02	55,80	7,42	11,99
50,39	7,85	16,44	50,52	7,95	16,29
59,52	7,98	12,51	59,49	7,95	12,79
49,57	6,84	14,05	49,53	6,93	14,20
59,50	9,03	9,94	59,58	9,00	10,24
40,84	5,20	17,26	40,92	5,15	17,59

Card. 6/7

S/020/60/135/004/024/037
B016/B066

Legend: 1 - compound, 2 - yield, 3 - boiling point °C/mm Hg, 6 - obtained, and 7 - calculated amount.

Card 7/7

KRAYTS, Z. S.

Cand Chem Sci - (diss) "Vinyl and substituted vinyl esters of phosphorus acids." Moscow, 1961. 12 pp; (Academy of Sciences USSR, Inst of Elemento-Organic Compounds); 200 copies; price not given; (KL, 6-61 sup, 198)

LUTSENKO, I.F., KRAYTS, Z.S., BOKOVOY, A.P.

Vinyl esters of phosphorus acids.

Khimiya i Primeneniye Fosfororganicheskikh Soyedineniy (Chemistry and application of organophosphorus compounds) A. YE. ARBUZOV, Ed.
Publ. by Kazan Affil. Acad. Sci. USSR, Moscow 1962, 632 pp.

Collection of complete papers presented at the 1959 Kazan Conference on Chemistry of Organophosphorus Compounds.

LUTSENKO, I.F.; KRAYTS, Z.S.

Vinyl and substituted vinyl esters of phosphorous acid. Zhur.ob.
khim. 32 no.5:1663-1665 My '62. (MIRA 15:5)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Phosphorous acid) (Vinyl alcohol)

LUTSENKO, I.F.; KRAYTS, Z.S.; PROSKURNINA, M.V.

Preparation of α,β-alkenylphosphoryl halides. Dokl.AN SSSR 148 no.4:846-849 F '63. (MIRA 16:4)

1. Moskovskiy gosudarstvennyy universitet universitet im. M.V. Lomonosova. Predstavleno akademikom A.N.Nesmeyanovym.
(Phosphoryl halides)

KRAYTSBERG, I. M. PA 17/49T18

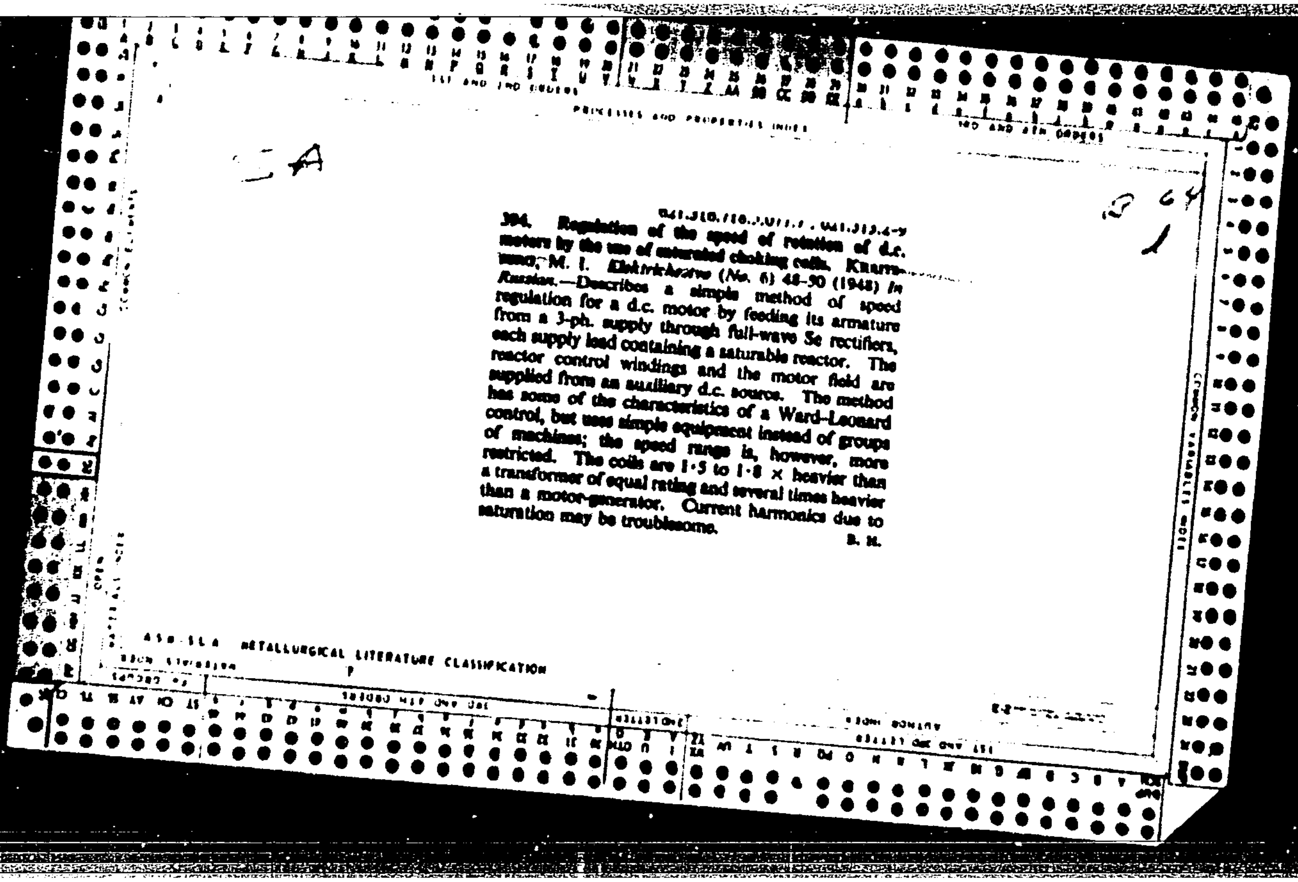
USSR/Electricity Jun 48
Motors, Direct Current
Coils, Choke

"Regulation of the Speed of a DC Motor With the Aid of a Choke Coil," I. M. Kraytsberg, Cand Tech Sci, Moscow, 2½ pp

"Elektrichestvo" No 6

Describes method in detail. Includes four diagrams. Lists advantages and disadvantages.

17/49T18



PROCESSES AND PROPERTIES INDEX

A

2 64
1

621.316.718.5.077.7 : 621.313.2-9

394. Regulation of the speed of rotation of d.c. motors by the use of saturated choking coils. Khramushino, M. I. *Elektrichestvo* (No. 6) 48–50 (1948) *In Russian.*—Describes a simple method of speed regulation for a d.c. motor by feeding its armature from a 3-ph. supply through full-wave Se rectifiers, each supply lead containing a saturable reactor. The reactor control windings and the motor field are supplied from an auxiliary d.c. source. The method has some of the characteristics of a Ward-Leonard control, but uses simple equipment instead of groups of machines; the speed range is, however, more restricted. The coils are 1·5 to 1·8 × heavier than a transformer of equal rating and several times heavier than a motor-generator. Current harmonics due to saturation may be troublesome.

B. H.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KRAYTSBERG, M. I.

PA 3/50T25

USSR/Engineering - Locomotive, Electric Jul 49
Motors, Condenser

"AC Mining Electric Locomotive With Condenser Motors," Prof B. Ye. Rozenfel'd, Dr Tech Sci, M. I. Kraytsberg, Cand Tech Sci, B. N. Tekhmenev, Engr, Moscow Power Eng Inst imeni Molotov, 6 pp

"Elektrichestvo" No 7

Discusses deficiencies in widely used DC system of haulage with electric mining locomotives and difficulties in converting to AC. Presents advantages of converting to AC and using condenser motors. Points out possibility of using such a system in other branches of the national economy.

[redacted]

3/50T25