

Freberg, A. K. MANUFACTURE OF GRUG BRICK BY MEANS OF DRY PRESSING. *Zbornik Statist. Oprema* Prom., 109: 234 (1934). --Consecutive stages of the manufacture of grug brick, according to the dry pressing method, are discussed in detail.

FREBERG, A. K.

Freberg, A.K., and Kühner, K. N. PLANT TESTS OF
REFRACTORY CLAYS OF THE KRASNOGOROVSKII DEPOSITS.
Ogneupory, 2 (9) 32 37 (1934). The Krasnogorovskii
deposits of refractory clays are in the North Caucasus.
They contain Si(), 45.83 to 55, Al₂()₃ 30.14 to 36 (some-
times 38), Fe₂()₃ 0.53 to 2.86 (up to 3.5), Ti()₂ 0.7 to
1.5 (up to 2.72), Ca() not over 1.5, alkalis () .25 to 1.12% ;
90% of the particles are under 0.01 mm. in diameter; the
clays melt at 1700 to 1765°. Plant tests are described in
detail.

1ST AND 2ND LETTER																										3RD AND 4TH LETTER										5TH AND 6TH LETTER									
AUTHOR INDEX																										SUBJECT INDEX										CROSS REFERENCE									
Freberg, A. K., and Babus, S. V. HIGHLY REFRACTORY MATERIALS. Pub. House "Ontr," Chief Rd. Office Bldg Literature, Leningrad, 1935. 173 pp. Price 2R, 50 k. In the world literature there are only a few books dealing with highly refractory materials. Therefore the appearance of this book under review is of interest. The authors' definition of "highly refractory materials" as "products of ceramic manufacture melting at temperatures above 1770°C, i.e., higher than the best grog and Dinas articles, stable against abrupt temperature changes and of considerable slag stability," needs some corrections. The whole text is devoted to high-alumina refractories (corundum Sinterkorund, hydrates of alumina, minerals of the sillimanite group, and electrofused mullite); refractories of alkaline-earth oxides (calcium oxide, dolomite magnesite, electrofused magnesite, spinels, forsterite, and olivine), Cr-containing refractories (chromite, chrome-magnesite, Siemensite); ZrO₂-containing refractories: carbon-containing refractories (silicon carbide, silicon, Silundum, Silit, carbon); and articles of highest refractoriness (oxides, nitrides, and carbides). The book is written by two authors engaged in the refractory industry, Freberg as a designer of refractory plants and Babus as an economist. It presents a summary of data scattered in the world literature on highly refractory materials.																																													

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1ST AND 2ND LETTER																										2ND AND 4TH CODES																										3RD AND 4TH CODES																									
AUTHOR INDEX																										MATERIALS INDEX																										COMMON ELEMENTS																									
<i>R</i> Freberg, A. K. FIRING CERAMIC PRODUCTS BY METHOD OF CONTINUOUS REGISTRATION OF PHYSICOCHEMICAL CHANGES IN THE BODY. <i>Quensapory</i>, 7 [4] 216-22 (1930). An attempt was made to correlate the process of mullitization of kaolin clays of the Latinskii deposits with the physicochemical changes appearing in these clays on firing, particularly with shrinkage and thermal effects during thermal analysis. The method of continuous registration in the 950° to 1425° range was used. The temperature range in which the processes of shrinkage and mullitization correlate well was determined, especially (a) the range between 1150° and 1250°, which corresponds to a sudden increase in the mullite content (which is insoluble in a 20% hydrofluoric acid solution) and a severe increase of shrinkage, explained by the sintering phenomenon; and (b) the range between 1250° and 1500°, characterized by a slower process of mullitization and shrinkage. The method of mullite determination by means of a treatment of clay samples fired to 1100° to 1200° with a 20% hydrofluoric acid solution cannot be used, as the products of kaolinite decomposition are completely dissolved in the acid.																																																																													

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AUTHOR INDEX																										SUBJECT INDEX																										CLASSIFICATION																										MATERIALS INDEX																									
R Freberg, A. K. PROCESS OF MULLITIZATION OF REFRACTORY CLAYS FROM LATVINSKII AND CHABOV-YAR DEPOSITS. <i>Ogneupory</i>, 7, [12] 754-64 (1939). -- The consecutive crystallization of mullite crystals in the clays studied was determined. Up to 1200° a reaction takes place during the formation of mullite from the products of the dissociation of kaolin (alpha-alumina and silica). Above this temperature the mullite crystals grow in size. F. determined the dependence of the growth of mullite crystals on temperature and time in the firing interval between 1200° and 1400°. This dependence can be checked for other ceramic products, particularly for those made of silica and magnesite. With slow cooling, recrystallization of mullite out of the melt occurs, e.g., samples of Latvinskii clays cooled very rapidly from 1550° contained 7% less mullite (undissolved in hydrofluoric acid) than those cooled slowly. Mullitization is not the only factor affecting physicochemical properties of the products; the composition and amount of the glass phase and the "over-crystallization" of silica are also of great importance. There are definite temperature intervals for porosity, shrinkage, and brittleness at which these indices have an optimum significance; this conclusion should be checked with grog products having different thermal treatment and a different granulometric composition.																																																																																																							

1ST AND 2ND LETTER																										3RD AND 4TH LETTER										5TH GROUP									
AUTHOR INDEX																										MATERIALS INDEX																			
Frøberg, A. K. EFFECT OF FIRING TEMPERATURE ON PROPERTIES OF GRCM BODIES. <i>Ignitropy</i>, 8 (8-9) 459-62 (1940). --With increasing firing temperature up to 1400°, the resistance of the grog body to pressure under load rises, but gas permeability decreases; porosity and mechanical strength increase to certain limits, after which both decrease. In bodies fired to 1500°, most of the technical properties improve because of a change in the glassy phase which is enriched by more refractory oxides, such as Al_2O_3.																																													

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
PROCESSES AND PROPERTIES INDEX																			
CA 19 Interpretation of the second exothermal effect in the thermal analysis of refractory clays. A. K. Fyberg. <i>Compt. rend. acad. sci. U. R. S. S. 28, 832 (1940) (in English)</i>. Thermal analysis (i.e., temp. plotted against time) for kaolinite clays gives curves indicating 4 thermal effects, 2 endothermal and 2 exothermal. On heating a Glukhovetsk kaolinite at the rate of about 12° per min. the first 2 maxima in the heating curve were attributed to the liberation of hygroscopic and combined H₂O. The 1st exothermal effect occurs at 800-1000° and is ascribed to the recrystn. of Al₂O₃ into the γ-modification or to the formation of a highly dispersed mullite, not detectable by ordinary microscopic methods. The 2nd exothermic effect occurs at 1200-1300° and is ascribed to recrystn. of mullite or formation of cristobalite from amorphous SiO₂, the product of kaolinite disscn. It is thought that the crystn. of 2 phases, mullite and cristobalite, may occur. H. R. Messmore																			
AVS-51A METALLURGICAL LITERATURE CLASSIFICATION																			
1000 1100 1200 1300 1400 1500 1600 1700 1800 1900										2000 2100 2200 2300 2400 2500 2600 2700 2800 2900									

FREBERG, A. K. and S. V. BABUS.

Vysokoogneupornye materialy. 2. izd. dopoln. Leningrad, Metallurgizdat, 1941.
269 p. diags.

Includes bibliographies.

High-refractory materials.

DLC: TN677.F7 1941

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953

Fréchet, M. Sur quelques idées modernes au sujet de la
des probabilités. Ann. Inst. Henri Poincaré
Nouv. Sér. 1 (1935) 127-177.
S. 127-177.

Fréchet, M. Sur quelques idées modernes au sujet de la

"APPROVED FOR RELEASE: 06/13/2000

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APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620001-4"

FRECHET, M.

SCIENCE

Periodical IZVESTIYA. Vol. 2, no. 2, 1957.

FRECHET, M. On the analytic functions of two complex variables which are para-analytic. In French. p. 3.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 3,
March, 1959, Unclassified

FREDLIN, L.Kh., doktor khim.nauk; SHARF, V.Z., inzh.; KHOL'MER, O.M., inzh.;
MALKINA, L.L.; LEBEDEV, I.M., inzh.

Preparation of guaiacol by the catalytic dehydration of a mixture
of pyrocatechol and methanol. Masl.-zhir.prom. 26 no.10:24-27 0
'60. (MIRA 13:10)

1. Institut organicheskoy khimii AN SSSR imeni N.D.Zelinskogo (for
Freydlin, Sharf). 2. Moskovskiy zavod "Slozhnyye efiry" (for
Khol'mer, Malkina, Lebedev).
(Guaiacol) (Pyrocatechol) (Methanol)

FREDOV, N. S.

Fredov, N. S. - "The process of wearing out of white-goods fabrics", Nauch.-issled. in-t khlopchatobumazh. prom-sti), Issue 2, 1949, p. 104-09.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

FREDOV, V.

Scientific and technical cooperation between the Soviet Union
and Hungary. Vnesh.torg 30 no.5:15-17 '60.

(MIRA 13:5)

(Russia--Relations (General) with Hungary)

(Hungary--Relations (General) with Russia)

FREDOV, V.N.

Fredov, V.; Zaitseva, A. "Increasing the Durability of Dies for Hot and Cold Stamping by Shot Peening." Tr. from the Russian. p. 45 (Strojirenstvi, Vol. 3, no. 1, Jan. 1953, Praha)

SO: Monthly List of East European Accessions, Vol. 3, no. 2, Library of Congress, Feb. 1954, Uncl.

Periodate method for quick determination of glycerol.
H. Grynberg and S. Predowicz. *Przemysł Rolny i Spóły.*
wyd. 8, 314-17 (1961) (English summary). — Dichromate and
periodate methods of the detn. of glycerol in soap lyes are
compared. Periodate methods are preferable because of
greater accuracy, simplicity, and inexpensive reagents.
W. Szybalski

FREDU, C. ; MOCANU, D.

Welding processes as currently used by Rumanian railroads. p. 593.

REVISTA CAILOR FERATE. (Caile Ferate Romine) Bucuresti, Rumania.
Vol. 6, no. 11, Nov. 1958.

Monthly List of East European Accessions (EEAI) IC, Vol. 8, no. 7, July 1959

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FREEMAN, M,

Nuclear fission or nuclear fusion are the great question marks of atomic power development. p. 519.

BANYASZATI LAPOK. (Magyar Banyaszati es Kohaszati Egyesulet) Budapest, Hungary,
Vol. 14, no. 8, Aug1 1959.

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FREEMAN, M.

Alexander von Humboldt (September 14, 1769-May 6, 1859). p. 538.

BANYASZATI, LAPOK. (Magyar Banyaszati es Kohaszati Egyesulet) Budapest, Hungary,
Vol. 14, no. 8, Aug. 1959.

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Uncl.

FREEMAN, M.

Yakut diamonds. p. 663.

BANYASZATI LAPOK. (Magyar Banaszati es Kohaszati Egyesulet) Budapest, Hungary.
Vol. 14, no. 10, Oct. 1959.

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Encl.

FREEMAN, Miklosne

Microbiology in the service of technical sciences. Bany lap 93
no.3:207,210 Mr '60.

FREEMAN, Miklosne

Miner manpower reserve problems and training of mining engineers in the
Anglo-Saxon world. Bany lap 93 no. 8:574-576 Ag'60.

FREEMAN, Miklosne

The European coal market in 1962/63 and its future prospects.
Bany lap 97 no.1:66-68 Ja'64.

LANTSOV, Vladimir Anatol'yevich; SEDLUKHA, Georgiy Andrianovich;
LEVCHENKO, Ya.V., inzh., red.; FREGER, D.P., red.; BOL'SHAKOV,
V.A., tekhn. red.

[Assembly of tower cranes in crowded conditions] Montazh bashen-
nykh kranov v stesnennykh usloviakh. Leningrad, 1961. 23 p.
(Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen pe-
redovym opytom. Seriya: Stroitel'naia promyshlennost', no.27)
(MIRA 16:2)

(Cranes, derricks, etc.)

GIRBASOVA, Ye.; FREGIER, L.

Compiling a norm reference book. Sots. trud 5 no.9:85-87 S '60.
(MIRA 13:10)
(Production standards)

SMIRNOV, A.; FREGER, L.

Comprehensive work organization in the construction of oil and
gas wells. Sots. trud 8 no.1:58-61 Ja '63. (MIRA 16:2)
(Wages--Petroleum engineering)

92-52-5-27/30

AUTHORS: Freger, L. A., and Smirnov, A. S., Staff Members of the Bureau of Norms

TITLE: Methods Used in Computing the Principal Technical and Economic Indices of Drilling Should be Uniform (Za yediniyu metodiku podscheta osnovnykh tekhniko-ekonomicheskikh pokazateley buvaniya)

PERIODICAL: Nedryanik, 1958,³ Nr. 5, p 30 (USSR)

ABSTRACT: The author refers to the letter of comrades Ummat and Shchit, published in the Nr 7, 1957, issue of Nedryanik, and he states that they were right to point out that there is no uniform method of determining commercial drilling speed, which is one of the most important indices of drilling. The records and accounts of drilling enterprises are not kept strictly in line with the regulations issued by the Central Statistical Administration in 1954. For example, petroleum enterprises in Stalingrad Oblast and in the Krasnodar and Turkmén regions continue to base their records on the daily report of the drilling foreman, as provided for in the instructions issued in 1941. On the other hand, some other petroleum enterprises keep their records in accordance with the instructions issued in 1954, which were later supplemented and changed. It is recognized, however, that the

Card 1/2

Methods Used in Computing (Cont.)

92-58-5-27/30

above-mentioned daily report is a basic document used by technical and planning departments. Furthermore, one of the above departments includes all the time spent for washing and percussion operations when calculating mechanical drilling speed, while the other department includes only a part of this time. The same thing may be said with regard to the distribution of time spent by drilling teams in different operations recorded by the planning and personnel departments. This is shown by the author in a table, which clearly illustrates the inconsistency in the time keeping records. The approved time keeping system used by all drilling enterprises does not clearly reflect the principal factors which characterize drilling operations. Therefore, in the opinion of the author, the proposal made in this connection by professor N. Shatsov should be studied and the time keeping system revised. There is 1 table.

ASSOCIATION: *Bydno normativov VNIITortekhniki* (Bureau of Norms of the VNIITortekhnika.)

1. Drilling operations--USSR

Card 2/2

FREGER, M. (Kiyev)

Axle for tuning block retarders. Radio no. 6:44 Je '55.
(MIRA 8:8)

(Radio--Apparatus and supplies)

BERENSHTEYN, A.V.; FREGER, S.V.

A new reagent to sodium. Pochvovedenie no.2:126-127 F '57.
(MLRA 10:5)

1. Ukrainskiy Dorozhno-Transportnyy nauchno-issledovatel'skiy
institut Kiyev.
(Sodium) (Naphthalenesulfonic acid)

BERNSHTEYN, A.V.; FREGIER, S.V.

Interaction processes caused by combined treatment of soils
with lime and bitumen. Avt.dor. 20 no.8:11-13 Ag '57.
(MIRA 12:4)

(Soil chemistry) (Soil mechanics) (Lime) (Bitumen)

YEGOROV, S.V.; BERNSTEYN, A.V.; FREGER, S.V.; BARZAM, V.I.

New cationic additive. Avt.dor. 22 no.6:12-13 Je '59.
(MIRA 12:9)

(Road materials) (Cations)

FOMICHEV, M., inzh.; TYUKHMENEV, Yu., inzh.; FREGER, Yu., inzh.

Electric temperature regulator for grain dryers. Muk.-elev.prom.
26 no.1:16-18 Ja '60. (MIRA 13:6)

1. Tsentral'noye konstruktorskoye byuro Elektroprirod Vsesoyuznogo
nauchno-issledovatel'skogo instituta elektromekhaniki (for Fomichev,
Tyukhmenev). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'sko-
khozyaystvennogo mashinostroyeniya (for Freger).
(Grain--Drying) (Temperature regulators)

FREGER, Yu., inzh.

Optimal vibration regimes for grain compaction. Muk.--elev. prom.
29 no.6:30-31 Je '63. (MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo
mashinostroyeniya.

(Grain--Transportation) (Vibrators)

FREGER, Yu.L., inzh.

Hydraulic resistance of a grain layer on a vibrating
surface. Trudy VISKHOMa no.44:33-46 '64.

(MIRA 18:11)

1ST AND 2ND GRIDS

PROCESSING AND PROPERTIES INDEX

7

CA

Detection of organic compounds by means of spot tests.
X. F. Felt and O. Reichen. *Microchemie* 18, 272 6
(1938); cf. C. A. 29, 63361. —Place a fragment of the
sample in a micro test tube and melt it together with a
little diphenylamine over a free flame. Take up the melt
in a drop of HCl; if aniline blue is formed, it is proof that
an nitrate was present. Carry out a blank test at the
same time. W. F. H.

3RD-5TH GRIDS

6TH-10TH GRIDS

11TH-15TH GRIDS

16TH-20TH GRIDS

21ST-25TH GRIDS

26TH-30TH GRIDS

31ST-35TH GRIDS

36TH-40TH GRIDS

41ST-45TH GRIDS

46TH-50TH GRIDS

51ST-55TH GRIDS

56TH-60TH GRIDS

61ST-65TH GRIDS

66TH-70TH GRIDS

71ST-75TH GRIDS

76TH-80TH GRIDS

81ST-85TH GRIDS

86TH-90TH GRIDS

91ST-95TH GRIDS

96TH-100TH GRIDS

101ST-105TH GRIDS

106TH-110TH GRIDS

111ST-115TH GRIDS

116TH-120TH GRIDS

121ST-125TH GRIDS

126TH-130TH GRIDS

131ST-135TH GRIDS

136TH-140TH GRIDS

141ST-145TH GRIDS

146TH-150TH GRIDS

151ST-155TH GRIDS

156TH-160TH GRIDS

161ST-165TH GRIDS

166TH-170TH GRIDS

171ST-175TH GRIDS

176TH-180TH GRIDS

181ST-185TH GRIDS

186TH-190TH GRIDS

191ST-195TH GRIDS

196TH-200TH GRIDS

201ST-205TH GRIDS

206TH-210TH GRIDS

211ST-215TH GRIDS

216TH-220TH GRIDS

221ST-225TH GRIDS

226TH-230TH GRIDS

231ST-235TH GRIDS

236TH-240TH GRIDS

241ST-245TH GRIDS

246TH-250TH GRIDS

251ST-255TH GRIDS

256TH-260TH GRIDS

261ST-265TH GRIDS

266TH-270TH GRIDS

271ST-275TH GRIDS

276TH-280TH GRIDS

281ST-285TH GRIDS

286TH-290TH GRIDS

291ST-295TH GRIDS

296TH-300TH GRIDS

301ST-305TH GRIDS

306TH-310TH GRIDS

311ST-315TH GRIDS

316TH-320TH GRIDS

321ST-325TH GRIDS

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331ST-335TH GRIDS

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361ST-365TH GRIDS

366TH-370TH GRIDS

371ST-375TH GRIDS

376TH-380TH GRIDS

381ST-385TH GRIDS

386TH-390TH GRIDS

391ST-395TH GRIDS

396TH-400TH GRIDS

401ST-405TH GRIDS

406TH-410TH GRIDS

411ST-415TH GRIDS

416TH-420TH GRIDS

421ST-425TH GRIDS

426TH-430TH GRIDS

431ST-435TH GRIDS

436TH-440TH GRIDS

441ST-445TH GRIDS

446TH-450TH GRIDS

451ST-455TH GRIDS

456TH-460TH GRIDS

461ST-465TH GRIDS

466TH-470TH GRIDS

471ST-475TH GRIDS

476TH-480TH GRIDS

481ST-485TH GRIDS

486TH-490TH GRIDS

491ST-495TH GRIDS

496TH-500TH GRIDS

501ST-505TH GRIDS

506TH-510TH GRIDS

511ST-515TH GRIDS

516TH-520TH GRIDS

521ST-525TH GRIDS

526TH-530TH GRIDS

531ST-535TH GRIDS

536TH-540TH GRIDS

541ST-545TH GRIDS

546TH-550TH GRIDS

551ST-555TH GRIDS

556TH-560TH GRIDS

561ST-565TH GRIDS

566TH-570TH GRIDS

571ST-575TH GRIDS

576TH-580TH GRIDS

581ST-585TH GRIDS

586TH-590TH GRIDS

591ST-595TH GRIDS

596TH-600TH GRIDS

601ST-605TH GRIDS

606TH-610TH GRIDS

611ST-615TH GRIDS

616TH-620TH GRIDS

621ST-625TH GRIDS

626TH-630TH GRIDS

631ST-635TH GRIDS

636TH-640TH GRIDS

641ST-645TH GRIDS

646TH-650TH GRIDS

651ST-655TH GRIDS

656TH-660TH GRIDS

661ST-665TH GRIDS

666TH-670TH GRIDS

671ST-675TH GRIDS

676TH-680TH GRIDS

681ST-685TH GRIDS

686TH-690TH GRIDS

691ST-695TH GRIDS

696TH-700TH GRIDS

701ST-705TH GRIDS

706TH-710TH GRIDS

711ST-715TH GRIDS

716TH-720TH GRIDS

721ST-725TH GRIDS

726TH-730TH GRIDS

731ST-735TH GRIDS

736TH-740TH GRIDS

741ST-745TH GRIDS

746TH-750TH GRIDS

751ST-755TH GRIDS

756TH-760TH GRIDS

761ST-765TH GRIDS

766TH-770TH GRIDS

771ST-775TH GRIDS

776TH-780TH GRIDS

781ST-785TH GRIDS

786TH-790TH GRIDS

791ST-795TH GRIDS

796TH-800TH GRIDS

801ST-805TH GRIDS

806TH-810TH GRIDS

811ST-815TH GRIDS

816TH-820TH GRIDS

821ST-825TH GRIDS

826TH-830TH GRIDS

831ST-835TH GRIDS

836TH-840TH GRIDS

841ST-845TH GRIDS

846TH-850TH GRIDS

851ST-855TH GRIDS

856TH-860TH GRIDS

861ST-865TH GRIDS

866TH-870TH GRIDS

871ST-875TH GRIDS

876TH-880TH GRIDS

881ST-885TH GRIDS

886TH-890TH GRIDS

891ST-895TH GRIDS

896TH-900TH GRIDS

901ST-905TH GRIDS

906TH-910TH GRIDS

911ST-915TH GRIDS

916TH-920TH GRIDS

921ST-925TH GRIDS

926TH-930TH GRIDS

931ST-935TH GRIDS

936TH-940TH GRIDS

941ST-945TH GRIDS

946TH-950TH GRIDS

951ST-955TH GRIDS

956TH-960TH GRIDS

961ST-965TH GRIDS

966TH-970TH GRIDS

971ST-975TH GRIDS

976TH-980TH GRIDS

981ST-985TH GRIDS

986TH-990TH GRIDS

991ST-995TH GRIDS

996TH-1000TH GRIDS

1001ST-1005TH GRIDS

1006TH-1010TH GRIDS

1011ST-1015TH GRIDS

1016TH-1020TH GRIDS

1021ST-1025TH GRIDS

1026TH-1030TH GRIDS

1031ST-1035TH GRIDS

1036TH-1040TH GRIDS

1041ST-1045TH GRIDS

1046TH-1050TH GRIDS

1051ST-1055TH GRIDS

1056TH-1060TH GRIDS

1061ST-1065TH GRIDS

1066TH-1070TH GRIDS

1071ST-1075TH GRIDS

1076TH-1080TH GRIDS

1081ST-1085TH GRIDS

1086TH-1090TH GRIDS

1091ST-1095TH GRIDS

1096TH-1100TH GRIDS

1101ST-1105TH GRIDS

1106TH-1110TH GRIDS

1111ST-1115TH GRIDS

1116TH-1120TH GRIDS

1121ST-1125TH GRIDS

1126TH-1130TH GRIDS

1131ST-1135TH GRIDS

1136TH-1140TH GRIDS

1141ST-1145TH GRIDS

1146TH-1150TH GRIDS

1151ST-1155TH GRIDS

1156TH-1160TH GRIDS

1161ST-1165TH GRIDS

1166TH-1170TH GRIDS

1ST AND 2ND COLUMNS										PROCESS AND PROPERTIES INDEX										3RD AND 4TH COLUMNS									
BC										Use of drop analysis for investigation of medicaments. II. New test for amines, with especial consideration of <i>p</i>-phenylmethanamines, and a new reaction for proteins. O. FARMER and L. GILDEMEYER (Mikrochim. Acta, 1937, 1, 338-353; cf. A., 1937, II, 476).—The formation of coloured Schiff's bases with furfuraldehyde (I) or <i>p</i>-NMe₂-C₆H₄-CHO (II) in glacial AcOH provides a micro-test for primary and sec. amines. (I) gives mainly red to violet, and (II) orange-yellow to red, products. Colours and limiting sensitivities for numerous amines are tabulated. NH₂-acids, but not <i>tert.</i> amines, also react. The tests can be used with advantage in detecting adulteration of drugs and remedies; an example in which the adulterant was <i>p</i>-C₆H₄(NH₂)₂ is quoted. Primary aromatic amines										can be detected by the formation of brown, red, or violet condensation products with a saturated AcOH solution of 5-nitroso-8-hydroxyquinoline or, with less sensitivity, with a 10% glacial AcOH solution of <i>p</i>-NMe₂-C₆H₄-NO. Condensed-ring systems such as C₁₀H₇NH₂ react best. Primary and sec. amines also yield coloured condensation products with a saturated solution of chloranil in dioxan; sensitivities and colours are tabulated. NH₂-acids and proteins do not react, but phenols interfere by giving red to violet colours. Free inorg. and org. bases must first be neutralized with AcOH. Aldehydes and carbohydrates are without effect. This test can be used on paper. (II) in glacial AcOH provides a test for proteins in presence of conc. HCl.									
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION										SIGN. SYMBOL																			
1ST AND 2ND COLUMNS										3RD AND 4TH COLUMNS																			

BC

A-3

Application of drop analysis to the investigation of medicinal poisons. IV. Detection of chloroform. G. S. Fung and K. Fung (Hankow, China). *Ann. Inst. Hyg. Nat. Hist.* 1934, 1, 1. The solution is heated with 2 drops of 20% NaOH and 1 drop of conc. HCl. After a few min. the solution is boiled (cooled) and then acidified with 20% HClO₄; the vapors evolved being tested for HCN. The test is also made with chloroform ether with Os(OAs)₄ + potassium acetate or with 2:7-diaminodiphenylamine.

J. W. S.

1ST AND 2ND DEGREE										3RD AND 4TH DEGREE									
PROCESSES AND PROPERTIES INDEX																			
BC										13									
Use of drop analysis for investigation of metallurgical processes. O. FARNHAM and K. FORT (Metallurgical Trans., 1952, 2, 1975-1980; cf. A., 1952, 11, 422). The "constant oil test" for aromatic amines is based on a color reaction by detecting by means of a spectrophotometer the H₂ liberated in the reaction of the test. Aromatic amines do not react. The test is used for investi- gation of amines with the formula R₂NH₂ (R = C₆H₅, in 50 c.c. of 50% H₂O₂ solution) evaporated in a spiral apparatus, and the vapour tested with paper moistened with alkaline phosphoric solution. The limiting procedure given for the different amines tested in this way vary from 10 to 40 µg. L.S.T.																			
A.S.B.-S.L. METALLURGICAL LITERATURE CLASSIFICATION																			
15000 57000.00										15000 57000.00									
15000 57000.00										15000 57000.00									
15000 57000.00										15000 57000.00									

1ST AND 4TH COLUMNS										PROCESSES AND PROPERTIES INDEX										2ND AND 3RD COLUMNS									
BC										Application of deep analysis to the investigation of medicinal materials. Selective test for ferrous acid. O. Schumann and K. Fünke (Mikrochem., 1934, 21, 233-237). This test, based on the reaction $\text{FeSO}_4 + \text{H}_2\text{O}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{Fe}_2(\text{SO}_4)_3 + 2\text{H}_2\text{O}$, permits the detection of 0.5 mg of FeSO_4. A few drops of solution are treated with aq. H_2O_2 until yellow in colour, and the solution is heated to boiling. The evolved gas is passed into saturated aq. $\text{Ba}(\text{OH})_2$ protected from CO_2 by a layer of paraffin. The small amounts of H_2O_2 and H_2SO_4 which also distil do not interfere with the test. L. S. T.										R-3									
ASTM-15A METALLURGICAL LITERATURE CLASSIFICATION										ASTM-15A METALLURGICAL LITERATURE CLASSIFICATION										ASTM-15A METALLURGICAL LITERATURE CLASSIFICATION									
1ST AND 4TH COLUMNS										2ND AND 3RD COLUMNS										3RD AND 6TH COLUMNS									
1ST AND 4TH COLUMNS										2ND AND 3RD COLUMNS										3RD AND 6TH COLUMNS									

COMMON VARIANTS MODE 1									
1ST AND 2ND GROUPS									
Ca Use of spot tests for the examination of pharmaceuticals. VII. Detection of polyhydric compounds. O. Fehden and K. Fürst. <i>Mikrochemia</i> 20, 30-8 (1939); cf. C. A. 35, 1877. Polyhydric alcs. react with excess HIO_4 to form HCO_2H, HCHO and HIO_4. The HCO_2H is easily oxidized to CO_2 by H_2, and the CO_2 can be detected by means of baryta water. The test was tried with glycerol, mannitol, d-glucose, levulose, arabinose, mannose, maltose, sucrose, milk sugar, dextrin, starch and mucic acid. With glycerol, mannose and maltose as little as 2.5 γ could be detected. The least sensitive test was obtained with starch which required 0.02 mg. to give the test. VIII. Detection of aldehyde with a permanent test paper. <i>Ibid.</i> 39-40.—To prep. the test paper, dissolve 0.8 g. of malachite green with 3 g. Na_2SO_3, add 3 g. more of the sulfite to the resulting soln. and filter. Dip strips of filter paper in the soln. and allow them to dry in the air without heating. In a closed case, the impregnated paper can be kept for several weeks. Malachite green is formed again when an aldehyde comes in contact with the paper. The soln. tested must be neutral and the test paper should be perfectly white before applying the test. Some 20 aldehydes were tested and 0.02-0.3 mg. could be detected. IX. Detection of free chlorine and substances containing chlorine. O. Fehden and Chen-Hua Huang. <i>Ibid.</i> 26, 41-3 (1939).—Prep. test paper by moistening filter paper with a soln. of 0.1 g. fluorescein and 0.5-0.8 g. KBr in 100 ml. of dil. KOH. If the pale yellow paper is held over the vapor to be tested, a violet-red color will be produced if free Cl_2 is present. As little as 4 γ of Cl_2 can be detected. The paper does not react appreciably with H_2O_2, HNO_3, HNO_2, per salts, chromates and permanganates. H_2O_2 and per salts give a slight coloration after some time. Chlorides treated with HNO_3 and H_2SO_4 will give the test. W. T. H.									
ASB-5LA METALLURGICAL LITERATURE 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000									

COMMON ELEMENTS																		COMMON EARTH METALS																		NON-FERROUS METALS																		FERROUS METALS																	
PROCESSES AND PROPERTIES INDEX																																																																							
BC A-1 Application of drop analysis to investigation of medicinal materials. IX. Detection of free chlorine and substances containing chlorine. O. FREUDEN and C. H. HUANG (Mikrochem., 1939, 26, 41—43).—Test paper is prepared by impregnation with a solution of fluorescein (0.1 g.) and KBr (0.5—0.8 g.) in dil. NaOH (100 c.c.). In presence of Cl₂, the bright yellow paper turns red owing to interaction of Br, liberated by the Cl₂, with fluorescein to form eosin. The test is invalid in presence of other halogens but other oxidizing agents generally give no results, thereby rendering the test preferable to that with starch-KI paper. Cl⁻ is detected after liberation of Cl with H₂SO₄ and MnO₂. J. W. S.																																																																							
ASS-SLA DETALLURGICAL LITERATURE CLASSIFICATION																																																																							
SECTION ONE																		SECTION TWO																		SECTION THREE																		SECTION FOUR																	
SUBJECT #1																		SUBJECT #2																		SUBJECT #3																		SUBJECT #4																	
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PREHDEN O

Analysis of technical nickel. O. Prehden and A. Schwartz. *Rev. chim. (Bucharest)* 3, 178-9 (1954).—A precise and rapid procedure for the detn. of Si, Cu, Pb, Fe, Mn, S, C, and O in Ni is described. The detn. of As and Sb is also indicated.

C7K
Y1

3
AEX
1-17-54 ID

FREHDE, O.

From the Activities of the ASIT (Association of Scientific Engineers and Technicians). Revista De Chimie (Journal of Chemistry), #1:56:Jan 55

FREHDEN, O.

Comparative Examination of the Titrometric "Dosage" of Sodium Sulfide.
Revista De Chimie (Journal of Chemistry), #1;48:Jan 55

FREHDEH, C.

Native Sulfur Analysis. Revista De Quimie (Journal of Chemistry),
#3:165:Mar 55

FREHDE, O.

Quick Method for Examining the Impermeability of Protective Linings of Vessels
Used in Chemical Industry. Revista De Chimie (Journal of Chemistry), #2:107:Feb 55

FRUITON, C.

IRUM .

V Volumetric determination of sodium sulfide. O. Freuden-
and A. Schwartz. *Rev. chim. (Bucharest)* 6, 48-5 (1955).
Several procedures listed in the literature were surveyed.
For the detn. of Na_2S in the presence of sulfamides or thio-
sulfate a new method was proposed: titrate 250 ml. of an
aq. soln. contg. 0.4 g. Na_2S (I) with an aq. soln. contg. in
500 ml.: 3.3497 g. Zn, 25 ml. concd. HCl and 100 ml.
 NH_4OH ; until a drop of I remains colorless on $\text{Pb}(\text{OAc})_2$
paper. Gerard Aufleger .

1/2 35

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Rumania/Analytical Chemistry - Analysis of Organic Substances, G-3

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1286

Author: Frehden, O., and Ecsichof, T.

Institution: None

Title: Chromatographic Separation of Acetaldehyde from Vinyl Acetate and Description of a Quick Method for Its Determination

Original

Periodical: Rev. chim., 1956, Vol 7, No 5, 304-308 (published in Rumanian with summaries in German and Russian)

Abstract: The separation of vinyl acetate (I) from acetaldehyde (II) is based on the precipitation of II with $\text{Na}_2\text{S}_2\text{O}_5$ (III) and the adsorption of the precipitate on the III. After purification the content of II in I is less than 0.1%. The apparatus consists of a vertical column packed with III, to the upper part of which is attached a spherical condenser, through which III is introduced from a separatory funnel. The lower end of the column is connected to a 2-necked receiver flask, to the second neck of which is connected a condenser which in turn is

Card 1/2

Rumania/Analytical Chemistry - Analysis of Organic Substances, G-3

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1286

Abstract: connected to the vacuum system. Cooling is applied in order to reduce losses of I through evaporation. An iodometric technique has been developed for the determination of II in I. A 1-5 ml sample of I (or a solution in CH_3OH or $\text{C}_2\text{H}_5\text{OH}$) containing less than 0.05 gms II is treated with 10 ml of a 1% solution of NaHSO_3 . After allowing to stand for 10 minutes with frequent stirring, the excess NaHSO_3 is titrated with 0.1 N solution of I_2 in the presence of starch as an indicator. A control experiment is run on 1% NaHSO_3 solution prepared from 5 gms $\text{Na}_2\text{S}_2\text{O}_5$, 950 ml water, and 5 ml $\text{C}_2\text{H}_5\text{OH}$.

Card 2/2

FREHDEN, O.

Category: Rumania/Analytical Chemistry - Analysis of organic substances.

G-3

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 31055

Author : Frehden O., Brincoveanu I.

Inst : not given

Title : Determination of Acetylene in Crude or in Distilled Acetaldehyde

Orig Pub: Rev. chem., 1956, 7 No 7, 433

Abstract: On interaction of acetylene with AgNO_3 in a neutral medium there is formed a complex salt $(\text{C}_2\text{H}_2\text{Ag})_2\text{AgNO}_3$ with liberation of the equivalent amount of HNO_3 , which can be titrated. Excess AgNO_3 interferes with the titration. It was found that under the above-stated conditions acetaldehyde does not reduce AgNO_3 , forms no precipitate with acetylene, and forms no complex with AgNO_3 with liberation of H^+ . On analysis in 50% aqueous acetone solution, into a ground-glass stoppered flask are placed several pieces of ice, 5 ml 5% solution of AgNO_3 and 10-20 g of aldehyde being analyzed; excess AgNO_3 is precipitated with saturated solution of NaCl . The HNO_3 formed is titrated with 0.1 N solution of NaOH in the presence of methyl red.

Card : 1/1

-2-

Frehden, O.

RUMANIA/Chemical Technology, Chemical Products and Their Application. Ceramics, Glass, Binders, Adhesives

H-7

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620001-4

Abs Jour : Referat Zhur - Khimiya, No 1, 1958, 2037

Author : Frehden O., Spirescu G., Iancu S.

Inst :

Title : New Glass Silvering Method.

Orig Pub : Ind. usoara, 1957, 4, No 5, 218-222

Abstract : Description of a new procedure for silvering glass spheres, toys and thermos containers, using a new reducing agent -- hydrazine hydrate. Silvering is effected in the cold, which simplifies considerably the operation procedure. Duration of the process is brief. The necessity of adding NaOH , NH_3 and other agents to the solution, is eliminated.

Card 1/1

FREHDEN, O.; SPIRESCU, G.; IANCU, S.

"Anew method for cold silvering of glass."

p. 218 (Industria Usora) Vol. 4, no. 5, May 1957
Bucharest, Rumania

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,
April 1958

FREHDEA, O.

Frehden, O.; Heller, S.

The calculation of indirect volumetric analyses with the help of nomograms.

P. 50 (REVISTA DE CHIMIE) (Bucuresti, Rumania) Vol. 7, No. 1, Jan. 1957

50: Monthly Index of East European Accessions (MEAI) LC Vol. 7, No. 5. 1958

RUMANIA/Analytic Chemistry. General Topics.

E

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 73655.

Author : Frehden, O.; Comu, Iuliana

Inst :

Title : Determination of Cu^+ in Presence of Cu^{2+} , H^+ , NH_4^+ and Various Unsaturated Organic Substances for Control of Catalyst Solutions at Vinylacetylene Production by Acetylene Dimerization.

Orig Pub: Rev. chim., 1957, 8, No 9, 600-604.

Abstract: The Cu^+ ion is titrated with a solution of a $\text{Fe}(3+)$ salt in the presence of sulfosalicylic acid.

Card. : 1/1

ROMANIA/Chemical Technology. Chemical Products
and Their Uses. Part I. Safety Techniques.
Sanitation. H

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 50792

Author : Frehden, O., Arsene, Alma
Inst : -
Title : New Measures for the Protection of Laborers Working with Hydrofluoric Acid.

Orig Pub : Rev. Chim., 1957, 6, No 12, 777-778

Abstract : As a prophylactic measure, when working with HF it is recommended to wash hands periodically with a solution of CaCl_2 . Also application of a Hgo in glycerine ointment is beneficial. Upon appearance of burns, the affected areas are washed

Card : 1/2

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ROMANIA/Chemical Technology. Chemical Products
and Their Uses. Part I. Safety Techniques.
Sanitation. H
APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000413620001-4

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 50792

with CaO and are smeared with HgO-glycerine and nitrofurane-glycerine ointments. In serious cases a 10 percent solution of Ca-gluconate is injected subcutaneously. --
E. Stefanovskiy

Card : 2/2

RUMANIA/Organic Chemistry. Synthetic Organic Chemistry G

Abs Jour: Ref Zhur - Khim., No. 4, 1959, 11791

4-CH₃CONHC₆H₄SO₂NHC(=NH)NH₂ (III) (yield, greater than 70%; melting point, 240-245°) is hydrolyzed by heating for 1.5 hours at 80° with 2% HCl in a molecular proportion, III: HCl=1:1.4; NaOH is added to the pH of 7 at 45°, and I is obtained; yield, 65-75% /recrystallized from water (1:20)_. --
V. Skorodumov

Card 2/2

5

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000413620001-4

CATEGORY : Chemical Technology. Chemical Processes. Their Uses. Part 3. Explosives. Pyrotechnical
ABS. JOUR. : RZKhim., No. 1 1960, No. 2350
AUTHOR : Prodan, O.; Ionescu, G.
TITLE : Method for Rapid Analysis of Nitrating Mixtures Under Industrial Conditions
ORIG. PUB. : Rev. chim., 1958, 9, No 6, 311-313
ABSTRACT : The method which is being proposed for the rapid analysis of nitrating mixtures (III) is based on the determination of H₂SO₄ (I) by means of titration with Pb(NO₃)₂ solution (II) in aqueous acetone medium in the presence of dithionite (III) as indicator. In aqueous acetone, the solubility of PbSO₄ is very small. The

*Compounds. Chemical Defense Agents

1/5

COUNTRY :
COUNTRY :

REF. JOUR. : RZKhim., No. 1 1960, No. 2350

AUTHOR :
TITLE :
TITLE :

ORIG. PUB. :

ABSTRACT : excess of II gives, with III, a red coloring.
COMMENT : Hereafter, the general acidity of IX is found
by titrating with alkali and, knowing the con-
tent of I, the content of HNO_3 (IV) is calcu-
lated. The exact weighed portion (~ 1 ml) of
NM, containing 16-50% HNO_3 and 45-80% H_2SO_4 ,
is diluted with water in a measuring flask up
to 200-250 ml. A part of this solution, con-
taining 0.2-0.4 meq of sulfate ion, is diluted

CARD:

2/5

H-76

COUNTRY :
CATEGORY :

REF. JOUR. : RZKhim., No. 1 1960, No. R350

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : with water up to 10 ml, then 2 drops of brom-
phenol blue (V) and diluted IV until the solu-
tion acquires a light-green color. 1 ml of 20%
CH₃COOH, 50 ml of acetone and 1 ml of 0.1% so-
lution of III are introduced, and titrated with
0.02 n. solution of II until a change of the
color of the solution from green to red. If the
analyzed sample contains chlorine and heavy
metals cooperating with III, they are first

Page: 3/5

IDENTITY :
IDENTITY :

ABS. SOUR. : SZKhin., No. 1 1960, No. 3350

ANALYSE :
INSTR. :
TITLE :

CHIM. REP. :

ABSTRACT : removed, for which purpose 10 drops of 0.1 n. AgNO_3 and ~3 ml of 10% $\text{Al}(\text{NO}_3)_3$ solution are added to the sample, then heated and the excess of AgNO_3 together with the rest of the heavy metals are precipitated. The solution is filtered and the filtrate is acidified with 2 n. solution of IV until it acquires a light-green color in the presence of V; then, 1 ml of 0.1% solution of III and 50-60 ml of acetone are

1/3

1-71

COUNTRY :
CATEGORY :

ABS. JOUR. : RZKhim., No. 1 1960, No. 2350

AUTHOR :
INVT. :
TITLE :

ORIG. PUB. :

ABSTRACT : added, and titrated with 0.02 n. solution of
cont'd II. The general acidity is determined in a se-
parate test by titration with 0.1 n. NaOH so-
lution in the presence of methyl orange. The
accuracy of determination of H_2SO_4 is ~0.5%
(with H_2SO_4 content of 80-45%).-- Ya. Katlic

CARD: 5/5

Country : Rumania E-3
Category= : Analytical Chemistry. Analysis of Organic
Substances.
Abs. Jour. : Ref. Zhur.-Khimiya No. 6, 1959 19175
Author : Frehden, O.; Beclereanu, M.
Institut. :
Title : Determination of Acetylene in Carbide.

Orig. Pub. : Rev. chim., 1958, 9, No 6, 333-334

Abstract : A rapid method has been worked out for the determination of acetylene (I) in carbide (II), which is based on absorption of I in an aqueous-acetone solution of AgNO_3 , with formation of C_2Ag_2 according to the reaction $\text{C}_2\text{H}_2 + 2\text{AgNO}_3 = \text{C}_2\text{Ag}_2 + 2\text{HNO}_3$, and titration of the thus liberated HNO_3 . Determination is carried out in a wide-neck round-bottom flask (RF) with a lateral outlet-tube extending into a tapered-bottom flask containing 100 ml of 10% solution of AgNO_3 , 10 ml acetone, and 2-3 drops of 0.1% alcohol solution of methyl red. If necessary, the solution is first neutralized. Water is poured into the RF, and into its neck

Card: 1/2

E-40

Country	: Rumania	
Category	:	F
Abs. Jour	:	45698
Author	: <u>Frehden, O.</u> and Heller, S.	
Institut.	: Not given	
Title	: P-T Diagrams and Nomograms as Simple Aids in Vacuum Distillation Under Laboratory Conditions	
Orig Pub.	: Rev Chim, 9, no 10, 528-530 (1958)	
Abstract	: The authors present diagrams and nomograms based on the Clausius-Clapeyron equation and on Trouton's law for use in vacuum distillation. The use of the diagrams and nomograms is explained and a sample calculation is included.	
	Authors' summary	

Card: 1/1

COUNTRY :Rumania
 CATEGORIES :Chemical Technology. Chemical Products and Their
 Applications--Cellulose and its derivatives. Paper.
 ABS. SOUR. : RZKhim., No. 21 1959, No. 76979
 AUTHOR :Frehden, O. and Nicolescu, Z.
 INST. :Not given
 TITLE :The Rapid Determination of Nitrogen in Nitrocellu-
 lose in Process Control Work Without the Use of a
 Nitrometer
 ORIG. PUB. :Rev Chim, 9, No 12, 668-689 (1958)
 ABSTRACT :A rapid and simple method for the determination of
 nitrate nitrogen in nitrocellulose is described,
 based on the saponification of the nitrocellulose,
 followed by reduction of the nitrate nitrogen in
 ammonia with subsequent removal of the NH₃ by
 distillation in an improved apparatus and titra-
 tion. A diagram of the apparatus is given.

CARD: 1/1

315

FREHDEN, O.; NICOLESCU, Z.

Rapid determination of nitrogen from nitrocellulose without the use of a nitrometer. p. 688.

REVISTA DE CHIMIE. (Ministerul Industriei Petrolului si Chimiei si Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania) Bucuresti, Rumania. Vol. 9, no. 12, Dec. 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 7, July, 1959.

Uncl.

FREHDEN, O.; LAZARESCU, Georgeta

Hydrazide of isonicotinic acid prepared through direct
condensation. Rev chimie Min petr 13 no.2:91-95 F '62.

FREHDEN, O.; LAZARESCU, Georgeta

Determining the normal paraffin content in kerosene used
as raw material in the manufacture of mersolats. Rev
chimie Min petr 13 no.8:491-493 Ag '62.

FREHDEN, O.; OVANEZIAN, Alice

Iron volumetric determination by selective reduction with silver
sponge. Rev chimie Min petr 13 no.5:298-301 My '62.

FREHDEH, O.

Calculation nomogram of concentration of oxygen traces in dosing
gases according to the chromoferrimetric method. Rev chimie Min
petr 14 no.3:186 Mr '63.

PREHDEN, O.; PETROCIANU, Suzana

Analysis of di- and monacetylsulfathiazole after the condensation phase and ammonolysis in manufacturing sulfathiazole. Rev chimie Min petr 15 no. 4:209-213 Ap '64.

L 31857-66

ACC NR: AP6021279

SOURCE CODE: RU/0003/65/016/001/0031/0034

AUTHOR: Frehden, O.--Freden, O.

ORG: none

TITLE: Contributions to the exact and rapid determination of sodium carbonate and hydroxide in caustic soda

SOURCE: Revista de chimie, v. 16, no. 1, 1965, 31-34

TOPIC TAGS: carbonate, sodium hydroxide

ABSTRACT: After discussing the common methods for the determination of sodium carbonate and sodium hydroxide in caustic soda, the author describes a simple method of applying correction formulae to the results calculated according to the classical Warder and Winkler methods, in order to obtain accurate results with these rapid techniques which are not otherwise of a high degree of accuracy. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 020

Card 1/1 J3

L 30768-66

ACC NR: AP6020255

SOURCE CODE: RU/0003/65/016/11-/0587/0590

AUTHOR: Frehden, O.; Petroianu, Susanna

ORG: none

TITLE: New method of manufacturing Karl Fischer reagent by means of molecular sieves

SOURCE: Revista de chimie, v. 16, no. 11-12, 1965, 587-590

TOPIC TAGS: methanol, pyridine, dehydration

ABSTRACT: After a discussion of the nature and operating principle of "molecular sieve" chemicals, the authors describe the use of such substances for the dehydration of the methanol and pyridine used in the preparation of Karl Fischer reagent. The method described allows the simple and rapid preparation of large quantities of the reagent starting with raw materials of technical grade. Orig. art. has: 1 figure and 3 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 001 / OTH REF: 007

Card 1/1 JS

LOUB, Josef; FREI, Vaclav, C.Sc.

Zinc tartrates. Chem zvesti 16 no.11:802-807 N '62.

1. Ustav anorganické chemie Karlovy university, Praha 2, Albertov 2030.

FREI, V.

Quantitative oxidation of some organic hydroxy acids and phenol by potassium permanganate at laboratory temperatures. Cesk. farm. 11 no.8: 397-399 0 '62.

1. Katedra anorganické chemie přírodovědecké fakulty Karlovy university, Praha.

(PHENOLS)	(POTASSIUM PERMANGANATE)	(OXIDATION-REDUCTION)
(SALICYLIC ACID)	(ACETATES)	(CITRATES) (MALATES) (LACTATES)

FRÉČKA, V.

Coordination compounds of organic oxo substances. Coll Cz chem
29 no.8:1948-1952 Ag '64

1. Institut für anorganische Chemie, Karlsuniversität, Prague.

FREI, V.

Polarimetric and spectrophotometric determining of the third and fourth dissociation constants of tartaric acid. Coll Cz chem 27 no.10:2450-2453 0 '62.

1. Institut fur anorganische Chemie, Karlsuniversitat, Prag.

2

ČÁSLAVSKÁ, V; FREI, V; BLAŽEK, A.

Czechoslovakia

Metallurgical Institute, Czechoslovak Academy of
Sciences -- Prague; Institute of Anorganic
Chemistry, Charles University -- Prague - (for all)

Prague, Collection of Czechoslovak Chemical
Communications, No 9, 1962, pp 2168-2174

"Essay on the Behavior of Iron (III)-Hydroxyde
under Higher Temperatures."

CASLAVSKA, V.; FREI, V.; BLAZEK, A.

Behavior of the iron (III)-hydroxide under higher temperature. Coll
Cz Chem 27 no.9:2168-2174 S '62.

1. Metallurgisches Institut, Tschechoslowakische Akademie der
Wissenschaften und Institut für anorganische Chemie, Karlsuniversität,
Prag.

FREI, Vaclav, C.Sc.; CASLAVSKA, Vera

Thermal behavior of the tartaric acid and alkaline tartrates. Chem
zvesti 16 no.11:794-801 N '62.

1. Ustav anorganické chemie Karlovy university, Praha 2, Albertov 2030
(for Frei). 2. Hutnický ústav, Československá akademie věd, Praha
9, Sokolovská 260 (for Caslavská).

S/181/63/005/003/046/046
B102/B180

AUTHORS: Frei, V. and Velitski, B.

TITLE: Comment on V. Ye. Khartsiyev's paper "Investigation of the energy band symmetry of CdSb and ZnSb-type crystals"

PERIODICAL: Fizika tverdogo tela, v. 5, no. 3, 1963, 962-963

TEXT: Khartsiyev's investigations (FTT, 4, 983, 1962) are discussed. Some critical remarks are made regarding the parallelism in spatial and energetic structure of CdSb- and diamond-type crystals, on which Khartsiyev's theory is based. The correspondence found between Ge and CdSb in particular, can only be the result of omissions. Some of Khartsiyev's conclusion as to space group correlations seem to be erroneous.

ASSOCIATION: Institut fiziki tverdogo tela Chekhoslovatskoy Akademii nauk Praga (Institute of Physics Solid State of the Czechoslovakian Academy of Sciences, Prague)

SUBMITTED: November 22, 1962
Card 1/1

VELICKY, B.; FREI, V.

The chemical bond in O_2 . Sb. Chekosl fiz zhurnal 13 no.8:
594-598 '63.

1. Ustav fyziky pevných látek, Československá akademie věd,
Praha.

CZECHOSLOVAKIA

FREI, V; BLAZEK, A; CASLAVSKA, V.

1. Chemical Institute of Charles University ; 2. Metallurgical
Institute of the Czechoslovak Academy of Sciences,
Prague (for all)

Prague, Collection of Czechoslovak Chemical Communications,
No 6, 1963, pp 1374-1382

"Behavior of Iron(III)-Arsenates at Higher Temperatures."

FREI, V.; CASLAVSKA, V.

Coordination compounds of organic oxo substances. Pt. 11.
Coll Cz Chem 29 no. 6:1413-1423 Je '64.

1. Institute of Inorganic Chemistry, Charles University, and
Institute of Metallurgy, Czechoslovak Academy of Sciences,
Prague.

FREI, V.; PODLAHOVA, J.; PODLAHA, J.

Dissociation constants of phosphoric acid and mobility of its anions. Chem Cz Chem 29 no.11:2587-2596 N '64.

1. Institut fur anorganische Chemie, Karlsuniversitat, Prague.

L 26786-65 EWT(1)/T/EEC(b)-2 IJP(c)
ACCESSION NR: AP5003756

Z/0055/65/015/001/0043/0058

AUTHOR: Frei, V.; Velicky, B.

TITLE: On the band structure of CdSb 27

SOURCE: Chekhoslovatskiy fizicheskiy zhurnal, v. 15, no. 1, 1965, 43-58

TOPIC TAGS: cadmium antimonide, group theory, band structure, spin orbit interaction, crystal symmetry 13

ABSTRACT: Making use of a standard group analysis made by V. E. Khartsiyev (Fiz. Tverdogo Tela v. 4, 1962, 993), which is supplemented by selection rules, the authors deal with two aspects of the band structure of CdSb. In the first part, only the symmetry properties and the existence of the gap are used to deduce the qualitative feature of the CdSb band scheme from the crystal structure, using group theory. The possible locations of the extrema limiting the gap are discussed, and a criterion for the conservation of the gap after switching off the spin-orbit interaction is deduced. It is noted that the conclusions that follow from symmetry only apply also to ZnSb, which has the same space group and

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ACCESSION NR: AP5003756

an analogous structure. In the second part, the authors propose a simple version of the ℓ -dependent pseudo-potential suitable for crystals with many atoms per unit cell, and calculate the corresponding structure of the energy levels in the Γ point. The energy spectrum in the center of the Brillouin zone is estimated by the pseudo-potential method. The results indicate that the initial free-electron approximation is reasonable, and supports the hypothesis that the gap arises even without account of the spin-orbit effects. "The authors thank B. Novak (Numerical Center of MFF KU), J. Nadrchal, Ct. Novak, and Mrs. K. Trnkova (UFPL CSAV) and J. Marek (VUHZ) for kind and constant help in programming and numerical computations." Orig. art. has: 7 figures, 6 formulas, and 8 tables.

ASSOCIATION: Institute of Solid State Physics, Czechoslovak Academy of Sciences, Prague

SUBMITTED: 00

ENCL: 00

SUB CODE: NP, SS

NR REF SOV: 002

OTHER: 016

Card 2/2

FREI, Vaclav, C.Sc.; LOUB, Josef, prom. chem.; CASLAVSKA, Vera, prom. chem.; MACH, Karel, prom. chem.

Study on the complexes of organic oxo compounds. Pt.18.
Chem zvesti 18 no.10:739-744 '64.

1. Institute of Inorganic Chemistry of the Faculty of Natural Sciences of Charles University, Prague 2, Albertov 2030 (for Frei and Loub). 2. Research Institute of High-Quality Steels, Prague 9, Sokolovska 260 (for Caslavská). 3. Institute of Physical Chemistry of the Czechoslovak Academy of Sciences, Prague 2, Machova 7.

FREI, V.; MACH, K.

Coordination compounds of organic oxo substances. Pt.13. Coll
Cz Chem 30 no.3:777-784 Mr '65.

1. Institut fur anorganische Chemie, Karlsuniversitat, Prague (for
Frei). 2. Institut fur physikalische Chemie, Tschechoslowakische
Akademie der Wissenschaften, Prague (for Mach). Submitted July
25, 1963.

FREI, V.

Coordination compounds of organic oxo substances. Pt.20.
Coll Cz Chem 30 no.5:1402-1415 My '65.

1. Institut für anorganische Chemie, Karlsuniversität, Brno.
Submitted May 18, 1964.

L 1375-66 EWP(j)/T/EWP(t)/EWP(b)/EWA(h) JD/RM
ACCESSION NR: AP5024531 4455

AUTHOR: Frei, V. (Frey, V.) (Candidate of sciences) (Prague); Loub, J. (Loub, Y.) (Graduate chemist) (Prague); Časlavská, V. (Časlavská, V.) (Graduate chemist) (Prague); Mach, K. (Mach, K.) (Graduate chemist) (Prague) CZ/0043/64/000/010/0739/0744 58 4455 B

TITLE: Study on complexes of organic oxygen compounds. XVIII. Microscopically crystallizing tartrates of heavy metals 1

SOURCE: Chemické zvesti, no. 10, 1964, 739-744

TOPIC TAGS: crystallization, single crystal, analytic chemistry, thermal analysis, x ray analysis, organosodium compound, spectroscopy, organomanganese compound 4455

ABSTRACT: Under investigation was the crystallization capacity of suitable heavy-metal tartrates, for the purpose of obtaining monocrystals suitable for x-ray structural analysis. Selected was $\text{Na}_5\text{Mn}(\text{C}_4\text{H}_2\text{O}_6)_2 \cdot 11\text{H}_2\text{O}$, and was then investigated by means of analytic pycnometric, x-ray, and thermal analyses, and absorption spectroscopy within the infra-red spectrum band. "We thank O. Jelinkova for carrying out the elementary organic analysis." 4455

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L 1375-66

ACCESSION NR: AP5024531

ASSOCIATION: Frei, Loub Ustav anorganicke chemie Prirodovedecke fakulty
Karlovy university, Prague (Institute of Inorganic Chemistry Faculty of Natural
Sciences, Charles University); Caslavsky Vyzkumny ustav uslechtilych oceli,
Prague (High-Quality Steel Research Institute); Mach Ustav fizikalni chemie
Ceskoslovenske akademie ved, Prague (Institute of Physical Chemistry, Czechoslovak
Academy of Sciences)

SUBMITTED: 19Jun64

NR REF SOV: 000

ENCL: 00

OTHER: 021

SUB CODE: SS, GC

JPRS

Card 2/2

FREIBERG, G.; SPRESLIS, A.

Valuable research on Latvian history; a book review. Vestis Latv
ak no.10:183-188 '59. (EEAI 9:10)
(Latvia--History) (Drizulis, Aleksandrs)

PUSCASU, Viorica, ing.; FREIBERG, Leo, ing.; SILISTEANU, Dan, ing.;
GAVRILA, T., ing.; CONSTANTINESCU, C., ing.

Opinions and suggestions. Constr Buc 15 no.728:3 21 D '63.

1. Seful serviciului mecanizare din Trustul Regional de Constructii de Locuinte, Dobrogea (for Puscasu). 2. Seful serviciului mecanic-sef din Trustul Regional de Constructii de Locuinte, Maramures (for Freiberg). 3. Seful serviciului mecanic-sef din Trustul de constructii-montaj no.1, Bucuresti (for Silisteanu). 4. Directorul Intreprinderii de constructii de locuinte, Bucuresti (for Gavrilă).

RINKIS, G.; FREIBERGA, G.

Colorimetric determination of humus. Izv.AN Latv.SSR no.1:
33-37 '64. (MIRA 17:4)

1. Latvijas PSR Zinatnu akademijas Biologijas instituts.

FREIDBERGER, R.

"Methods of Analysis and Evaluation of Final Balance Sheets of Power Resources". p. 87
(ENERGETIKA, Vol. 3, No. 3, March 1953, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions, LC, Vol. 3, No. 5, May 1954, Unclassified.

FREIBERGER, R. - Vol. 3, no. 10, Oct. 1953. SOCIALISTICKOU VEDU A TECHNIKU

Method of improving the standard of living. p. 409.

Role of the most important combustible gases in the national economy of Czechoslovakia. p. 411.

SO: Monthly list of East European Accessions, (EEAL), LC, Vol. 4, No. 9, Sept. 1955
Uncl.

FREIBERGER, R.

"Method for Determining Over-all Standards of Specific Fuel and Power Consumption." p. 97,
Praha, Vol. 4, no. 3, Mar. 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

FREIBERG, R.

FREIBERG R, R. The prospects of utilization of secondary power resources in
Czechoslovakia. p. 253.

Vol. 4, No. 6, June 1954
ZA SOCIALISTICKOU VEDU A TECHNIKU
TECHNOLOGY
Praha, Czechoslovakia

So: East European Accessions, Vol. 5, No. 5, May 1956

FREIBERGER, R.

For progressive, technically sound standards of fuel and power consumption. p. 261. Vol. 34, no. 10, Oct. 1954. PALIVA, Praha.

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3, March 1956.