

L 65057-65 EWT(m) DIAAP

ACCESSION NR: AP5016380

UR/0120/65/000/003/0056/0060
539.1.074.88

AUTHOR: Prokopets, G. A.; ^{44,55} Strizhak, V. I. _{44,55}

TITLE: Effective neutron spectrometer insensitive to gamma rays

SOURCE: Pribory i tekhnika eksperimenta, ^{19,44,55} no. 3, 1965, 56-60

25
B

TOPIC TAGS: neutron spectrometer 10

ABSTRACT: The development is reported of an effective scintillation fast-neutron spectrometer for a 0.6-10-Mev range. The spectrometer was tested with neutrons of $D(d,n)He^3$ and $T(d,n)He^4$ reactions; neutrons were recorded that emerged at 0° angle with respect to a bombarding beam of deuterons having an energy of 100 kev; also Po + Be neutron source was used for determining energy distribution of neutrons. The new spectrometer is used for measuring differential scattering cross-sections of neutrons; spectra of the neutrons scattered by nickel and iron are shown. Orig. art. has: 6 figures.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet (Kiev State University) _{44,55}

Card 1/2

L 65057-65

ACCESSION NR: AP5016380

SUBMITTED: 24Mar64

NO REF SOV: 008

ENCL: 00

OTHER: 009

○
SUB CODE: NP

M&R

PROKOPETS, M.M.; BRIZHENKO, E.S.

Effect of the chemical composition of crude on the yield and quality
of pyrolysis products. Neft. i gaz. prom. no. 2:54-57 Ap-Je '65.

(MIRA 18:6)

PROKOPETS, M.M.; ZELIZNYI, A.M.; POLATAYKO, R.I.

Extraction of aromatic hydrocarbons from a kerosine fraction of
Dolina petroleum using dimethylformamide. Izv. vys. ucheb. zav.;
neft' i gaz. 8 no.5:63-66 '65. (MIRA 18:7)

1. L'vovskiy politekhnicheskii institut.

TOLEKO, D.K.; PROKOPETS, M.M.

Self-oxidation of triisopropylbenzene. Dokl. LPI 5 no. 1/2.
34-36 '63. (MIRA 17:6)

PROKOPIEV, N.; ZAKHARIEV, T.

Determining the necessary number of time measurements by mathematics.
Trud tseni 4 no.3:34-41 '62.

PROKOPIJEVIC, Jovisa, inz.

Graphic method for the repartition of net income. Zeleznice Jug 17
no.11/12:1-6 '61.

PROKOPIK, Ivan, inz.

Carrier telephony system V 60 S. Cs spoje 7 no.6:11-13 Je
'62.

1. Sprava dálkových spoju, Praha.

SHLYKOV, A.T.; PROKOPISHIN, V.I.

Organization of pharmaceutical service for the rural population of Cherkassy Province. Aptech. delo 12 no.3:18-22 My-Je'63
(MIRA 17:2)

PROKOPOV, I., polkovnik

Our "katiusha." Starsh.-serzh. no.11:11 O[i.e. N] '61.
(MIRA 15:2)
(Rockets (Ordnance)) (World War, 1939-1945)

NIKOLAI, Yevgeniy Leopol'dovich; PROKOPOV, V.K.; SNITKO, I.K.,
redaktor; AKHLAMOV, S.N., ~~tekhnicheskiy~~ redaktor.

[Writings on mechanics; with a supplemental essay by V.K.
Prokopov on the life and work of E.L. Nikolai] Trudy po
mekhanike s prilozheniem ocherka V.K. Prokopova o zhizni i
deiatel'nosti E.L. Nikolai. Moskva, Gos.izd-vo tekhniko-
teoret. lit-ry, 1955. 583 p. (MLHA 8:10)
(Mechanics) (Nikolai, Evgenii Leopol'dovich, 1880-1950)

8144⁸

SOV/35-59-8-6252

3. 1560

Translation from: Referativnyy zhurnal, Astronomiya i Geodeziya, 1959,
Nr 8, p 22

AUTHOR: Prokof'yeva, V.V.

TITLE: The Photoelectric Observations of the Eclipsing [✓] Variable 441
Boo in the Infra-Red Portion of the Spectrum

PERIODICAL: Astron. tsirkulyar, 1958, May 26, Nr 192, pp 25 - 26

ABSTRACT: The photoelectric observations of 441 Boo (variable of the
W UMa type) were carried out in the summer of 1956 with a
500-mm meniscus telescope of the Crimean Observatory. Seventy-
six observations were made during nine nights. The luminosity
curves were obtained in three wavelengths (λ 7700, 8200,
9400), as well as the normal color curve CI-7700/9400. The
difference of the depths of the minima is the same for all
and is equal to $0^m.035$. The difference of the heights of maxima
for λ 7700 is equal to $0^m.035$ and for λ 9400 is equal to $0^m.015$.

Card 1/2

81148

SOV/35-59-8-6252

The Photoelectric Observations of the Eclipsing Variable 441 Boo in the Infra-Red Portion of the Spectrum

A table of color indices is given. The luminosity curves change rapidly in the infrared portion of the spectrum. The statistical study showed that an increase of luminosity at λ 7700 corresponds to a decrease of luminosity at λ 9400. The mean period is equal to $0^d.26780928$.

N.P. Kukarkina

Card 2/2

S/131/60/000/06/06/012
B015/B007

AUTHORS: Goncharov, V. V., Prokof'yeva, Ye. A. ✓
TITLE: Mullitization of a High-alumina Refractory Material
PERIODICAL: Ogneupory, 1960, No. 6, pp. 266-269

TEXT: For the purpose of determining the phase transformations of a high-alumina natural raw material under the action of high temperatures, Novoselitsa kaolin НК(NK), Arkalyk rock АП(AP), Khizovarskiy cyanite concentrate ХКК(KhKK), and Aktash diaspore concentrate АДК(ADK) were investigated. The chemical compositions of these substances were analyzed by L. D. Demidova (Table 1). Their qualitative mineralogical composition may be seen from Table 2. The quantitative determination of the phase composition by the method of the systematic chemical analysis by V. V. Goncharov is given in Tables 3 and 4, in which connection also P. P. Budnikov is mentioned (Ref. 1). Table 5 gives the degree of mullitization of the investigated raw material at 1,600°C. In conclusion, it was found that the phase composition stability of the sintered products necessary for production may be attained by short burning at

Card 1/2

Mullitization of a High-alumina Refractory
Material

S/131/60/000/06/06/012
B015/B007

1,600°C. Materials of the types Novoselitsa kaolin and Arkalyk rock, which are characterized by very intense mullitization, are a valuable aluminiferous component of charges for the production of high-alumina refractories. There are 5 tables.

ASSOCIATION: Vsesoyuznyy institut ogneuporov
(All-Union Institute of Fireproof Materials)

Card 2/2

ca

22

Utilizing the waste from the manufacture of acetic acid. N. A. Telezhkin and Yu. N. Prokopenko. *Leokhimicheskaya Prom.* 3, No. 5-6, 49-51 (1944). --"Okshar" or CaSO₄ obtained as a by-product in the extrn. of AcOH from Ca acetate is composed of CaSO₄ (anhyd.) 50-60, H₂O 15-40, H₂SO₄ 0.2-1.2, AcOH traces to 1.5, Ca acetate traces to 1.5, tar 4-10 and (Fe, Al oxides 0.5-0.7%. On baking, this product loses all H₂O at 170°, while heating above this temp. causes self-ignition, because of the presence of tar. "Oksharil," or the above product which has been heated to 180°, is a cement of the compn.: gypsum (anhyd.) 80-91, tarry substances 2.3, mineral admixts. 1-1.5, acids 0.4 and H₂O 5.8%. It has good setting properties alone or in admixt. with sand. The addn. of CaO lowers its strength and increases the vol. It is a good building material. A. A. Boettingk

ASME-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Manufacture of acetate solvents and means for their development. Yu. T. Prokopenko. *Leskhim. Prom.* 4, No. 2, 25-7(1935).—A discussion on the prepn. of ethyl and butyl acetates as practiced in the Dmitrievskii Wood Chemistry plant is presented and recommendations for the improvement of the methods are made. A. A. B. 5

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AS.A.S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

E-27

Dr. Als.

Principle stages in the history of indium in the earth's crust. N. M. Zee-
kopsnap (Compt. rend. Acad. Sci. U. S. S., 1941, 31, ~~88~~ 903-906).--The geochemical
history of In may be reduced to the stages: magmatic, pegmatitic, pneumatolytic,
contact, hydrothermal, and hypogene. In is not typical of the magmatic stage,
and occurs largely disseminated. It occurs only in small concns. in pegmatites and
pneumatolytic deposits. The skarn deposits (contact type) of the U. S. S. R. often
contain reasonable concns. of In. It occurs in the largest concn. in hydrothermal
deposits (e.g., Sn and W minerals). It seldom accumulates in the hypogene stage
in large amounts.

85590

S/048/60/024/007/024/032/XX
B019/B056

24.6600
AUTHORS:

Nemets, O. F. and Prokopets, G. A.

TITLE:

The Spin of the Mg^{24} Level With an Excitation Energy of 1.38 Mev

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 869-871

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. By a detailed study of the angular distribution of the inelastically scattered deuterons and protons, the authors attempted to determine the spin of the 1.38-Mev level of Mg^{24} . The measurements were carried out in an angular interval of from 2.5° to 140° . The angular intervals in the case of small angles were 2.5° , and in the case of large angles 5° . The statistical error in the determination of the relative cross sections in the case of large angles was 15%, and in the case of small angles 25%. As a target an Mg-foil with a thickness of 1.4 mg/cm² was used. In Fig. 1, the angular distribution of the inelastically scattered deuterons is shown.

Card 1/3

65590

The Spin of the Mg^{24} Level With an
Excitation Energy of 1.38 Mev

S/048/60/024/007/024/032/XX
B019/B056

Curve 1 shows the measured values obtained by the authors, curve 2 is the curve theoretically calculated (direct interaction) by Huby and Newns (Ref. 13), and curve 3 shows the angular distribution calculated by Mullin and Guth (Ref. 7). The authors show the peak at 20° to be in agreement with the theory by V. I. Mamasakhlisov and T. I. Kopaleyshvili (Ref. 14), and relate it with the general properties of the Mg^{24} nuclei. The best agreements between theory and experiment are obtained for curve 2 in the case of an interaction radius $a = 6.3 \cdot 10^{-13}$ cm and for curve 3 with $a = 15.8 \cdot 10^{-13}$ cm. The theoretical peak at a scattering angle of 20° with $a = 7 \cdot 10^{-13}$ cm agrees with the experiment. From the results obtained, the authors draw the conclusion that in the inelastic scattering of 13.6 Mev deuterons the direct interaction predominates. Further, they conclude that the given Mg^{24} level possesses the quantum characteristic of 2^+ . From the angular distribution of the inelastically scattered protons shown in Fig. 2, the authors draw the conclusion that the scattering in medium and large angles takes place via the formation of a compound nucleus. The best agreement between theoretical and experimental results is obtained by assuming an electric interaction ($a = 24.7 \cdot 10^{-13}$ cm). There are 2 figures

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85590

The Spin of the Mg^{24} Level With an
Excitation Energy of 1.38 Mev

S/048/60/024/007/024/032/XX
B019/B056

and 15 references: 2 Soviet and 13 US.

ASSOCIATION: Institut fiziki Akademii nauk USSR (Institute of Physics of
the Academy of Sciences, UkrSSR)

X

Card 3/3

The mechanism of high-temperature hydrogenation of aromatic hydrocarbons. VI. Isomerization of hydrides of anthracene and phenanthrene in the presence of anhydrous aluminum chloride and at high-temperature hydrogenation. R. I. Prokopets and S. M. Boguslavskaya. *J. Applied Chem. (U. S. S. R.)* 11, 1471-4 (in French, 1474); *Foreign Petroleum Tech. J.* 7, 100-70 (1930); cf. *C. I.* 33, 1717. The previously obtained liquid perhydroanthracene (freed from solid perhydroanthracene by cooling to -8 to -10°) (43 g.) and 10 g formula $C_{12}H_{18}$ (methylcyclohexane or dimethylcyclopentane) and bicyclic naphthenes $C_{12}H_{18}$, apparently a mixt. of bicyclohexyl and its isomerization products, was observed. The hydrogenation catalyst accelerated the hydrogenation of $C_{12}H_{18}$ and promoted the establishment of an equil. between all substances present under given thermodynamical conditions. **IX. Isomerization of cyclohexane and methylcyclopentane in high-temperature hydrogenation.** E. I. Prokopets and A. N. Filaretov. *J. Applied Chem. (U. S. S. R.)* 11, 1031-5 (in French, 1035); *Foreign Petroleum Tech. J.* 7, 100-204 (1930). The isomerization of cyclohexane (at 500°) in the presence of Mo sulfide-Co sulfide yielded methylcyclopentane and under the same conditions the methylcyclopentane was partially transformed into cyclohexane. The methylation of $C_{12}H_{18}$ (cyclohexane or methylcyclopentane) to $C_{12}H_{16}$ (methylcyclohexane or dimethylcyclopentane) was also observed (especially at 450°). The Mo sulfide-Co sulfide catalyst was more active as the hydrogenation and isomerization catalyst than the MoS_3 catalyst. A. A. P.

and G. M. Boguslavskaya. *J. Applied Chem. (U. S. S. R.)* 11, 1133-80 (in French, 1136); *Foreign Petroleum Tech. J.* 7, 177-80 (1930). The treatment of $C_{12}H_{18}$ in the presence of kaolin impregnated with MoS_3 (90% of active substance) at 450-550 under 200 atm. pressure (molar ratio of $C_{12}H_{18}$, H_2 = 1:17), with a velocity of $C_{12}H_{18}$ introduction of 12 g./hr. and that of H_2 , 177 l./hr., yielded a product contg. cyclohexane, cyclopentane, methylcyclopentane, isohexane and isopentane. **VIII. Condensation of cyclohexane in the high-temperature hydrogenation of benzene.** E. I. Prokopets, A. N. Filaretov and V. A. Pychko. *J. Applied Chem. (U. S. S. R.)* 11, 1026-31 (in French, 1031) (1930); *Foreign Petroleum Tech. J.* 7, 187-97 (1930). The previously described method was used. The hydrogenation of C_6H_6 in the presence of the Mo sulfide-Co sulfide-kaolin catalyst yielded a product after fractionating of which the fraction b above 82° was analyzed. The amt. of this fraction increased with an increase of the partial pressure of C_6H_6 and decrease of the temp. of hydrogenation. The presence of naphthenes of the

SEE OTHER PAGE

Mo sulfide (I) were treated at an initial H pressure of 98.1 atm. at 380° in a rotating autoclave for 1 hr., yielding upon cooling to -8° perhydroanthracene, m. 91.5°. Heating the liquid perhydroanthracene (8 g.) with 3 g. of anhyd. AlCl₃ for 15 min. in a water bath also yielded a perhydroanthracene m. 91.2°. The treatment of 42.5 g. perhydrophenanthrene in the presence of 10 g. of I under an initial H pressure of 100 atm. at 380° for 1 hr. yielded perhydroanthracene m. 90.1°. Heating of 16 g. of perhydrophenanthrene (freed from perhydroanthracene) with 1 g. of anhyd. AlCl₃ also yielded perhydroanthracene m. 90.2°. In both cases no reaction was observed in the absence of I. The treatment of the perhydroanthracene m. 91.2° (50 g.) in the presence and absence of I under the same conditions yielded a liquid product identical with perhydrophenanthrene. The presence of I catalyzed the process. The treatment of perhydroanthracene m. 90° with anhyd. AlCl₃ in a water bath yielded a liquid product, probably a mixt. of perhydrophenanthrene and liquid perhydroanthracene. VII. The composition of the product of high-temperature hydrogenation of benzene. E. I. Prokopets, A. N. Filaretov

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

10

Reaction between dihydroanthracene and benzoquinone.
 E. I. Prokopets and A. V. Pavlenko. *J. Gen. Chem.*
 (U.S. S. R.) 9, 1408-9(1939).—Fries, Schilling and Litt-
 mann (*C. A.* 26, 5044) proposed a method for the detn. of
 anthracene (I) in the presence of dihydroanthracene (II)
 in xylene based on the quant. sepn. of I by benzoquinone
 (III) as the insol. anthracenebenzoquinone (IV) and the
 inability of II to react with III (cf. Clar, *C. A.* 25, 5159).
 It was found that the method is impractical because of
 the following reactions: (1) III is reduced by II to hydro-
 quinone which reacts with excess III to form quinhydrone;
 (2) I, formed in the oxidation of II, reacts with III to
 give IV; (3) quinhydrone, forming an equil. system with
 III and hydroquinone, is decompd. by I with the formation
 of IV and hydroquinone.
 Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND POLYMERIZATION

10

Destructive hydrogenation of octahydroanthracene and phenanthrene. K. J. Prokopenko, *J. Applied Chem.* (U. S. S. R.) 10, 129-30 (1937).—Destructive hydrogenation of the above substances was carried out at 485-507° at a H₂ pressure (total) of 100 atm. during 1.5 hrs. (after an induction period of 1 hr.). The treatment of the octahydroanthracene (I) (100 g.) yielded 25 g. of a liquid substance, d₄²⁰ 0.8320, which was fractionated at 100-250° into 8 fractions, whose d₄ were found to be similar to those of the C₁₄H₂ homologs. In the fractions b, 130-50° and 150-80° were identified PhMe, *m*- and *p*-C₁₁H₇Me, and in the fraction b, 210-30° naphthalene. Treatment of octahydrophenanthrene (II) yielded the same substances, but the amt. of *m*-substituted C₁₄H₂ was larger than that of *p*-compd., whereas in the treatment of I the reverse was true. *β*-Me-C₁₁H₇ was treated in the same autoclave at 385° at a H₂ pressure of 100-90 atm. for 60 min. in the presence of 4 g. of MoO₃ catalyst, yielding 2-methyl-5,6,7,8-tetrahydronaphthalene (III) as the main product. The latter was again treated at 400-5° and a max. pressure of 270 atm. for 30 min., yielding the same substances as obtained in the treatment of I. Therefore, the scheme of the destructive hydrogenation of the above compounds is: I or II → III → *m*- and *p*-C₁₁H₇Me. Six references.

A. A. Podolskiy

METALLURGICAL LITERATURE CLASSIFICATION

E2

PROCESSES AND PROPERTIES MOSE

21

ca

Hydrogenation of the individual components of coke tar by means of hydrogen and coke-oven gas. E. J. Prokops and I. I. Kru. *Destruktivnyi Hidrogenirovaniye* (Tolun 1, 276 85(1814); *Chem. Zentr.* 1936, II, 3881; cf. C. A. 26, 5301. —With the use of MoS₂ as a catalyst, S-contg. naphthalene can be hydrogenated almost quantitatively to tetralin at 300-90° and 100 atms. initial pressure. The tech. types of naphthalene can be readily liquefied. H₂ can be replaced by coke-oven gas. The Cr-Ni-steel equipment must be previously prepd. and checked by some preliminary expts. in the presence of MoS₂ and at best with the addn. of S or the introduction of H₂S. The activity of the MoS₂ is increased by the addn. of S; half the MoS₂ can be replaced by S. The use of very large amts. of MoS₂ (10%) results in the formation of large amts. of low-boiling products. M. G. Moore

A S B - S L A METALLURGICAL LITERATURE CLASSIFICATION

REGD. 604172

151 AND 150 CODES

NEMETS, O.F.; PROKOPETS, G.A.

Energy level spin of Mg^{24} with an excitation energy of 1.38 Mev.
Izv. AN SSSR Ser. fiz. 24 no.7:869-871 J1 '60. (MIRA 13:7)

1. Institut fiziki Akademii nauk USSR.
(Magnesium--Isotopes)

NEMETS, O.F.; PROKOPETS, G.A.

Inelastic scattering of protons and deuterons by Mg^{24} .
Zhur.eksp.i teor.fiz. 38 no.3:693-696 Mr '60.
(MIRA 13:7)

1. Institut fiziki Akademii nauk USSR.
(Protons--Scattering) (Deuterons--Scattering)

5/139/65/000/001/020/027
R032/E314

AUTHORS: Prokopets, G.A., Strizhak, V.I. and Chesnokova, V.D.

TITLE: Use of a photomultiplier space charge for neutron measurements on a γ -ray background

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no. 1, 1963, 131 - 136

TEXT: A scintillation spectrometer is described which may be used to determine neutron spectra in the presence of a γ -ray background. The principle of the device is based on the fact that the decay time of scintillations due to neutrons (recoiled protons) and γ -rays differs by a factor of 2. Discrimination against the shorter γ -ray pulses is achieved by means of an arrangement similar to that described by Owen (Comptes Rendus du Colloque Internationale sur l'electronique nucléaire, Paris, 1, 27, 1958). In this method the space charge between the last dynodes of the photomultiplier is used to separate pulses of different lengths. A block diagram of the spectrometer is shown in Fig. 7. The $\Phi\gamma$ (FEU)-11 photomultiplier gives a linear output corresponding to the combined energy spectrum of neutrons and

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S/159/63/000/001/020/027
E032/E514

Use of a photomultiplier

γ -rays. The output of the FEU-33 photomultiplier, which is subjected to the space-charge discrimination circuit, is fed into a discriminator which is used to cut off the γ -ray pulses but leads through the neutron pulses. The latter are fed into a gating circuit which controls the kicksorter which accepts pulses from the FEU-11. The phosphor is a 30 x 20 mm stilbene crystal. The spectrometer is practically insensitive to γ -rays and its efficiency at 2 and 10 MeV is 30 and 0.6%, respectively. Spectra obtained for a Po-Be neutron source show that the apparatus has a good resolution and yields results comparable with those available in the literature. There are 8 figures.

ASSOCIATION: Kiyevskiy gosuniversitet imeni T.G. Shevchenko
(Kiyev State University imeni T.G. Shevchenko)

SUBMITTED: October 28, 1961 (initially)
April 12, 1962 (after revision)

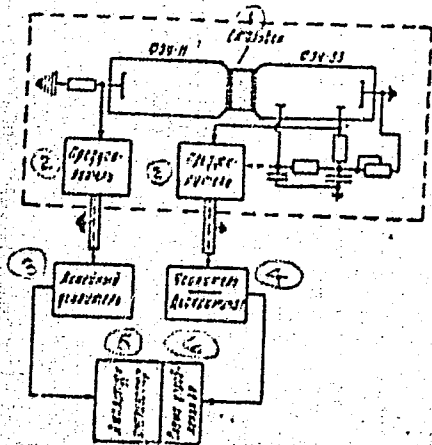
Card 2/3

Use of a photomultiplier

S/159/65/000/001/020/027
E032/E314

Fig. 7:

- 1 - Stäbchen
- 2 - Preamplifier
- 3 - Linear amplifier
- 4 - Discriminator
- 5 - Kicksorter
- 6 - Gating circuit



Card 3/3

FRUKOPETS, I.I., Cand Bio Sci -- (diss) "Physiological analysis of an
experimental cataleptoid state brought on by the method of sound ^{stimulation}
Mos, 1958. 16 pp (Mos Order of Lenin and Order of Labor Red Banner State
U in N.V. Lomonosov, Biological-Soil Faculty), 110 copies (UL, 43-58, 125)

PROKOPITS, I.M., (Moskva)

Experimental cataleptoid state [with summary in English]. Pat.
fiziol. i eksp.terap. 2 no.4:29-33 J1-Ag '58 (MIRA 11:12)

1. Iz laboratorii patofiziologii (zav. - doktor biologicheskikh
nauk L.V. Krushinskiy) kafedry vysshey nervnoy deyatel'nosti
(zav. - prof. L.G. Voronin) Moskovskogo gosudarstvennogo universiteta
imeni M.V. Lomonosova.

(CATALEPSY, exper.

induced by sound stimulation in rats (Rus))

PROKOPETS, I.M.

Experimental study of the protective and restorative role of
a cataleptoid state. Nauch.dokl.vys.shkoly;biol.nauki no.3:
84-89 '58. (MIRA 11:12)

1. Predstavlena laboratoriyey patofiziologii kafedry vysshey
nervnoy deyatel'nosti Moskovskogo gosudarstvennogo universiteta
imeni M.V.Lomonosova.

(CATALEPSY)

L 40985-65 ENT(m)/EPF(c)/EPR/EMP(j)/I Pc-4/Pr-4/Ps-4 RPL WJ/JW/RE/RH
ACCESSION NR: AR5005641 S/0081/64/006/022/P013/P013

SOURCE: Ref. zh. Khimiya, Abs. 22P87

AUTHOR: Prokopets, M.M.

TITLE: Selecting a method for the pyrolysis of kerosene fractions in order to obtain olefinic hydrocarbons

CITED SOURCE: Sb. nauchn. rabot aspirantov L'vovsk. politekhn. in-ta, no. 2, 1963, 232-236

TOPIC TAGS: kerosene pyrolysis, steam pyrolysis, olefin synthesis, ethylene production, petroleum refining ||

TRANSLATION: When the pyrolysis of the 210-315C kerosene fraction of Dolinskoye petroleum was carried out with the aid of steam. it was found that this method has the

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ACCESSION NR: AR5605641

convenient regulation of the time for which the vapors of raw material remain in the reaction zone, thus decreasing the secondary reactions. A. Nagatkina

ENCL: 00

SUB CODE: FP, OC

Card 2/2

ZELIZNYY, A.M.; PROKOPETS, M.M.; CHERNYAVSKAYA, A.D.

Role of paraffin hydrocarbons as anti-solvents in the reaction of alkyl benzenes with dimethyl formamide in the extraction process. Izv. vys. ucheb. zav.; neft' i gaz 7 no.8:59-61 1964.
(MIRA 17:10)

L'vovskiy politekhnicheskij institut.

PROKOPETS, M.M.; GRIVENKO, B.S.

Composition of the liquid cracking products of a deaerated
kerosine fraction. Neft. i gaz. prom. no.3:52-53 JI-5 '64.
(MIRA 17:12)

L 8764-65 EFP(m)/EFP(c)/EWP(j) Ps-4/Pr-4/Fa-4 SSD/AEDC(b)/AFWL/ESD(133)/
RAEM(1)/ESD(t)/ASD(a)-5 RM

ACCESSION NR: AP4045841

S/0152/64/000/003/0057/0061

AUTHOR: Zeliznyy, A. M., Prokopets, M.M., Chernyavskaya, A.P. 5

TITLE: 1. The role of paraffin hydrocarbons as antisolvents in the interaction of alkylbenzenes with dimethylformamide (DMF) during the extraction process. 2. Spectroscopic study of the three-component system: DMF - alkylbenzenes - n-paraffin hydrocarbons

SOURCE: IVUZ. Neft' i gaz, no. 8, 1964, 57-61

TOPIC TAGS: alkylbenzene, paraffin hydrocarbon, dimethylformamide, antisolvent, petroleum refining, extraction, spectroscopy

ABSTRACT: This paper is a continuation of work carried out by the authors on mutual solubility in the binary systems of DMF-aromatic hydrocarbons and DMF-n-paraffin hydrocarbons. Using spectroscopic methods, two series of experiments were carried

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ACCESSION NR: AP4045841

shift toward higher frequencies. The effect of the molecular weight of the hydrocarbons on the frequency shift is noted. In the second series of experiments, the decrease in frequency in the extract phase with increasing molecular weight of the n-paraffin

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L 8764-65
ACCESSION NR: AP4045841

ASSOCIATION: L'vovskiy politekhnicheskij institut (L'vov Polytechnical Institute)

SUBMITTED: 13Sep63

ENCL: 00

SUB CODE: FP

NO REF SOV: 001

OTHER: 005

APPROVED FOR RELEASE: 07/13/2001

CIA-RDP86-00513R001343220006-0"

Card 3/3

ZELIZNYY, A.M.; PROKOPETS, M.M.; CHEMYAVSKAYA, A.P.

Role of paraffin hydrocarbons as antisolvents in the
reaction of alkyl benzenes with dimethylformamide. Izv.
vys.ucheb.zav.:neft' i gaz 7 no. 1:47-51 '64. (MIRA 17:7)

1. L'vovskiy politekhnicheskii institut.

L 17695-63 EWP(j)/EPF(c)/EWT(m)/BDS Pc-l/Pr-l RM/WW/AB

68

ACCESSION NR: AP3004247

S/0152/63/000/006/0061/0064

67

AUTHORS: Zeliznyy, A. M.; Prokopets, M. M.; Chernyavskaya, A. P.;
Polatayko, R. I.

TITLE: Reaction of n-paraffinic and monocyclic aromatic hydro-
carbons with dimethyl formamide in the extraction process ¶

SOURCE: ¹ IVUZ. Neft' i gaz, no. ¹ 6, 1963, 61-64

TOPIC TAGS: paraffin, aromatic, hydrocarbon, monocyclic aromatic
hydrocarbon, dimethyl formamide, acidity, spectroscopy, infrared
spectroscopy

ABSTRACT: Authors studied the solubility of n-paraffinic hydro-
carbons from C₆ to C₁₈ with dimethyl formamide. Dimethyl formamide
was used as a model solvent for study of interaction between hydro-
carbons and extractant. The infrared spectra of dimethyl formamide
and solutions of it in hydrocarbons were obtained for the carbonyl
range with an IKS-12 instrument equipped with a sodium chloride
prism. Normal paraffinic hydrocarbons do not shift the character-
istic frequency of the carbonyl group. In the series benzene to

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L 17695-53

ACCESSION NR: AP3004247

butylbenzene, the shift to lower frequency is greatest for benzene (1706 to 1682 reciprocal cm.) and decreases by an average of 4.5 reciprocal cm. for each additional methylene group in the side chain. In the series benzene to pseudocumene, the shift decreases by 5 reciprocal cm. for each additional methyl substituent on the ring. These shifts parallel the acidic properties of the hydrocarbons. The solubility in dimethyl formamide of the normal hydrocarbons with 6 to 16 carbon atoms, was studied. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: L'vovskiy politekhnicheskij institut (Lvov Polytechnical Institute)

SUBMITTED: 29Jan63

DATE ACQ: 21Aug63

ENCL: 00

SUB CODE: FL, CH

NO REF SOV: 003

OTHER: 003

Card 2/2

PROKOPETS, M.M.; ZELIZNIY, A.M.

Studying the properties of dimethylformamide as a selective solvent of aromatic hydrocarbons. Izv. vys. ucheb. zav.; neft' i gaz 5 no.7:51-56 '62. (MIRA 16:7)

1. L'vovskiy politekhnicheskii institut.
(Hydrocarbons) (Formamide)

AGROSKIN, I.I.; PROKOPETS, M.M.; POPOV, S.N.

Dewaxing filter stock of the refined Surakhany oil in a naphta solution with an aluminum stearate additive. Izv. vys. ucheb. zav.;
neft' i gaz 4 no.6:73-80 '61. (MIRA 15:1)

1. L'vovskiy politekhnicheskiy institut.
(Apsheron Peninsula--Paraffins)

S/152/62/000/007/001/002
B126/B144

AUTHORS: Prokopets, M. M., Zeliznyy, A. M.

TITLE: Investigation of the properties of dimethyl formamide
as selective solvent of aromatic hydrocarbons

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, no. 7,
1962, 51-56

TEXT: The purpose of the investigation was to ascertain whether dimethyl formamide could be put to practical use in extracting aromatic hydrocarbons from gasoline-kerosine fractions. The tests were made with benzene, toluene, the three xylenes, ethyl benzene, mesitylene, and pseudocumene. The aromatics were dissolved in n-paraffins which had the same number of carbon atoms respectively, from C₆ to C₉. The extraction tests showed that the solubility of n-paraffins and aromatics in dimethyl formamide decreases as their molecular weight increases. The selectivity of dimethyl formamide increases with the higher molecular weight of aromatic hydrocarbons and remains insignificant in respect of isomers. The

Gard 1/2

Investigation of the properties ...

S/152/62/000/007/001/002
B126/B144

extraction in one stage of aromatic hydrocarbons from kerosine 210-305°C using dimethyl formamide at the ratio kerosine : dimethyl formamide 1 : 0.5 yielded 8% by volume of aromatic hydrocarbons of a purity of 99.8%. The alkyl aryl sulfonates of sodium obtained from the sulfonic acids of kerosine treated with dimethyl formamide had better properties than those produced from kerosine treated with sulfuric acid. In view of its efficient selectivity dimethyl formamide can be used to obtain raw material for the production of surface-active agents. There are 4 figures and 3 tables. ✓

ASSOCIATION: L'vovskiy politekhnicheskii institut (L'vov Polytechnic Institute)

SUBMITTED: February 27, 1962

Card 2/2

L 15065-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EWP(k)/EWA(h) Pf-l/Peb ASD(f)-2/
 AFMDC/AFTC(p) EM
 ACCESSION NR: AP4048856 S/0170/64/000/011/0090/0093

AUTHORS: Khristichenko, P. I.; Prokopets, S. I.

TITLE: Nonstationary temperature field of a nonclosed cylindrical shell 2/6 6

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 11, 1964, 90-93

TOPIC TAGS: cylindrical shell, temperature field, thermal stress

ABSTRACT: The authors treat the problem of solving

$$\frac{\partial t}{\partial Fo} = \frac{\partial^2 t}{\partial r^2} + \frac{1}{r} \frac{\partial t}{\partial r} + \frac{v^2}{r^2} \frac{\partial^2 t}{\partial \varphi^2}; \quad (1)$$

subject to $t(r, \varphi, Fo) = t^0(r, \varphi); \quad (2)$

$$\frac{\partial t}{\partial r} + Bi_1 [t_1(\varphi, Fo) - t] = J, \quad r = 1; \quad (3)$$

$$\frac{\partial t}{\partial r} - Bi_2 [t_2(\varphi, Fo) - t] = 0, \quad r = \delta;$$

$$t(r, 0, Fo) = f_1(r, Fo), \quad t(r, \varphi_0, Fo) = f_2(r, Fo) \quad (4)$$

Card 1/2

L 15065-65

ACCESSION NR: AP4048856

by the method of finite integral transforms, using asymptotic methods to get quick approximations of certain coefficients. Orig. art. has: 19 formulas.

ASSOCIATION: Gosudarstvennyy universitet im. I. I. Mechnikova, g. Odessa (Odessa State University)

SUBMITTED: 29Oct63

ENCL: 00

SUB CODE: TD, MA

NO REF SOV: .003

OTHER: 001

Card 2/2

ZEL'VENSKIY, Ya.D.; NEDUMOVA, Ye.S.; PROKOPETS, V.Ye.

Production of hydrogen sulfide by the catalytic hydrogenation of
sulfur. Khim. prom. no. 2:77-84 F '61. (MIRA 14:4)
(Hydrogen sulfide) (Sulfur)

KATAL'NIKOV, S.G.; REVIN, V.A.; ANDREYEV, B.M.; PROKOPETS, V.Ye.

Determination of height, equivalent to the theoretical plate in
countercurrent ion exchange. Zhur. prikl. khim. 34 no. 12:2669-2674
D '61. (MIRA 15:1)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.
Mendeleeva.

(Ion exchange)

KATAL'NIKOV, S.G.; PROKOPETS, V.Ye.

Effect of temperature on the ion exchange equilibrium of
lithium and ammonium. *Izv.vys.ucheb.zav; khim.i khim.tekh.*
4 no.5:772-774 '61. (MIRA 14:11)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleeva,
kafedra tekhnologii razdeleniya i primeneniya izotopov.
(Lithium) (Ammonium compounds)
(Ion exchange)

PECKCFETS, YE. I.

"The Reaction Between Dihydroanthracene and Benzouinone", Zhur. Oshch. Khim., 9,
No. 16, 1939. Khar'kov Coal-Chemistry (Uglekhimicheskiy) Institute. Received
8 February 1939.

Report U-1614, 3 Jan 1952.

PROKOPETS, YE.I.: PAVLENKO, A. V.

"The Reaction Between Dihydroanthracene and Benzoquinone", Zhur. Obshch. Khim.,
9, No. 16, 1939. Khar'kov Coal-Chemistry (Uglekhimicheskiy) Institute.
Received 8 February 1939.

Report U-1614, 3 Jan 1952.

PROCESSES AND PROPERTIES -0077

18

CA

Some properties of molybdenum-sulfur catalysts. E. I. Prokopetz and I. I. Eru. *Khim. Trestogo Toplika 6*, 67-73 (1955). - With MoS catalysts used in hydrogenation, MoS₂ is easily decompl. at elevated temps. in contact with metallic walls of the reaction vessels, although on introducing elementary S the activity of MoS₂ or MoS can be temporarily restored. The addn. of a Ni oxide to MoS₂ catalyst retards the poisoning of the mixt. by prolonging the activity of Ni oxide. H₂S could not be found in gases obtained in hydrogenation, but a cooled hydrogenated gas had the typical H₂S odor. A. A. B.

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

MATERIALS NOTE

OPEN

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

MATERIALS NOTE

OPEN

1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX 1-3

BC

Common Elements

INTERNAL MODE

430.554 METALLURGICAL LITERATURE CLASSIFICATION

120000 121000 122000 123000 124000 125000 126000 127000 128000 129000 130000 131000 132000 133000 134000 135000 136000 137000 138000 139000 140000 141000 142000 143000 144000 145000 146000 147000 148000 149000 150000 151000 152000 153000 154000 155000 156000 157000 158000 159000 160000 161000 162000 163000 164000 165000 166000 167000 168000 169000 170000 171000 172000 173000 174000 175000 176000 177000 178000 179000 180000 181000 182000 183000 184000 185000 186000 187000 188000 189000 190000 191000 192000 193000 194000 195000 196000 197000 198000 199000 200000 201000 202000 203000 204000 205000 206000 207000 208000 209000 210000 211000 212000 213000 214000 215000 216000 217000 218000 219000 220000 221000 222000 223000 224000 225000 226000 227000 228000 229000 230000 231000 232000 233000 234000 235000 236000 237000 238000 239000 240000 241000 242000 243000 244000 245000 246000 247000 248000 249000 250000 251000 252000 253000 254000 255000 256000 257000 258000 259000 260000 261000 262000 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978000 979000 980000 981000 982000 983000 984000 985000 986000 987000 988000 989000 990000 991000 992000 993000 994000 995000 996000 997000 998000 999000 1000000

Action of osmium on decahydronaphthalene.
E. J. Pagnanum (J. Appl. Chem. Russ., 1935, 8, 1214-1215).—When *cis-trans*-decahydronaphthalene is shaken with 20% osmium, only the *cis*-isomeride is oxidized, leaving the pure *trans*-isomeride. R. T.

hydrogenation of crude naphthalene by means of coke-oven gas. B. I. Prokopenko and A. V. Pavlenko. *Coke and Chem. (U.S.S.R.)* 4, No. 7, 58-61 (1964); *Chimie Industrielle* 33, 589; cf. C. I. 29, 1961. By treating C₁₀H₈ with coke-oven gas in the presence of MoS₂, it can be converted entirely into tetralin when the H₂ concn. of the gas is 58%. The rate of hydrogenation increases with

temp., the optimum temp. is about 420°, above which a higher concn. in H₂ is essential. Increase in the quantity of catalyst can compensate the effect of temp. and of duration of reaction without decreasing the yield; this is due to increase in the contact surface. The initial pressure i.e., the concn. of H₂, also plays an important part, increasing the speed of the reaction in accordance with the law of mass action. The optimum pressure of coke-oven gas is 250-60 atm., the initial pressure being 120 atm.

A; Papineau-Couture

ASAC 51.1 METALLURGICAL LITERATURE CLASSIFICATION

Ca

21

Hydrogenating naphthalene. E. I. Prokopets and I. I. Eru. Destruction Hydrogenation of Fuels, O. N. T. I. Goshimikhindat (Leningrad) 1, 275-85(1934); cf. C. A. 28, 7480.—Naphthalene hydrogenated in the presence of MoS₂ catalyst at an initial H pressure of 100 atm. and a temp. of 380-390° yields almost 100% of tetralin. The autoclave to be used in the process should be of Cr-Ni steel, and should first be treated with the catalyst, S or H₂S. The activity of the catalyst depends upon the method of its prep. Good results were obtained with a catalyst prep. as follows: Colloidal MoS₂ was pptd. by the action of H₂S on an ammoniacal soln. of Mo salt; the thio-salt was decompd. with H₂SO₄. The product was filtered, washed and dried *in vacuo* at 60°. The addn. of elementary S to the catalyst improves its activity to a considerable extent and 80% of the catalyst can be replaced by elementary S without affecting its activity. The use of more than 10% of the catalyst changes the type of the products obtained, causing mainly a higher yield of low-boiling products. A. A. B.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	CLASS	SECTION	SUBSECTION	DETAILS
1	2	3	4	5

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

107 AND 108 ORDERS

PROCESSES AND PROPERTIES INDEX

21

LA

The mechanism of hydrogenation of naphthalene at high temperatures and pressures. E. I. Prokhorov. *J. Appl. Phys. Chem. (U. S. S. R.)* 7, 150 (1953). Naphthalene can be hydrogenated to decalin via tetralin at temps. up to 400°, and H₂ pressures of 200 atm. The decalin is further transformed under the above conditions (320-335°) to 6-member naphthene hydrocarbons with condensed rings. Temps. of hydrogenation above 300-70° cause cracking of the decalin and the formation of single-ring naphthenes. All the reactions, such as the original formation of decalin, its isomerization and finally its decomposition take place at lower temps. than for tetralin. A. A. B.

MATERIALS INDEX

ASD-31A METALLURGICAL LITERATURE CLASSIFICATION

GROUPS

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

21

no

Berginisation of naphthalene. R. I. Proskovitz and I. I. Bru. *Coke and Chem. (U. S. S. R.)* 1952, No. 1, 35-44; *Chem. Zentr.* 1954, I, 1500; cf. C. A. 20, 5301; 28, 7490; 29, 1961. —Naphthalene on berginisation in the presence of MoS₂ under avoidance of splitting, is transformed to tetralin and other hydrogenated naphthalenes. Sublimed pure naphthalene is transformed at temp. below 400° to 90% tetralin. NiH₂ reduces the action of MoS₂ somewhat. Crude naphthalene from solvent naphtha in the presence of MoS₂ can easily be transformed to liquid hydrogenated products. The crude naphthalene from heavy oil can be liquefied satisfactorily at a somewhat higher temp. or higher amt. of catalyst (5% MoS₂ or 2.5% MoS₂ + 2.5% S). A H₂ concn. of 62% is sufficient for high-pressure hydrogenation. The wall of the container must be coated with an FeS

layer. This is secured by a previous treatment with H₂S. Use of V2A steel also gives good results.
C. B. Jenni

ASST. S. A. METALLURGICAL LITERATURE CLASSIFICATION

1954-1955

1956-1957

1958-1959

1960-1961

1962-1963

1964-1965

1966-1967

1968-1969

1970-1971

1972-1973

1974-1975

1976-1977

1978-1979

1980-1981

1982-1983

1984-1985

1986-1987

1988-1989

1990-1991

1992-1993

1994-1995

1996-1997

1998-1999

2000-2001

2002-2003

2004-2005

2006-2007

2008-2009

2010-2011

2012-2013

2014-2015

2016-2017

2018-2019

2020-2021

to

2/

Hydrogenation of coal tar produced by low-temperature carbonization. N. A. ORLOV, E. I. P'ROKOROV AND I. I. ERU. *Khimiya Tverdogo Topliva* 2, No. 1, 6-16 (1931).—Tar obtained in a Fischer retort from Livichanskii long-flame coal had d 1.048, 6.4% benzene-insol. substances, 12% H₂O, 18% oil b. below 230°, and 47.4% b. above 230°. The fraction b. from 230° up to the beginning of coke formation, of d 1.0188, and contg. paraffin 2.55, phenols 50.9 and S 1.00%, was hydrogenated in a rotating autoclave in charges of 140-255 g. The catalysts, pptd. on pumice stone, were Zn molybdate, NH₄ vanadate, NH₄ tungstate, U oxide, NH₄ molybdate + Cr₂O₃, Zn molybdate + Ag₂O, NH₄ molybdate and MnO₂ + CoO. The temp. was 450-60°, duration 3-6 hrs., initial H₂ pressure 60-90 atm., final H₂ pressure 44-75 atm., max. H₂ pressure 190-220 atm., yield of liquid products + H₂O 77-85.2%, sp. gr. of anhydrous product 0.8744-0.9816, phenols traces to 34.6%, H₂O formed during reaction 2.7-8.8%. S present in the tar considerably augments the activity of Mo catalysts. Hydrogenation of narrow cuts of the above tar are reported in detail. A considerable amt. of cycloparaffins was obtained. W, V, U, Zn, Al₂O₃, CuO and FeO catalysts have a very low activity.

A. A. BORHLINGK

ASB. S. L. A. METALLURGICAL LITERATURE CLASSIFICATION

REG. NO. 517-82329

INDEXED / REF. ONLY / CRI

ABSTRACTED

EDITION / NUMBER

ISSUED / ON / ONE / DAY

BC

a.3

Destructive hydrogenation of octahydro-anthracene and -phenanthrene. E. I. BAKOEV (J. Appl. Chem. Russ., 1937, 10, 128-130).—The products of hydrogenation (485-490°/100 atm.) of octahydro-anthracene (I) or -phenanthrene (II) or 7-methyl-1:2:3:4-tetrahydronaphthalene (III) are *m*- and *p*-xylene. The reaction is believed to consist of (I) or (II) → (III) → *m*- and *p*-xylene. R. T.

A 18-33A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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BC

a 3

High-temperature hydrogenation of aromatic hydrocarbons. VIII. Condensation of cyclohexane in the process of hydrogenation of benzene. E. J. FROKOPITS, A. N. FILAROV, and V. A. PITSKHO. IX. Isomerization of cyclohexane and methylcyclopentane. E. J. FROKOPITS and A. N. FILAROV (*J. Appl. Chem. Russ.*, 1938, 11, 1628-1631, 1631-1635). VIII. The yield of products of b.p. > 60° obtained by hydrogenation of C₆H₆ (MoS₂-Co catalyst) falls as the temp. is raised from 270° to 300°. These products are probably methylcyclohexane or dimethylcyclopentane, and di-cyclohexyl derivatives.

IX. The change cyclohexane → methylcyclopentane is activated by MoS₂-Co hydrogenation catalyst, which also catalyzes the reaction of methylation of cyclic hydrocarbons.

R. T.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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PROCESSED AND PREPARED BY THE NATIONAL BUREAU OF STANDARDS

A-3

Mechanism of high-temperature hydrogenation of aromatic hydrocarbons. I. Anthracene and phenanthrene hydrides. II. Catalytic hydrides of anthracene, and their formation. E. I. PROKOPITS. III. Composition of the liquid product formed together with symmetrical octahydroanthracene, and the isomerization of the latter. E. I. PROKOPITS, A. V. PAVLENKO, and S. M. BOGUSLAVSKAYA. IV. Mutual transformations of anthracene catalytic hydrides. V. Composition of liquid perhydroanthracene. E. I. PROKOPITS and S. M. BOGUSLAVSKAYA (J. Appl. Chem. Russ., 1936, 11, 822-824, 836-839, 846-848, 847-849, 850-852).—I. The products of hydrogenation (160–180 atm.; MoS₂ catalyst) of anthracene (I) are 9:10-di- (II), 1:2:3:4-tetra- (III), 9-octa- (IV), and perhydroanthracene (V) (solid and liquid); the amount of H₂ combining rises as the temp. is raised from 200° to 480°. Under analogous conditions phenanthrene (VI) yields 1:2:3:4-tetra-, 1:2:3:4:5:6:7:8-octa- (VII), and perhydrophenanthrene (VIII); dihydrophenanthrene is not obtained. The temp. at which max. yields of any desired hydride are obtained are determined, and the prep. of the pure hydrides is described.

II. (IV), as obtained by low-temp. (250–265°) hydrogenation of (I), (II), or (III), is contaminated with acetylatedanthracene (=benzo-1:2:3:4:5:8:9:10-octahydrophenanthrene) (IX), m.p. 63.5°, oxidized by KMnO₄ to *o*-C₆H₄(CO₂H)₂.

III. The liquid product of catalytic hydrogenation of (I) at 350° consists of solid and liquid (V), (IV), (IX), and (VII). (IV) undergoes transformation into (VII) in presence, but not in absence, of MoS₂.

IV. The reaction (IV) ⇌ (IX) is demonstrated at 235°, in presence of MoS₂.

V. Liquid (V) is dehydrogenated (Ni-Al catalyst) to a mixture of (I) and (VI). It is hence concluded that (VIII) is a product of high-temp. hydrogenation of (I). R. T.

A13-55A METALLURGICAL LITERATURE CLASSIFICATION

A13-55A METALLURGICAL LITERATURE CLASSIFICATION										A13-55A METALLURGICAL LITERATURE CLASSIFICATION									
A13-55A METALLURGICAL LITERATURE CLASSIFICATION										A13-55A METALLURGICAL LITERATURE CLASSIFICATION									

PROCESSES AND PROPERTIES INDEX

a-3

32

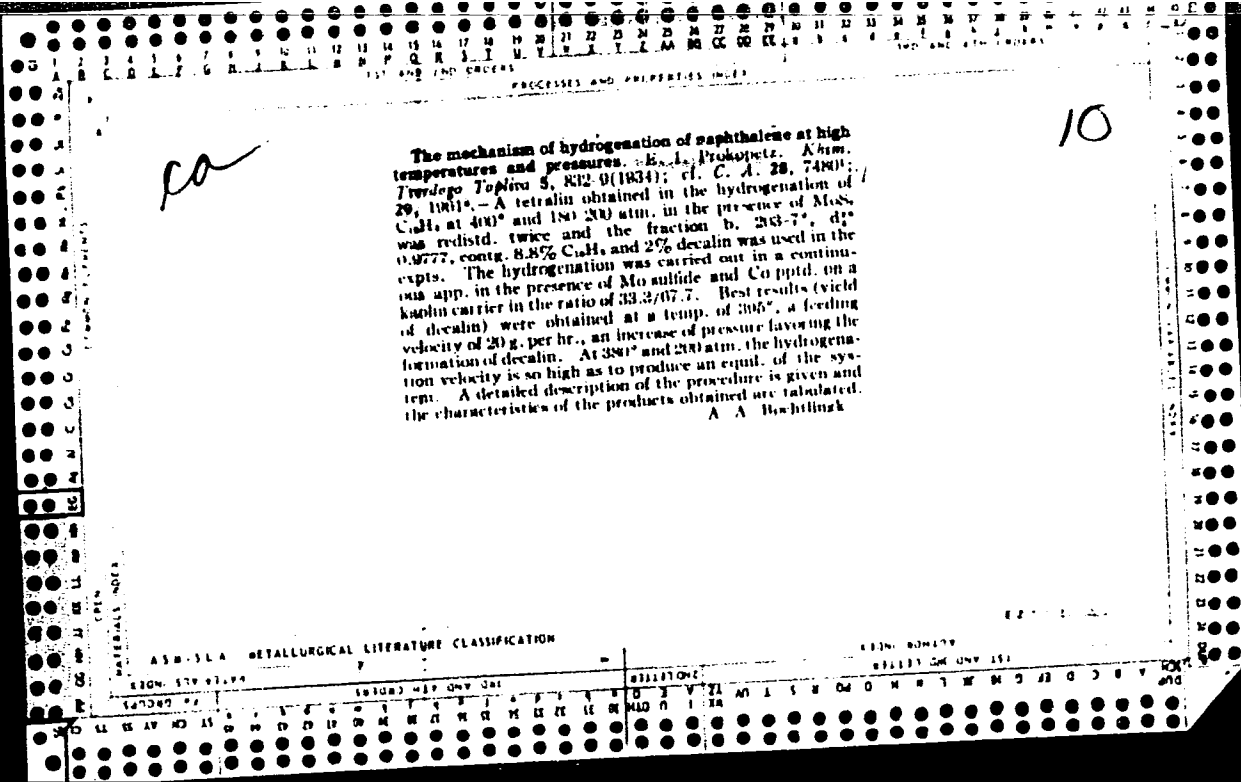
Mechanism of high-temperature hydrogenation of aromatic hydrocarbons. VI. Isomerization of anthracene and phenanthrene perhydrides under conditions of high-temperature hydrogenation, and in presence of anhydrous aluminum chloride. K. I. PROKOPOVA. VII. Product of high-temperature hydrogenation of benzene. B. I. PROKOPOVA, A. M. FILAROV, and S. M. BOGOMOLOVA. *J. Appl. Chem. Russ.*, 1958, 11, 1471-1474, 1476-1480.—VI. Liquid perhydroanthracene and phenanthrene are converted into solid perhydroanthracene, m.p. 90-90.5°, by hydrogenation at 300°/100 atm. (MoS₂ catalyst), or by heating with AlCl₃; the processes are reversible.

VII. Hydrogenation of C₁₂H₈ at 400°/200 atm. (1:1 MoS₂-kaolin catalyst) gives cyclohexane and pentane, methylcyclopentane, iso-pentane and hexane. R. T.

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

C-2

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

B I 2

Mechanism of hydrogenation of naphthalene at high temperatures and pressures. E. J. PROKOPETZ
J. Appl. Chem. Russ., 1934, 7, 158-166).—The products of hydrogenation of $C_{10}H_8$ at 300–370°/200 atm. in presence of H_2SO_4 catalyst (I) consists of *cis*- (II) and *trans*- (III) isomers. At $> 400^\circ$ (II) is converted into (III) derivative. (III) is formed as the *trans*-form, which undergoes transformation into the *cis*-form at 300–370°; this transformation, as well as that into dimethyldicyclooctane, taking place at $> 400^\circ$, are catalyzed by (I).
 R. T.

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

AUXILIARY INDEX

COMMON ELEMENTS		1ST AND 2ND ORDERS		AUXILIARY INDEX	
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36
37	38	39	40	41	42
43	44	45	46	47	48
49	50	51	52	53	54
55	56	57	58	59	60
61	62	63	64	65	66
67	68	69	70	71	72
73	74	75	76	77	78
79	80	81	82	83	84
85	86	87	88	89	90
91	92	93	94	95	96
97	98	99	100	101	102

117 AND 120 DEGREE

PROCESSES AND PROPERTIES INDEX

110 AND 114 DEGREE

BC

B-I-2

Bergination of crude naphthalene by means of coke-oven gas. E. I. PROKOPETS and A. V. PAVLENKO (Koks i Chim., 1934, 4, No. 7, 58-61).—C₁₀H₈ is converted completely into tetralin by treatment with coke-oven gas (58% of H₂) in presence of MoS₂. The optimum temp. and pressure were 420°/250–300 atm.

Ch. Ans. (e)

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM DIVISION										FROM DIVISION																			
GROUP 01										GROUP 02																			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30

1ST AND 2ND COLUMNS	PROCESSES AND PROPERTIES INDEX	3RD AND 4TH COLUMNS
BC		A-3
<p>Reaction between dithydrates and monomers of the type $\text{C}_n\text{H}_{2n}\text{O}_2$ and $\text{C}_n\text{H}_{2n}\text{O}_2$ PAV. LITERATURE (1) and (2) (1955-1956) 9:50-Dithydrates (I) and (II) (1955-1956) at the b.p. of the monomers (I) and (II) (II) and (III) (1955-1956) (IV) or (V) (1955-1956) (III) and (II)</p>		
ASTM-51A METALLURGICAL LITERATURE CLASSIFICATION		E-27
EDSON STEVENS		EDSON STEVENS
LONDON	LONDON	LONDON
1955	1955	1955

13-11-1

Be

Hydrogenation of naphthalene. E. I. PROCTOR and I. I. JANI (Distr. Hydrog. of Fuels, 1934, 1, 376—265; cf. B., 1934, 568, 1049).— $C_{10}H_8$ hydrogenated with a MoS₂ catalyst at an initial H₂ pressure of 100 atm. and 300–350° gave a 100% yield of tetralin. The autoclave should be of Cr-Ni steel and first treated with the catalyst, S, or H₂S. In preparing the catalyst, colloidal MoS₂ was prep. by H₂S from an NH₄ solution of a Mo salt. The thio-salt was decomposed with H₂SO₄, the product being filtered, washed, and dried in vac. at 60°. Addition of S increases the activity. With > 10% of catalyst the products change, a higher yield of low-boiling products resulting. Can. Ans. (c)

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

GROUP # 2

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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117 AND 120 ORDERS

PROCESSES AND PROPERTIES INDEX

120 AND 124 ORDERS

Bc

B-D-1

Mechanism of hydrogenation of naphthalene at high temperatures and pressures. E. I. PROKOPETS. (Chim. Tverd. Topl. 1954, 5, 832-839; cf. B., 1955, 795).—The best conditions for hydrogenating tetralin to decalin with MoS₂ and Co catalysts are discussed. CH. ABS. (7)

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

121 AND 122 ORDERS

123 AND 124 ORDERS

125 AND 126 ORDERS

127 AND 128 ORDERS

129 AND 130 ORDERS

131 AND 132 ORDERS

133 AND 134 ORDERS

135 AND 136 ORDERS

137 AND 138 ORDERS

139 AND 140 ORDERS

141 AND 142 ORDERS

143 AND 144 ORDERS

145 AND 146 ORDERS

147 AND 148 ORDERS

149 AND 150 ORDERS

151 AND 152 ORDERS

153 AND 154 ORDERS

155 AND 156 ORDERS

157 AND 158 ORDERS

159 AND 160 ORDERS

161 AND 162 ORDERS

163 AND 164 ORDERS

165 AND 166 ORDERS

167 AND 168 ORDERS

169 AND 170 ORDERS

171 AND 172 ORDERS

173 AND 174 ORDERS

175 AND 176 ORDERS

177 AND 178 ORDERS

179 AND 180 ORDERS

181 AND 182 ORDERS

183 AND 184 ORDERS

185 AND 186 ORDERS

187 AND 188 ORDERS

189 AND 190 ORDERS

191 AND 192 ORDERS

193 AND 194 ORDERS

195 AND 196 ORDERS

197 AND 198 ORDERS

199 AND 200 ORDERS

PROCESSING AND PROPERTIES INDEX

BC B II 1

Bergmination of carbazole. K. I. FROLOVA and
 I. I. LISO (Ukrain. Chem. J., 1961, 6, [Tech.] 344-358).
 Carbazole is converted in the presence of (NH₄)₂MoO₄
 successively into indole and cyclohexane, while in the
 presence of MoO₃ the successive products are diphenyl-
 hexane, 3,3-dimethyl- and methyl-cyclopentane.
 R. T.

METALLURGICAL LITERATURE CLASSIFICATION

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

CA

10

hydrogenation of anthracene. H. I. Prokopenko and V. N. Khadzhinov. *Khim. Tverdogo Topliva* 6, 347-51 (1955). The hydrogenation was carried out in autoclaves in the presence of MoS₂ catalysts, at cold H₂ pressures of 100-120 atm. and various temps., and with and without the application of recycling. The following products were obtained as a result of hydrogenation: 1,2,3,4-tetrahydroanthracene, 1,2,3,4,5,6,7,8-octahydroanthracene, perhydroanthracene and a mixt. of naphthene hydrocarbons b. 30-150°. Eleven references. A. A. Bochtinsk

ASME-ISA METALLURGICAL LITERATURE CLASSIFICATION

10

so

PROCESSED AND REPRODUCED FROM
 ACTION OF fuming sulfuric acid on decalin. H. I. Prokopenko, *J. Applied Chem.* (U. S. S. R.) 8, 1217-15 (in French 1215) (1935); cf. *C. A.* 28, 7460. Two grades of com. decalin (70 cc.), b. 186-190°, n_D^{20} 1.4711, d_4^{20} 0.8965, and (Schering) b. 188-92°, n_D^{20} 1.4771, d_4^{20} 0.8968, shaken 2-3 times with 2 vols. of 20% H_2SO_4 , till the liberation of heat and SO_2 had ceased, followed by washing the reaction product with H_2O to a neutral reaction, drying with $CaCl_2$ and redistg., gave 20 cc. of a product, b. 182-4.5°, n_D^{20} 1.4695, d_4^{20} 0.8957, identical with the *trans*-decahydronaphthalene obtained by Hükel (*C. A.* 20, 1190) and Zelinskii and Turova-Pollak (*C. A.* 19, 2949). Moderating the reaction by cooling with running water resulted in 30 cc. of the product and considerable elementary S in the distn. residue. The accumulation of the *trans*-decalin may be explained by the greater rate of sulfonation of the *cis*-isomer in the mixt. of the 2 isomers in com. decalin or by the isomerization of the *cis*- into *trans*-decalin (cf. Zelinskii and Turova-Pollak, *loc. cit.*).
 Chas. Blanc

COSMIC ELEMENTS

WATERWAYS INDEX

AS 8-31-A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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BC

Utilization of intermediate products of extraction of vanadium from ores, concentrates, and slags for the preparation of vanadium catalysts. I. Utilization of calcium vanadate. J. A. PRONOVITS. II. Utilization of alkaline extracts of titanomagnetite metallurgical slag. M. L. BARLAMOV. III. Utilization of Ural extracts for preparation of vanadium catalysts on a chromo-sesolite base. M. A. GUMINKAJA (Izborn. Trud. Ukrain. Chim. Inst. Odessa, 1935, No. 1, 49-58, 59-64, 65-70).—I. Crude $\text{Ca}(\text{VO}_3)_2$ (I) is extracted during 2-5 hr. with boiling 70% K_2CO_3 and then for a further 2-5 hr. with 30% K_2CO_3 when 95% of the V is present in solution as KVO_3 , utilisable for the prep. of Borskov's B.O.V. catalyst (cf. preceding abstract). The necessary expenditure of K_2CO_3 is 0.9 kg. per kg. of (I).

II. Aq. Na_2CO_3 extracts of Kertsch titanomagnetite slag contain V_2O_5 4.17, Cr_2O_3 5.27, and NaHCO_3 5.1 g. per litre. HCl is added to neutralize the NaHCO_3 , and K silicate is then added, followed by AlCl_3 and BaCl_2 in such proportions as to give a ppt. containing SiO_2 11.8,

B-I-P

Al_2O_3 1.0, and BaO 2.12 pts. per 1 pt. of V_2O_5 ; the catalytic activity is — that of Borskov's second catalyst (cf. preceding abstract). Satisfactory catalysts could not be obtained by substituting FeCl_3 for AlCl_3 , or Mg , Ca , or Cu for Ba .

III. A highly active catalyst, of the composition $\text{K}_2\text{O} \cdot 1.41\text{BaO} \cdot 1.2\text{SiO}_2 \cdot \text{Cr}_2\text{O}_3 \cdot \text{V}_2\text{O}_5$, is obtained by Borskov's method from KVO_3 , K silicate, CrCl_3 , and BaCl_2 . The same product is obtained by reducing Cr-containing slag extracts with SO_2 , to yield a solution containing Cr^{III} and V^{IV} , to which a sufficient amount of fresh extract is added for the reaction $\text{Cr}^{\text{VI}} + 3\text{V}^{\text{IV}} \rightarrow \text{Cr}^{\text{III}} + 3\text{V}^{\text{V}}$ to take place, and aq. K silicate and BaCl_2 are added to the solution at 70°.

R T.

CH

18

Utilization of intermediate products of extraction of vanadium from ores, concentrates and slags for the preparation of vanadium catalysts. I. Utilization of calcium vanadate. I. A. Prokopetz. *Sborn. Trud. Ukrain. Chim. Inst. Odesa* 1935, No. 1, 49-58. Crude $\text{Ca}(\text{VO}_3)_2$ is extd. during 2.5 hr. with boiling 70% K_2CO_3 , and then for a further 2.5 hr. with 30% K_2CO_3 , when 95% of the V is present in soln. as KVO_3 , utilizable for the prepn. of Borekov's B. O. V. catalyst (cf. preceding abstract). The necessary expenditure of K_2CO_3 is 0.9 kg. per kg. of I. II. Utilization of alkaline extracts of titanomagnetite metallurgical slag. M. I. Barlamov. *Ibid.* 60-64. Aq. Na_2CO_3 exts. of Kertsch titanomagnetite slag contain V_2O_5 4.17, Cr_2O_3 6.27 and NaHCO_3 6.1 g. per l. HCl is added to neutralize the NaHCO_3 , and K silicate is then added, followed by AlCl_3 and BaCl_2 in such proportions as to give a ppt. contg. SiO_2 11.8, Al_2O_3 1.0 and BaO 2.12 parts per 1

part of V_2O_5 ; the catalytic activity is equal to that of Borekov's second catalyst. Satisfactory catalysts could not be obtained by substituting FeCl_3 for AlCl_3 , or Mg , Ca or Cu for Ba . III. Utilization of Ural extracts for preparation of vanadium catalysts on a chromium sesquioxide base. M. A. Gliminskaya. *Ibid.* 65-70. A highly active catalyst, of the compn. K_2O 1.4 BaO 1.2 Cr_2O_3 V_2O_5 , is obtained by Borekov's method from KVO_3 , K silicate, CrCl_3 and BaCl_2 . The same product is obtained by reducing Cr-contg. slag exts. with SO_2 , to yield a spin. contg. Cr^{III} and V^{IV} , to which a sufficient amt. of fresh ext. is added for the reaction $\text{Cr}^{VI} + 3\text{V}^{IV} \rightarrow \text{Cr}^{III} + 3\text{V}^{V}$ to take place, and aq. K silicate and BaCl_2 are added to the soln. at 70°.

H. C. A.

PROCESSES AND PROPERTIES INDEX

12

CA

Methods for the determination of the approximate percentage content of fat in raw casein. *V. Prukov, Molochko-Maslodel'naya Prom. 6, No. 10, 25-3 (1939); Chem. Zentr. 1940, I, 3632.*—In the first method given 10 cc. H₂SO₄ (d. 1.82), 1 cc. AmOH and 6 g. of slightly pressed raw casein are placed in a butyrometer, which is then filled to the mark with distd. water (about 5 cc.). The mixt. is then shaken, placed in a 75° water bath for 5 min. and centrifuged for 15 min. The percentage fat content is read off from the butyrometer scale and multiplied by 5 as a factor. The 2nd method differs from the first in that 10 g. of the raw casein and about 1 cc. of water are used and the mixt. is shaken a 2nd time, after which it is again placed in the water bath for 3-4 min. The factor used is 3. The first method requires 20-30 min. and the 2nd 25-35 min. Both methods can be used for undried casein. M. G. Moore

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

ACC NR: AP6021716

(A)

SOURCE CODE: UR/0237/66/000/003/0018/0024

AUTHOR: Belyakova, G. V.; Prokop'ev, V. M.

ORG: None

TITLE: Analysis of a raster modulator in form of a grating

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 3, 1966, 18-24

TOPIC TAGS: optic modulator, ~~raster modulator, photoelectric detection, photoelectric detection~~, photoelectric detection

ABSTRACT: This paper investigates the modulation process of a radiant flow with an arbitrary two-dimensional energy distribution over its cross section, by a raster modulator in form of a moving grating. The problem posed is to find the modulator output, as a function of time, on the basis of a specified modulator (constant specified velocity of a dimensionally and optically specified grating), and a known modulator input. The purpose of this research is to enable calculation of the output spectrum of a phototransducer, fed by the radiant flow of the modulator output on the basis of a known input to the modulator. The modulator is assumed in form of a grating with alternate fully transparent and fully opaque strips, moving with a velocity V_x along the x-axis. An arbitrary distribution of luminosity in the plane of the modulator, $E(x, y)$, is assumed. Expressions are developed for the computation of the amplitudes and phases of the harmonic components of the modulated radiant flow. As an example,

Card 1/2

UDC: 621

ACC NR: AP6021716

the modulation of a radiant flow having a uniformly illuminated circular, semicircular, square and rectangular cross section is studied and determined for various orientations of the cross section with respect to the strips of the rostral modulator. Formulas for the calculation of the important first signal harmonics are given. The developed theoretical conclusions and formulas are substantiated by an experimental verification. Orig. art. has 5 figures, 24 formulas.

SUB CODE: 17 / SUBM DATE: 25May65/ ORIG REF: 003/ OTH REF: 002

Card 2/2

Refractoriness 1777

03C x.

126. The production of silica bricks for the roofs of electric furnaces for the Upper Ishtahl works.—A. A. BARRSHAYA and A. G. PUGOVAYA (*Upravleniye, 13, 181, 1948*). The raw material for silica brick production is obtained from the quartz rock from the Sarzal mountains. The percentage chemical composition of the quartz rock used in 1947 is as follows: SiO₂, 98.01; Al₂O₃, 1.6; Fe₂O₃, 1.2; CaO, 0.4; MgO, 0.3; the loss on ignition, up to 1.10. The refractoriness of the rock is over 1,700° C. After crushing, the quartz rock is ground in a pan, and is then fed to a flat mechanically vibrating screen with a mesh of 6 mm. The grading of the batch is as follows:

Screen mesh, mm...	6	3	1.6	0.5	<0.5
Percentage	up to 3	12	15-25	15-20	50-80

Sulphite lye is added to give green strength, and a table shows the volume of sulphite lye required in relation to the strength of the solution used. The bricks are then fired in the kiln, according to the following schedule:

Bv. abs.

*DJ-9 01130; 871113;
Refractories.*

Production of siliceous bricks for roofs of electric (steel) furnaces for Upper British works: A. A. Burdakovs and A. G. Pustopov (Zvezdopyr, 1948, 12, 181; Brit. patent, Abstr., 1949, 22a).—Crushed quartz rock from the Kaurani mountains (SiO₂ 98.01, Al₂O₃ 1.6, Fe₂O₃ 1.2, CaO 0.6, and MgO 0.3%; loss on ignition up to 1.1%) is ground, size-graded, mixed with sulphite lye to give green strength, and fired in a kiln. The heating and cooling schedule is detailed. The best bricks (SiO₂ 99.2–99.4, Al₂O₃ 1.1–2, Fe₂O₃ 0.75–1.1, CaO 2.4–3, and MgO 0.6%) have a refractoriness of 1710–1720°, a porosity of 20.2–25%, and a δ of 2.24–2.32. A table shows the no. of units possible when using the bricks in the roof of electric steel furnaces of different sizes.

R. B. CLARK.

CA

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Dinas brick for arches of electric furnaces. A. A. Derezhnaya and A. G. Frolov'sva. *Gosizobrazh.* 13, 181-3 (1948). The Dinas brick were made from Karaul'naya Hill quartzites analyzing SiO_2 96.01, Al_2O_3 1.6, Fe_2O_3 1.2, CaO 0.6, MgO 0.3, and ignition loss 1.10-0.9%; refractoriness was over 1780°. Milk of lime (2.0-2.2%) and sulfite liquor (0.15-0.30%) were used. Insol. matter in the lime should not exceed 8%; concn. of sulfite liquor was 15-30%. The milk of lime and liquor are mixed and the sl. is adjusted to 1.17-1.20. Moisture content of the mix was 6.5-7.5%. The product was dried at 40-45° to a residual moisture of 1% and fired over a 120-hr. period to a max. temp. of 1400-1434°. The brick had a refractoriness of 1710-1720°; porosity, 20.7-26.0%; sp. gr., 2.34-2.38; analysis: SiO_2 63.2-65.0, Al_2O_3 1.10-2.0, Fe_2O_3 0.75-1.10, CaO 2.4-3.0, and MgO 0.8%. Their use increased the life of the arches in 8-, 10-, and 20-ton furnaces from 85, 71, and 57 to 106, 103, and 61 heats, resp. Despite this, the Dinas brick still does not come up to the requirements for electro-Dinas. B. Z. Kamich

AS 6-51 A METALLURGICAL LITERATURE CLASSIFICATION

REF ID: A60001

FROM SYNONYM

GROUPS AND DIVISIONS

CLASSIFICATION

GROUP NUMBER

CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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THE PRODUCTION OF SILICA BRICKS FOR THE ROOFS OF ELECTRIC FURNACES
 FOR THE UPPER ISETSKI WORKS. AA Buzeshaya and Ag Prokhorov. A.
 Zhurnal Fizicheskoy Khimii, vol. 13, p. 181 British Ceramic Abstracts, 1949
 January p22A.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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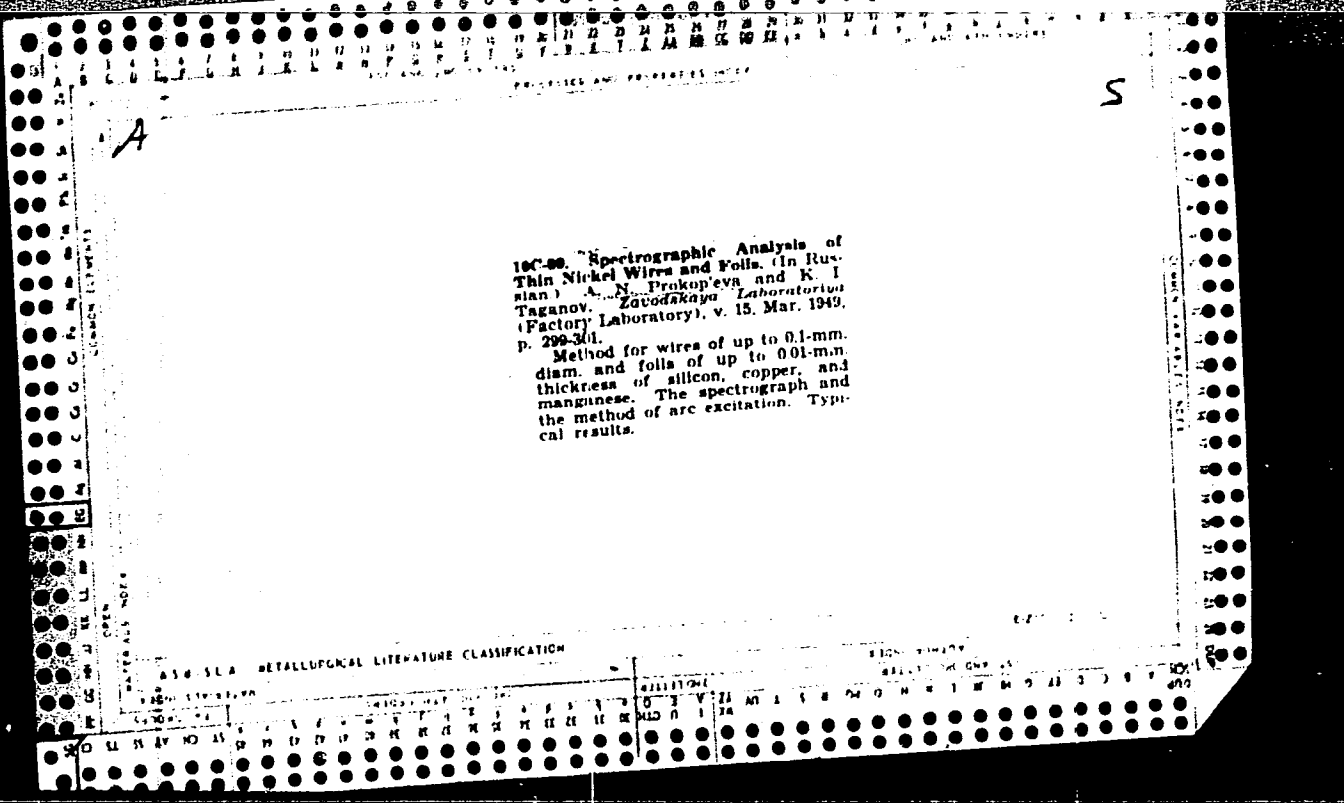
PROKOPEVA, A. M.

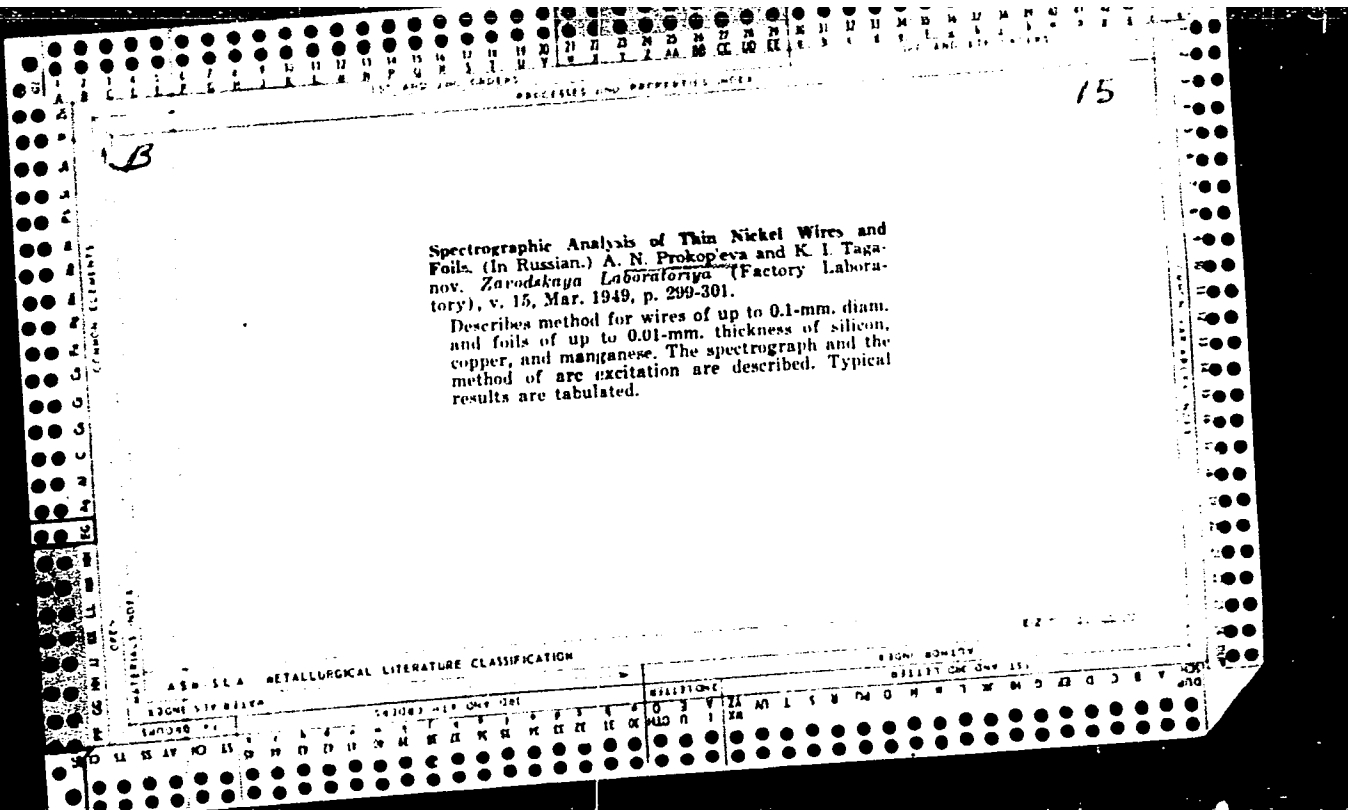
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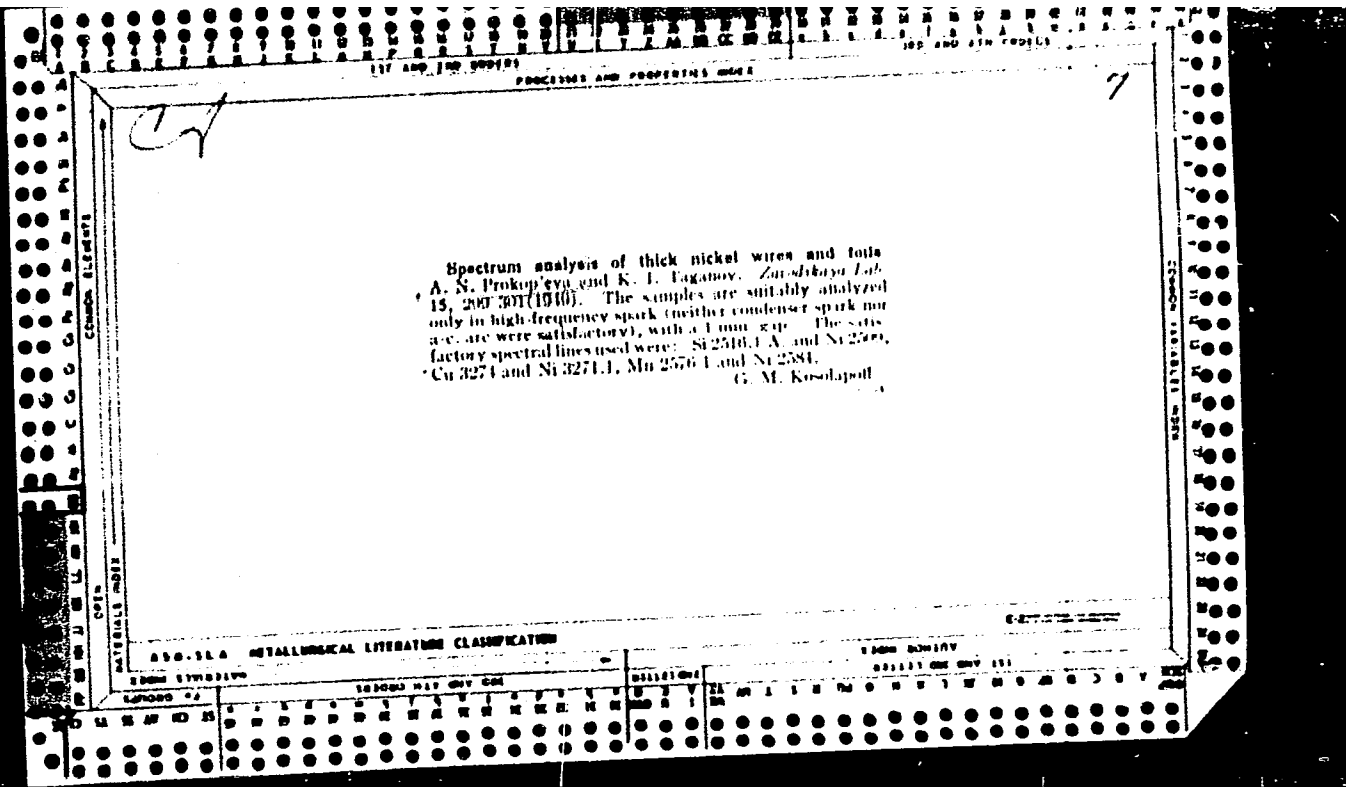
Chem Abs v48
1-25-54

glass, clay products

Waster from kaolin washing, useful in steel mill-processing materials. N. F. Dubrov, A. M. Prokopenko, and A. A. Berezhnaya. *Ogneupory* 1951, 321-5; through *Silicatechnika* 4, 3:10(1953).—Kaolin sands from washing plants are suitable for grog for channel stones in steel casting. The approx. chem. compn. of such kaolin sands with a residual content of about 19% kaolinite is: Al_2O_3 , 10.8; SiO_2 , 83.1%, and very low fluxes. Bound with fireclay (32.8% Al_2O_3), at 1200°, the bodies are easily machined and are fine grained, the particles being spheroidal. They are equal, or superior, to the usual grog-fireclay refractories. The surface becomes covered with a highly siliceous viscous slag (about 71% SiO_2) which affords excellent protection. W. Eitel







PROKOPEVA, M. F.
V. V. UDOVENKO, ZhOKh, 19, 165-8(1949)

R

F

3275. PRODUCTION OF SILICA BRICKS FOR ROOFS OF ELECTRIC FURNACES FOR UPPER ISETSKI WORKS. Berezhaya, A. A. and Prokopya, A. G. (Ogneupory, 1948, vol. 13, 181; see abstr. in Trans. Brit. Ceram. Soc., Jan. 1949, vol. 28, (1), 22A).

PROCESSES AND PROPERTIES INDEX

ASIA METALLURGICAL LITERATURE CLASSIFICATION

U.S. DEPARTMENT OF COMMERCE

U.S. GOVERNMENT PRINTING OFFICE

PROKOPIC, J.

Parasitic worms of our insectivora; a systematic faunistic study and
and ecologic-zoogeographic evaluation. p. 87.

Praha, Czechoslovakia. Vol. 6, no. 2, 1959,

Monthly List of East European Accessions (EEAI), IC, Vol. 9, no. 2.

Uncl.

PROKOPIC, Jan

Trichinellosis in Czechoslovakia. Wiadomosci parazyt. 8 no.1:31-46
'62.

1. Institute of Biology, Czechoslovak Academy of Sciences, Prague.

(TRICHINOSIS epidemiol)

CZECHOSLOVAKIA / Zooparasitology - Helminths.

G-2

Abs Jour : Ref Zhur - Biol., No 18, 1958, No. 81717

Author : Prokopic, J.

Inst : Not given

Title : A Systematic Investigation of Parasitic Helminths in the Common Mole and an Analysis of Helminthofauna in Individual Species of Insectivora in Czechoslovakia

Orig Pub : Zool. listy, 1957, 6, No 4, 331-340

Abstract : In dissecting 52 moles in 1954-1956, 9 species of helminths were found (2 species each of trematodes and cestodes, and 5 species of nematodes). Most prevalent is *Morganella talpae*. On the Czechoslovak territory helminthofauna of genus *Sorex* is richest with regard to number of species (24); invasion intensity is highest in the genus *Erinaceus* (95%). Cestodes predominate in representatives of genus *Sorex* and *Neomys*, nematodes in those of *Erinaceus* and *Talpa*. Author's abstract.

Card 1/1

PROKOPIC, J.

CZECHOSLOVAKIA/Zooparasitology - Parasitic Worms.

G

Abs Jour : Ref Zhur Biol., No 1, 1959, 995

Author : Prokopic, J.

Inst :

Title : Helminth Fauna of Soricidae in the High Tartars

Orig Pub : Zool. listy, 1957, 6, No 2, 147-154

Abstract : 24 strains of helminths were found in shrews and water shrews of Tartar park, and 3 of them (*Opisthioglyphic megastomus*, *Cephalotrema minutum*, and *Staphylocystis alpestris*) were high mountain forms. The most universal (18 strains) were the cestodea. The parasites are listed according to their hosts.

Card 1/1

- 24 -

PROKOPIC, J: RYSAVY, B

"Some results of the study of worms in game animals and other wild animals living in the Topolcianky Game Preserve."

BIOLOGIA, Bratislava, Czechoslovakia, Vol. 13, no. 7, 1958

Monthly List of East Europe Accessions (EEAI), LC, Vol. 8, No. 6, Sept 59
Unclas

PROKOPEC, J.

"Effect of ecologic factors on the specificity of parasitic worms in the otiverate mammals."

p.69 (Ceskoslovenska Biologie, Vol. 5 1. c. 6 no. 1, Feb. 1957, Praha, Czechoslovakia)

Monthly Index of East European Accession(MEAI) LC, Vol. 7, No. 8, August 1958

CZECHOSLOVAKIA / Zooparasitology. Parasitic Worms.

G-2

Abs Jour : Ref Zhur - Biol., No.8, 1958, No 33934

Author : Prokopich

Inst : ~~Not given~~

Title : Helminthofauna of Crocidura (Crocidura, Insectivora). --
K helmintofauna belozubok (Crocidura, Insectivora).

Orig Pub : Zool. listy, 1957, 6, No. 2, 155-162.

Abstract : Seven species of helminths were found in 28 Crocidura sur-
veclens and 4 C. leucodon from the Czech People's Repu-
blic (1954-1955). Cestodes staphylocystis furcata and S.
jacobsoni were identified in Europe for the first time.
From author's resume.

Card 1/1

L 20518-66 T JK

ACC NR: AP5021659

(A)

SOURCE CODE: CZ/007/65/014/004/0229/0232

AUTHOR: Otcenasek, M.; Dvorak, J.; Prokopic, J.

17
B

ORG: Institute of Parasitology of the Czechoslovak AS (Parazitologicky ustav CSAV, Prague)

TITLE: Isolation of Emmonsia crescens Et Jellison 1960 on the territory of the CSSR (The Czechoslovak Emmons Soviet Socialist Republic)

SOURCE: Ceskoslovenska epidemiologie, mikrobiologie, imunologie, v. 14, no. 4, 1955, 229-232 and insert 4X facing page 225

TOPIC TAGS: parasite, animal parasite, animal microbiology, parasitology, parasitism

ABSTRACT: The article reports on the successful isolation of *Emmonsia crescens* Emmons et Jellison 1960 and on the mycological characteristics of the first Czechoslovak isolates of this organism. The present study is a continuation of earlier studies in that it continues the investigation of the infected lungs of small mammals in an attempt to isolate the *adiaspiromycosis* agent. The mycological investigation was made of the lung tissue of 119 live, wild rodents and insectivores caught live around Novy Budzov and subsequently put to death after removal of the ectoparasites. The animals caught represented six (6) species. Three specimens of *Microtus arvalis* were isolated from the lung tissue investigated. Macroscopic spherules, the parasitic stage of the

Card 1/2

L 20518-66

ACC NR: AP5021559

organism, were observed only in one case. The investigators were successful in making a culture of this agent. This is the first recovery of *Emmonsia crescens* Emmons et Jellison 1960 in central Europe and is attributed to their understanding of the microbiology, ecology, and geography of this mycotic antigen. The morphophysiological characteristics of the isolated strains completely correspond to the initial descriptions of isolates of *Emmonsia crescens*. Orig. art.has: 1 table.

SUB CODE: 06

SUBM DATE: none

OTH REF: 008

Card 2/2

LJC

EAST GERMANY

DK 595.423.578.8.093

PROKOPIČ, Jan, Dr.; Czechoslovakian Academy of Sciences, Institute of Parasitology (Parasitologický Ústav Čsl. Akademie Věd.), Prague.

"The Method of Collecting and Raising Oribatidae for Experimental Study of the Growth Cycle of Tapeworms."

Jena, Angewandte Parasitologie, Vol 7, No 1, Feb 66, pages 16-19.

Abstract: [Author's English summary modified] A modified method for collecting and raising oribatid mites is described which has been used by the author since 1959. The collection of the mites is most conveniently done in eclectors. The raising of mites was modified as follows: they are kept on filter paper in Petri dishes and are fed slices of potatoes, carrots or fruit. The small percentage (1 per cent) of infestation of Oribatidae by Cestodes in nature was confirmed. The most sensitive to experimental invasion are: *Achipteria coleoptrata*, *Scheloribates laevigatus* and *Galumna elimata*. 15 Eastern European, 6 Western references. [Manuscript received 23 Nov 64.]