KOMAN, Andrej, tehn. (Zagreb)

Technical consulation of Yugoslav textile workers on the use of polyester fibers in the textile industry. Nova proizv 15 no.5:385-387 O '64.

Consultation on the productivity and quality of Yugoslav spinning and weaving mills. Nova proizv 15 no.5:387-388 O '64.

KOMAN, Andrej

The second meeting of cotton spinners. Nova proizv no.3/4:236-240 S '63.

KOMAN, Andrej

Conference on chemical fibers in the textile industry of Yugoslavia. Kem ind 10 no.3:92 Mr '61.

FARKAS, Eve; KOMAN, Elisabeth

Artificial hibernation and infectious diseases. Acta paediat. acad. sci. Hung. 2 no.2:99-108 '61.

1. Service de pediatrie No.III de l'Hôpital Lazlo, Budapest.
(HIBERNATION, ARTIFICIAL) (COMMUNICABLE DISEASES therapy)

FARKAS, Eva; KOMAN, Elisabeth

Electrocardiographic studies in the postinfectious stage of penicillin-treated scarlet fever. Acta pediat. acad. sci. hung. 3 no.4:381-388 '62.

1. Second Paediatric Department (Head: Dr. E. Farkas), Laszlo Hospital, Budapest (Director: Dr. J. Roman).
(ELECTROCARDIOGRAPHY) (PENICILLIN)
(SCARLET FEVER)

FARKAS, Eva, dr.; KOMAN, Erzsebet, dr.

Hibernation and infectious diseases. Orv.hetil. 102 no.31:1464-1467 30 J. '61.

1. Budapest Fovarosi Laszlo Korhaz III. sz. Gyermekosztalya.

(HIBERNATION ARTIFICIAL) (COMMUNICABLE DISEASES ther)

KARPINISHAN, K.; KOMAN, K.; KONSTANTINESKU, K.; BADYA, D.

Significance of a mechanical suture in preventing bronchial fistulae following lung resections. Grud. khir. 6 no.1.76-78 Ja-F '64. (MIRA 18:11)

1. Klinika grudnoy khirurgii (zav. - prof. K. Karpinishan) bol'nitsy "Filaret", Bukharest. Adres avtorov: Bukharest, klinika grudnoy khirurgii bol'nitsy "Filaret". Submitted March 25, 1963.

KARPINISHAN, K. [Carpinisan,C], prof., doktor; BOGDAN, Tr. [Bogdan,Traian], kand.med.nauk, doktor; KOMAN,K. [Coman,C], doktor

Decortication of the lung. Vest. khir. 90 no.3:30-35 Mr'63. (MIRA 16:10)

1. Iz Bukharestskoy kliniki grudnoy khirurgii (dir. - prof. doktor K.Karpinishan).

(LUNGS—DISEASES) (PLEURA—SURGERY)

KOMAN, M.

Definition of the Topological K-Lineal \6

Koman, Milan. Bemerkung zu einer Definition der topologischen K-Lineale. Časopis Pěst. Mat. 83 (1958), 155–159. (Czech. Russian and German summaries)

J. Mařík [Časopis Pěst. Mat. 79 (1954), 3–40; MR 16, 492] has defined a normed K-lineal (vector lattice) as a K-lineal in which $\|a\|=\||a|\|$ and $0\leqq a\leqq b$ implies $\|a\|\leqq\|b\|$. Let H be the linear space of all real functions on $[0, 1]$ of the form $f+g$, where f is continuous and g vanishes except on a finite set. Let H have the usual linear operations and order, and set $\|f+g\|=\max|f(x)|+\sum_{0\leq x\leq 1}|g(x)|$. Then H is a normed K-lineal in which the algebraic and order operations are continuous, but $0\leqq a\leqq b$ does not imply $\|a\|\leqq\|b\|$. In fact, there is a neighborhood U of 0 such that for every neighborhood V of 0 there are elements a, b for which $0\leqq a\leqq b$, $b\in V$, and $a\notin U$. Furthermore, the linear functional $J(f+g)=\sum g(x)$ is continuous, but its positive part J_+ is infinite at 1 ($J_+(1)=\sup J(h)$: $0\leqq h\leqq 1$).

E. Hewitt (Seattle, Wash.)

2
1-FW

25069
S/080/60/033/010/023/029
D216/D306

158540

AUTHORS: Mikhail, R., Alexsandru, L., Koman, M., and Yurchenko, V.

TITLE: Modified polyethylene terephthalate as an electro-insulating varnish

PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 10, 1960, 2336 - 2340

TEXT: To obtain modified polyethylene terephthalate three routes were taken: 1) Introduction of all components into general reaction; 2) Transesterification of dimethyl terephthalate (DMT) with corresponding glycols, followed by polycondensation (all reagents entering general reaction); 3) Products from transesterification for the given glycol separated and then polycondensed. The basic study was done on polyethylene terephthalate modified with glycerol, i.e. the effect of change in (a) molar proportions of components (b) temperature of the reaction and (c) time of reactions.

Card 1/4

Modified polyethylene ...

tion, 30 moles of dimethyl terephthalate were used, 50, 60, 65 moles of ethylene glycol and 20, 10, 5 moles of pentaerythrite. On polycondensation of dimethyl terephthalate, ethylene glycol, glycerol and pentaerythrite in proportions 25:50:22:3 respectively and at 190°C for 180 min and at 3 mm Hg, a soluble transparent product was obtained with a melting point of 85° and 350 OH groups. On polycondensation of dimethyl terephthalate, ethylene glycol and glycerol with proportions 40:40:20 at 240°C for 270 min., a transparent soluble product is obtained with a melting point of 95°C and 377 OH groups. Synthetized products had molecular weights from 1200 to 1400 and these were determined by the cryoscopic method, in phenol. Use of these varnishes on copper conductors has given resistance to 5000 volts potential, thermal stability up to 155°C, and good resistance to wear. Especially good results were obtained with the varnish based on polyethylene terephthalate modified with ethylene glycol, glycerol, pentaerythrite. There are 6 figures, 1 table and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.

Card 3/4

25069
S/080/60/033/010/023/029
D216/D306

Modified polyethylene ...

ASSOCIATION: Nauchno-issledovatel'skiy khimicheskiy institut Bukharest (Scientific-Research Chemical Institute, Bucharest)

SUBMITTED: February 19, 1960

Card 4/4

ALEKSANDRU, L. [Alexandru, L.]; KOMAN, M. [Coman, M.]; RIZESKU, T. [Rizescu, T.]; POPOVICH, A. [Popovici, A.]

Effect of the nature of stabilizers on the stability of polycaprolactam. Khim.volok no.4:4-8 '62. (MIRA 15:8)

1. Nauchno-issledovatel'skiy institut khimii, Bukharest, Rumynskaya Narodnaya Respublika.

(Nylon)

KOMAN, Milan (Praha); ROHLICEK, Jiri (Praha)

"Mathematical methods in economic practice" by Anton Kolmig. Reviewed by Milan Koman and Jiri Rohlicek. Cas pro pest mat 88 no.2:254-256 '63.

11, Sept. components have sharp borders. Jan Micka

E-3

Koman V

COUNTRY :Czechoslovakia
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 74696

AUTHOR :Palo, V., Koman, V., and Hrabe, Z.
INST. :Not given
TITLE :The Separation of Higher Fatty Acids by Paper Chromatography by Varying the Concentration of Solvent During Elution

ORIG. PUB. :Chem Zvesti, 12, No 9, 525-532 (1958)

ABSTRACT :The authors propose the separation of the higher fatty acids by paper chromatography with continuous variation of the concentration of the mobile phase. A 50-200 γ sample of a mixture of fatty acids (FA) is deposited in the form of a 5% solution in C_6H_6 on Whatmann No 3 paper impregnated with a 10% solution of paraffin oil (sp gr 0.880-0.895) in C_6C_6. The paper is placed between glass plates and chromatographed for 12 hrs at 20° with 50% CH_3COOH;

CARD: 1/3

86

E-3

COUNTRY : Czechoslovakia
CATEGORY :

ABS. JOUR. : RZKhim., No. 21 1959, No. 74696

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : the concentration of the latter is gradually increased during the run. The chromatograms are dried at 120°, dipped for 45 min in a solution of Cu acetate (20 ml of saturated solution + 240 ml water); this converts the FA spots to the corresponding Cu salts. The excess Cu acetate is rinsed off with water and the chromatogram is treated with 7.5% $K_4Fe(CN)_6$ which gives the spots a red-brown color. The following R_f values were obtained for the acids listed: erucic 0.02, stearic 0.02, palmitic 0.12, oleic 0.17, myristic

CARD: 2/3

KOMAN, Vaclav

Changes in rape oil fat acids during refining and hydrogenation. Prum potravin 15 no.8:394-395 Ag '64.

1. Slovak Higher School of Technology, Faculty of Chemistry, Bratislava.

MICHALEC, U.; SULC, M.; MESTAN, J.; HALAMA, D.; KOMAN, V.

Lipids in certain pathological conditions. II. Studies on fractions on cholesterol esters in human and animal blood. Sborn. lek. 63 no.4:99-103 Ap '61.

1. Laborator pro metabolismus bikovin a proteosyntezu fakulty vseobecneho lekarstvi University Karlovy v Praze, reditel prof. dr. J.Horejsi, Laborator angiologicka fakulty vseobecneho lekarstvi University Karlovy v Praze, reditel prof. dr. B.Prusik, Slovenska vysoka skola technicka, katedra biochemie a mikrobiologie v Bratislave, reditel prof. dr J.Nemec.

(CHOLESTEROL blood)

KOMAN, Vaclav

[illegible]

Country: Czechoslovakia

Academic Degrees:

Affiliation:

Source: Bratislava, [illegible], No 10, Oct 60, p 690

Data:

[illegible]

Academic Degrees: Engineer

Affiliation: Department of Technical Microbiology and Biochemistry at the Slovak Technical University in Bratislava.

Data: Co-author of "Quantitative Determination and Analysis of Iso-oleic Acid during Hardening of Sunflower-seed Oil by Means of Paper Chromatography," Source.

[illegible]

Academic Degrees: Engineer

Affiliation: Department of Technical Microbiology and Biochemistry at the Slovak Technical University in Bratislava.

Data: Co-author of "Quantitative Determination and Analysis of Iso-oleic Acid during Hardening of Sunflower-seed Oil by Means of Paper Chromatography," Source.

(1)

KOMANAR, S.I.

PHASE I BOOK EXPLOITATION SOV/5289

Akademiya nauk SSSR. Tsentral'naya nauchno-issledovatel'skaya laboratoriya elektrichoskoy obrabotki materialov.

Elektroiskrovaya obrabotka metallov (Electric-Spark Machining of Metals) no. 2. Moscow, Izd-vo AN SSSR, 1960. 262 p. Errata slip inserted. (Series: Its: Trudy) 6,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR.

Resp. Ed.: B. R. Lazarenko; Ed. of Publishing House: S. M. Moyzhes; Tech. Ed.: A. P. Gusova.

PURPOSE: This collection of articles is intended for process engineers, and technical and research personnel engaged in the working of metals.

COVERAGE: Problems concerning the most effective application of electric-spark methods in industry are reviewed. Possible future developments in the field of electric-spark machining and its automation are discussed, and, for instance of its present utilization in industry, the technical-economic effectiveness of the process is examined, and the equipment involved is described. The relationship between the parameters of electric-spark pulses and the production characteristics (productivity, machining accuracy, and surface quality) of electric-spark machining is established. An electric-spark method is advanced for the curvilinear cutting of materials with a 20 to 30 micron-thick wire, thus directly producing a finished part. Non-Soviet developments in the field of electric-spark machining are also treated. No personalities are mentioned. 8 German, are 121 references: 82 Soviet, 20 English, 10 French, 8 German, and 1 Italian. These references accompany individual articles.

Zolotykh, B. N., and I. P. Korobova. Selecting Optimum Regimes for Electric-Spark Machining of Sintered-Carbide Alloys 114

Chetverikov, S. S., and N. K. Foteyev. Electric-Spark Machining of the Cutting Elements of High-Carbon-Alloy Blanking Punch-Die Sets 120

Gularyan, K. K. The Electric-Spark Method Applied to Threading 142

Kholodnov, Ye. V. Manufacture of Precision Tools by the Electric-Spark Method 156

Gularyan, K. K., and V. L. Kravchenko. Manufacture of Complex-Shaped Machine Parts by Using a Program-Controlled Electric-Spark Machining Unit 179

Aleksandrov, V. P., and B. N. Zolotykh. Selecting the Optimum Procedures for Electric-Spark Machining of Nickel-Base Heat-Resistant Alloys 196

Gorbunov, B. N. Electric-Spark Lapping Used on Flour-Mill Rolls 205

Pronkov, G. F. Manufacture of Stainless and High-Manganese Steel Parts by the Electric-Spark Method 217

Ayzenshtok, V. L., and S. I. Komanar. Electric-Spark Marking of Mass-Produced Fires 227

Levinson, Ye. M. The Development of Electric-Spark Machining In Mass Production 233

Card 4/5

KOMAN, ~~Vaclav,~~ inz. (Bratislava, Kollarovo namesti 2, Chemicky pavilon, Slovenska vysoka skola technicka); KOVAC, Stefan, dr., inz., C.S. (Bratislava, Kollarovo namesti 2, Chemicky pavilon, Slovenska vysoka skola technicka); KOMANOVA, Eva, inz.

Infrared absorption spectra of esters of the trans - Δ^9-octadecenoid acid (elaidic acid). Chem zvesti 15 no.6:441-449 Je '61.

1. Katedra technickej mikrobiologie a biochemie, Slovenska vysoka skola technicka, Bratislava (for Koman). 2. Katedra organickej chemie, Slovenska vysoka skola technicka, Bratislava (for Kovac). 3. Vyvojove pracovisko, n.p., Palma, Bratislava, ul. Februaroveho vitazstva (for Komanova).

KOVAC, Stefan, dr., inz., C.Sc. (Bratislava, Kollarovo namesti 2, Chemicky pavilon, Slovenska vysoka skola technicka); KOMAN, Vaclav, inz. (Bratislava, Kollarovo namesti 2, Chemicky pavilon, Slovenska vysoka skola technicka); KOMANOVA, Eva, inz.

Examination of the effect of symmetry of esters of the trans-Δ^9-octadecenoic acid (elaidic acid) on the altitude of infrared absorption band in 970 cm^{-1}. Chem zvesti 15 no.6:450-455 Je '61.

1. Katedra organickej chemie, Slovenska vysoka skola technicka, Bratislava (for Kovac). 2. Katedra technickej mikrobiologie a biochemie, Slovenska vysoka skola technicka, Bratislava (for Koman). 3. Vyvojove pracovisko, n.p., Palma, Bratislava, ul. Februaroveho vitazstva (for Komanova).

FEDOROVA, N. Ye.; MORYGANOV, P. V.; KOMANDAKOVA, L. A.

Mechanism of the action of the stabilisers of hydrogen peroxide alkali solutions and its practical application. Izv. vys. ucheb. zav.; tekh. tekst. prom. no.4:76-83 '62. (MIRA 15:10)

1. Ivanovskiy khimiko-tekhnologicheskiy institut.

(Bleaching) (Hydrogen peroxide)

MATOV, Konstantin; KOMANDAREV, Stamat

The intensity of invasion of Trichinella in various swine muscles.
Wiad. parazyt. 8 no.6:613-628 '62.

1. Kafedra parazitologii Vet. Inst., Sofiya, Bolgariya.
(TRICHINOSIS) (SWINE DISEASES)

MATOV, K.; KOMANDAREV, St.

Further studies on the problems of muscular Trichinella larvae occurring in the organs having no striated muscles. Izv khelmint lab BAN 9:81-90 '64.

KOMANDAREV, St.; IOVCHEV, E.

Studies on the mechanism and factors of immunity in trichinellosis. Izv khelmint lab BAN 9:117-123 '64.

TOMOV, Vl.; KOMANDAREV, St.

Possibility of preventing recurrences of echinococcosis in man by applying the proteolytic enzyme Papain. Izv khelmint lab BAN 9:129-134 '64.

KOMANDENKO, N.I.

Effect of oxygen under pressure on the course of experimental tick-borne encephalitis in white mice. Vop.virus. 7 no.6:658-661 N-D '62. (MIRA 16:4)

1. Voyenno-meditsinskaya ordena Lenina akademiya imeni S.M. Kirova, Leningrad.
(ENCEPHALITIS) (OXYGEN THERAPY)

KOMANDENKO, N.I.

Treatment of the progressive form of Russian tick-borne encephalitis with oxygen under pressure. Vop. psikh. i nevr. no.9:250-256 '62. (MIRA 17:1)

1. Kafedra nervnykh bolezney Voyenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova.

KOMANDI, Gyorgy

Four-wheeled tractors. Jarmu mezo gep 7 no.8:303-306 '60.

DEMICHEV, A.D.; KISELEV, V.F., starshiy dorozhnyy master (stantsiya Ira-Iol' Pechorskoy dorogi); KOZLOVSKIY, A.D.; KOMANDIN, A.A., starshiy dorozhnyy master (Stantsiya Polotsk Belorusskoy dorogi); KUBS, V.G., brigadir puti (stantsiya Cheremkhovo Vostochno-Sibirskoy dorogi); PAVLOV, V.N., brigadir puti (stantsiya Cheremkhovo Vostochno-Sibirskoy dorogi); SHAKHBALAYEV, A.M., dorozhnyy master (stantsiya Zenzeli Ordzhonikidzevskoy dorogi); TARASENKO, V.Ye., dorozhnyy master (stantsiya Irkutsk II)

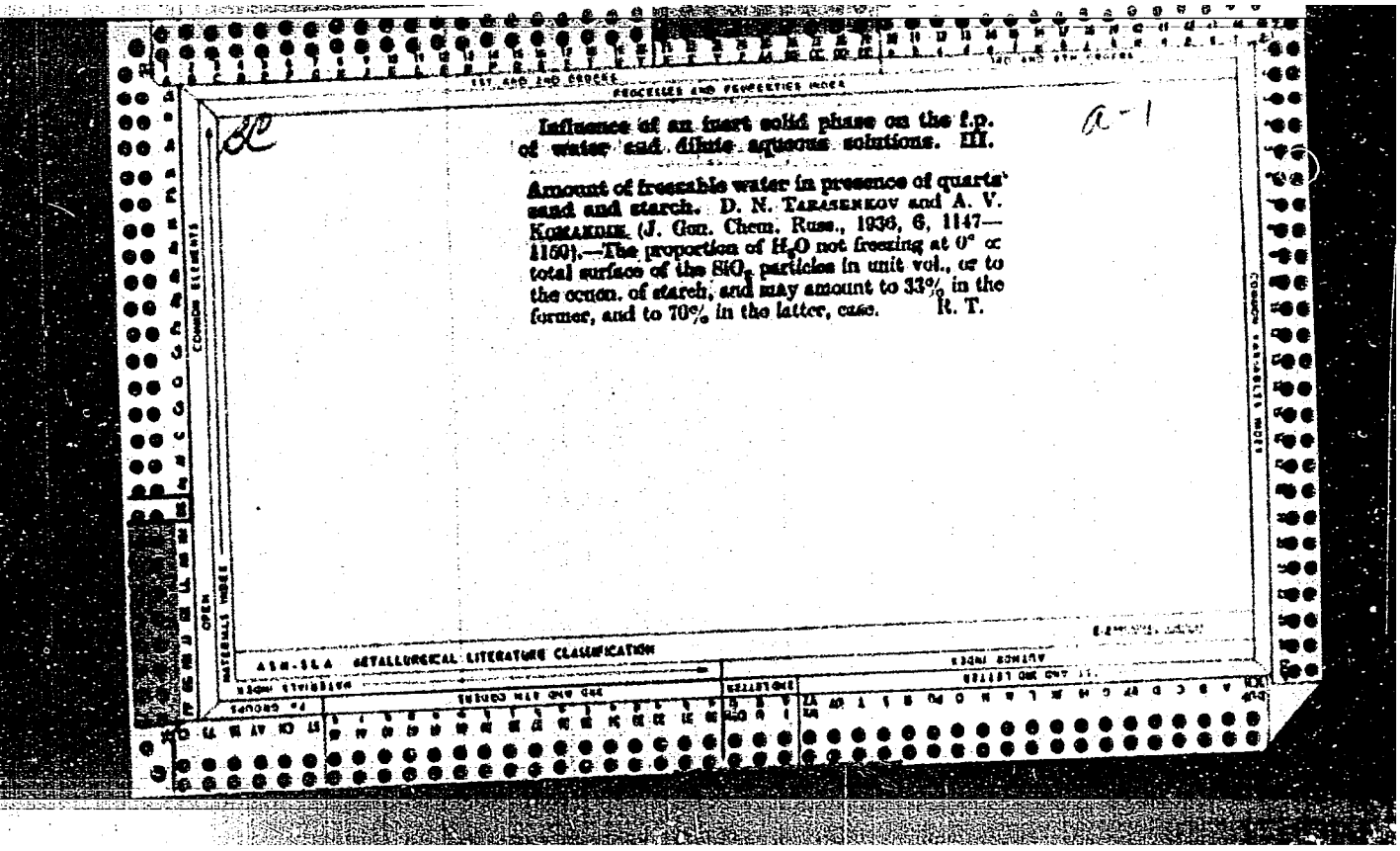
Letters to the editor. Put' i put.khoz. no.11:43-45 N '58.
(MIRA 11:12)

1. Nachal'nik normativnoy stantsii tresta "Rekput'." (for Demichev).
2. Zamestitel' nachal'nika distantsii, stantsiya Kizel Sverdlovskoy dorogi (for Kozlovskiy).

(Railroad engineering)

KOMANDIN, Arnol'd Grigor'yevich; SAMOYLOVICH, T.A., red.

[Operation of a MAK-FV-4 freon refrigeration plant] Ekspluatatsiia freonovoi kholodil'noi ustanovki marki MAK-FV-4. Moskva, Izd-vo "Transport," 1964. 51 p. (MIRA 17:6)



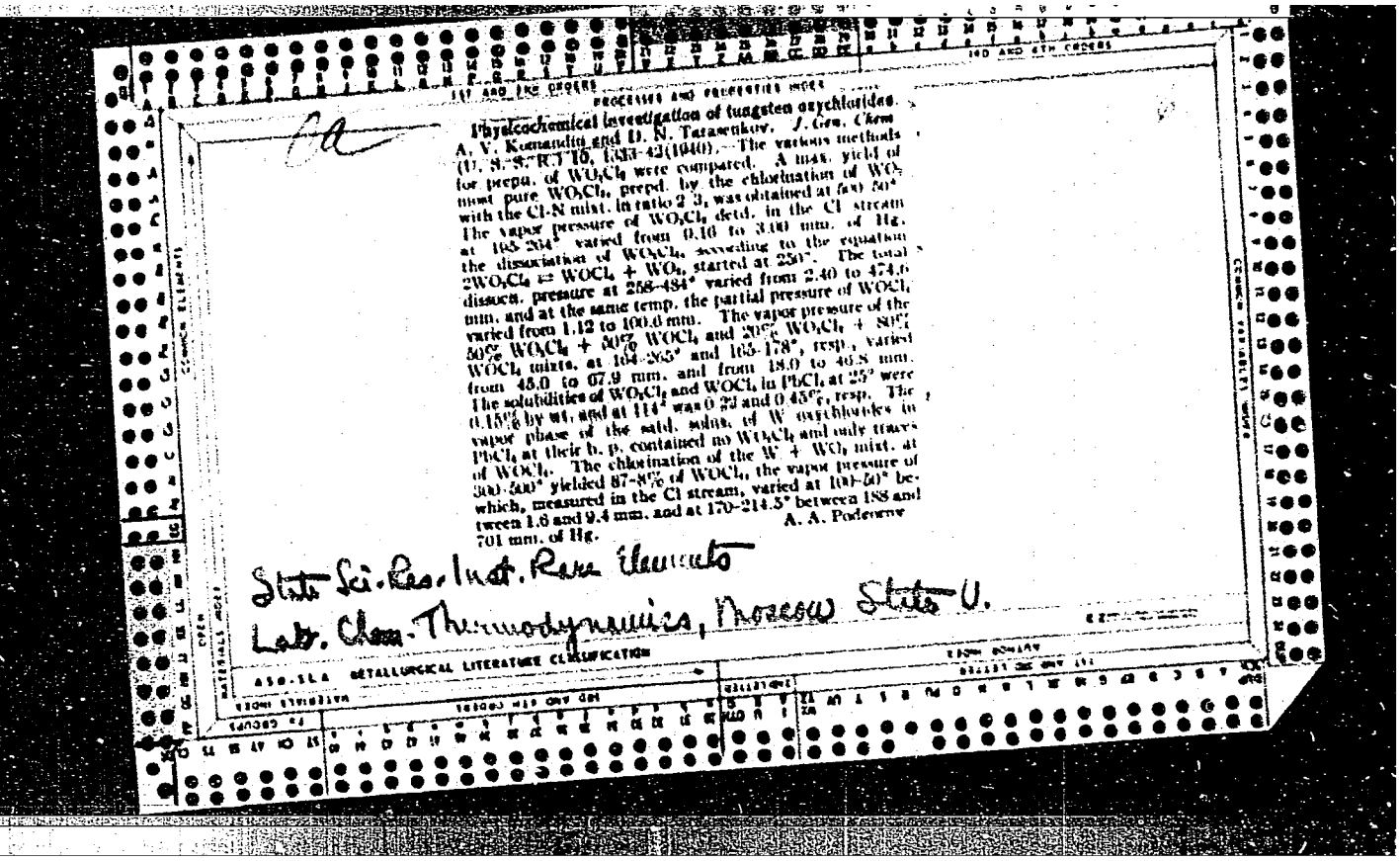
Influence of an inert solid phase on the f.p. of water and dilute aqueous solutions. III.

Amount of freezable water in presence of quartz sand and starch. D. N. TARASENKOV and A. V. KOMAROVE. (J. Gen. Chem. Russ., 1936, 6, 1147—1150).—The proportion of H_2O not freezing at 0° at total surface of the SiO_2 particles in unit vol., as to the occlus. of starch, and may amount to 33% in the former, and to 70% in the latter, case. R. T.

TARASENKOV, D. N.; KOMANDIN, A. V.

"Vapor Tension of Pentachlorides of Tantalum and Niobium and the Mixtures with Tetrachloride of Titanium," Zhur. Obshch. Khim., 10, No. 14, 1940. Lab. of Chem. Thermodynamics. Moscow State Univ. and State Sci. Res. Inst. of Rare Elements. Received 25 March 1940.

Report U-1610, 3 Jan. 1952.

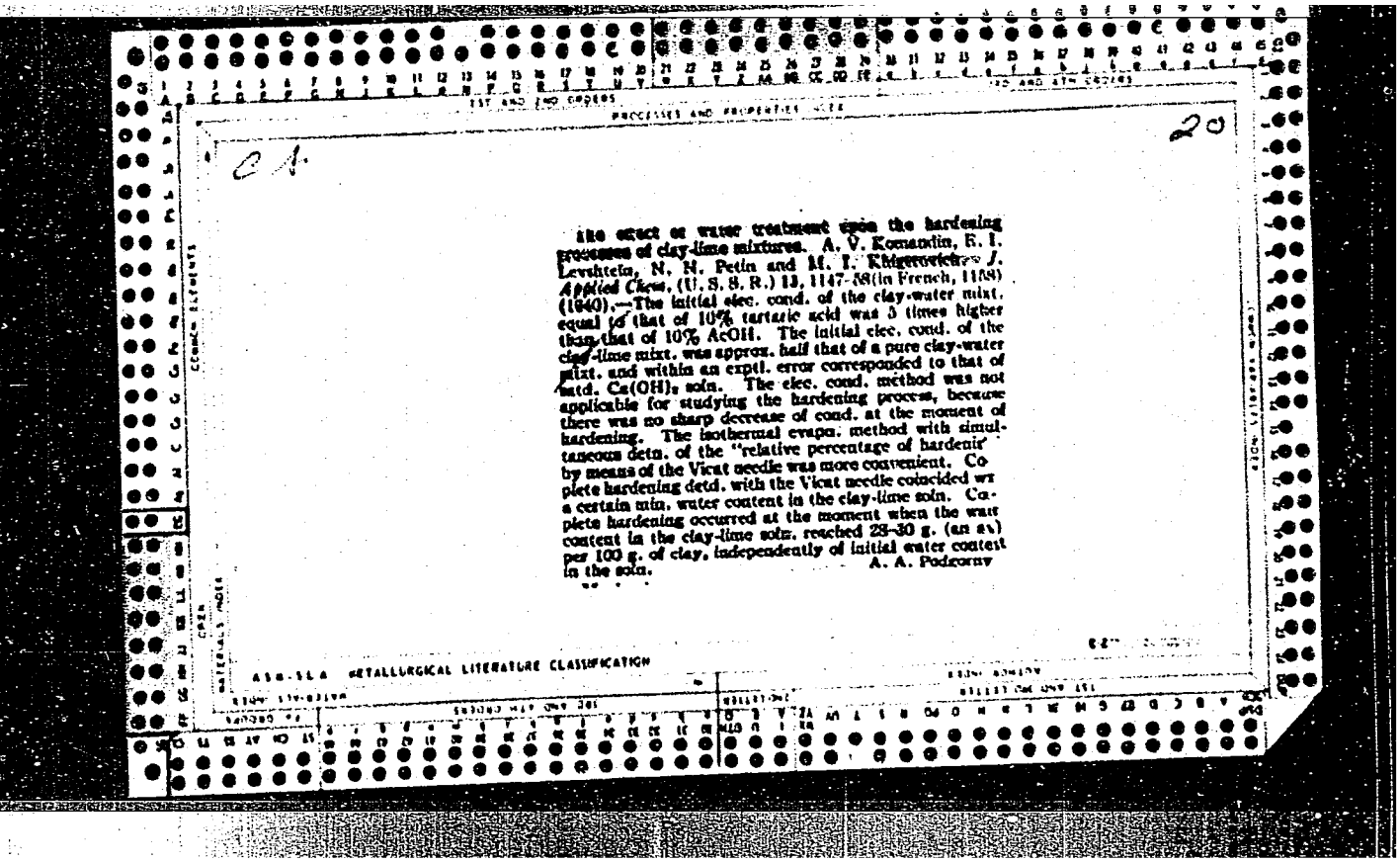


Physicochemical investigation of tungsten oxychlorides. A. V. Komandin and D. N. Tarasenkov. *J. Gen. Chem.* (U. S. S. R.) 10, 1033-42(1940).—The various methods for prepn. of WO_2Cl_2 were compared. A max. yield of most pure WO_2Cl_2 prepd. by the chlorination of WO_3 with the Cl-N mixt. in ratio 2:3, was obtained at (or) 50°. The vapor pressure of WO_2Cl_2 detd. in the Cl stream at 165-254° varied from 0.10 to 3.00 mm. of Hg. The dissociation of WO_2Cl_2, according to the equation $2WO_2Cl_2 \rightleftarrows WOCl_4 + WO_3$, started at 250°. The total dissocn. pressure at 258-434° varied from 2.40 to 474.0 mm. and at the same temp. the partial pressure of $WOCl_4$ varied from 1.12 to 100.0 mm. The vapor pressure of the 50% WO_2Cl_2 + 50% $WOCl_4$ and 20% WO_2Cl_2 + 80% $WOCl_4$ mixts. at 194-265° and 165-178°, resp., varied from 48.0 to 67.9 mm. and from 18.0 to 46.8 mm. The solubilities of WO_2Cl_2 and $WOCl_4$ in $PbCl_4$ at 25° were 0.15% by wt. and at 114° was 0.23 and 0.45%, resp. The vapor phase of the satd. solns. of W oxychlorides in $PbCl_4$ at their b. p. contained no WO_2Cl_2 and only traces of $WOCl_4$. The chlorination of the W + WO_3 mixt. at 300-500° yielded 87-88% of $WOCl_4$, the vapor pressure of which, measured in the Cl stream, varied at 100-50° between 1.6 and 9.4 mm. and at 170-214.5° between 188 and 701 mm. of Hg.

A. A. Podeorne

State Sci. Res. Inst. Rare Elements
Lab. Chem. Thermodynamics, Moscow State U.

ASD-SLA METALLURGICAL LITERATURE CLASSIFICATION



01

20

The effect of water treatment upon the hardening processes of clay-lime mixtures. A. V. Komandin, E. I. Levshtein, N. N. Petin and M. I. Khigerovich. *J. Applied Chem.* (U.S.S.R.) 13, 1147-58 (in French, 1158) (1940).—The initial elec. cond. of the clay-water mixt. equal 1/5 that of 10% tartaric acid was 5 times higher than that of 10% AcOH. The initial elec. cond. of the clay-lime mixt. was approx. half that of a pure clay-water mixt. and within an expt. error corresponded to that of satd. $Ca(OH)_2$ soln. The elec. cond. method was not applicable for studying the hardening process, because there was no sharp decrease of cond. at the moment of hardening. The isothermal evapn. method with simultaneous detn. of the "relative percentage of hardenir" by means of the Vicat needle was more convenient. Complete hardening detd. with the Vicat needle coincided wi a certain min. water content in the clay-lime soln. Complete hardening occurred at the moment when the wate content in the clay-lime soln. reached 28-30 g. (as a) per 100 g. of clay, independently of initial water content in the soln.

A. A. Podgornv

A54-SLA METALLURGICAL LITERATURE CLASSIFICATION

Technology

Electromotive forces. Moskva, Izd-vo Moskovskogo universiteta, 1951. Pod red. A. V. Frosta, Moskva.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

CA

Undercooling of organic liquids. Effect of various factors on the undercooling of benzene. A. V. Komandin (Moscow State Univ.). *Vestnik Moskov. Univ.* 6, No. 10, *Ser. Fiz.-Mat. i Estestven. Nauk*, No. 6, 53-65(1951).—
Benzene, purified chemically, and by fractional freezing and distn., to a sharp m.p. of 5.45 ± 0.02°, and outgassed, could be undercooled to 8.8° below the freezing temp. in vessels of 10 mm. or larger diam., and kept liquid for 23 hrs. provided the liquid was not mechanically disturbed, e.g. by shaking. Stirring of liquid C_6H_6 undercooled to only 0° produced immediate crystn. Satn. with air does not counteract undercooling, as air-satd. C_6H_6 could be undercoo d by about the same amt. as outgassed C_6H_6. Agitated C_6H_6, outgassed or air-satd., cannot be undercooled by more than 0.1-0.2°; the material of the agitator (metal or glass) makes no difference. In capillaries of 0.2 mm. diam., C_6H_6 can be undercooled by about 70°. A strong jump of the max. possible undercooling occurs between a vessel of 3.0 and one of 2.25 mm. diam.; in the former, the undercooling is still 8.5°, whereas in the next narrower tube it is possible to undercool by 19.8°, and in a 0.44-mm. tube, by 30.1°.
N. Thon

KOMANDIN, A. V. Sep 52

USSR/Chemistry Vanadium Compounds

"Vapor Pressure of Vanadium Oxytrichloride," A. V. Komandin and M. L. Vlodavets, Moscow State U

Zhur Fiz Khim, Vol 26, No 9, pp 1291-1297

Made a comparative study and evaluation of two methods of obtaining $VOCl_3$. The method of chlorinating V_2O_3 with Cl gas in the presence of C proved to be more effective than the action of dry HCl gas on V_2O_5. By the first method, the chlorination of 30 grams of V_2O_3 proceeded quantitatively and to completion in 2 hrs. The vapor pressure of $VOCl_3$ was measured within the temp range of 18.7-100° . The heat of evapn and the Trouton-Kistyakovskiy const were computed from the vapor pressure temp relationship. From the heating curves, the MP of $VOCl_3$ was found to be $-78.9 \pm 0.2^{\circ}$.

263 T 19

NAMANDIN, A.V.

Supercooling of organic liquids. [illegible] Trudy Leningr. [illegible] Lensovetsa No. 104, 133-38 (1955).—Supercooling of [illegible] and purified glycerol [illegible] (I), [illegible] (II), [illegible] phenone (III), benzene (IV), and acetylsalicylic acid [illegible] was studied under various conditions. In [illegible] containers IV could be supercooled no more than [illegible] below its m.p.; however in capillary tubes (about 0.2 mm. [illegible]) it was supercooled to 70° below the m.p. and was kept in this condition for about 10 hrs. In glass tubes of [illegible] diam. and 100 mm. in length it was possible to supercool I by 225°. A few samples of I and III have been [illegible] in the supercooled state for 6 yrs. at 10-20°. When [illegible] heated to 150° in sealed tubes for 30 min. and [illegible] cooled to room temp., it remained a clear viscous [illegible] for 3 [illegible] was impossible to supercool II under any conditions. Addn. of water to I causes very rapid crystn. The rate of crystn. increased as the concn. of water was raised from 0.5% to 40%, at which point it ceased to increase. Classification of liquids into 3 categories with respect to supercooling is suggested: (1) Liquids of the [illegible] type composed of small polar and nonpolar [illegible] mols. with considerable translational motion. These liquids undergo crystn. very easily and are difficult to supercool. (2) Liquids of the salol type with relatively large [illegible] less sym. than those in the 1st class, with [illegible] rotational Brownian motion. [illegible] coordination [illegible] the liquid state is similar to that in the cryst. state. These liquids are very easily supercooled. (3) [illegible] and polymeric liquids (rubber, rubber [illegible]) [illegible] usually [illegible] branched mols. [illegible] forming [illegible] within the same mol. [illegible] thermal [illegible] These liquids [illegible] to crystallize and are in their usual state supercooled [illegible]

[illegible]

KOMANDIN, A.V.

Use of a chlorine-Ag electrode instead of a calomel electrode.
Uch.zap.Mosk.un. no.164:201-207 '53. (MLRA 8:7)
(Electrodes, Silver)

KOMANDIN, A. V.

USSR/ Chemistry Physical chemistry

Card : 1/1

Authors : Komandin, A. V., and Bonetskaya, A. K.

Title : Dipole moments of certain salicylic acid derivatives

Periodical : Zhur. fiz. khim. 28, No. 6, 1113 - 1119, June 1954

Abstract : The dipole moments of methyl salicylate, ethyl salicylate, isoamyl salicylate, phenyl salicylate and β-naphthyl salicylate, were measured in benzene solutions and the dipole moments of [illegible] in dipole moments in many salicylic acid derivatives and the effect of the intramolecular hydrogen bond on the [illegible] are explained. Drawing of the device used in measuring the dielectric permeability of the solutions, is included. Twenty references: [illegible] USSR, 11 German and English. Tables.

Institution : The M. V. Lomonosov State University, Moscow

Submitted : November 13, 1953

NAY

Card : 1/1 147 - 12/25

Authors : Komandin, A. V., and Bonetskaya, A. K.

Title : Dipole moments of orthohydroxybenzoic acid substitutes

Periodical : Zhur. fiz. khim. 28/10, 1789-1794, Oct 1954

Abstract : In order to explain the effect of the hydrogen bond on the dipole moment, the authors measured the dipole moments of the following substitutes of orthohydroxybenzoic acid: orthomethoxy- and orthophenoxybenzoic acid, methyl ether of orthomethoxybenzoic acid and salicylic ester (the latter represents a molecular compound of salicylic acid and orthoxylene). Data regarding the measured dielectric permeability, density and index of refraction for various concentrations of the dissolved substances are presented. The chemical structure of the substitutes is described. Twelve references: 4-USSR; 5-German; 2-USA and 1-French (1893-1954). Tables.

Institution : The M. V. Lomonosov State University, Moscow

Submitted : February 17, 1954

USSR/Chemistry - Physical chemistry

Card 1/2 : Pub. 147 - 18/27

Authors : Komandim, A. V., and Rosolovskiy, V. Ya.

Title : Dipole moments of certain orthohydroxybenzoic acid and glycerin derivatives

Periodical : Zhur. fiz. khim. 28/12, 2215-2221, Dec 1954

Abstract : In order to explain the effect of the hydrogen bond on the dipole moment, the following compounds were measured at 25° C in benzene solutions: methyl and phenyl ethers of o-acetoxybenzoic acid (methyl and phenyl o-acetoxybenzoate), phenyl ether of o-phenoxybenzoic acid (phenyl o-phenoxybenzoate) and glycerin ether of acetic acid (glycerin acetate) as well as glycerin ether of salicylic acid (glycerin salicylate) in dioxane. The dipole moment of the latter was measured in dioxane because of its low solubility in benzene. The synthesis and purification of the investigated substances are described and the results obtained are tabulated. Fourteen references ; 2 USSR; 6 German; 1 British; 1 French; 3 USA and 1 Swiss (1897-1954). Tables.

Zhur. Fiz. Khim. 28/12, 2215-2221, Dec 1954 (Additional Card)

Card 2/2

Institution : The M. V. Lomonosov State University, Moscow

Submitted : May 8, 1954

5(4) SOV/76-33-3-10/41

AUTHORS: Komandin, A. V., Bonetskaya, A. K.

TITLE: Density and Molar Volume of Several Organic Compounds in a Broad Range of Temperature (Plotnosti i molyarnyye ob"yemy nekotorykh organicheskikh soyedineniy v shirokom intervale temperatur)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 3, pp 566 - 571 (USSR)

ABSTRACT: Density and molar volume in the temperature range 100-200° were determined for the liquid and supercooled liquid state of the following 11 substances: methyl-, ethyl-, isoamyl-, phenyl-, (salol) and 2-naphthyl- (betol)-esters of o-hydroxy benzoic acid, o-acetoxy benzoic acid (aspirin), the methyl esters of o-methoxy benzoic acid, salipyrine, o-methoxyphenol (guaiacol), 3-methyl-6-isopropylphenol (Thymol) and benzophenone. Density in solid state was determined at room temperature for: the phenyl- and 2-naphthyl esters of o-hydroxy benzoic acid, o-aceto benzoic acid, 3-methyl-6-isopropylphenol and benzophenone; these data are, however, to be re-

Card 1/2

garded as orientation data only. The production of guaiacol, thymol and benzophenone is given, the way of production of the other substances has already been described (Ref 4). The density was measured by means of a pycnometer-dilatometer of the Biron-type (Ref 5). Table 2 shows that the temperature function of density develops linearly for all substances investigated. There are 3 tables and 5 references, 2 of which are Soviet.

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

SUBMITTED: June 25, 1957

5 (4)

AUTHORS: Komandin, A. V., Bonetskaya, A. K. (Moscow)

SOV/76-33-5-3/33

TITLE: The Dielectric Constant of Esters of Orthohydroxy Benzoic Acid in a Wide Temperature Interval (Dielektricheskaya pronitsayemost' slozhnykh efirov ortogidroksibenzoynoy kisloty v shirokom intervale temperatur)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 5, pp 976 - 982 (USSR)

ABSTRACT: This paper describes measurements of the dielectric constants of methyl, ethyl, isoamyl, phenyl, and 2-naphthyl ester of the acid mentioned in the title. The measurements were carried out in a liquid and undercooled liquid state within a temperature interval ranging of from a temperature below melting point to a temperature at which the dielectric constant decreased rapidly to low values with a constant frequency of the outer electric field; these values did not vary with further temperature decrease and approached the square of the refractive index, i.e. the total amount of electronic and atomic polarization. Figure 1 shows the construction of the condenser used for the measurements. By using a special glass filter crystal-

Card 1/3

lization germs were prevented from being carried along with the liquid and the measurement in undercooled state up to glass-shaped modification without spontaneous crystallization was rendered possible. Tables 1 - 5 show the values of the dielectric constant for the esters mentioned; moreover, the values computed for the Kirkwood coefficient g, as well as for the general and orientation polarization. Figure 2 shows the shape of the curve of the dielectric constant depending on temperature. Hence it appears that with decreasing temperature and constant frequency of the outer electric field ($1.72.10^6$ cycles) the value of the dielectric constant increases, reaches a maximum, and then decreases rapidly to low values. There is a relation between the molecular structure of the substances investigated and the variation of the dielectric constants. The more complicated the structure of the substituent, the lower and flatter the curve of the dielectric constant. The maxima of the dielectric constants are influenced in a similar way. These turning points could be reproduced with an accuracy

of 1 - 2° and represent a specific quantity as to the liquid concerned. There are 2 figures, 5 tables, and 12 references, 6 of which are Soviet.

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

SUBMITTED: November 25, 1957

5(4)
AUTHORS: Komandin, A. V., Rosolovskiy, V. Ya. SOV/76-33-6-18/44

TITLE: Densities and Molar Volumes of Some Organic Compounds in Broad Temperature Ranges (Plotnosti i molyarnyye ob"yemy nekotorykh organicheskikh soyedineniy v shirokom intervale temperatur)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 6, pp 1280-1282 (USSR)

ABSTRACT: The densities were determined in the temperature range of 60 - 160° for the liquid and undercooled state of the following 6 compounds: ethylene glycol, glycerin, α,γ-glyceryl acetate, α-glycerin-o-hydrobenzoate, and the methyl- and phenyl-o-acetoxy benzoate (Table 1). The determination accuracy is specified as being ± 0.03%. Results show that in all compounds in the investigated temperature range the temperature function of density proceeds linearly. Also the molar volumes exhibit a linear temperature function. Table 2 supplies equations of the straight lines of the temperature function of density and molar volumes of the compounds investigated for broad temperature ranges. There are 2 tables

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SOV/76-33-6-18/44

Densities and Molar Volumes of Some Organic Compounds in Broad Temperature Ranges

and 3 references, 2 of which are Soviet.

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

SUBMITTED: November 10, 1957

Card 2/2

5(4) SOV/76-33-6-19/44

AUTHORS: Komandin, A. V., Rosolovskiy, V. Ya.

TITLE: Dielectric Constant of Some Organic Compounds Over a Broad Range of Temperature (Dielektricheskaya pronitsayemost' nekotorykh organicheskikh soyedineniy v shirokom intervale temperatur)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 6, pp 1283-1288 (USSR)

ABSTRACT: To clarify the relationship existing between dielectric properties and structure the dielectric constants (DC) were determined for the liquid and undercooled state over a broad temperature range concerning the following substances: methyl- and phenyl-o-acetoxybenzoate, α-glyceryl-o-hydroxybenzoate and α,γ-glyceryl acetate. The preparation and cleaning methods as well as the physical constants of these compounds have already been described earlier (Ref 2). The determination of the (DC) took place according to the pulsating method (Ref 3). Measuring results of the (DC) and densities of the above mentioned substances are given as well as the computed values of the general- and orientation polarization for the liquid and undercooled phase, and the

Card 1/2

Dielectric Constant of Some Organic Compounds Over a Broad Range of Temperature

coefficients g according to Kirkwood (Tables 1 - 4). It may be observed from the results obtained and from a graph (Figure) that the (DC) rises with the temperature drop, attains a maximum and then drops rapidly. The position of the curve maxima, however, depends on the structure of the compound. With rising molecular weight of ester the ε - T curve (ε = (DC), T = temperature) runs lower, and the curve maximum shifts to higher temperatures. The temperatures T_x (characteristic of each of the compounds) which corresponded to the ε - T curve inflection, were determined at constant frequencies of an electric outer field, and are specified in the present paper. There are 1 figure, 4 tables, and 4 Soviet references.

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

SUBMITTED: November 10, 1957

S/076/60/034/04/24/042
B010/B009

AUTHORS: Komandin, A. V., Bonetskaya, A. K. (Moscow)

TITLE: The Dielectric Constants of Some Organic Compounds Within a Broad Temperature Range

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 4, pp. 845 - 849

TEXT: In continuation of previous papers (Refs. 1,2) concerning the relation between the dielectric properties and chemical structures of organic substances in liquid and supercooled liquid phases the dielectric constants of the methyl esters of o-methoxybenzoic acid, o-acetoxybenzoic acid, salipyrine, and benzophenone were measured. The measurements were made by means of an apparatus previously described (Ref. 3) at a frequency of $1.72 \cdot 10^6$ cps and temperatures of from 200 to 400°K. The measured values of the dielectric constants and densities of the substances under investigation as well as the calculated values of the total and oriented polarizations for both the liquid and supercooled phases and of the Kirkwood coefficients G of the intermolecular interaction are given in Tables 1-4. As in the earlier investigations, the curve of the dependence of the

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84253

S/076/60/034/009/018/022
B015/B056

24.7800 also 2209

AUTHORS: Komandin, A. V., Shapovalova, R. D., and Mikhaylova, N. P.

TITLE: Some Physical Properties of Tungstates. II. The Dielectric Constant and the Polarization of Solid Tungstates

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 2063-2065

TEXT: The dielectric constants of manganese-, calcium-, barium-, zinc-, copper-, magnesium-, iron-, cobalt-, and nickel tungstates were measured by the immersion method (Refs. 1,2) in the solid state at 25°C (Table, measured values). As standard liquids, benzene - acetone and acetone - water mixtures were used for the solid tungstates. Measurements were carried out on a previously described device (Ref. 3) at a frequency of $1.72 \cdot 10^6$ c/sec. From the values obtained for the dielectric constants, the total polarizations of the solid crystalline tungstates were calculated from the Debye equation. The dielectric constant is in the range from 17.7 to 21.4. The molar refraction for calcium- and manganese tungstate

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84253

Some Physical Properties of Tungstates. II. The Dielectric Constant and the Polarization of Solid Tungstates

S/076/60/034/009/018/022
B015/B056

in the solid state was also determined. According to the results obtained it is found that, apparently, the structure of the crystals of all tungstates investigated is of the type of ionic crystals, and that the difference between the total polarization and the molar refraction represents the polarization of ionic displacement. There are 1 table and 6 references: 5 Soviet and 1 US.

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

SUBMITTED: December 31, 1958

Card 2/2

KOMANDIN, A.V.; SHIMIT, B.D.

Thermodynamics of dielectric relaxation processes of polyatomic alcohols in the liquid state. Zhur.fiz.khim. 37 no.2:347-353 F '63. (MIRA 16:5)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
(Alcohols) (Dielectric constants)

KOMANDIN, A.V.; SIZOV, L.I.; SHIMIT, B.D. (Moscow)

Dielectric constant and dielectric losses of o-hydroxybenzoic acid derivatives in the liquid state. Zhur. fiz. khim. 37 no.4:764-769 Ap '63. (MIRA 17:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

EPF(c)/EWT(1)/EWT(m) ... /ASD/SSD

ACCESSION NR: AP ...

76
75

AUTHOR: Komandin, A. V.; Sizov, L. I.; Shimit, B. D.

TITLE: Thermodynamics of dielectric relaxation processes in liquids.

SOURCE: AN SSSR. Zhurnal fizicheskoy khimii v. 37 no. 5 1963, 1083-1088

TOPIC TAGS: relaxation processes phenyl O-hydroxybenzoate phenyl ... ethoxybenzoate

ABSTRACT: A previous study (A. V. Komandin, L. I. Sizov and B. D. Shimit Zh. ... , 37, 764, 1963) was made on the dependence of temperature upon ... ration of phenyl o-hydroxybenzoate and phenyl ... oxybenzoate at ... external ... The present work is concerned ... rations of these compounds at several temperatures. From the results ... in both investigations, the main thermodynamic functions characterizing ... relaxation processes in ... constant of phenyl ...

Card 1/2

L 9903-63
ACCESSION NR: AP3000418

of phenyl o-acetoxybenzoate at 55 and 42C in the supercooled state has been determined. A linear relationship between log Tau and 1/T has been established [illegible] and their corresponding [illegible]. A detailed [illegible] relations are [illegible]. [illegible] equations, 7 tables and 3 graphs.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet (Moscow State University)

SUBMITTED: 07May62 DATE ACQ: 18Jun63 ENCL: 00

SUB CODE: OC NR REF SOV: 005 OTHER: 002

Card 2/2

EWP(j)/EWT(m)/BDS Pc-4 RM
2933 317/1320

V.; Shimit, B. D.

...rature and frequency dependence of the ... of
... acid derivatives in the liquid state

... fizicheskoy khimii, v. 37, no. ... 1317-1320

... constant, o-hydroxybenzoic ... liquid state,

... dielectric constants and losses of ... hydroxybenzoate in ... state at temperatures ranging from ... have been ... 50, 100, 200, 500 kilocycles ... 15 megacycles. ... in relation to the chemical ... discussed. ... 1 table and 1 figure.

...: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (... State University)

SUBMITTED: 07Jun62	DATE ACQ: 16Jul63	ENCL: 00
SUB CODE: 00	NO REF SOV: 004	OTHER: 000

KOMANDIN, A.V.; SHIMIT, B.D.

Thermodynamics of dielectric relaxation processes of o-hydroxybenzoic acid derivatives. Zhur.fiz.khim. 37 no.10:2289-2293 O '63.
(MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet.

ACCESSION NR: AP4011441 S/0076/64/038/001/0089/0095

AUTHORS: Komandin, A. V. (Moscow); Smirnova, A. D. (Moscow)

TITLE: The thermodynamic aspect of dielectric relaxation processes in glycerin esters.

SOURCE: Zhurnal fiz. khim, v. 38, no. 1, 1964, 89-95

TOPIC TAGS: dielectric constant, dielectric losses, glyceryl acetate, hydroxybenzoate, enthalpy, entropy, dielectric relaxation, acetic acid, glycerin derivatives, thermodynamic functions

ABSTRACT: This article deals with the measurements of the dielectric constants and tangent of dielectric losses of α,γ-glyceryl acetate and α-glycerin ester of o-hydrobenzoate in a liquid and supercooled liquid state at different frequencies of the electric field and in a wide range of temperatures. The free energy, enthalpy and entropy characterizing the dielectric relaxation processes were calculated from the resulting measurements. The relaxation time of the glycerin derivates is closely associated with the nature of the substituting groups. The substitution of the hydrogen in the glycerin by simpler

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ACCESSION NR: AP4011441

radicals reduces the relaxation time, whereas the substitution by more complex radicals prolongs the dielectric relaxation time to a considerable extent. The dispersion of the dielectric constant of d,l -glyceryl acetate has been determined for five temperatures ranging from -20 to -50C, and the dispersion of a-glyceryl o-hydroxybenzoate has been determined at 40, 30 and 20C. The temperature dependence of the dielectric constant and the loss tangent have been determined by d,l-glyceryl o-hydroxybenzoate over a given temperature range. The connection between the thermodynamic functions and the chemical structure of the investigated compounds is under discussion. Orig. art. has: 3 Figures, 6 Formulas and 6 Tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni V. M. Lomonosov (The V. M. Lomonosov Moscow state university)

SUBMITTED: 24Jan63 DATE ACQ: 14Feb64 ENCL: 00

SUB CODE: CH NR REF SOV: 006 OTHER: 003

Card 2/2

ACCESSION NR: AP4033413 S/0076/64/038/003/0783/0785

AUTHOR: Komandin, A. V.; Smirnova, A. D.

TITLE: Dielectric properties of liquid benzophenone

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 3, 1964, 783-785

TOPIC TAGS: benzophenone, dielectric loss, dielectric permeability, relaxation process, thermodynamic function

ABSTRACT: The article describes the measurements of dielectric permeability and the tangent of the angle of dielectric losses for liquid benzophenone in the 95 to -55 C interval at 50 kc, 800 kc and 20 Mc as the frequency of the external field. The measurement of dielectric properties was conducted by the resonance method. The accuracy of dielectric permeability measurement was ± 1 %, dielectric losses ±(5 - 10) %, and the accuracy of temperature measurements was ± 0.1 deg. It was found that with lowering of the temperature the dielectric permeability of liquid benzophenone increases, reaching a maximum, after which it rapidly falls to small values, which characterizes the deformation polarization. At the temperature of the maximum of dielectric permeability the tangent of the dielectric

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ACCESSION NR: AP4033413

SUBMITTED: 16May63 ENCL: 00

SUB CODE: EM NO REF SOV: 004 OTHER: 000

Card 3/3

Komandin, N.L.

137-1957-12-23429

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 86 (USSR)

AUTHOR: Komandin, N. L.

TITLE: The Continuous Casting of Steel (Nepreryvnaya razlivka stali)

PERIODICAL: V sb.: Novoye v liteyn. proiz-ve. Nr 2. Gor'kiy, Knigoizdat, 1957, pp 150-171

ABSTRACT: An analysis of the operation of an industrial system, installed at the "Krasnoye Sormovo" plant in 1955, by means of which two ingots of 175 - 420 mm cross section can be cast simultaneously from a 45-50 t ladle through an intermediate casting device (ICD). These unified ingots replace 12 types of regular ingots of different dimensions and weights and are suitable for rolling into sheets and structural shapes. To ensure the completeness of the process of casting steel from a ladle of such capacity, the temperature of the metal must be 1540° or greater (as read on an optical pyrometer) at the time of its discharge from the furnace. If the temperature is lower, difficulties in the casting process are encountered because the metal solidifies in the casting nozzle of the ICD. An ICD of 3-5 t capacity, equipped with a cover and heated to a temperature of 900°, ensures the pouring of the

Card 1/3

The Continuous Casting of Steel

entire contents of the ladle at an almost constant temperature (the temperature drop in the ICD is only 8-10° in 45-60 min). In order to achieve a steady stream of metal from the ICD various casting nozzles were tested, including the electrically heated graphite-chamotte type. Compared with the regular ingot produced at the "Krasnoye Sormovo", the continuous ingot shows a finer grain structure, decreased liquation and porousness, and a reduced amount of non-metallic inclusions. However, some internal cracks were observed in it; the occurrence of the cracks depends on the intensity of the secondary cooling. A diagram is shown for the stresses which arise in the cross section of a continuous ingot. When the amount of water applied to the surface of the ingot in jets during the secondary cooling is decreased from 5 to 3.5 liter per kg of steel, the size of the cracks is considerably reduced. Internal cracks may be eliminated entirely if the surface of the ingot is sprayed by water from spray nozzles. The internal cracks are completely welded during the rolling of the ingots into sheets, and the surface of the sheets is superior to that of the sheets obtained from regular ingots. The mechanical properties of the metal are better than the specification properties required for a given grade of steel. The plant employs

Card 2/3

137-1957-12-23429

The Continuous Casting of Steel

the metal obtained from rolling of continuous ingots for shipbuilding. The installation at the "Krasnoye Sormovo" casts 20-25 percent of the total steel smelted in the Martin shop, and it is planned to increase this amount to 60-65 percent in the near future.

N. N.

1. Steel castings-Test methods 2. Steel castings-Test results

Card 3/3

137-58-4-8335

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 289 (USSR)

AUTHORS: Komandin, N.L., Smolyakov, B.N.

TITLE: Shipbuilding Applications of High Strength Steels (Primeneniye staley povyshennoy prochnosti v sudostroyenii)

PERIODICAL: Tr. Gor'kovsk. in-ta inzh. vodn. transp., 1957, Nr 14, pp 62-75

ABSTRACT: The properties of MK steel of the % composition C 0.09-0.12, Si 0.7-1.2, Mn 1.0-1.6, and Cu 0.2-0.5 were investigated relative to its use in shipbuilding in the place of SKhL-1 and St. 3 steels. Testing of >2000 specimens cut from plates of different thicknesses along and across the direction of rolling have shown MK steel to have superior plastic properties than St. 3 steel, lower notch and aging sensitivity, better corrosion strength in sea and river water and in a mixture of 20% benzene and 80% sea water, and superior weldability. The building of a seagoing ship of MK steel saved 26.5% in weight; a 17.6% weight saving was attained in the building of a river vessel. V. L.

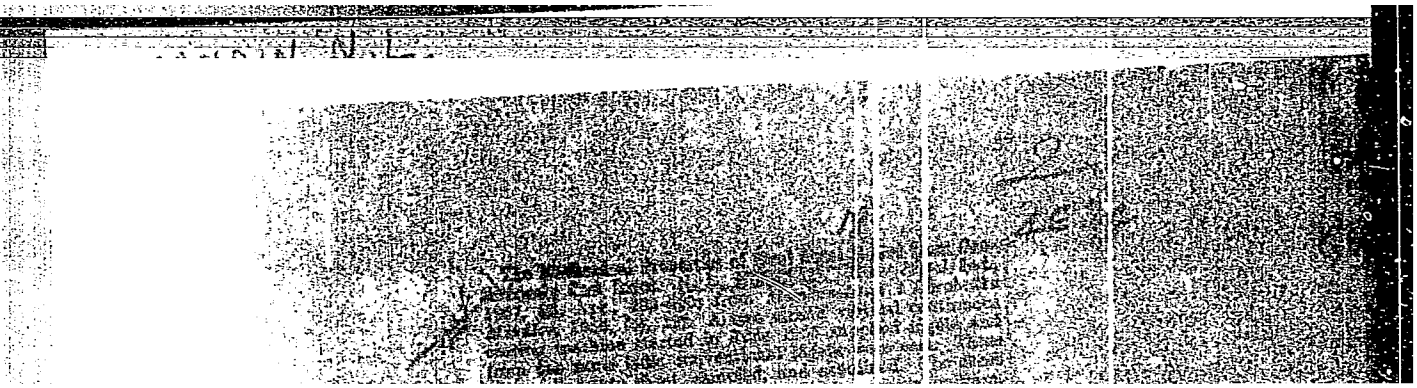
Card 1/1 1. Ship hulls--Materials--Effectiveness 2. Steel--Mechanical properties 3. Steel--Applications

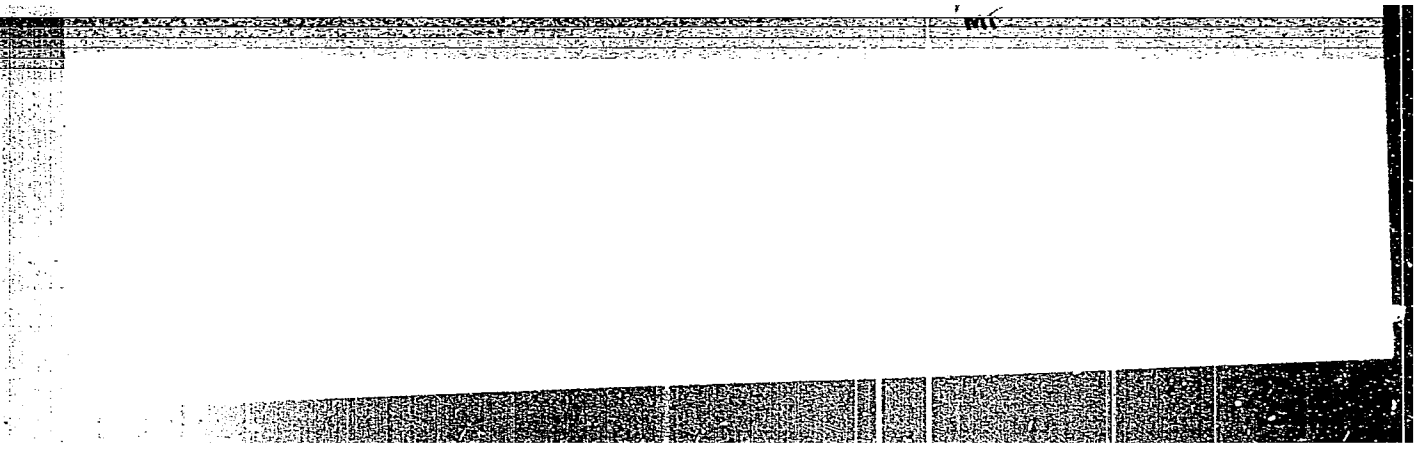
Komandin, N.L.

KOMANDIN, N.L., kand.tekhn.nauk.

Use of SKhL-1 steel in shipbuilding. Rech.transp. 16 no.12:17-19 D '57. (MIRA 11:1)

(Shipbuilding--Supplies)
(Steel, Structural)





APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000824020006-9"

ZINEVICH, I.N.; KOMANDIROV, G.L.

Equipment for burnishing external cylindrical surfaces. Mashinostroitel' no.4:2-3 Ap '65. (MIRA 18:5)

KOMANDIROV, Yu. (Khabarovsk)

Loudspeaker instead of microphone. Radio no.7:34 Jl '54.
(MLRA 7:7)

(Loud-speakers) (Microphone)

Komandirov, Yu.

107-12-19/46

AUTHOR: Komandirov, Yu., Kemerovo

TITLE: Long-Distance Communications on the Ultrashort Waves (Dal'niye svyazi na UKV)

PERIODICAL: Radio, 1956, Nr12, p. 20 (USSR)

ABSTRACT: A report of unusually good transmission of ultrashort waves on September 28 and 30, 1956, in the central part of Russia is presented.

Sept 28, 1956, the collective radio station of the DOSAAF Kemerovo oblast Radio Club 059510 established (at 11.52 Moscow time) a duplex communication with the station 068003 in Rostov-na-Donu, on 38 mc, at a distance of 3.200 km. The 068003 worked telegraphically with RST 338, and the 056510 worked telephonically with RSM 595.

Sept 30, 1956, a duplex radio communication was established with Novocherkassk, 068030, 3120 km (at 08.43 a.m.).

At 09.00 a.m. the communication was established with Moscow 077528 2960 km. Moscow operator Ye. Skorospelov reported his RSM 445, and mine RSM 595.

At 09.40 a.m. the same day, a contact was established with the Taganrog station 068040, distance 3820 km, with RSM 575 and Taganrog RSM 445.

Card 1/2 Between 10.00 and 11.00 a.m. the same day, radio hams of Kemerovo heard,

107-12-19/46

Long-Distance Communications on the Ultrashort Waves

with RSM 335-575, the following stations: Ivanovo 057011, Saratov 069004 and 069007, Voroshilov 031482, Leningrad 076524, Silishchi 007001, Khimki 064020, and many other cities.

The DOSAAF Club Kemerovo station has a 9-tube superhet receiver.

AVAILABLE: Library of Congress

Card 2/2

S/138/60/000/01/01/010

AUTHORS: Shatalov, V.A., Popova, Ye.N., Krygina, K.G., Komandorova, L.A.

TITLE: Greater Stability of the SKS-30 Polimerization System

PERIODICAL: Kauchuk i Rezina, 1960, No. 1, pp. 3 - 5

TEXT: The article deals with possibilities of improving the stability of the polimerization system and investigates the reasons for its instability. One of the main reasons for the separation of coagulum during the process of polimerization is due to ferrous salt getting into the polimerization charge. It is sufficient to add 0.1% $FeSO_4$ to the aequeous phase to bring the amount of coagulum from 0.5 to 4.7% based on the rubber. The principal mass of iron compounds enters the polimerization mixture with the emulsifier (Nekal) and alkali. Deposition of coagulum is also brought about by a great temperature gradient between the latex and the walls of the apparatus. The large particles of phenyl-β-naphtylamine are the coagulation centers. The stability of the low-temperature SKS-30A polimerization system can be improved by increasing the quantity of water and emulsifier, as well as by adding a small amount of leucanol, which should be introduced at a rate of 0.3% based on the monomers. The effect produced by leuconol on the SKS-30 system

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has been tested under laboratory and industrial conditions. The results of tests are shown in 2 Tables. These data show that under industrial conditions leucanol improved considerably the stability of the polimerization system. After introduction of leucanol the use of the deposition in the end polimerizers decreased about 10 times, while in the first apparatus coagulation was practically not existing. Laboratory tests permitted to draw the conclusion, that the stabilization brought about by leucanol is due to the effect it produces on the ion of iron and to the physico-chemical processes of colloidal substances like soap or dispersers, whereby the protective action of the film surrounding the rubber particles is strengthened. It can therefore be concluded that by the introduction of leucanol into the recipe of SKS-30, by the total prevention of iron compounds from getting into the system and by the improvement of the dispersion of phenyl-β-naphtylamine it is possible to eliminate the precipitation of coagulum from latex in the course of polimerization as well as the separation of monomers. There are 3 tables and 3 Soviet references.

ASSOCIATION: Voronezhskiy zavod sinteticheskogo kauchuka im. S. M. Kirova (Voronezh Plant of Synthetic Rubber im. S. M. Kirov)

Card 2/2

KOMANDRINA, T.A. [Komandrina, T.O.]

New method for calculating seismic effects on spatial constructions. (MIRA 17:9)
Dop. AN URSR no.7:888-892 '64.

1. Odesskiy inzhenerno-stroitel'nyy institut. Predstavleno akademikom AN UkrSSR G.N.Savinym [Savin, H.M.].

YEGUPOV, Vyacheslav Konstantinovich. Prinimala uchastiye
KOMANDRINA, T.A.; KIYANICHENKO, N.S., red.

[Calculating buildings for strength, rigidity, and vibration] Raschet zdanii na prochnost', ustoichivost' i kolebaniia. Kiev, Budivel'nyk, 1965. 253 p. (MIRA 18:7)

KOMANDRINA, T.A.

Calculating buildings for seismic action taking three-dimensional effect into account. Izv. AN Arm. SSR. Ser. tekh. nauk 17 no.4:17-25 '64. (MIRA 17:11)

1. Odesskiy inzhenerno-stroitel'nyy institut.

KOMANDORSKAYA, L. V.

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. Equilibrium. Physicochemical analysis. Phase transitions B-8

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11143

Author : 1. Shukarev S.A., Tolmacheva T.A., Oranskaya M.A., Komanderskaya L.V.
2. Shchukarec S.A., Oranskaya M.A., Shemyakina T.C.

Title : Thermal Dissociation of Platinum Hakides. Communication 1. Platinum Bromides. Communication 2. Platinum Chlorides.

Orig Pub : Zh. neorgan. khimii, 1956, 1, No 1, 8-16; 17-23

Abstract : 1. Statistical method of F. Ephraim (Ber., 1917, 50, 1069) was used to investigate temperature dependence of thermal dissociation of $PtBr_4$ (I), $PtBr_3$ (II), $PtBr_2$ (III) and PtBr (IV). Scheme of the unit is described. Data obtained are represented as lg P - 1/T graphs. From the slope of the straight lines were determined equations of dependence of dissociation pressure on temperature, for I lg P - 7.809 - (4549/T0, II lg P- 7.195 - (4808/T), III lg P = 6.064 - (5123/T) and IV lg P = 4.755 - (4679/T). Calculated therefrom were the values of P_{Br2}, at 10° intervals, for I (over range 200-280°), II (280-390°), III (420-500° and IV (460-510°) which are tabulated. By using these data calculations were made of the values of

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Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11143

enthalpy and entropy changes (ΔH and ΔS) in reactions of successive dissociation of the bromides, on the assumption that these quantities are independent of the temperature within the interval under study. Determined were the values of enthalpy of formation ΔH (formation), (in kcal/mole) from metal and gaseous bromine, for I, II, III and IV, which are, respectively, -44.0; -33.6; -22.6; -10.75, and thus in good agreement with literature data. The actual existence of each bromide was confirmed by chemical analysis and recording of Debye X-ray patterns. It is shown that below 340°K IV must undergo exothermal disproportionation. The appreciable scattering of experimental data forces the authors to assume that platinum bromides possess the property of interacting with one another to form solid solutions. 2. Investigated was the temperature dependence of dissociation pressure of $PtCl_4$ (V) (298-358°), $PtCl_3$ (VI) (332-394°), $PtCl_2$ (VII) (490-530°), and PtCl (VIII) (568-762°). On the basis of the data thus obtained the enthalpies of formation were calculated (kcal/mole): V -62.7; VI -48.1; VII -33.4; VIII -11.7; these values are in satisfactory agreement with literature data. Debye X-ray patterns of the platinum chlorides have

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Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11143

demonstrated the actual existence of each substance. Experimental data for the reactions $2PtCl_n = 2PtCl_{n-1} + Cl_2$ are expressed by the equations $\lg P_{Cl_2} = A - (B/T)$, wherein A and B are: for n =4, 9.04, 6267.5; n = 3, 8.42, 6303.1; n= 2, 10.59, 9131.1; n = 1, 4.36, 5114.9. On the basis of the data obtained and those found on the literature an analysis is made of the dependence of isobaric potential of the valency is discussed. It is shown that at low temperatures ($< 600°$) VIII must undergo exothermal disproportionation.

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KOMANDROVSKIY, V. G.

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PHASE I BOOK EXPLOITATION SOV/6100

Akademiya nauk SSSR. Institut tochnoy mekhaniki i vychislitel'noy tekhniki.

Trudy (Academy of Sciences of the USSR, Institute of Precision Mechanics and Computer Technology. Transactions) no. 2. Moscow, 1961. 447 p. 1000 copies printed. Contributors not mentioned.

PURPOSE: This collection of articles is intended for scientific and technical personnel concerned with machine translation and computer technology.

COVERAGE: This collection of articles of the Institute of Precision Mechanics and Computer Technology, Academy of Sciences USSR, is the second in a series concerned with machine translation and mathematical linguistics. The collection contains reports written by members of the Machine-Translation Group of the Institute as well as reports by researchers from other organizations. The articles deal with various problems in machine translation, such as the possibility of an intermediate language, relationships between various languages, systems of recording, structure of

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11/30/62

Academy of Sciences (Cont.) SOV/6100

26. Ivanov, V. V. On the Acceptability of Phonological Patterns 398

27. Yefimov, M. B., and A. A. Zvonov. Attempt at Constructing a System of Graphic Analysis of Hieroglyphic Writing 415

28. Komandrovskiy, V. G. Problems of Constructing Reading Device 425

References 444

AVAILABLE: Library of Congress

SUBJECT: Automation and Computer Engineering

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IS/wrc/eb
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L 33746-66 EWT(d)/T/EWP(1) IJP(c) BB/GG/GD/JAT(BF)

ACC NR: AT6008567 SOURCE CODE: UR/0000/65/000/000/0169/0178

52
B+1

AUTHOR: Komandrovskiy, V. G.

ORG: none

TITLE: A logical scheme for symbol identification 16

SOURCE: AN SSSR. Institut nauchnoy informatsii. Chitayushchiye ustroystva (Reading devices). Moscow, VINITI, 1965, 169-178

TOPIC TAGS: pattern recognition, character reading equipment, reading machine, STATISTIC DISTRIBUTION

ABSTRACT: A logical scheme for identifying printed symbols on the basis of statistical features is presented. The scheme eliminates certain problems arising from varying size, slant and other differences in printed symbols. The method considers text symbols from the aspect of their length, width of the contour, minimum number of scanning lines needed for recognition, slope of the line, and other symbol properties. These properties are translated into statistical distributions of black-white fields. The final step of the method involves comparison with some standard introduced into the machine. An apriori determination of the statistical probability of distribution introduces an elementary self-reading aspect into the recognition process. An example is given in which an entire handwritten word is analyzed and its parameters are given in tabular form. Orig. art. has: 7 figures, 2 tables.

SUB CODE: 09/ SUBM DATE: 09Sep65/ ORIG REF: 001/ OTH REF: 003

Card 1/1 BLG

TRCA, S.; MISINGER, J.; KOMANEC, J.

Apropos of the relation between the pathogenesis of inflammation after induced abortion and the duration of pregnancy. Cesk. gynek. 29 no.8:613-616 O '64.

1. II. gyn.-por. klin. fak. vseob. lek. Karlovy University v Praze, (prednosta prof. dr. J. Lukas, DrSc.); Ustr. ustav zdravotnicke osvety v Praze, (reditelka MUDr. M. Taufrova, CSc.).

DOLEZAL, A., CSc.; KOMANEC, J.; TRNKA, V., doc, CSc.

Some considerations on causes of failure in the treatment of threat to the pregnancy. Cesk. gyn. 27 [41] no.6/7:439-445 Ag '62.

1. II. gyn.-por. klin. fak. vseob. lek. KU v Praze, prednosta prof. dr. J. Lukas, DrSc.

(ABORTION THREATENED)

JAROS, Emil, inz.; KOMANEK, Zdenek, inz.

Technological projects of specialized centers. Stroj vyr 12 no.3:202 '64.

1. Branch of the Czechoslovak Scientific Technological Society at the Zavody presneho strojirenstvi, National Enterprise, Gottwaldov.

GONIKBERG, M.G.; DOROGOCHINSKIY, A.Z.; GAVRILOVA, A.Ye.; KOMANENKOVA, R.A.; MITROFANOV, M.G.; KUPRIYANOV, V.A.

Determination of the naphthalene and alkyl naphthalene content of stocks and dealkylation products. Neftekhimiia 3 no.6:916-921 N-D '63. (MIRA 17:3)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo i Groznenskiy neftyanoy nauchno-issledovatel'skiy institut.

GONIKBERG, M.G.; GAVRILOVA, A. Ye.; ALEKSEYEV, Ye.F.; KOMANENKOVA, R.A.

Homogenous demethylation of methyl naphthenes. Neftekhimiia 4 no.2: 252-256 Mr-Ap'64 (MIRA 17:8)

1. Institut organicheskoy khimii AN SSSR imeni Zelinskogo

Komanich, D.

AUTHORS: Petrov, A. D., Mironov, V. F., Komanich, D.

TITLE: Synthesis of ß-Chloro and ß, ß-Dichlorovinylalkyldichlorosilanes (Sintez ß-Khlor- i ß, ß-dikhlorvinilalkildikhlorsilanov).

PERIODICAL: Izvestiya AN SSSR, Otdelenie Khimicheskikh Nauk, 1957, Nr 11, pp. 1393-1395 (USSR)

ABSTRACT: Here the best conditions for a synthesis of $ClCH = CHSiCl_3$, as well as the alkyl- and alkoxy-derivatives of them, among them also the difunctional (in the silicon atom) ß-chlorovinylethylenedichlorosilane, were obtained. The development of C. L. Agre's (reference 2) was continued here and it was ascertained that the trichloroethylene can also be condensed with the alkyldichlorosilanes. This is a very simple way for the synthesis of the dichlorodialkylsilanes with the functional groups in the alkyl-chain

$$Cl_2C = CHCl + HSiRCl_2 \rightarrow Cl_2C = CHSiCl_2R + HCl$$

Card 1/2 where $R = CH_3$ and C_2H_5. It can be judged on the course of

AGARBICHANU, I.I. [Agarbiceanu, I.]; BLANARU, L.; DRAGANESKU, V.; IONESKU-PALLAS, N.I. [Ionesco-Pallas, N.J.]; KOMANICHU, N.; TATU, V.

Determining the nuclear magnetic moment of the isotope Hg^{199} from the hyperfine structure of the HgI 5461 Å line. Opt.i spektr. 10 no.3:297-300 Mr '61. (MIRA 14:8)

1. Institut atomnoy fiziki AN Rumynskoy Narodnoy Respubliki, Bukharest.
(Nuclear moments) (Mercury--Isotopes) (Interferometry)

ACCESSION NR: AP4020919 S/0051/64/016/002/0182/0186

AUTHOR: Draganesku, V.; Komanichu, N.; Tatu, V.; Ionesku-Pallas, N.Zh.

TITLE: Hyperfine and isotope structure of the 5535 Anstrom line of Ba I

SOURCE: Optika i spektroskopiya, v.16, no.2, 1964, 182-186

TOPIC TAGS: hyperfine structure, isotope structure, isotope shift, barium(I), barium(I) resonance line, hfs theory, LS coupling calculations

ABSTRACT: The 5535 Å Ba I line has been investigated by H.Kopefermann and G.Wessel (Nachr.Akad.Wissensch.,Gottingen,Math.-Phys.No.2,53,1948), O.H.Arroe (Phys.Rev.,79, 836,1950) and later by D.A.Jackson (Ibid.,106,948,1957 and Proc.Roy.Soc.,A263,289, 1961), but only the last, who used absorption in an atomic beam, was able to discern hyperfine structure. The present theoretical and experimental investigation of this resonance line, associated with the $6s^2\ {}^1S_0$--$6s6p\ {}^1P_1$ transition, was undertaken to check the experimental data and provide a theoretical explanation thereof. (Jackson noted a discrepancy between the observed and calculated intensities and hypothesized a small hfs (10 mK) for the odd isotopes.) The present experimental work was also carried out by the absorption in an atomic beam technique; the setup

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for obtaining the atomic beam was an improved version of the apparatus described by V.Draganesku (Opt.i spektro.,10,301,1961) and included provision for water-cooling of the evaporator in order to enhance the vacuum. A special device consisting of two mirrors with slits was employed to make the light beam bass several times through the atomic beam, in order to obtain substantial absorption without recourse to increasing the evaporator temperature. The light source was a hollow cathode tube into which the barium was introduced in the form of $BaCl_2$. The spectroscopic instrument was an ISP-22 spectrograph crossed with a Fabry-Perot etalon; the interference patterns were photographed with an exposure of under 15 min and scanned on a Zeiss microphotometer. There were resolved in all 7 components arranged almost symmetrically with respect to the central 138 component in an interval of about 40 mK (1 mK = 10^{-3} cm^{-1}). The experimental data are compared in a table with the results of calculations based on the intermediate coupling theory of G.Breit and L.A.Wills (Phys. Rev.44,470,1933), assuming Russell-Saunders (L-S) coupling. The computation formulas are adduced, and corrections are made for finite nuclear size and the nuclear magnetism distribution. The agreement between the experimental data and calculated values is satisfactory. The theory at present is not adequate for deciding for or against Jackson's hypothesis. The proposed interpretation allows of explaining some

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ACCESSION NR: AP4020919

of the observed components. Nevertheless further measurements aimed at determining the broadening of the hfs in the spectra of separate isotopes are planned. "The authors are grateful to I.Agarbichan for useful discussions during the course of the work." Orig.art.has: 17 formulas and 1 table.

ASSOCIATION: Institut atomnoi fiziki, Bucharest (Institute of Atomic Physics)

SUBMITTED: 10May63 DATE ACQ: 02Apr64 ENCL: 00

SUB CODE: PH NR REF SOV: 003 OTHER: 009

Card 3/3

KOMANITSKIY, V.; PLATZEROVA, L.

Determining of the fractional composition of titanium dioxide. Khim. volok. no.6:38-41 '65. (MIRA 18:12)

1. Narodnoye predpriyatiye KhEMKO, zavod Gummene, Chekhoslovatskaya Sotsialisticheskaya Respublika.

KOMANOV, A. (Major)

"Problems of Utilization of Atomic Energy," Part I., Krasnaya Zvezda, No.8, page 3, January 11, 1955

Summary of an article - D 230702, 12 May 55

KOMANOV, B.O.; SHAKIROV, E.Sh.

Mesozoic age of magnetites from the skarn formations of the Cava deposit. Dokl. AN SSSR 160 no.6:1378-1380 F '65.
(MIRA 18:2)

1. Submitted June 30, 1964.