

VOI NOV, V., inzh.; KABANOV, F., inzh.

Studying the creep of concrete in a span structure. Avt.dor. 23
no.6:10 Je '65. (MIRA 18:8)

VOL'DOV, V., inzh.

Frame-panel apartment houses with individual floor plans. Ma
stroj, Mosk. 1 no.9:14-17 S' 58. (MIRA 11:12)
(Moscow--Apartment houses) (Precast concrete construction)

VOLINOV, V. A.

The model to scale system of designing public buildings. Moskva, Izd-vo Ministerstva kommunal'nogo khoziaistva RSFSR, 1946. 94 p. (19-15201)

TH2031.V6

1. Architecture - Designs and plans. 2. Architectural drawing.

VOL'NOV, V.A. . . . kand.tekhn.nauk

Cooperation between science and industry. Gor.khoz.Mosk. 33 no.2:8-11
F '59. (MIRA 12:3)

1. Direktor Nauchno-issledovatel'skogo instituta Mosstroya.
(Moscow--Building research)

VOL'NOV, V.A., kand. tekhn.nauk

Double-pane windows. Na stroi. Mosk. 1 no. 5:21-23 My '58.

(MIRA 11:8)

(Windows)

~~VOL'NOV~~ V. A. kandidat tekhnicheskikh nauk; GAY, A.F., kandidat tekhnicheskikh nauk.

Simplification in the building industry. Standartizatsia no.2:39-44
Mr-Apr '57. (MIRA 10:6)
(Building--Standards) (Simplification in industry)

L 35543-65 EWT(d)/EWP(h)/EWP(1)

ACCESSION NR: AP5008187

S/0286/65/000/005/0063/0063

AUTHORS: Vol'nov, V. A.; Labozin, P. G.

TITLE: A rail section with ferroconcrete half-ties for track beneath a crane.
Class 35, No. 168851

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 63

TOPIC TAGS: reinforced concrete, railroad track, crane 14

ABSTRACT: This Author Certificate presents a rail section with ferroconcrete half-ties for track beneath a crane. To facilitate mounting and dismounting the track while maintaining control of rigidity, the half-ties are held together by flexible inserted tie rods, the ends of which are hinged for swinging in the vertical plane (see Fig. 1 on the Enclosure). Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 17Jul62

ENCL: 01

SUB CODE: GM

NO REF SOV: 000

OTHER: 000

Card 1/2

VOL'NOV, V.S., inzh.

Using reinforced concrete in protecting slopes of breakwaters.
Transp.stroi. 10 no.3:31-34 Mr '60. (MIRA 13:6)
(Saratov--Breakwaters) (Concrete slabs)

POLYAK, B. L., WOLNOV, V. V.

Pharmacology

"Benzamon", a new Soviet miotic preparation its therapeutic significance in glaucoma, *Vest. of oft.*, 21, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1952 ~~1953~~. Unclassified.

VOL'NOV, YE.G.

6

SAVEL'YEV, A.P., BORISOV, A.M., VOL'NOV, YE.G., LITVIN, A.P.,
MARKSIN, P.I., BELEN'KAYA, YE.L., BUEMISTROVA, R.S.

Production of high purity ethylene.

Report presented to the 12th Conference on high molecular weight
compounds, devoted to the monomers, 3-7 April 62

AUTHORS: Vol'nov, Yu.F. (Engineer), Klimov, N.S. (Candidate of
SOV/110-59-4.3/23
Technical Sciences) and Torgovkin, Yu.P. (Engineer).

TITLE: The Probability of Back-Fires in High-Voltage Mercury
Valves (O veroyatnosti obratnykh zazhiganiy
vysokovol'tnykh obratnykh ventiley)

PERIODICAL: Vestnik Elektropromyshlennosti, 1959, Nr 4, pp 6-12(USSR)

ABSTRACT: This article describes investigations on high-voltage mercury valves with various types of anode construction in order to study the influence of the reverse voltage and rate of fall of anode current on the probability of back-fires. The tests were made using the impulse circuit shown in Fig 1 and the advantages and disadvantages of this circuit are briefly discussed. The cause of back-firing is not yet fully understood but the most acceptable theory is that which attributes formation of a cathode spot on the anode to auto-electronic emission from the anode surface. Various explanations are offered about the processes that occur during back-firing and the three different types of anode construction that were used in the valves tested reflect this difference of opinion. Valve VR-3 has four intermediate electrodes in the form of truncated cones. Valve VEO-15 has fifteen intermediate

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SOV/110-59-4-3/23

The Probability of Back-Fires in High-Voltage Mercury Valves
electrodes made in the form of discs with coaxial apertures, the three upper electrodes have terminals brought out through insulators. Valve VR-3a has only one intermediate electrode. The construction of valve VEO-15 was suggested by I.G.Kesayev and the construction of valve VR-3a was suggested by V.O.Gramovskiy and V.D.Andreyev. All the valves are designed for a back-voltage of the order of 100 - 130 kV, a mean current of 100 A, and are intended for series-connection of two or three valves in the arm of a bridge circuit. The valves were described in detail in Vestnik Elektropromyshlennosti, 1957, Nr 9. The test procedure is described. With the impulse circuit the anode current decay time can be varied by altering the amount of inductance in the circuit. Since the valves do not get hot during impulse tests it is necessary to heat them first. The instrumentation is described. Measurements of the distribution of back voltage between the intermediate electrodes were made with a back voltage of 110 kV and a decay rate of 1.8×10^6 A/sec., the voltage distribution curves are given in Fig 3. On valve VEO-15 nearly 70% of the back voltage drop occurs on the first three intermediate

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SOV/110-59-4-3/23

The Probability of Back-Fires in High-Voltage Mercury Valves

electrodes. On Valve VR-3 the measurements were made with three rates of current decay, the distribution of back voltage between the intermediate electrodes is very uneven and 85% of the back voltage falls on the gap between the anode and the first intermediate electrode. The reasons for the unevenness of voltage distribution are briefly discussed. In valve VR-3a about half the back voltage drop occurs between the anode and the intermediate electrode. The probability of back firing was then studied. Two factors govern the probability of back firing; the magnitude of the back voltage and the anode current decay rate. The anode current decay rate was controlled by varying the circuit inductance for different values of back voltage. During the tests the rate of rise of back voltage was 300 .. 500 kV/degree with an inductance of 65 mH. It would take too long to obtain back-fire statistics with normal loadings on the valve and therefore, appreciable overloads were used. The back-fire probability test results for valve VEO-15 are given in Fig 4. An explanation of the shape of the curves is offered. A back-fire probability curve for valve VEO-15 as a function

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SOV/110-59-4-3/23

The Probability of Back-Fires in High-Voltage Mercury Valves of back voltage for high anode-current decay rate is given in Fig 5. Similar results were also obtained on valves VR-3 and VR-3a. The test results were used to derive an empirical formula for the influence of the back voltage and of the rate of current decay on the probability of back firing for a constant value of mercury vapour pressure. The expression is in good agreement with practice for cooling water temperatures of 20 and 24°C but at 26°C the back voltage has more effect. Under practical operating conditions the mercury vapour pressure corresponds to the temperature of 20 - 22°C. Special tests and calculations established that when the voltage drop on valve VE0-15 is increased from 90 - 150 kV the probability of back-firing is increased by the power of 1.1 and when the current decay rate is increased from 2.6×10^6 to 13×10^6 A/sec the probability of back firing is increased by the fourth power. Thus the back voltage has a much greater effect than the rate of anode current decay even when this latter is high. Current oscillograms taken during back-fires are given in Fig 6. It is claimed that the anode current decay rate has little influence on

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SOV/110-59-4-3/23

The Probability of Back-Fires in High-Voltage Mercury Valves
the probability of back-fire because the mercury vapour
pressure in high voltage valves is much lower than in low
voltage valves. Therefore, for a given anode current
decay rate the concentration of remanent charges is much
lower in high-voltage valves. The applicability of the
test results to normal operating conditions of high
voltage valves is then considered. In the tests the rate
of rise of back voltage was some 5 - 8 times higher than
in practical service but the rate of influence of the
various factors is probably much the same in both cases.
It is concluded that empirical formulae derived from tests
on low voltage valves cannot be applied to high voltage
valves. Other things being equal, the probability of
back-fires occurring in high voltage mercury valves
depends mainly on the back voltage and to a much lesser
extent on the anode current decay rate. These
conclusions cannot be extended to all designs of high

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The Probability of Back-Fires in High-Voltage Mercury Valves

voltage mercury valves and they are probably inapplicable to high voltage valves in which there is a large number of gaps in the anode system between which the voltage is distributed uniformly.

There are 6 figures and 6 references (1 Soviet, 1 English, 4 German).

SUBMITTED: September 8, 1958

Card 6/6

EXCERPTA MEDICA Sec 4 Vol 12/2 Mod. Micro. Feb 59

716. THE INFLUENCE OF PENICILLIN AND STREPTOMYCIN UPON THE
FORMATION OF ANTIBODIES (Russian text) - Voinov Yu. I. and
Rutskaya L. N. - SBORN. NAUCH. STUD. RAB. KURS. MED. INST. 1956,
3 (58-61)

Rabbits were immunized with heated vaccines of *Esch. paracoli* after prior ad-
ministration of penicillin or streptomycin for 29 days. The increase of titre of
antibodies was greater in animals that received antibiotics. (S)

VOL'NOV, Yu. I.

U

USSR/General Problems of Pathology. Immunity

U-1

Abs Jour : Ref Zhur - Biol., No 5, 1958, 22829

Author : Vol'nov, Yu. I., Ruskaya, L.N.

Inst : -

Title : The Effect of Penicillin and Streptomycin Upon Antibody Formation.

Orig Pub : Sb. nauchn. stud. rabot Kurskogo med. in-ta, 1956, vyp. 3, 58-61

Abstract : Rabbits that had been receiving penicillin or streptomycin for 29 days were immunized with warm paracolon bacillus vaccine. The increase in antibody titer was more pronounced in those that had received antibiotics.

Card 1/1

LIBENZON, L. A., inzh.; VOL'NOV, Yu. L., inzh.

Making stressed reinforced concrete girders on stands using
conical reinforcements. Prom. stroi. 38 no. 11:51-53 '60.

(MIRA 13:10)

(Girders)

USSR/Chemistry - Physical chemistry

Card 1/1 : Pub. 147 - 3/21

Authors : Vol'nov, Yu. N.

Title : About the limited solubility of SiCl_4 in certain organic solvents at low temperatures

Periodical : Zhur. fiz. khim. 8, 1382-1385, Aug 1954

Abstract : The equilibrium in systems formed by SiCl_4 with ethyl and propyl alcohols and acetoacetic and malonic esters, was investigated. The cleavage phenomenon in the investigated binary systems, was established. The effect of increased temperature on the mutual solubility of two liquid phases of the studied systems, is explained. Assumptions were made regarding the physico-chemical nature of the cleavage phenomenon. A maximum critical point on the equilibrium curve was established only for the system SiCl_4 malonic ester. Three references: 2-USSR and 1-German (1918-1953). Tables; graphs.

Institution : ...

Submitted : June 29, 1953

VOLNOV, YU. N.
ca

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... processes and properties were...

... organo-silicon compounds. II. Hydrogenation and rearrangement of the derivatives of monosilane. B. DOLGOV AND YU. VOLNOV. *Zhur. Obshchei Khim., Khim. Ser.*, 91-104(1931). In the previous publication was shown the exceptional resistance of $\text{PhSi}(\text{H})_2$ to heat and pressure (Ipat'ev and Dolgov, *C. A.* 23, 3941; *J. Russ. Phys. Chem. Soc.* 57, 1028(1925)). Hydrogenation of $(\text{PhCH}_2)_2\text{Si}(\text{H})_2$ (II) at 100 atm. and over 400° produces no reaction; thus it is proved that Ph groups directly attached to Si in I, and through intermediary atoms of Si, which is here investigated. Ph_2C is readily because of the anticatalytic action of Si, which is here investigated. Ph_2C is readily hydrogenated (*C. A.* 22, 931; *J. Russ. Phys. Chem. Soc.* 59, 1087(1928)); thus the amphoteric C atom gives up easily 1 of its Ph groups, while the pos. atom of Si forms an exceptionally stable bond with neg. aryl groups. Another cause of the difference in the stability is the dissimilarity in the at. vols. $\text{Ph}_2\text{C}(\text{OH})$ is readily reduced to Ph_2CH_2 with (Bull. soc. chim. 26, 1456), while $\text{Ph}_2\text{SiOH}(\text{H})$ at 200° is converted to $(\text{Ph}_2\text{SiH})_2$ with liberation of 1 mol. of water. The attempts to obtain a phenylurethane led to the following reaction: $2 \text{III} + 2 \text{PhCNO} \rightarrow (\text{Ph}_2\text{SiH})_2 + \text{CO}_2 + (\text{PhNH})_2\text{CO}$, while condensation with PhOH gives $(\text{Ph}_2\text{SiH})_2$. Ladenburg (*Ber.* 7, 387) has shown that in some cases the radicals in R_2Si are capable of migration resulting in 2 new R_2Si moles with different arrangement of the substituents. An analogous observation was made in the synthesis of PhEt_2Si from PhSiCl_2 with 2ZnEt_2 at 200°, where among the by products were obtained $\text{Et}_2\text{Ph}_2\text{Si}$ and EtSiPh_2 . Under pressure 60% of the substance undergoes such a rearrangement: besides, the Ph group easily splits off with formation of C_6H_5 and combination of Si radicals: $2 \text{PhEtSi} + \text{H}_2 \rightarrow 2 \text{C}_6\text{H}_5 + (\text{EtSi})_2$. In order to det. whether such a "symmetrization" with a ready cleavage of the Ph group and formation of C_6H_5 is a purely individual or general feature, the following compounds of the general formula RSiR'_2 were prepd. by the Grignard reaction and heated 24-48 hrs. at 200° and 100 atm. of H_2 : PhSiMe_2 , EtSiPh , PhSiEt , iso-BuSiEt and iso-AmSiEt . In all cases a decompn. and rearrangement took place according to the scheme $2 \text{RSiR}'_2 \rightarrow \text{R}_2\text{SiR}'_2 + \text{SiR}'_2$, and $2 \text{RSiR}'_2 + \text{H}_2 \rightarrow 2 \text{RH} + \text{SiR}'_2$.

CA
continued

PROCESSES AND PROPERTIES INDEX

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IV, light yellow, m. 142°; its soln. in concd. H₂SO₄ is orange-red. Oxime, yellow, m. 220-2°. IV with dil. HNO₃ yields 1,4-dibenzoylnaphthalene, yellow, m. 180-81°, the H₂SO₄ soln. is blood-red. Dioxime, yellow-brown, m. 270° (decompn.); bis(phenylhydrazine), yellow, m. 270-1°. V is obtained by heating 10 g. of IV with 50 g. AlCl₃ first at 120-5°, later at 140-5°, yellow, m. 167-8°; its soln. in cold concd. H₂SO₄ is orange-red. VI, m. 75°, bp. 240-5° (yield 60%). Its H₂SO₄ soln. is yellow-green. VII, bp. 265-70°, m. 135° (yield 10%); the H₂SO₄ soln. is yellow. Picrate of VI, yellow, m. 113°, oxime, m. 240-1°. By bubbling HCl in the AcOH soln. of this oxime and subsequent heating of the mixt. to 100° is formed 1-benzyl-4-acetamidonaphthalene (VIII), crystals with a violet luster, m. 208-9°. Heating of VIII with dil. HCl and decompn. of the resulting HCl salt gives 1-benzyl-4-amidonaphthalene, crystals which become slightly brown in air, m. 114°. 1-Benzyl-4-acetyl-5-nitronaphthalene, by nitration of VI in AcOH, yellow, m. 153°. 1-Benzyl-4-naphthoic acid, by oxidation of VI with 10% HNO₃, yellow, m. 180-1°; the H₂SO₄ soln. is orange. 1-Benzyl-4-prophionaphthalene, formed similarly to VI, bp. 273-5°, m. 69-70° (oxime m. 129-30°). On oxidation with HNO₃ it gives also 1,4-C₁₀H₆CO₂H. 1-Benzyl-4-naphthalene sulfonic acid (Na salt) is formed on treating 1-C₁₀H₇Br in PhNO₂ with 1 mol. ClSO₃H, yield 60%. Aniline salt, m. 236-7°; chloride, crystals from CCl₄, m. 117-9°; amide, m. 189-20°; anilide, m. 175-7°. Fusion of the acid with KOH yields α-naphthol.

J. WIRREBLAK

ASB-514 METALLURGICAL LITERATURE CLASSIFICATION

TEST END AND PROCEED

PROCESSED AND PROPERTIES AREA

10

Decomposition of monoalkane ortho esters by heating under pressure, and displacement of free silicon. III. B. N. DOLGOV AND YU. N. YU'POV. *J. Gen. Chem. (U. S. S. R.)* 1, 530 (1931); cf. C. A. 25, 4636. R_1Si heated in an atm. of H_2 under high pressure is decomp'd, thus: $2 R_1Si + H_2 = 2 C_2H_6 + (R_1)_2Si_2$. The present investigation deals with the similar reaction of monoalkane ortho esters of the types $(AlkO)_2Si$ and $(ArO)_2Si$, and with deposition of free Si in the reaction. It was assumed that Si could be set free from the esters of monoalkane in which the firm bond between the Si atom and an alkyl (or aryl) is weakened by the interposed O atom (Hertorn, *Rev.* 18, 1679). $(R(O))_2Si$ at 250° is decomp'd. into $Si(OH)_4$ and C_2H_6 , while R_1Si at 270° is stable. The decompn. of $(ArO)_2Si$ under H_2 pressure begins at 280° and is completed at 380° with liberation of Si: $(ArO)_2Si + 2 H_2 = 4 ArOH + Si$. The reaction with $(PhO)_2Si$ is complete, while with $(p-MeC_6H_4O)_2Si$ besides p -cresol and Si some SiO_2 is formed. $(R(O))_2Si$ heated 25 hrs at 300° and 100 atm. pressure of H_2 is decomp'd. into $R(OH)$ and $(R(O))_2Si_2$, by $140-200^\circ$, while at 280° the reaction is: $(R(O))_2Si + 2 H_2 = 4 R_1H + Si(OH)_4$. $(iso-AmO)_2Si$ is decomp'd. into $iso-AmOH$ and $(iso-AmO)_2Si_2$. $(C_6H_5O)_2Si$ is decomp'd. at 380° with quant. yield of C_2H_6 and SiH_4 . C. B.

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

1930-1940

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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CA

CONDENSATION OF KETONES UNDER HIGH PRESSURE IN THE PRESENCE OF HYDROCHLORIC ACID.

H. N. DOLOVY AND VU. N. VOLOV. *J. Gen. Chem. (U. S. S. R.)*, 349-4 (1961).

The condensations of MeCOPh (I) to 1,3,5-C₆H₃Ph (II) and of MeCO₂C₆H₄Me (III) to 1,3,5-C₆H₃(C₆H₄Me)₃ (IV) were carried on for 20 hrs. under high pressure in the presence of 38% HCl (d. 1.19). Optimum yields were obtained (1) of 32% of II from a mixt. of 50 g. of I and 30 cc. of HCl at 100° and 100 atm. pressure (H₂), and (2) of 55% of IV from a mixt. of 25 g. of III and 65 cc. of HCl at 200° and 100 atm. pressure. When crystal from aq. II m. 108° and IV m. 170°. *Conclusions* - Condensation of ketones under high pressure with liquid HCl proceeds much faster and gives larger yields than under atm. pressure with gaseous HCl. With the increased wt. of the substitution radicals, and thus of the mol. wt. of the ketones, the stability of the C=O group and the range of the optimum yields is increased.

CHAN HANG

ASD-314 DETAILING LITERATURE CLASSIFICATION

PROCESSES AND PREPARATION METHODS

Reduction of ketones in alkaline alcohol solution under pressure of hydrogen. B. N. DALGOV AND YU. N. VOLNOV. *J. Gen. Chem. (U. S. S. R.)* 1, 625-31(1931). — Effect of alk. alc. solns. and high temp. and pressure on PhCOMe, p-MeC₆H₄COMe, Ph₂CO and MeC₆H₄COPh was investigated. Aromatic ketones were thereby reduced to secondary alcs. The highest yield (85.00%) of alc. was obtained by heating the soln 15-18 hrs. at 200-300° at 100 atm. MeCOPh gives mainly pinacol oxide, MeC₆H₄COMe gives p-toluic acid. J. O. TOULIN

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U.S.S.R. METALLURGICAL LITERATURE CLASSIFICATION

GROUP

CLASSIFICATION

10

CA

Methanol synthesis. I. N. A. Klyukvin, Yu. N. Vol'noy and M. N. Karpinski. *Khim. Tverogo Topiva* 9, 37 (1932).—The feasibility of various methods for the prepn. of EtOH is discussed. The expts. were carried out with a gas contg. CO 33.4, H₂ 64.2 and CH₄ 0.4%. After the expts. the compn. of the gas was changed; it contained CO, up to 12, CH₄ 11, CO about 33.4 and the amt. of H₂ decreased to 45-50%. The condensate contained fractions b. 60-70°, 70-80° and above 80°. The highest yield (38%) of EtOH was attained at 320-330°, 120 atm. and in the presence of ZnO:CoO (3:1) catalyst. A series of alcs. from Me to Am were traced in addn. to EtOH. The expts. are described and the effect of changes in the exptl. conditions is shown on diagrams. A. A. Bochtling

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

PROCESS AND PROPERTIES INDEX

BC.

B-II-1

Catalyst for production of butyl alcohol from ethyl alcohol. B. N. Dolgov and J. N. Volkov (J. Gen. Chem. Russ., 1933, 3, 313-318).—The process, consisting of the reactions $\text{EtOH} \rightarrow \text{C}_2\text{H}_4 + \text{H}_2\text{O}$ (I) and $\text{EtOH} + \text{C}_2\text{H}_4 \rightarrow \text{BuOH}$ (II), is complicated by the side-reactions $\text{EtOH} \rightarrow \text{CO} + \text{CH}_4 + \text{H}_2$ (III) and $2\text{EtOH} \rightarrow \text{CO}_2 + \text{SCH}_4$ (IV). Al_2O_3 catalyzes reaction (II), NiO chiefly reactions (III) and (IV), and animal charcoal is a feeble catalyst of reactions (III) and (IV), which are largely suppressed at 450° in presence of a mixture of oxides of Fe, Al, and La, pptd. on C; with this catalyst 23% yields of BuOH, together with CH_3O , COH_2 , olefines, MeCHO , $(\text{C}_2\text{H}_5)_2\text{O}$, and Bu_2O , are obtained.
R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

A U T O M A T I C I N D E X

Ununsaturated hydrocarbons (polymers), obtained in the production of synthetic rubber, as substitutes for vegetable oils and resins. A. Ya. Dvinskii, Yu. N. Vol'nov, N. I. Velts and B. A. Ruben. *Org. Chem. Ind (U.S.S.R.)* 2, 189-84 (1936).—A discussion, based on literature and preliminary experiments, of the utilization of by-product unacid hydrocarbons in the production of synthetic rubber from RCHO . The condensates of the fractions of the top hydrocarbon layer of condensate, b. 60-100°, and the divinyl residue, b. 26-45°, were polymerized and the products were treated with S_2Cl_2 , atm. O and heat. The products were tested in paints, lacquers and printing inks as substitutes for oils and resins. The method of Lebedev and Koblyanskii (*J. Russ. Phys.-Chem. Soc.* 62, 1051) of gas-phase polymerization at 300-400° gave the best results with Glinkov clay activated at 200-400°. Because of the poor yields of polymers and their inferior firming properties, the method is industrially unsatisfactory. A higher degree of initial polymerization was obtained at elevated pressure in the presence of activated Glinkov clay by the liquid-phase method of Krause, Batahn and Krupnova (*Russ. Pat.* (1934); *Batahn, Sulet. Kamensk* 1936, No. 6, 11). Subsequent thermal polymerization of the polymers gave products suitable for use in oil lacquers and for

partial substitution of resins. Oxidation with air in the presence of 0.25% Co naphthenate gave drying oils of different viscosities, depending on the temp. and time of oxidation, and suitable for printing inks. Treating polymers with 5-40% S_2Cl_2 at -10° to 50° gave films with increased resistance to heat and water. Chas. Blanc

439.354 METALLURGICAL LITERATURE CLASSIFICATION

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CA

Reaction of silicon tetrachloride with esters. Yu. N. Vol'kov. *J. Gen. Chem.* (U. S. S. R.), 9, 2222 (1939)

The reaction between $SiCl_4$ (I) and $AcOR$ has been investigated. $AcOEt$ (II) and I on slow prolonged boiling give $(AcO)_2Si$ (III), $AcCl$ (IV), $EtCl$ (V), and $(EtO)_2SiCl_2$. III and V are formed exclusively when II is present in large excess. It is therefore assumed that the reaction proceeds mainly according to the equation $II + I \rightarrow III + V$. In the case of $AcOPr$ the reaction proceeds similarly with the formation of III and $PrCl$, whereas with $Ac(CH_3)_2CH-Me$, III and IV are formed. $iso-AmOAc$ and I react with the formation of $(iso-AmO)_2SiCl_2$, b. p. 108-10°, and IV. In all instances the reaction products are obtained in small yields and the reaction velocity is very low. The aralkyl esters of $AcOH$ and also $AcOPh$ react much quicker with I. $AcOCH_2Ph$ and I give IV, $PhCH_2CH_2Cl$ and SiO_2 . $AcOPh$ and I give IV and $(PhO)_2SiCl_2$, b. p. 218-17°, $(PhO)_2SiCl_2$, b. p. 215-18°, $(PhO)_2Si$, m. 47-8°, and probably $(PhO)_2SiCl_2$, which, however, was not isolated. $p-MeC_6H_4OAc$ and I give $(p-C_6H_4O)_2Si$, m. 60°, and IV. The reaction mechanism is discussed.

Gertrude Berend

ASAC METALLURGICAL LITERATURE CLASSIFICATION

CA

The condensation of silicon tetrachloride with dihydric phenols. Yu. N. Vol'mov and B. N. Dolgov. *J. Gen. Chem.* (U. S. S. R.) 10, 550-6(1940).—SiCl₄ reacts with *o*-C₆H₄(OH)₂ in a mixt. of R₂O and petr. ether to give HCl and a resinous mass which is probably either a

polymer or C₆H₄SiCl₂. With alic. it is hydrolyzed to

C₆H₄(OH)₂. *m*-C₆H₄(OH)₂ gives 50% *m*-C₆H₄(OSiCl₂)₂, b. 261°, d₄²⁰ 1.49, n_D²⁰ 1.4961. This is slowly hydrolyzed by H₂O, reacts with phenols when heated, and reacts easily in the cold with MeOH to form *m*-C₆H₄[OSi(OMe)₂]₂, d₄²⁰ 1.250, n_D²⁰ 1.4916, a thick oil which decomps. even when heated at 0.1-0.2 mm. *p*-C₆H₄(OH)₂ gives 75% *p*-C₆H₄(OSiCl₂)₂, b. 267°, d₄²⁰ 1.22, n_D²⁰ 1.4953, which with MeOH gives the corresponding ester, d₄²⁰ 1.21, n_D²⁰ 1.4731. H. M. Leicester

ASB-11A METALLURGICAL LITERATURE CLASSIFICATION

CA

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Reaction of silicon tetrachloride with neryl and octyl alcohols. Yu. N. Vol'nov (Molotov Eng.-Econom. Inst., Leningrad). *J. Gen. Chem.* (U.S.S.R.) 17, 231-4 (1947) (in Russian).—The yields of Cl esters drop from ROSiCl_3 to $(\text{RO})_2\text{SiCl}$ probably because of interfering disproportionation which proceeds particularly easily with the latter compd. $n\text{-C}_{11}\text{H}_{23}\text{OH}$ (30 g.) and SiCl_4 (60 g.) were allowed to react and, after the removal of HCl , the mass was distd. to give after repeated distn. in vacuo 71% $(\text{C}_{11}\text{H}_{23}\text{O})_2\text{SiCl}_2$, bp 190-4°, b_y 118-20°, d₄²⁰ 0.9957, which is readily hydrolyzed by atm. moisture. Using 44 g. and 34 g., resp., the above procedure gave 41.6% $(\text{C}_{11}\text{H}_{23}\text{O})_2\text{SiCl}_2$, bp 180-2°, d₄²⁰ 0.994. Several

attempts to prep. the mono-Cl esters failed, and the final procedure used was: 34 g. SiCl_4 was treated at -10° dropwise with stirring with 60 g. $n\text{-C}_{11}\text{H}_{23}\text{OH}$ at the rate of 1 drop per 2 sec.; after warming to room temp. over 1-2 hrs. the mass was slowly heated on a steam bath with stirring until HCl evolution stopped and the products were isolated by vacuum distn. to give a range of products, bp 20-250°; among these there were isolated 6 g. $\text{C}_{11}\text{H}_{23}\text{Cl}$, b. 130-6°, and 30 g. of crude $(\text{C}_{11}\text{H}_{23}\text{O})_2\text{Si}$, bp 230-47°; the latter, on redistn., b_y 232-4°, d₄²⁰ 0.998; the intermediate fractions collected from several expts. were refractionated to yield $(\text{C}_{11}\text{H}_{23}\text{O})_2\text{SiCl}_2$, b. 165-8°, d₄²⁰ 0.927, as a colorless liquid, difficultly hydrolyzed by cold H_2O , easily by hot H_2O . To 55 g. SiCl_4 there was added with stirring and cooling 30 g. $\text{C}_{11}\text{H}_{23}\text{OH}$ and the mass was gradually heated on a steam bath until HCl ceased to be evolved; distn. gave 0% $(\text{C}_{11}\text{H}_{23}\text{O})_2\text{SiCl}_2$, bp 146-7°, d₄²⁰ 1.008. A similar reaction with 17 g. and 28 g., resp., gave 28% $(\text{C}_{11}\text{H}_{23}\text{O})_2\text{SiCl}_2$, bp 230-6°, d₄²⁰ 0.958, and 22% $(\text{C}_{11}\text{H}_{23}\text{O})_2\text{SiCl}_2$, bp 215-30°, d₄²⁰ 0.921.

G. M. Kosolatroff

ASAC-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
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Thermal decomposition of ester chlorides of silicic acid. Yu. N. Vol'nov (Molotov Eng.-Econon. Inst., Lenin-grad). *J. Gen. Chem. (U.S.S.R.)* 17, 1428-35(1947)(in Russian).—Generally, stability increases with increased mol. wt. and decreases from *n*-esters to iso-esters. Aromatic esters are more stable than aliphatic. EtOSiCl_2 (30 g.), heated to 100° 2 hrs. and distd., gave, besides the unchanged material (75%), 7 g. SiCl_4 and 2.7 g. $(\text{EtO})_2\text{SiCl}_2$. When EtOSiCl_2 was refluxed 4 hrs., gas evolution was noted (identified as EtCl), while distn. of the residue gave 80% unchanged material, about 5 g. SiCl_4 , and 3 g. $(\text{EtO})_2\text{SiCl}_2$. $(\text{EtO})_2\text{SiCl}_2$ was unchanged after 2 hrs. at 100° or refluxing 4 hrs. $(\text{EtO})_2\text{SiCl}_2$ (30 g.), heated to 100° 2.5 hrs., gave 3 g. $(\text{EtO})_2\text{SiCl}_2$, 63 g. starting material, and about 1.5 g. $(\text{EtO})_2\text{Si}$. When $(\text{EtO})_2\text{SiCl}_2$ (30 g.) was refluxed 6-7 hrs., there was obtained essentially 100% disproportionation: 2.5 g. Et_2O , 1 g. SiCl_4 , a small amt. of $(\text{EtO})_2\text{SiCl}_2$, 12 g. $(\text{EtO})_2\text{Si}$, and 40 g. residue, from which it was possible to isolate some $(\text{EtO})_2\text{Si}_2\text{O}$, b. $160-70^\circ$. $\text{C}_6\text{H}_5\text{OSiCl}_2$ (20 g.) after 4 hrs. at 100° gave 1.1 g. SiCl_4 and 4 g. $(\text{C}_6\text{H}_5\text{O})_2\text{SiCl}_2$, besides 87-94% starting material. $\text{C}_6\text{H}_5\text{OSiCl}_2$ was unchanged after heating to 100° , but on refluxing 8 hrs. there were obtained from 13 g. starting material 2.5 g. crude SiCl_4 , 2 g. $(\text{C}_6\text{H}_5\text{O})_2\text{SiCl}_2$, and 2 g. tar; the rest was unchanged starting material. $(\text{C}_6\text{H}_5\text{O})_2\text{SiCl}_2$ is unchanged on heating to 100° , but after refluxing as above gave $\text{C}_6\text{H}_5\text{O}$, b. $124-6^\circ$, tar, and $(\text{C}_6\text{H}_5\text{O})_2\text{SiCl}_2$, besides the starting material; no tetraalkyl deriv. was iso-

INDEX AND PROPERTIES INDEX

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lated. PhOSiCl_2 (30 g.) refluxed 5 hrs. gave a trace of SiCl_4 , 28 g. unchanged material, and about 1 g. crude $(\text{PhO})_2\text{SiCl}_2$. $(\text{PhO})_2\text{SiCl}_2$ refluxed 6 hrs., with continuous collection of low-boiling products, gave 0.2 g. SiCl_4 , 0.8 g. $(\text{PhO})_2\text{SiCl}_2$, 30 g. unchanged material, and 2 g. $(\text{PhO})_2\text{Si}$. Thymyltrichlorosilane (20 g.) after refluxing 5-6 hrs. gave SiCl_4 , unchanged material, and dihydryl-dichlorosilane. *o*-Methoxyphenyltrichlorosilane (30 g.) refluxed 4 hrs. gave 0.8 g. SiCl_4 , unchanged material, bis-*o*-methoxyphenyl)dichlorosilane (undistillable resin), and MeCl , besides a cryst. solid, isolated on standing, from material b. $240-320^\circ$; the solid (no m.p. or yield given) is apparently a cyclic phenylenedioxydichlorosilane, as a result of loss of MeCl in an intramol. reaction.

G. M. Kosolapoff

A.S.T.M. METALLURGICAL LITERATURE CLASSIFICATION

GROUP	CLASSIFICATION	INDEX	PROPERTY
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
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15	15	15	15
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94	94	94	94
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97	97	97	97
98	98	98	98
99	99	99	99
100	100	100	100

26

ca

Change of functionality and of dielectric properties in the course of the glycerolysis of linseed oil. Yu. N. Volynskiy and V. I. Safonchik. *Zhur. Priklad. Khim.* 21, 744-50 (1948). On heating of linseed oil (23.28 parts) with glycerol (9.7 parts) and PbO (0.02 part) at 240 and 240°, up to 4 hrs., the acid, ester, and iodine nos. decrease with the progress of the reaction; the hydroxyl no., mol. wt. M , n , and dielec. const. increase. The mol. functionality f (sum of the functional groups per mol., calculated from the I, acid, and hydroxyl nos.), the sp. functionality $\Delta = f/M$, the mol. vol., the mol. refraction R , the polarization P , and polarizabilities α (calculated from R or P) show a regular increase with time; P is always smaller than R . In the course of condensation of the glycerolizate with phthalic anhydride (10.0 parts), at 240 and 240°, completely soluble in an equal vol. of 98% EtOH, up to 70 hrs., the d., viscosity, ester no., n , and P increased; the acid no., M , hydroxyl no., and Δ decreased with time. The decrease of P as a function of Δ is nonlinear, owing to the conventional nature of f , i.e. without allowance for the activity coeffs. of the functional groups. For this reason, the regular change of Δ within a homologous series (decrease with increasing M) is altered on passing to another series. In contrast thereto, the change of α (from P or R) remains regular throughout, with only minor deviations. Consequently, detns. of α are a suitable criterion of the progress of the reactions of glycerolysis and resinification.

N. Thon

ASTM-BL METALLOGICAL LITERATURE CLASSIFICATION

VOL'NOV, Yu.N. (Leningrad)

Electrolysis of nonaqueous solutions of tin halides. Zhur. fiz.
khim. 35 no.1:90-93 Ja '61. (MIRA 14:2)

1. Institut kholodil'noy promyshlennosti.
(Tin halides)

VOLODOV, Yu. N.

USSR.

CH

(2)

Reaction of some chlorides of elements of group IV with acetoacetic ester. Yu. N. Vol'kov, P. M. Glezer, and I. Ya. Rukhina. *Sbornik Khim. Obshch. Khim.* 2, 975-8 (1953). To 10 g. $AcCH_2CO_2Et$ chilled with Dry Ice was added 5 g. $SiCl_4$ to yield yellow crystals of the adduct $(AcCH_2CO_2Et)_2SiCl_2$, purified by air blowing while chilled with Dry Ice; the product hydrolyzes in H_2O , and vigorously evolves HCl in the dry state above 5° . Dry-air blowing finally at 100° , left behind a yellow product, $(AcCHCO_2Et)_2SiCl_2$, decomp. about 250° (from petr. ether). Similarly was obtained $AcCH_2CO_2Et.SnCl_4$, m. $132-3^\circ$, which on air blowing at 125° gave some sublimate of the starting material and a residue of $(AcCHCO_2Et)_2SnCl_2$, insol. in org. solvents. Similarly was prepd. with ice-cooling $AcCH_2CO_2Et$, the product can be prepd. in ligroine soln. $AcCH_2CO_2Et$ (5 g.) added in Et_2O to 6.3 g. $TiCl_4$ in Et_2O formed yellow $(AcCHCO_2Et)_2Ti_2Cl_4$, m. $123-3^\circ$ [cf. Dittley, *Ann.* 344, 300(1900)]. The former product, m. $115-17^\circ$, was air-blown 6 hrs. at 120° , yielding brown $(AcCHCO_2Et)_2TiCl_4$. Mixing 3.5 g. $PbCl_2$ with 1.3 g. $AcCH_2CO_2Et$ at -78° gave yellow $AcCH_2CO_2Et.PbCl_2$, which decomp. at 0° , yielding a liquid $(AcCHCO_2Et)_2PbCl_2$ and a white solid ($PbCl_2$). G. M. Kesolapoff

Met

Vol'NOY, Yu. N.

2

CZECH

Compounds of silicon chloride with acetanilide and acetotoluides. Yu. N. Vol'noy, *Sbornik Statei Obshchei Khim.* 2, 070-80 (1969). ~~Peruking~~ 10 g. AcNHPh with 40 g. SiCl₄ 24 hrs. gave colorless (AcNHPh)₂SiCl₂, decomp. about 130°; prolonged boiling in C₆H₆ with dry-air blowing led to disocn. to the components. *o*-MeC₆H₄NHAc (5 g.) with 15 g. SiCl₄ in Et₂O gave colorless (*o*-MeC₆H₄NHAc)₂SiCl₂, decomp. about 190°, slowly disocd. into its components on boiling with C₆H₆. Similarly were formed (*m*-MeC₆H₄NHAc)₂SiCl₂, m. 105°, which behaves as the *o*-isomer. Similarly was formed (*p*-MeC₆H₄NHAc)₂SiCl₂, decomp. about 120-40°.

G. M. Kosolapoff

MA 2/11

VOL'NOV, Yu.N.

Interaction of tetraethoxysilane with tin chloride, bromide, and
iodide. Zhur.fiz.khim. 29 no.9:1646-1649 S '55. (MIRA 9:4)

1. Tekhnologicheskii institut kholodil'noy promyshlennosti, Lenin-
grad.

(Silane) (Tin halides)

VOL'NOV, Yu.N.

Some reactions of tin halides in nonaqueous solutions. Zhur.fiz.-
khim. 36 no.5:1068-1069 My '62. (MIRA 15:8)

1. Leningradskiy tekhnologicheskij institut kholodil'noy pro-
myshlennosti.

(Tin halides)

OZIMOV, B.V.; VOL'NOV, Yu.N.

Reflection spectra of some inorganic compounds in a medium of
organic liquids. Izv.vys.ucheb.zav.; khim.i khim.tekh. 4 no.1:
28-32 '61. (MIRA 14:6)

1. Leningradskiy tekhnologicheskij institut kholodil'noy
promyshlennosti, kafedra obshchey i analiticheskoy khimii.
(Spectrum analysis) (Refractive index) (Reflection (Optics))

S/063/60/005/005/014/02:
A051/A029

AUTHORS: Vol'nov, Yu.N., Ozimov, B.V.

TITLE: Reflection Spectra and Their Application to the Study of Sorption Processes

PERIODICAL: Zhurnal Vsesoyuznogo Khimicheskogo Obshchestva im. D.I. Mendeleeva, 1960, No. 5, Vol. 5, pp. 591-592

TEXT: Reference is made to the works of Sidorov, (Refs. 1,2) and Vedeneyeva (Ref. 3) on the application of reflection spectra to the study of adsorption phenomena and to the study made on the effect of optical factors on the reflection spectrum (Ref. 4-7). The authors of this article made a study of the possibilities of applying the reflection spectra to the study of the sorption of certain organic liquids by chromium hydroxide. Chromium hydroxide was prepared by precipitating CrCl_3 with a stoichiometric quantity of NaOH . The residue was washed with hot water until a reaction on a chlorine ion and on an alkaline ion was absent. The residue was then dried to a constant weight at 120°C . The following organic liquids were used: ethanol, $\text{Ca } 1/8$ ✓

S/063/60/005/005/014/021
A051/A029

Reflection Spectra and Their Application to the Study of Sorption Processes

benzene, acetoacetic ether and monoethanolamine. Water was used in the control tests. The organic liquids were distilled three times and dehydrated. Their constants coincided with literature data. The solid substance $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ was passed through a sieve and the particles were 0.20-0.25 mm in size. The prepared samples of chromium hydroxide were calcinated for two hours at 120, 200, 360, 600 and 800°C. Reflection spectra were taken from all the samples, both the dry ones, as well as those mixed with the solvent (100 g $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O} + 50$ ml of solvent). The measurements were made in an infinitely thick layer on a CФ-2(SF-2) spectrophotometer. The measurement data are given in Fig.1. It was found that the reflection spectra of the $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ changed according to the calcinating temperature (Ref. 8) and this is assumed to be connected with the change in the hydration and structure of $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O}$. The samples prepared at the indicated temperatures were tested in the following media: ethanol, acetoacetic ether, monoethanolamine, benzene and ethanol vapors. In order to determine the ethanol vapor sorption, $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ samples were placed in an exsiccator for 48 hours, which contained anhydrous ethanol. The data of the experiments are given in Table 1 for comparative

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S/063/60/005/005/014/021
A051/A029

Reflection Spectra and Their Application to the Study of Sorption Processes

purposes, using different samples. In Table 2 a comparison is made of the refraction coefficients of the light of the binding medium, the percentage of reflection at $\lambda = 589 \text{ m}\mu$ and the wavelengths corresponding to the maxima and minima of reflection of the above-indicated samples. The obtained data were found to confirm the fact that the optical properties of the binding medium have a significant effect on the reflection percentage of light. Fig 2-4 show the curves percentage of reflection versus wave-length for some of the samples of $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ obtained at the corresponding temperatures in the media of the organic liquids. The experimental data lead to the assumption that the optical properties of $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ are dependent on the binding medium. The shift of the maxima and minima percentage of reflection according to the wavelength of $\text{Cr}_2\text{O}_3 \cdot n\text{H}_2\text{O}$ in the organic liquid media is determined by the physico-chemical causes, of which solvation is one. There are 2 tables, 4 figures and 8 Soviet references. ✓

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S/063/60/005/005/014/021
A051/A029

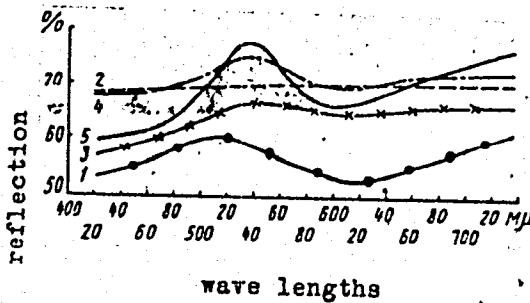
Reflection Spectra and Their Application to the Study of Sorption Processes

ASSOCIATION: Leningradskiy tekhnologicheskij institut kholodil'noy promyshlennosti (Leningrad Technological Institute of the Refrigeration Industry)

SUBMITTED: February 12, 1960

Figure 1:

Measurement data of the reflection spectra:
1-120°; 2-200°; 3-360°;
4-600°; 5-800°C.



Card 4/8

VOL'NOV, Yu.N.

Decomposition of some esters of acetic acid by tin chloride.
'Trudy LTIKHP 15:97-101 '58. (MIRA 13:4)

1. Predstavlena Kafedroy neorganicheskoy i analiticheskoy
khimii Leningradskogo tekhnologicheskogo instituta kholodil'noy
promyshlennosti.
(Acetic acid) (Tin chloride)

05813

SOV/76-33-10-16/45

5 (4)
AUTHOR:

Vol'nov, Yu. N.

TITLE:

Absorption Spectra of Tin Iodide Solutions

PERIODICAL:

Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2211 - 2213
(USSR)

ABSTRACT:

The student S. Chernyak participated in the present investigation. Fresh solutions of tin iodide of a certain concentration in water, ethanol, propanol, n-butanol, ethyl acetate, ethyl valerate, tetraethoxysilane, acetoacetic ester and benzene were used for the experiments. Light absorption was analyzed within the wave range 200-750 m μ . Measurements in the ultraviolet were made by means of an SF-4 spectrophotometer, and those in visible light by means of an SF-2 spectrophotometer. The solutions exhibited complete light absorption within the wave range 200-340 m μ , an absorption band between 400-440 m μ , and allowed the passage of wavelengths of 460-750 m μ . The absorption maxima are shifted toward longer wavelengths with increasing molecular refraction of the solvent according to a rigorous rule, and show rising intensity (Table, Figure), except for acetoacetic ester. When the concentration varies, the various solutions are found not to follow the Lambert-Beer law. When the solutions are stored for

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Absorption Spectra of Tin Iodide Solutions

05818

SOV/76-33-10-16/45

24 hours, an absorption maximum occurs at 300-350 m μ . This is attributed to dissociation of the tin iodide with simultaneous separation of iodine. There are 1 figure, 1 table, and 3 references, 1 of which is Soviet.

ASSOCIATION: Tekhnologicheskii institut kholodil'noy promyshlennosti, Leningrad (Institute of Technology of the Refrigerating Industry, Leningrad)

SUBMITTED: March 15, 1958

Card 2/2

5(2)

SOV/78-4-10-18/40

AUTHOR:

Vol'nov, Yu. N.

TITLE:

Interaction of Tin Chloride, -Bromide and -Iodide and of Silicon Tetrachloride With Some Esters

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 10, pp 2287-2294 (USSR)

ABSTRACT:

The interaction under review was investigated by several workers (Refs 1-8, 12-13), among them by Ye. G. Kuz'mina (Ref 8) and N. S. Kurnakov et al (Refs 3-7,12). The author used the cryoscopic method of V. V. Udovenko (Ref 10). The freezing point depression in benzene is measured and the course of the curves denoting the same concentration investigated. The results are illustrated graphically: Figures 1 and 2: SnCl_4 + ethyl acetate, ethyl formate and butyl acetate; figures 3 and 4: SnCl_4 + malonic acid ester and acetoacetic ester; figures 5 and 6: SnCl_4 + ethyl valerate, figures 7 and 8: SnCl_4 + ethyl benzoate, figures 10 and 11: SnBr_4 + ethylacetate, ethylformate, butyl acetate; figures 12 and 13: SnBr_4 + aceto-

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SOV/78-4-10-18/40

Interaction of Tin Chloride, -Bromide and -Iodide and of Silicon Tetrachloride
With Some Esters

acetic ester and figure 14: SiCl_4 + the esters already mentioned. The sharply pronounced extreme values of the curves are indicative of the formation of compounds with a component ratio of 1:1 and 1:2 for the systems with SnCl_4 , a ratio of 1:1 and 1:3 for the systems with SnBr_4 , in which connection in most of the systems compounds with double molecules are occurring, according to the molecular weights determined. In the cases of SnJ_4 and SiCl_4 the curves denoting the same concentration exhibit pronounced extreme values but are S-shaped, where the flat extreme values do not correspond with any rational ratio between the two components. The halogen compounds of tin do not form complexes with methyl salicylate and salol. There are 14 figures and 14 references, 12 of which are Soviet.

Card 2/2

76-32-3-2/43

AUTHOR: Vol'nov, Yu. N.

TITLE: On the Problem of the Electrical Conductivity of Binary Systems Containing Silicon Tetrachloride, Tin Chloride and Esters (K voprosu ob elektroprovodnosti nekotorykh sistem, vliyuchayushchikh chetyrekhkhlorigisty kremniy, khlornoye olovo i slozhnyye efiry)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol 32, Nr 3, pp 498-505 (USSR)

ABSTRACT: Systems consisting of silicon tetrachloride with methyl formate, ethyl formate, ethyl acetate, dioxane, butyl acetate, ethyl butyrate, phenyl acetate, as well as of tin chloride with amyl acetate, ethyl butyrate, phenyl acetate and n-butyl acetate were investigated. Among the works hitherto performed in this field, the thermal analyses of N. A. Pushin (Ref 1), the investigations of catalytic properties by Wertyporoch et al. (Ref 2), investigations of esters by N. S. Kurnakov et al. (Ref 3), research in the field of viscosity and conductivity by Ye. G. Kuz'mina (Ref 4), as well as the electrical conductivity of binary systems with diagrams of specific composition of ~~systems~~ by M. A. Klechko (Ref 5)

Card 1/3

76-32-3-2/43

On the Problem of the Conductivity of Some Systems Containing Silicon
Tetrachloride, Tin Chloride and Esters

are mentioned. The results of the mentioned determinations are represented in tables and diagrams. In the investigations of the system silicon tetrachloride - methyl formate, it was stated that at a temperature rise of from 0° to 30°C the conductivity decreases, while in the system silicon tetrachloride - ethyl acetate it increases with a temperature rise.

Furthermore, the specific and molecular weights were investigated. The systems silicon tetrachloride - ethyl formate and silicon tetrachloride - ethyl acetate show at a temperature rise an increase in conductivity maxima (the first one at 40°C and the latter at 40 - 50°C) which is also attributed to the effect of the conductive complex compounds, while in the system tin chloride - ethyl acetate two maxima of the isothermal lines were observed. The latter ones were observed in tin chloride-ethyl acetate, where a change, i.e. a merger of the maxima, takes place during the temperature rise. The low value of conductivity does not permit to perform measurements on all systems.

From the performed experiments it is seen that the resistivity of the complex compounds in relation to temperature

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76-32-3-2/43

On the Problem of the Electroconductivity of Some Systems Containing Silicon
Tetrachloride, Tin Chloride and Esters

and also the conductivity in the series methyl-formate .. ethyl
formate .. ethyl acetate, increase. The isothermal lines of
the specific conductivity of the systems tin chloride .. ester
correspond to the VIIth classification type of M. A. Kinchko
(Ref 5). There are 3 figures, 8 tables, and 6 references, 5
of which are Soviet.

SUBMITTED: March 19, 1956

Card 3/3

~~VOL' NOV. YU. N. 11~~

Vapor pressures and vapor densities of solutions of tin chloride
in ethyl, n-butyl and iso-amyl acetates [with summary in English].
Zhur. fiz. khim. 31 no.10:2312-2316 O '57. (MIRA 11:3)

1. Leningradskiy tekhnologicheskii institut kholodil'noy promyshlennosti.
(Vapor pressure) (Vapor density) (Solution (Chemistry))

Vol'nov, Yu. N.

76-10-21/34

AUTHOR: Vol'nov, Yu. N.

TITLE: The Vapor Pressures and Vapor Densities of Solutions of Tin Chloride in Ethyl, n-Butyl, and Iso-Amyl Acetates (Uprugost' i plotnost' para rastvorov khlorogo olova v etil-, n-butyl- i izo-amilatsetatakh).

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 10, pp. 2312-2316 (USSR)

ABSTRACT: On the strength of the investigations carried out it is shown that the minima of the vapor pressure isotherms, the maxima of the boiling temperature isobars, and the maxima of the vapor density correspond to the tin chloride content of 33,33 mole% in the mixture. An explanation is given for the found dependence of the vapor pressure and the vapor density on the concentration of the solution. The amount of the dissociation constant of the complex compounds of the tin chloride with ethyl, n-butyl, and isoamyl acetates in the vapor phase at 155 and 209°C are estimated. There are 6 figures, 3 tables, 4 Slavic references.

CARD 1/2

The Vapor Pressures and Vapor Densities of Solutions of Tin 76-10-21/34

ASSOCIATION: Technological Institute for Refrigeration Industry, Leningrad
(Leningradskiy tekhnologicheskii institut kholodil'noy
promyshlennosti).

SUBMITTED: July 30, 1956

AVAILABLE: Library of Congress

CARD 2/2

VOL'NOV, YU. N.

~~VOL'NOV, Yu. N.~~

Reaction of tin chlorides, bromides and iodides with some
aliphatic alcohols. Zhur.fiz.khim. 31 no.1:133-138 Ja '57.
(MLRA 10:5)

Leningradskiy tekhnologicheskii institut kholodil'noy promyshlen-
nosti.

(Tin halides) (Alcohols)

VOLNOVA, E. G.

USSR.

✓ 5098. WEAR OF ACTIVE CARBONS IN CONTINUOUS ADSORPTION PLANTS,
Volnova, E.G. (Nest. Khov: (Oil Ind., Moscow), Doc. 1954, 57-60).
Record of experiments in enlarged laboratory plant of the type for
removing liquid petroleum products from gases. (L).

GAVRILOV, B.G.; VOL'NOVA, I.S.

Investigation of the equilibrium of the radical displacement
reaction in isopropylbenzene. Vest.LGU 14 no.4:107-111 '59.
(MIRA 12:5)

(Cumene) (Radicals (Chemistry))

5(3)

SOV/54-59-1-15/25

AUTHORS:

Gavrilov, B. G., Vol'nova, I. S.

TITLE:

A Study of the Equilibrium of Reactions of Radical Displacements of the Isopropylbenzene (Izucheniye ravnovesiya reaktsii peremeshcheniya radikalov u izopropilbenzola)

PERIODICAL:

Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1959, Nr 1, pp 107-111 (USSR)

ABSTRACT:

Some equilibriums of reactions of radical displacements at hydrocarbons in dependence on temperature, duration of reaction, and the presence of various catalysts have already earlier been investigated (Refs 1-7). These investigations are apt to supply a number of indications concerning the formation process of petroleum in nature. The equilibrium of reactions of radical displacements at the isopropylbenzene was therefore investigated. Aluminum silicate activated by HCl was used as a catalyst. The isopropylbenzene used exhibited the following indices: boiling point = 152-153°, $d_4^{20} = 0.8580$, $n_D^{20} = 1.4921$. Investigation results are given in table 1, which shows the values of the indices at various heating periods and at various temperatures in the

Card 1/2

SOV/54-59-1-15/25

A Study of the Equilibrium of Reactions of Radical Displacements of the Iso-propylbenzene

range of from 152-250°. In all investigations two reactions were observed: the chief reaction $2C_6H_5C_3H_7 \rightleftharpoons C_6H_6 + C_6H_4(C_3H_7)$ and the secondary reaction $2C_6H_4(C_3H_7)_2 \rightleftharpoons C_6H_5C_3H_7 + C_6H_3(C_3H_7)_3$.

The equilibrium in the chief reaction was attained after thirty-minute heating. In the secondary reaction also triisopropylbenzene was observed besides diisopropylbenzene. The equilibrium constant was computed for the reactions. The expression found for the temperature dependence of the equilibrium constants in the temperature range of from 175-250° has the following form:

$\lg K_p = \frac{5840}{4.576 T} - 2.1832$. There are 2 figures, 2 tables, and 7 Soviet references.

SUBMITTED: December 11, 1958

Card 2/2

VOLNOVA, N. P.

TRANSMISSION LINES

"Additional Induction Between Circuits Due to Presence of Insulators in the Line", by N.P. Volnova, Elektrosvyaz', No 9, September 1957, pp 65-73.

Lines distribution of insulators along transposed and untransposed lines, and its effect on the values of the wave impedance of the line, is given an extensive mathematical treatment.

Card 1/1

- 55 -

Uolnova, N. P.

И. В. Сулягин
Полупроводниковые цепи в системах радиотехнической аппаратуры

11 часов
(с 10 до 16 часов)

И. И. Афанасьев
Синтез радиотехнических цепей на базе транзисторных схем

И. В. Шагурин
Экспериментальные и теоретические исследования влияния частоты модуляции на характеристики радиотехнических цепей

А. И. Мещков
Анализ работы цепи радиотехнической аппаратуры в режиме радиотехнической аппаратуры

И. И. Струтин
О влиянии частоты модуляции на работу радиотехнической аппаратуры

11 часов
(с 10 до 16 часов)

77

К. К. Акуликин
Влияние частоты модуляции на характеристики радиотехнической аппаратуры

А. Е. Алексеев
Влияние радиотехнической аппаратуры на характеристики радиотехнической аппаратуры

И. И. Шагурин
Экспериментальные исследования влияния частоты модуляции на характеристики радиотехнической аппаратуры

И. И. Мещков
А. И. Мещков
Программа работы на 14 часов по радиотехнической аппаратуре, работающей в режиме радиотехнической аппаратуры

11 часов
(с 10 до 16 часов)

И. И. Шагурин
О влиянии частоты модуляции на работу радиотехнической аппаратуры

78

report submitted for the Confidential Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications in A. S. Popov (VVSSE), Moscow, 6-18 June, 1959

VOLNOVA, N.P., inzhener

Installation methods for protective and coordinating devices on overhead communication lines. Vest. svyazi 15 no.7:8-10 JI '55. (MIRA 8:8)

1. Mladshiy nauchnyy sotrudnik Tsentral'nogo nauchno-issledovatel'skogo instituta svyazi. (Electric lines—Overhead)

APANASENKO, A.D., starshiy nauchnyy sotrudnik; GUMEL'YA, A.H.; VOLNOVA, N.P., mladshiy nauchnyy sotrudnik; GERASIMOV, M.N., mladshiy nauchnyy sotrudnik; GERASIMOVA, R.V., mladshiy nauchnyy sotrudnik; KON'KOV, A.A., mladshiy nauchnyy sotrudnik [deceased]; MARTYNOV, G.K., starshiy tekhnik; FILIPPOVA, T.V., starshiy tekhnik; SUCHKOVA, Z.Ye., starshiy tekhnik. Prinsipal uchastiyе AKUL'SHIN, P.K., doktor tekhn.nauk, doktor tekhn.nauk. SVERDLOVA, I.S., red.; SHEFER, G.I., tekhn.red.

[Rules for the intersection of telephone lines in overhead telephone communication networks] Instruktsiia po skreshchivaniiu telefonnykh tsepей vozdushnykh liniy svyazi. Moskva, Gos. izd-vo lit-ry po voprosam svyazi i radio, 1959. 270 p.

(MIRA 13:2)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye mezhdugorodnoy telefonno-telegrafnoy svyazi. 2. Tsentral'nyy nauchno-issledovatel'skiy institut svyazi Ministerstva svyazi SSSR (for Apanasenko, Volnova, Gerasimov, Gerasimova, Kon'kov, Martynov, Filippova, Suchkova). 3. Nachal'nik laboratorii vozdushnykh liniy svyazi Tsentral'nogo nauchno-issledovatel'skogo instituta svyazi Ministerstva svyazi SSSR (for Gumelya).

(Telephone)

(Electric lines--Overhead)

VOL'NOVA, N.F., inzh., mladshiy nauchnyy sotrudnik

Reconstructing an overhead line during the multiplexing of
steel circuits by means of the VS-3 equipment. Vest.svyazi
19 no.3:27-29 Mr. '59. (MIRA 12:2)

1. Tsentral'nyy nauchno-issledovatel'skiy institut svyazi.
(Telephone lines)

VOLINOV, N. I.

21077 VOLINOV, N. I. Asimetriya telefonnykh tsapey i yego umen'sheniya v rezul'tate skreshtivaniya provolov. Stalench. Nauch.-tekhn sbornik (Mosk. elektrotekh. in-t svyazi), 7, 1949, s. 89-95.

SO: Lotopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949

9(2)

SOV/111-59-3-16/26

AUTHOR: Volnova, N.P., Engineer, Junior Scientific Associate

TITLE: Reconstruction of an Overhead Line when Multiplexing Steel Circuits with the VS-3 Apparatus (Rekonstrukt-siya vozduшной linii pri uplotnenii stal'nykh tsepey apparaturoy VS-3)

PERIODICAL: Vestnik svyazi, 1959, Nr 3, pp 27-29 (USSR)

ABSTRACT: The article discusses the proper placement of multiplexed steel circuits on overhead line supports (pole), and the arrangement of lead-ins from such steel lines to a repeating station. The VS-3 3-channel multiplexing apparatus, and the SVO-1 and SVR-1 apparatuses for transmission of radio programs in the frequency range up to 35 kc on steel lines, are presently being introduced in order to increase the capacity of steel circuits. The author outlines the multiplexing arrangement for steel circuits on 3 types of pole supports, 2 hook types, 60-60 and 30-90, and a transverse type, 20-50-60, multiplexing with either the OKS apparatus or 1 channel of the

Card 1/2

SOV/111-59-3-16/26

Reconstruction of an Overhead Line when Multiplexing Steel Circuits with the VS-3 Apparatus

VS-3, or with all 3 channels of the VS-3, depending on the pole type and the crossing diagram (illustrated). In order that the high frequency circuits operate correctly, proper placement on supports as well as prevention of interaction between circuits at the lead-ins of repeating stations is necessary. The arrangement of lead-ins and lead-outs, with multiplexing of 1 or more circuits, is discussed at some length for various line arrangements and multiplexing combinations, and taking into account the necessary iterative attenuation between lead-in and lead-out. There are 3 tables, and 9 figures.

ASSOCIATION: TsNIIS

Card 2/2

ANTSUTA, Ye.B., arkhitekt.; KIRILLOV, N.P., arkhitekt.; KUZNETSOV, V.V., arkhitekt.;
SLOTINTSEVA, M.N., arkhitekt.; PYATIN, S.G., inzh. Prinsipalni uchastiyev:
CHUYENKO, R.G., arkhitekt.; MOSEVICH, Ya.Ya., arkhitekt.; GLAZKOV, P.I.,
st. tekhnik; GOLUKHOV, G.I., inzh.; SAMSONOVA, T.T., inzh.; KOLESOVA,
Ye.Ye., st. tekhnik; MAKAROVA, T.N., tekhnik; SHAMBAT, M.S., inzh.;
SEMENOVA, G.V., inzh.; PLATUNIN, Yu.S., gr. inzh.; VOL'NOVA, T.F.,
tekhnik; SOLOV'YEV, M.I., inzh.; MOREV, I.A., tekhnik.

[Two-apartment house with two-room apartments; standard plan 1-102-5]
Dvukhkvartirnyi zhiloi dom, kvartiry v dve komnaty; tipovoi proekt
1-102-5. Moskva, Al'bom 1. 1960. 27 p. (MIRA 14:10)

1. Moscow. Tsentral'nyy institut tipovykh proyektov.
(Apartment houses—Designs and plans)

VOL'NOVA, V. A.

"A Study of the Polymorphism of Unsaturated Fatty Acids C_{18} ," Acta Phys. 14,
No. 3, 1941.

The Karpov Institute of Phys. Chem., Lab. of Dipole Moments, Moscow.

CA

2

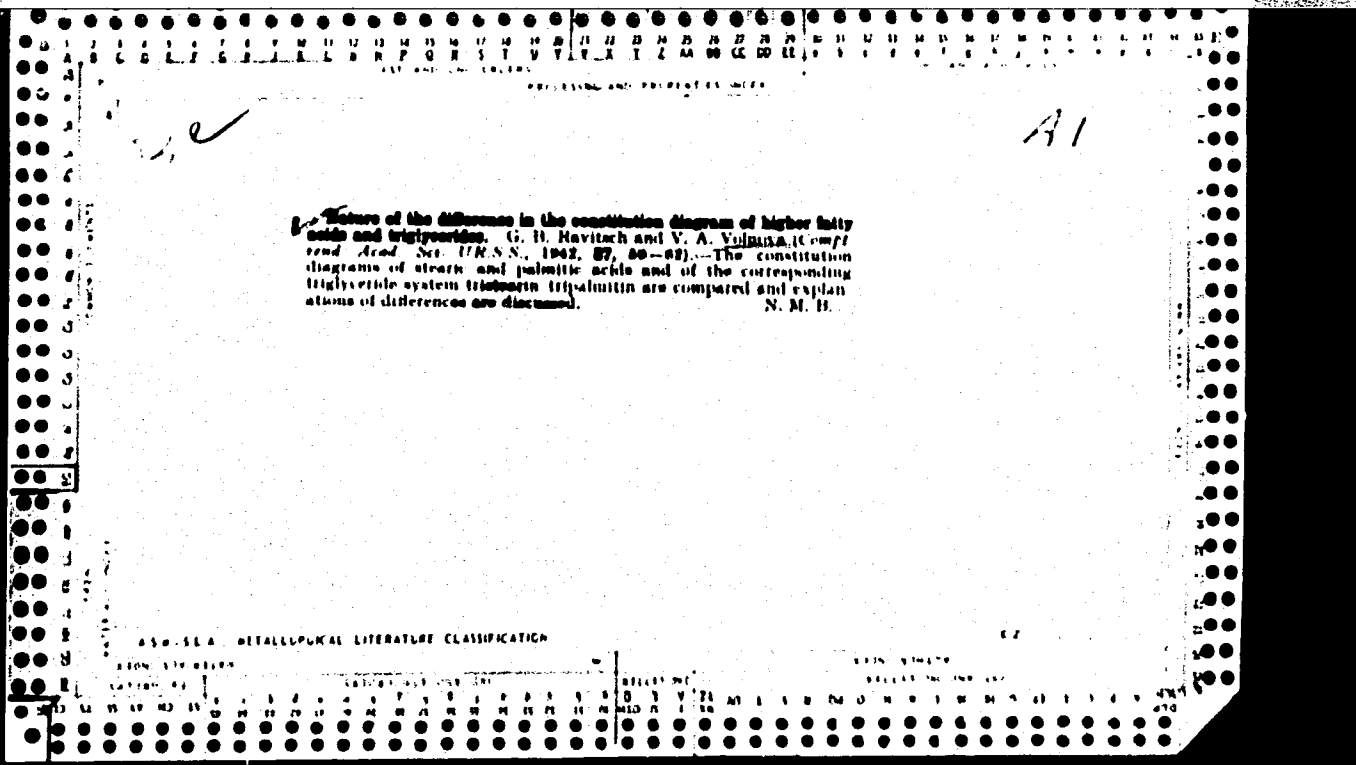
The nature of the difference in the character of the phase diagrams of the higher fatty acids and corresponding triglycerides. G. B. Ravich and V. A. Volnova. *Acta Physicochim. U. R. S. S.* 17, 223-230 (1942) (in English).—The behaviors of the systems stearic acid-palmitic acid (I), and tristearin-tripalmitin (II) were studied by means of their m. ps., hardness, microstructure and viscosity. The results of exptl. data show that in the system I a stable mol. compd. is formed giving limited solid solns. with both components. In system II the mol. compd. formed yields continuous solid solns. and is unstable. In system I the mol. compd. formed is believed held together by H-bridge bonds. The system II disintegrates because of transformation of one component to a higher-melting form. F. H. Rathmann

ASIS-SEA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	CLASS	SECTION	SUBSECTION	DESCRIPTOR
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

Nature of the difference in the character of the phase diagrams of the higher fatty acids and corresponding triglycerides. G. B. Ravitsch and V. A. Volinov. (Acta Physicochim. U. R. S. S., 1942, 27, 33-336).--Various physical properties of the systems stearic acid-palmitic acid and tristearin-tripalmitin have been examined and the phase diagrams of the systems have been compared. In the acid system a mol. compound is formed giving limited solid solutions with both acids. If it is assumed that it is the H bond which enables mol. compounds to be formed, then the absence of CO₂H groups in the triglyceride systems explains why a similar mol. compound is not formed in this system. On the other hand continuous solid solutions are formed which disintegrate with time as a result of the transformation of one of the triglycerides into a more stable form with a higher m.p. C. R. H.

AS USSR, Inst. of Gen. and Inorganic Chem.



VOL'NOVA, V. A.

"To the Discussion of Polymorphism of Higher Mono-acid Triglycerides," Iz. Ak. Nauk SSSR, Otdel. Khim Nauk, No. 6, 1945.

N. S. Kurnakov Institute of General and Inorganic Chemistry, AS USSR

BC

4-1

Polymerism of the higher monosulfonates. G. I. Ravitch, V. A. Volnova, and G. G. Tzurinov (*Compt. rend. Acad. Sci. U.R.S.S.*, 1946, 22, 366-372).—Tammann curves for trilauryl (I) have been constructed from data obtained by means of motion-picture micrography, representing the linear rates of growth and the increase in the no. of centres of crystallisation of both the unstable α -(I) (m.p. 35.5°) and the stable β -(I) (m.p. 46-47°) over the temp. range 48-0°. From 46.5° to 36° β -(I) pptd with a small no. of centres of crystallisation and a small linear rate of growth, both of which increase over the range 36-22°. Above 25° the transition of any α -(I) which pptd. is rapid, but below this temp. lies the optimum zone of growth of α -(I). The sharp increase in the no. of centres of crystallisation and the decrease in the linear rate of growth of α -(I) in the region 20-15° has led many workers to infer, erroneously, the appearance of a *cryst. γ -(I)* at these temp. Under selected conditions vitreous γ -(I) has been prepared; it had none of the optical properties of crystals. H. R. C.

N. S. Kurnakov
Inst., Gen. & In-
organic Chem., AS

Also: Acta Physicochimica U.R.S.S., Vol. 21, No. 1, 1946

CA

Polymorphism of unsaturated C_{18} fat acids. G. B. Revid, V. A. Vol'gina, and T. M. Kuz'mina (Inst. Chem. and Inorg. Chem., Acad. Sci. U.S.S.R.). *Dokl. Akad. Nauk S.S.S.R.* 16, 49-50 (1947).—Crystallization and melting curves were obtained for oleic acid under conditions of very slow cooling and heating. The thermograms were recorded with a recording pyrometer and a differential thermometer. The results seem to indicate the existence of a modification in β -form. Photomicrographs were also

obtained of both the labile and stable modifications of oleic acid. The results indicate the existence of polymorphic forms in highly unsatd. C_{18} acids. M. Hensch

EFREMOV, N. N.; RAVICH, G. B.; VOL'NOVA, V. A.

Glycerides

Solid solutions of higher fatty acids and triglycerides, Izv. Sekt. fiz. -khim. anal. 16, No. 3, 1948.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

VOINOVA, N.P.

Supplementary effect between circuits as a result of switching
insulators into the line. Elektrosviaz' 11 no.9:65-73 S '57.

(MIRA 10:11)

(Electric circuits)

C.A.

Investigation of nonequilibrium states in systems formed by aliphatic compounds. G. H. Ravich, V. A. Vol'mova, and G. G. Tsvetkov. *Izv. Akad. Nauk S.S.S.R. Ser. Khim. i Neorg. Khim., Abstr. No. 5, S.S.R. 10, 281-0 (1960).* Studies were made on stearic and palmitic acids and the triglycerides tristearin, tripalmitin, tristearin, and tripalmitin. The compn.-hardness curves of the acids had a clearly defined min. indicating the formation of a mol. compd. Analogous curves for the triglycerides were characteristic for solid soles. The internal friction isotherm for the system stearic-palmitic acids had a max. which is another indication of the existence of a mol. compd. The curves for the triglycerides had no maxima, regardless of the rate of cooling. M. Hosen

VOL'NOVA, V. A.

52/49T24

USSR/Chemistry - Stearic Acid
Chemistry - Isotherms

May 49

"Temperature Dependency of the Rate of Polymorphic Conversion of Stearic Acid Monocrystals," G. B. Ravich, and V. A. Vol'nova, Inst of Gen and Inorg Chem imeni N. S. Kurnakov, Acad Sci USSR, 2 1/2 pp

"Dokl. Ak. Nauk SSSR" Vol LXVI, No 3

In connection with theoretical and applied significance of polymorphic conversions of aliphatic, long-chain compounds, isotherms of conversion for stearic acid monocrystals are determined in temperature range 45-60°. Special study is needed on nature of conversion established. Submitted by Acad G. G. Urazov, 23 Mar 49.

52/49T24

RABICH, G.V.; VOL'NOVA, V.A.

Phase Rule and Equilibrium

Phase diagram of the system: stearic, palmitic and oleic acids. Dokl. An SSSR
86 no. 2, 1952

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

BEZZUBOV, L. P., Eng.; VOL'NOVA, V. A.; RAVICH, G. B.

Olein

Obtaining industrial olein without pressing and its physical-chemical properties.
Masl.-zhir. prom. No. 1, 1953.

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

VOLNOVA, V. A., RAVICH, G. B., and TSURENOV, G. G.

"Use of N. S. Kurnakov's Pyrometer in the Study of Low Temperature Phase Transformation of Microweight Substances," *Izv. Sektora Fiz-Khim. Analiza IONKh AN SSSR*, 25, 1954, pp 41-51

The application of Kurnakov's pyrometer to recording of thermal effects, volume changes at phase transformations and changes of microstructure of the substance at low temperature is described. Liquid nitrogen is used as cooling agent. The possibility of obtaining simultaneously the recording of the microcut and the curve of heating or cooling is emphasized. (*RZhFiz*, No 7, 1955) SO:No. 713, 9 Nov 55

RAVICH, G.B.; VOL'NOVA, V.A.; KUZNETSOVA, N.P.

Separation of organic substances from systems and methods
of determining their purity. Itogi nauki: Khim. nauki 4:
219-236 '59. (MIRA 13:4)
(Chemistry, Analytical) (Hydrocarbons)

RAYICH, G.B.; VOL'NOVA, V.A.

Microthermal phase analysis. Itogi nauki: Khim.nauki 4:
254-264 '59. (MIRA 13:4)
(Chemistry, Analytical)

VOL NOVA, V A.

is used for low-temp. thermography for study of phase change of various organic and inorganic products and also

IVANOV, Yu.V.; VOL'NOVA, Z.G., nauchn. red.; ZORINA, G.V., red.

[Modern saming and scouring machines for leather production;
foreign technology] Sovremennye otzhimnye i razvodnye mashiny
kozhevennogo proizvodstva; zarubezhnaia tekhnika. Moskva,
TSentr. in-t nauchno-tekhn. informatsii po avtomatizatsii i
mashinostroeniiu TsBTI, 1963. 49 p. (Seria III: Nove ma-
shiny, oborudovanie i sredstva avtomatizatsii) (MIRA 17:6)

POTAPOVA, L.V.; VOL'NOVA, Z.G., redaktor; SOLOV'YEVA, V.V., tekhnicheskii
redaktor

[UKR-48, UKR-49, and KR-46, looms] Tkatskie stanki UKR-48, UKR-49
i KR-46. Moskva, Gos. nauchno-tekhnicheskoe izd-vo legkoi promysh-
lennosti, 1951. 100 p. (MIRA 8:2)
(Looms)

VOL'NOVA, Z.G., inzh., nauchn. red.; KOVAL'SKAYA, I.F., tekhn.red.

[New developments in textile machinery] Novoe v tekstil'nom
mashinostroenii. Moskva, 1962. 67 p. (Seria VIII: Oborudo-
vanie dlia tekstil'noi i legkoi promyshlennosti)

(MIRA 17:4)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy infor-
matsii mashinostroyeniya.

YEVGRAFOVA, M.K., inzh.; IL'YASHEVICH, V.A., inzh.; VOL'NOVA, Z.G.,
nauchn. red.; BABAKOV, A.N., red.

[Continuous action equipment for the bleaching of cotton
cloth and knitted fabrics] Oboorudovanie nepreryvnogo dei-
stviia dlia otbelki khlopeatobumazhnoi tkani i trikotazh-
nogo polotna. Moskva, 1963. 39 p. (Seriiia III: Novye ma-
shiny, oboorudovanie i sredstva avtomatizatsii, no.67)
(MIRA 17:7)

1. Moscow. Tsentral'nyy inst'itut nauchno-tekhnicheskoy in-
formatsii po avtomatizatsii i mashinostroyeniya. 2. Vse-
soyuznyy nauchno-issledovatel'skiy institut legkogo i
tekstil'nogo mashinostroyeniya (for Il'yashevich).

PETROV, Ye.I.; VOL'NOVA, Z.G., nauchn. red.; ZORINA, G.V., red.

[New knitting machines of the German Federal Republic]
Novye trikotazhnye mashiny FRG. Moskva, 1963. 49 p.
(Seria III. Novye mashiny, oborudovanie i sredstva av-
tomatizatsii, no.68) (MIRA 17:8) !

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy
informatsii po avtomatizatsii i mashinostroeniyu.

GLUKHOVTSEV, V.G.; BEL'SKIY, I.F.; ZAKHAROVA, S.V.; VOLKOVA, Z.K.

Synthesis of tetrahydrofuran aldehydes. *Izv. AN SSSR Ser. khim.* no.2:
357-359 '65. (MIRA 18:2)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

BEL'SKIY, I.F.; SHUYKIN, N.I.; VOL'NOVA, Z.K.

Synthesis and isomerization of 2,2-dialkyl-5-propyltetrahydro-
furans. Izv.AN SSSR.Ser.khim. no.2:369-371 F '64. (MIRA 17:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.