PEREVALOV, Ivan Mitrofanovich; SEMINA, V.F., red.; PECHERSKAYA, T.I.,
tekhn.red.

[Three phases in meat production] Tri plana po proizvodstvu
miasa. Irkutsk, Irkutskoe knizhnoe izd-vo, 1960. 23 p.
(MIRA 14:12)

(Meat)

VEDERNIKOV, A.A.; PEREVALOV, N.N.; TRAVIN, O.V.

Possibility of calculating the oxygen content in open-hearth metal during the finishing period. Izv. vys ucheb. zav.; chern. met. 6 no.9:55-61 '63. (MIRA 16:11)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii im. I.P.Bardina.

NESMEYANOV, A.N., akademik; PEREVALOVA, E.G.; NIKITINA, T.V.

Synthesis of azoferrocene, its reduction and behavior under
conditions of benzidine rearrangement. Dokl.AN SSSR 138 no.5:
1118-1121 Je '61. (MIRA 14:6)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Ferrocene) (Benzidine)

PEREVALOVA, E. G.

USSR/Chemistry - Reaction processes

Card 1/1 Pub. 22 - 14/45

Authors :	Nesmeyanov, A. N., Academician; Perevalova, E. G.; and Golovnya, R. V.
Title :	Reaction of ferrocene with diazo-compounds
Periodical :	Dok. AN SSSR 99/4, 539-542, Dec 1, 1954
Abstract :	Experimental data showing that ferrocene reacts not only with p-nitrophenyldiazonium chloride producing p-nitrophenylferrocene (yield 64%), but also with other diazo-compounds yielding homologous arylferrocenes, are presented. The reaction between diazo-compounds and ferrocene, was found to be a suitable way of obtaining comparatively high yields of monoarylferrocenes, arylferrocenes with different substitutes in the benzene nuclei. The mechanism of the reaction, is explained. Seven references: 3-USA; 3-German and 1-USSR (1885-1954). Graph.
Institution :	The M. V. Lomonosov State University, Moscow
Submitted :	November 11, 1954

PEREVALOVA, E. G.

6

Reaction of ferrocene with diazo compounds. A. N. Nesmeyanov, E. G. Perevalova, and R. V. Golovnya (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 99, 539-42(1954); cf. C.A. 49, 9633*f*.—Diazonium compds. with ferrocene (I) yield primarily monoaryl derivs. in fairly good yields. The reaction probably is a radical reaction. To 5 g. I in 150 ml. Et_2O at −4° was added at once a filtered aq. soln. of p-$O_2NC_6H_4N_2Cl$ (from 15 g. amine) which had been treated with urea to remove excess HNO_2, the mixt. was neutralized with NaOAc, stirred 30 min. at −4° (2.2 l. N was collected), and filtered yielded 7.5 g. solid. Evapn. of the Et_2O layer gave 3 g. residue which was combined with the above solid and extd. in a Soxhlet app. with petr. ether (b. 45-90°) 3 days; evapn. of the ext. gave 64% *(p-nitrophenyl)ferrocene* (I), red-violet plates, m. 167-7.5°. Extn. of the residue 3 days with EtOH, then 2 days with Me_2CO left behind 0.5 g. violet *bis(p-nitrophenyl)ferrocene*, does not melt, but turns brown at 290°; this is generally very slightly sol. but can be crystd. from cyclohexanone. If kept several days in petr. ether in contact with an aq. suspension of Ag_2SO_4 and a trace of HCl produces color in the aq. layer owing to formation of (*p*-nitrophenyl)ferricinium cation, which gives a yellow ppt. with silicotungstic acid, just like the ferricinium cation (cf. Wilkinson, *C.A.* 48, 2053*e*). Similarly, I and p-$MeC_6H_4N_2Cl$ gave 57% *p-tolylferrocene*, yellow, m. 139-40° (from petr. ether); this heated with aq. $KMnO_4$-KOH 3 hrs. gave p-$C_6H_4(CO_2H)_2$; shaking it in petr. ether with aq. Ag_2SO_4 and little HCl gave a yellow-green color, caused by the oxidation; with silicotungstic acid it gives a yellow ppt. Similarly was obtained 40% *p-anisylferrocene*, orange, m. 97-8° (from petr. ether), formed with a small amt. of p,p'-azoanisole, m. 162-3°. Oxidation of the former with $KMnO_4$ gave anisic acid. I with PhN_2Cl, as described above, run 0.5 hr. at room temp. gave 42% *pentaphenylferrocene*, yellow, m. 240-5° (decompn.) (from CCl_4). Absorption spectra of the products are shown. G. M. K.

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Perevalova, E. G.

NESMEYANOV, A.N.; PEREVALOVA, E.G.; GOLOVNYA, R.V.; SIMUKOVA, N.A.;
STAROVSKIY, O.V.

Reactivity of mono- and di(p-nitrophenyl) ferrocene and biacetylferrocene. Izv. AN SSSR. Otd. khim. nauk no.5:638-640 My '57.
(MLRA 10:8)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Iron)

Perevalova, E.G.

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1

USSR.

Alkylation and acylation of chloromercuriacetaldehyde. A. N. Nesmeyanov and E. G. Perevalova (M. V. Lomonosov State Univ., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1954, 1003-7; cf. preceding abstr.—Reaction of chloromercuriacetaldehyde with acyl halides yields the corresponding vinyl esters, i.e., the reaction occurs with transfer of the reactive center along Hg—C and C—O bonds. Ph_3CBr reacts so as to form a C-alkylation product. To 3 g. powd. *$BrHgCH_2CHO$* (I) was added 3 g. Ph_3CBr in dry C_6H_6 and after 2 hrs. at 20-30° the mixt. was refluxed 2 hrs., yielding 2 g. crude (0.9 g. pure) *triphenylmethylacetaldehyde*, m. 99-100.5° (*p-nitrophenylhydrazone*, m. 245-6°); a soln. of the crude product failed to react in the cold with Br in $CHCl_3$, indicating the absence of formation of a vinyl ether. To 10 g. activated Mg was added with stirring 3 g. $CH_2:CHCH_2Cl$ in Et_2O, followed by 17 g. Ph_3CCl and 10 g. $CH_2:CHCH_2Cl$ in Et_2O; after refluxing 5 hrs. and treatment with dil. HCl there was obtained 70% *$Ph_3CCH_2CH:CH_2$*, m. 70.5-1° (from MeOH), which on ozonization and treatment with H_2O gave 13% *Ph_3CCH_2CHO*, m. 98.5-100°, identical with the above specimen. $(p\text{-}O_2NC_6H_4)_3CBr$ (3.8 g.) in $CHCl_3$ treated with 3.8 g. I and kept 2 days, then refluxed 3 hrs. gave 40% *$(p\text{-}O_2NC_6H_4)_3COCH:CH_2$*, decomp. 164-4.5° (from Me_2CO), which rapidly decolorizes Br-$CHCl_3$, and heated with concd. HCl yields 84% $(p\text{-}O_2NC_6H_4)_3COH$, m. 188-90°. Shaking 50 g. $ClHgCH_2CHO$ in C_6H_6 with 19 g. $ClCH_2COCl$ 15-20 min.,

(OVER)

A.N. NESMEYANOV

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followed by 2 hrs. at 60-70° and 2 hrs. refluxing gave 58% $ClCH_2CO_2CH:CH_2$, b_{71} 13°.5-5.3°, b_{76} 82-3.5°, n_D^{20} 1.4460, d_{20} 1.1941, with some $ClCH_2CO_2H$; refluxing the ester with 20% H_2SO_4 gave 80% AcH and $ClCH_2CO_2H$. Similar reaction with CCl_3COCl gave 53% $CCl_3CO_2CH:CH_2$, b_{22} 67-8°, n_D^{20} 1.4670, d_{20} 1.4147, which was readily hydrolyzed to CCl_3CO_2H and AcH by 20% H_2SO_4. Similar reaction with $PhCH_2COCl$ gave 50% $PhCH_2CO_2CH:CH_2$, b_3 80-1°, n_D^{20} 1.5163, d_{20} 1.0533 which hydrolyzed readily with 20% H_2SO_4. Similar reaction with Ph_3CCOCl gave 48% $Ph_3CCO_2CH:CH_2$, m. 126.6-7.5°, which refluxed in aq. dioxane with 65% H_2SO_4 1 hr. gave 42% AcH. Similar reaction with p-$O_2NC_6H_4COCl$ gave 55% p-$O_2NC_6H_4CO_2CH:CH_2$, m. 66.5-70.5°, which was readily hydrolyzed by 20% H_2SO_4. Similar reaction with *N*-phthaloylglycyl chloride gave 40% *phthaloylglycine vinyl ester*, m. 101-5° (from ligroine), which readily hydrolyzed with 20% H_2SO_4. G. M. K.

PEREVALOVA, E. G.

USSR

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③

The reactions of substitution of hydrogen atoms in ferrocene. A. N. Nesmeyanov, E. G. Perevalova, R. V. Golovnya, and O. A. Nesmeyanova (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 97, 459-61(1954); cf. Fischer and Jira, *C.A.* 47, 9202*b*; Woodward, *et al.*, *C.A.* 48, 2053*g*.—Treatment of *ferrocene* (I) with Hg(OAc)$_2$ at room temp. in Et$_2$O-EtOH or EtOH-C$_6$H$_6$ gave an equimolar mixt. of *ferrocenylmercuric chloride* (Ia), decomp. 193-6° (orange yellow solid; from xylene and BuOH) and *bis(chloromercuri)ferrocene*, yellow infusible very sparingly sol. solid. Both are converted to I on brief refluxing with concd. HCl. Ia readily forms diferrocenylmercury, yellow-orange, decomp. 233-4° (from xylene), on treatment with aq. Na$_2$S$_2$O$_3$. Refluxing I in Et$_2$O with excess BuLi 12 hrs. gave an equimolar mixt. of mono- and dilithioferrocene, which treated with CO$_2$ gave a mixt. of the corresponding mono- (II) and dicarboxylic (III) acids in 30% yield, while about 30% I is recovered. II, yellow, decomp. 195-200° (from MePh-ligroine); *Me ester*, m. 65-6° (from petr. ether). III, orange-yellow, does not decomp. or melt below 250° (from AcOH); *di-Me ester*, m. 114-15° (from petr. ether or EtOH). The ready metalation of I places it among the superaromatic systems like furan or thiophene. I reacts with p-O$_2$NC$_6$H$_4$N$_2$Cl in aq. Et$_2$O medium, with loss of N, yielding 64% of a *p-nitrophenyl deriv.* of I, cherry-red, m. 167-7.5° (from petr. ether), gives p-O$_2$NC$_6$H$_4$CO$_2$H on oxidation by KMnO$_4$. The reaction also yields 1-2% *bis(p-nitrophenyl) deriv.* of I, violet, infusible solid (from cyclohexanone). I and PhN$_2$Cl yield a *polyphenyl deriv.* of I to be described later. Treatment of I with silicoanhydride of AcOH in C$_6$H$_6$ gave an *Ac deriv.* of I, red-orange, m. 81-3° (from petr. ether or

А. Н. Несмеянов

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H_2O), which gives violet color in HCl; *oxime*, decomp. 163-6° (from dil. EtOH); *semicarbazone*, decomp. 198-201° (from EtOH). G. M. Kosolapoff

PEREVALOV, G.Ye.

Analytic expression for the linear measure of a plane connected set. Sib. mat. zhur. 5 no.3:626-638 My-Je '64. (MIRA 17:6)

PEREVALOV, G.Ye.

Finiteness test for the linear measure of plane continua.
Sib.mat.zhur. 3 no.3:386-391 My-Je '62. (MIRA 15:9)
(Aggregates)

ARASLANOV, M.A.; GABITOV, G.S.; MILYUKOVSKIY, G.Ye.; RAYTMAN, Ye.A.; KORCHEMKIN, N.I.; KHAVKIN, F.A.; PEREVALOV, L.N.; KHROMUSHKIN, M.K.

Improvement of artificial sole leather drying techniques and decreased dispensing of fiber in artificial leather for shoe counters. Prom.energ. 18 no.2:9 F '63. (MIRA 16:2)
(Leather, Artificial--Drying)

PEREVALOV, M.; KOVALENKO, Ye., mekhanik

We are striving for the distinguished title. Rech. transp. 20 no.10:17 O '61. (MIRA 14:9)

1. Kapitan teplokhoda "ST-517" (for Perevalov).
(Inland water transportation--Employees)
(Socialist competition)

PEREVALOV, N.

Our beacons shine brightly. Grazhd.av. 18 no.9:13-14 S '61.
(MIRA 14:9)

1. Predsedatel' territorial'nogo komiteta profsoyuza aviarabotnikov, Novosibirsk.
(Siberia, Western--Aeronautics, Commercial)

SOV/180-59-1-5/29

AUTHORS: Mogutnov, B.M., Perevalov, N.N. and Shvartsman, L.A. (Moscow)

TITLE: Influence of Calcium Oxide on the Distribution of Tungsten between Liquid Iron and Slag (Vliyaniye okisi kal'tsiya na raspredeleniye vol'frama mezhdu zhidkim zhelezom i shlakom)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 1, pp 22-28 (USSR)

ABSTRACT: The object of the work described was to study the behaviour of tungsten in oxide melts at high temperatures, especially to obtain accurate data on the distribution of the element between iron and slag in relation to thermodynamic conditions. A successive saturation method, described by Shvartsman and others (Refs 1-3) was used. In this small portions of a previously prepared slag containing a radioactive isotope of the element concerned are added to the iron at a constant temperature until further addition produces no further increase in the radioactivity of the iron. The distribution coefficient is calculated from the radioactivities of metal and slag. The isotope (W^{185}) was added to the melted slag in an induction-heated iron crucible in the proportion of

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SOV/180-59-1-5/29

Influence of Calcium Oxide on the Distribution of Tungsten between Liquid Iron and Slag

50 mg (activity 1 millicurie) per 400 g of slag, which was kept molten long enough to allow complete oxidation and mixing. About 50 g of iron (electrolytic) were used, metal temperature being measured with a micro-optical pyrometer and kept constant. Fig 3 shows the count for metal samples at temperatures of 1600, 1640 and 1700°C. Results were reproducible even when equilibrium was approached from different directions (ie with excess or with deficiency of tungsten in the iron). The heat-content and entropy changes associated with the transfer of 1 g atom of tungsten from iron into slag were calculated from the distribution coefficient values at different temperatures (Fig 4 shows the linear relations between the logarithms of the coefficient and 10^4/(absolute temperature)). With a slag consisting exclusively of iron oxides the heat-content and entropy changes were 14800 cal and 3.84 cal/degree g-atom, respectively. With lime-containing slags the heat-content change is greater, reaching (Fig 5) a value of 41000 cal for a slag with a molar fraction of CaO of 0.40 (all slag iron assumed to be

Card 2/3

SOV/180-59-1-5/29

Influence of Calcium Oxide on the Distribution of Tungsten between Liquid Iron and Slag

in the form of FeO). The authors discuss their own and published results (Refs 5 and 6) and estimate the heat of mixing of WO_3 with ferruginous limey slag. They conclude that this oxide has a pronounced acidic nature, and that with increasing basicity of open-hearth slags the oxidation of tungsten from liquid steel should increase.

Card 3/3

There are 6 figures, 2 tables and 7 references, 3 of which are Soviet, 3 English and 1 German.

SUBMITTED: March 1, 1958

PEREVALOV, N.N.; MOGUTOV, B.M.; SHVARTSMAN, L.A.

Effect of the basicity of slag on the oxidation of chromium subgroup elements dissolved in liquid iron. Dokl. AN SSSR 124 no.1:150-152 Ja '59. (MIRA 12:1)

1. Institut metallovedeniya i fiziki metallov TSentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii. Predstavleno akademikom G.V. Kurdyumovym.
(Oxidation) (Slag)

PEREVALOV, N. N.: Master Tech Sci (diss) -- "Investigation of the distribution of the elements of the chromium subgroup between liquid iron and oxidation slags". Moscow, 1959. 24 pp (Acad Sci USSR, Inst of Metallurgy im A. A. Baykov), 170 copies (KL, No 13, 1959, 107)

MOGUTNOV, B.M.(Moskva); PEREVALOV, N.N.(Moskva); SHVARTSMAN, L.A.(Moskva)

Effect of calcium oxide on the distribution of tungsten between
liquid iron and slag. Izv.AN SSSR.Otd.tekh.nauk Met.i topl.
no.1:22-28 Ja-F '59.
(Tungsten--Isotopes) (Iron--Metallurgy) (Slag)

SMIRNOV, G.N.,kand.tekhn.nauk; PEREVALOV, N.N.,inzh.

Compressed-air transportation of wastes in cotton spinning.
Tekst.prom. 19 no.2:49-51 F '59. (MIRA 12:5)
(Cotton waste) (Pneumatic-tube transportation)

5(2,4)

AUTHORS: Perevalov, N. N., Mogutnov, B. M., Shvartsman, L. A.

SOV/20-124-1-42/69

TITLE: The Effect of the Basicity of Slag on the Oxidation of Chromium Subgroup Elements Dissolved in Liquid Iron (Vliyaniye osnovnosti shlaka na okisleniye elementov podgruppy khroma, rastvorennykh v zhidkom zheleze)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 150-152 (USSR)

ABSTRACT: The oxidation of the elements dissolved in iron is to a considerable extent due to the interconnection between the acid - basic properties of the forming oxides and the basicity of slag. Slags containing only iron oxides (iron containing slags) were regarded as neutral by the authors. They were regarded as the basis to which calcium oxide and silica, the most typical oxides occurring in slags with respect to their acid - basic properties, were added. The authors investigated the dependence of the distribution coefficient L of the corresponding element at low concentration between iron and slag in dependence on the composition of slag. L was determined

according to the method applied in reference 1 with the help of radioactive isotopes Cr^{51}, Mo^{99} and W^{185}. The results obtained show that in all cases the dependence of L on temperature is satisfactorily expressed by the equation

$$\lg L = \frac{A}{T} + B \quad (1).$$

A denotes the heat effect of the reaction $\left(A = -\frac{\Delta H}{4.575} \right)$, and the constant B denotes the variation of entropy. The composition of the investigated slags is given in table 1. L as well as A and B depend but very little on the concentration of the calcium oxide in the case of chromium oxidation. The presence of SiO_2 in the iron containing slag means an increase of the heat of reaction of chromium oxidation. Cr_2O_3 is a basic oxide (Ref 3). The authors state that this oxide in the slag melts is to be regarded as a weak base. It can be seen (Table 1) that in the case of the introduction of calcium oxide into the slag L is doubled and trebled compared to the iron containing slag. Also the heat effect of the reaction increases. The introduction of silica has a contrary effect; the heat effect remains almost unchanged. This fact makes the conclusion possible that the decrease of L is caused by the entropy component of free energy. The main difference between molybdenum oxidation and chromium is therefore the fact that in the latter case a higher oxide is formed which clearly behaves like an acid in the slag. In the case of tungsten oxidation CaO has a rather increasing effect upon L and the heat of reaction (Ref 4). They are both reduced by SiO_2. Thus, the balance of the oxidation reaction of molybdenum and tungsten which form in the slag higher oxides with marked acid properties - depends considerably upon basicity. With respect to chromium this is the case only to a negligible extent. There are 1 table and 4 references, 3 of which are Soviet.

The Effect of the Basicity of Slag on the Oxidation of Chromium Subgroup Elements Dissolved in Liquid Iron SOV/20-124-1-42/69

ASSOCIATION: Institut metallovedeniya i fiziki metallov Tsentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii (Institute of Metallography and Metal Physics of the Central Scientific Research Institute of Ferrous Metallurgy)

PRESENTED: August 15, 1958, by G. V. Kurdyumov, Academician

SUBMITTED: August 13, 1958

Card 4/4

PEREVALOV, N.N., SHVARTSMAN, L.A.

"Distribution of the Chrome Subgroup Elements between Iron and Ferrite Slag," lecture given at the Fourth Conference on Steelmaking, A.A. Baikov Institute of Metallurgy, Moscow, July 1-6, 1957.

PEREVALOV, N.N., inzhener; KHARITONOV, A.S., inzhener.

Intensification of the final melting. Sbor.trud.TSNIICHM no.13: 109-126 '56. (MLRA 9:11)
(Zaporozh'ye--Open-hearth process)
(Oxygen--Industrial applications)

PEREVALOV, N.N.; TRAVIN, O.V.

Applicability of thermodynamic relations in simulating steel refinement processes. Dokl. AN SSSR 163 no.1:83-86 Jl '65. (MIRA 18:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Submitted December 10, 1964.

PEREVALOV, N.Ye., inzh.; GIRGOR'YEV, A.M., doktor tekhn. nauk

Data for calculating planetary transmissions. Mashinostroenie no.4:51-52 Jl-Ag '64. (MIRA 17:10)

PEREVALOV, S.S.

[redacted]

ASD preparation for treating some skin diseases. Vest.derm. i ven. 31 no.1:48 Ja-F '57. (MIRA 10:7)

1. Iz venerologicheskogo dispansera Omskoy zheleznoy dorogi.
(SKIN--DISEASES)

PA 2773

PEREVALOV, V. A.

USSR/Arctic Studies
Ships, Icebreakers

May 1946

"Postwar Soviet Arctic," V. A. Perevalov, 4 pp

"Priroda" No 5

A general account of what the polar men of the Soviet Union endured during World War II and the efficient service rendered by the Main Northern Sea Route, which was kept open by a fleet of icebreakers headed by the famous "Lenin." Some highlights on the post-war period, such as archaeological expeditions and expeditions to the crater Yubiley, where the scientists recorded temperatures of 1,050 degrees.

ID

2773

PEREVALOV, V. A.

USSR/Geography
Meteorological Research

Aug 1946

PA 36T19

"Mid- and Central Asia in the Proceedings of the Russian Geographic Society," V. A. Perevalov, 4 pp

"Priroda" No 8

The major part of the knowledge which exists on mid- and central-Asia is due to the various expeditions of the Russian Geographic Society. These expeditions started as early as 1845. Brief history of expeditions by the Society into this region and the contributions made by some of the more important expeditions. Recently, this time under the jurisdiction of the All-Union Geographic Council, Academy of Sciences of the

ID

USSR/Geography (Contd)

36T19

Aug 1946

USSR, expeditions have been studying the geographic, plant, meteorologic, and climatic characteristics of mid- and central Asia once again.

ID

36T19

PEREVALOV, V. A.

Perevalov, V. A. - "Semen Dezhnev. "On the 300th anniversary of the opening of the Bering Strait (1648-1948)," (With Editor's footnotes), Problemy Arktiki, 1948 (Published in 1949), No. 3, p. 5-17, - Bibliog: 26 items

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

PEREVALOV, V. A.

21528 PEREVALOV, V. A.

Lomonosov issledovaniye Arktiki i otkrytiye Alyaski.
(K istorii ekspeditsii V. Ya. Chichagova i P. K. Kronitsyna).
Trudy Vtorogo Vsesoyuz. geogr. s"yezda. T. Sh. M., 1949, s. 243 - 60.

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

PEREVALOV, V. A.

"Semen Dezhnev and His Geographical Discoveries,"

Nauka I Zhizn', No. 4, 1949.

PEREVALOV, V. A.

FA 67/49T74

USSR/Geography - Literature
Arctic

Aug 49

"Review of the Works of the Second All-Union Geographic Conference," V. A. Perevalov, 3/4 p

"Priroda" No 8

First volume contains minutes of the meetings and reports made at the plenary session and in the Phys Geog Sec, among them: Acad V. A. Obruchev on Central Asia, Prof V. Yu. Vize on the Arctic, and Acad O. Yu. Shmidt on the "New Theory of the Origin of the Earth and Planets." Other reports included were by: Acad A. A. Grigor'yev, Ya. S. Eidel'shteyn, and

[redacted] 67/49T74

USSR/Geography - Literature (Contd)

Aug 49

Ya. Ya. Lapushkin. Second volume is devoted to physical geographical problems.

[redacted] 67/49T74

PEREVALOV, V.A.

USSR/Geography - Cartography

Feb 50

"Review of 'Works of the Second All-Union Geographical Congress,'" V. A. Perevalov

"Priroda" No 2, pp 84, 85

Subject works deal with mathematical geography and cartography, biogeography, history of geographical science, and the works of the section of ethnography, anthropology, and folklore. A. A. Izotov, in his paper, "Dimensions of the Terrestrial Ellipsoid According to New Data," states that the ellipsoid used for geodetic and cartographic works in the USSR has an equatorial semiaxis of 6,378.245 km and a flattening of 1/298.3.

219T58

PEREVALOV, V. A.

PA 175T71

USSR/Oceanography - Arctic Seas Jan/Feb 50
Literature

"Review of V. Yu. Vize's Book 'Seas of the Soviet Arctic,'" V. A. Perevalov

"Iz v-s Geograf Obshch" Vol LXXXII, No 1, pp 103-105

Favorable review of subject book, which is 3d ed in substantially revised and supplemented form (1st 2 ed published 1936, 1939). Book covers great deal of material on studies during the Soviet period (including 1947). Two maps appended, one of polar region, the other an original map of drift of buoys in North

[redacted]

175T71

USSR/Oceanography - Arctic Seas Jan/Feb 50
(Contd)

Arctic Ocean and in seas of Soviet Arctic. Indexes of geographical names, personalities, ships, and planes.

[redacted]

175T71

PEREVALOV, V. A.

Bolotov, Andrey Timofeyevich, 1738-1833

Unknown works of A. T. Bolotov in phenology. V. A. Perevalov, Izv. Vses. geog. obshch., 84, No. 2, 1952.

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

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PARMUZIN, Yu.P.; GERENCHUK, K.I.; MIL'KOV, F.N.; TARASOV, F.V.;
NIKOLAYEV, V.N.; SOBOLEV, L.N.; RYBIN, N.N.; DUMIN, B.Ya.; IGNAT'YEV,
G.M.; MEL'KHEYEV, M.N.; SANEBLIDZE, M.S.; VASIL'YEVA, I.V.;
PEREVALOV, V.A.; BASALIKAS, A.B.

Discussion at the conference on studying land forms. Nauk. zap. L'viv.
un., 40:231-267 '57. (MIRA 11:6)
1.L'vovskiy gosudarstvennyy universitet (for TSys', Gerenchuk, Dumin).
2.Laboratoriya aerometodov AN SSSR, Leningrad (for Sokolov,
Miroshnichenko, Petrov). 3.Institut geografii AN SSSR, Moskva (for
Armand, Sobolev). 4.Gosudarstvennyy universitet, Voronezh (for Mil'kov,
Tarasov). 5.Leningradskiy gosudarstvennyy universitet (for Chochia,
Isachenko, Kazakova). 6.Komissiya okhrany prirody AN SSSR, Moskva (for
Protopopov). 7.Gosudarstvennyy universitet, Chernovtsy (for Rybin).
8.Gosudarstvennyy universitet, Irkutsk (for Mel'kheyev). 9.Go-
sudarstvennyy pedagogicheskiy institut im. V.I. Lenina, Moskva (for
Vasil'yeva). 10.Bol'shaya Sovetskaya Entsiklopediya (for Zabelin).
11.Gosudarstvennyy universitet, Tbilisi (for Saneblidze). 12.Moskovskiy
gosudarstvennyy universitet (for Gvozdetskiy, Solntsev, Mikhaylov,
Parmuzin, Nikolayev, Ignat'yev). 13.Torgovo-ekonomicheskiy institut,
L'vov (for Perevalov). 14.Gosudarstvennyy institut im. Kapsukasa,
Vil'nyus (for Basalikas). 15.Muzey zemlevedeniya Moskovskogo go-
sudarstvennogo universiteta (for Yefremov, Kozlov). 16.Srednyaya shkola
No.13, Kiyev (for Kara-Mosko). (Physical geography)

PEREVALOV, V.A.

30(5) SOV/10-59-4-27/29

AUTHOR: Parkhomenko, I.I.

TITLE: First Conference to Study the Development of Productive Forces of the Stanislavskiy ekonomicheskiy administrativnyy rayon (Stanislav Economic District)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geograficheskaya, 1959, Nr 4, pp 156-157 (USSR)

ABSTRACT: The article covers the First Inter-Vuz Conference
to Study the Development of Productive Forces of
the Stanislav Economic District and Methods to Con-
duct Economic and Geographical Research on the Na-
tional Economy which took place in Chernovtsy from
6 to 10 April, 1959. The conference was organized by
the Ministerstvo vysshego obrazovaniya USSR (Minis-
try of Higher Education of the Ukrainskaya SSR), the
Chernovitskiy gosudarstvennyy universitet (Chernovtsy

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State University), and the Sovet narodnogo khozyay-
stva (Economic Council) of the Stanislav Economic
District, with more than 100 scientists, education
specialists, engineers, economists, and planning wor-
kers participating who heard 50 reports. The follow-
ing personalities delivered reports: E.M. Leutskiy,
Head of the Chernovtsy State University, held an
opening address; I.V. Romanov, Deputy Chairman of the
Stanislav Economic Council, lectured on the future
development of that district during 1959-65; V.V.
Onikiyenko - on "The Industrial Complex of the
Stanislav Economic District and Its Economic Pros-
pects in the Future" and "Basic Laws in the Devel-
opment and Geographical Distribution of Agricultural
Production in the Carpathian areas of the Ukrainskaya
SSR"; V.G. Ignatenko - on "The Present-Day Speciali-
zation Level in the Chemical Industry of the Stanis-

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lav Economic District and Its Future Development";
Ye.V. Mironova - on "The Industry of Chernovtsy and
Its Future Development"; Ya.I. Zhupanskiy and Ya.I.
Bondarenko - on "The Wood Resources and Lumber In-
dustry of the Stanislav Oblast' and Their Future
Prospects"V.A. Perevalov, L'vovskiy torgovo-ekonomich-
eskiy institut (L'vov Institute of Commerce and Eco-
nomics), elucidated on "The Teaching of V.I. Lenin
on the Territorial Division of Labor as a Base for
the Modern Theory of Division of the USSR Into Economic
Districts"; S.L. Lutskiy, (L'vov University), - on
"The Methods of Division Into Low-Level Economic Dis-
tricts"; I.I. Parkhomenko, Institut nauchnoy informa-
tsii AN SSSR (Institute of Scientific Information
AS USSR), - on "The Location and Nature of Economic
and Geographical Research on Various Scales at Wor-
king Out Development Schemes of Economic Districts";

PEREVALOV, V.A.

M.V.Lomonosov's theory on underground waters, their forms and activity. Geol. i geofiz. no.11:115-119 '61. (MIRA 15:2)
(Water, Underground) (Lomonosov, Mikhail Vasil'evich, 1711-1765)

FEREVALOV, V.A.

M.V.Lomonosov's works in the field of oceanography; on the 250th anniversary of his birth. Okeanologiia 1 no.6:1120-1125 '61. (MIRA 15:1)

(Lomonosov, Mikhail Vasil'evich, 1711-1765) (Oceanography)

PEREVALOV, V.A.

Geomorphological problems in M.V. Lomonosov's works; on the 250th anniversary of his birth. Sov.geol. 4 no.12:107-113 D '61. (MIRA 15:2)

1. L'vovskiy gosudarstvennyy universitet imeni I. Franko.
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Geomorphology)

PEREVALOV, V.A.

Initial pages of the history of glaciology; on the 250th anniversary of M.V. Lomonosov's birth. Vest.LGU 16 no.18: 104-108 '61. (MIRA 14:10)

(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Glaciology)

PEREVALOV, V.A.

Problems of physical geography in the works of M.V. Lomonosov; on the 250th anniversary of his birth. Trudy Inst.ist.est.i tekh. 37:3-16 '61. (MIRA 14:10)
(Lomonosov, Mikhail Vasil'evich, 1711-1765)
(Physical geography)

PEREVALOV, V.A.

V.I. Lenin and regional basis of the State Electrification Plan. Izv.Vses.geog. ob-va 92 no.3:197-204 My-Je '60. (MIRA 13:6)

(Electrification) (Economic zoning)

PEREVERTUN, M.P.

Spectral sensitivity of the eye at different levels of brilliance in the field of vision. Trudy Sekt.astrobot.AN Kazakh SSR 7:54-63 '59. (MIRA 13:5)
(Vision)

PEREVALOVA

PHASE I BOOK EXPLOITATION SOV/5850

SOV/9-M-8(11)

Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii imeni V. I. Vernadskogo. Komissiya po analiticheskoy khimii

Spektrofotometricheskiye i kolorimetricheskiye metody analiza (Spectrophotometric and Colorimetric Methods of Analysis) Moscow, 1960. [illegible] Its: Trudy, tom. 8 (11) Errata slip inserted. 3,000 copies printed.

Resp. Ed.: I. P. Alimarin, Corresponding Member, Academy of [illegible] Ed. of Publishing House: V. M. [illegible]; Tech. Ed.: [illegible]

PURPOSE: The publication is intended for chemists, particularly analytical chemists and geochemists.

COVERAGE: This collection of 29 articles is published as [illegible] Transactions of the Committee on Analytical Chemistry at [illegible] Geochemistry and Analytical Chemistry imeni V. I. [illegible] Sciences USSR. The general subject of the volume is [illegible] of spectrophotometric and colorimetric analysis. [illegible] the following topics may deserve special attention: [illegible] absorption analysis, the sensitivity of the [illegible] organic analysis, the basic variations of the kinetic method of analysis, spectrophotometric investigation of heteropolyacids of [illegible], a new colorimetric method of determining small quantities of [illegible], a fluorimetric method of determining uranium, spectrophotometric investigation of the behavior of oxidation-reduction indicators, a phasometric optical-acoustical method of gas analysis, and a description of an automatic spectrophotometric gas analyzer. No personalities are mentioned. References are given at the end of each article.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

JA/dwm/fal
8-29-60

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23

PEREVALOV, V. G.

"Purification of Industrial Waste Water Containing Emulsified Petroleum Products." Sub 20 Mar 51, Moscow Order of the Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

Cand. Tech. Sci.

KOLOBANOV, S.K.; PEREVALOV, V.G.; BULAVA, M.H., redaktor; MINEVICH, I., tekhnicheskiy redaktor.

[Supplying water to construction sites] Vodosnabzhenie stroitel'nykh ploshchadok. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1953. 140 p. (MLRA 8:2)

(Water supply) (Building)

PEREVALOV, V.G.

Removal of emulsified petroleum products from sewage by means of aluminum sulfate. Ukr.khim.zhur. 19 no.2:223-229 '53. (MLRA 7:4)

1. Kiyevskiy inzhenerno-stroitel'nyy institut.
(Water--Purification) (Aluminum sulfate)

PEREVALOV V.G.

AID P - 543

Subject : USSR/Engineering

Card 1/1 Pub. 78 - 9/29

Author : Perevalov, V. G.

Title : ~~Coalescent filter~~ in the oil trap

Periodical : Neft. Khoz., v. 32, #7, 39-43, Jl 1954

Abstract : The author presents the analysis of the oil trap with and without the coalescent filter and makes a comparison of the wetting action of the "hydrophobic" and "hydrophilic" materials. The importance of wetting ability of filtrating materials is demonstrated in a set of experiments and in the table. 3 drawings and 5 Russian references (1948-1952).

Institutions: Azerbaydzhan Petroleum Scientific Research Institute (Az.NII); Ufa Petroleum Scientific Research Institute (Uf.NII); All-Union Scientific Research Institute for Water Supply, Sewer Systems, Hydro-Engineering and Hydro-Geological Constructions (VODGEO)

Submitted : No date

Perevalov, V. G.

1

Fuel

Purification of refinery waste water by flotation. V. G. Perevalov. *Neftyanoe Khoz.* 34, No. 10, 57-8(1956).—Expts. were made to det. if waste water can be purified by flotation without the use of coagulants. The method selected consisted in introducing air through filter stones with a pore size ≤3-5 μ. Air bubbles floated the oil droplets to the surface at the rate of 0.9 cm./sec., while rate of droplet rise in the absence of air was about 1 μ/sec. The foam formed on the surface coalesced into an oil film after the bubbles burst. When air was used at 1-atm. pressure, 15 mg./l. of oil remained in the water after 150 min. of aeration, and the same results were obtained in 70 min. with air at 1.5-atm. pressure. The min. residual oil content of 6 mg./l. was obtained with air at 1.5 atm. in 120 min. and in 75 min. at 2 atm. The pH of the water did not affect the results. Foaming agents, if not originally present, can be added. The effluent obtained was clear, colorless, or faintly yellow, and was either odorless, or had only a slight petroleum odor.

W. M. Sternberg

PEREVALOV, V.G.; ALEKSEYEVA, V.A.

Quality of waste water injected into oil layers. Nefteprom. delo no.10:19-22 '65.

(MIRA 19:1)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

PEREVALOV, V.G.

Preparing the waste water of oil fields for use in the development of oil fields. Trudy VNII no.41:245-256 '64.

(MIRA 17:[illegible])

PEREVALOV, V.G.; KARAPAYEV, B.I.

Industrial purification of waste water by flotation. Khim.i tekh. topl.i masel 8 no.11:39-43 N '63. (MIRA 16:12)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

PEREVALOV, V.G.

Using formation waters in flooding. Nauch.-tekh, sbor po dob. nefti no.13:87-90 '61. (MIRA 16:7)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.
(Oil field flooding)

KARAPAYEV, B.I.; PEREVALOV, V.G.

Effect of surface active agents on the processes of sewage purification. Neft. khoz. 40 no.6:53-56 Je '62. (MIRA 15:6)
(Petroleum waste) (Surface active agents)

PEREVALOV, V.G.; ALEKSEYEVA, V.A.

Using diatomite for filtering water in oil production. Neft. khoz. 39 no.4:52-55 Ap '61. (MIRA 14:6)
(Diatomaceous earth)

PEREVALOV, V.G.

Dehydration of sludge in water purification works. Vod. i san. tekh. no.11:26-28 N '59. (MIRA 13:3)

(Water--Purification)

PEREVALOV, V.G.

Cleaning industrial waste water by gas isolated in electrolysis.
(MIRA 11:12)
Trudy VNII no.16:195-199 '58.
(Sewage--Purification) (Electrolysis)

PEREVALOV, V.G., red.; LOZHYAKOVA, Ye.S., vedushchiy red.; POLOSINA, A.S., tekhn. red.

[Contamination control of streams and lakes; papers at the conference on the control of sewage pollution of streams and lakes] Bor'ba s zagriazneniem vodoemov; materialy konferentsii... Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1958. 111 p. (MIRA 11:10)

1. Konferentsiya po bor'be s zagryazneniyem vodoyemov stochnymi vodami. 1956. (Water--Pollution) (Petroleum industry)

KARELIN, Yakov Aleksandrovich; PEREVALOV, Vyacheslav Georgiyevich; SMIRNOVA, A.P., red. izd-va; OSENKO, L.M., tekhn. red.

[Removal of petroleum products from waste waters; foreign practices] Ochistka stochnykh vod ot nefteproduktov; zarubezhnyi opyt. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 130 p. (MIRA 14:5)

(Sewage--Purification)
(Unite States--Petroleum industry--Water supply)

PEREVALOV, V.G.

Removing petroleum from waste waters by the method of flotation.
Vod. i san. tekh. no.6:15-18 Je '58. (MIRA 11:5)
(Sewage--Purification)

PEREVALOV, V. I.

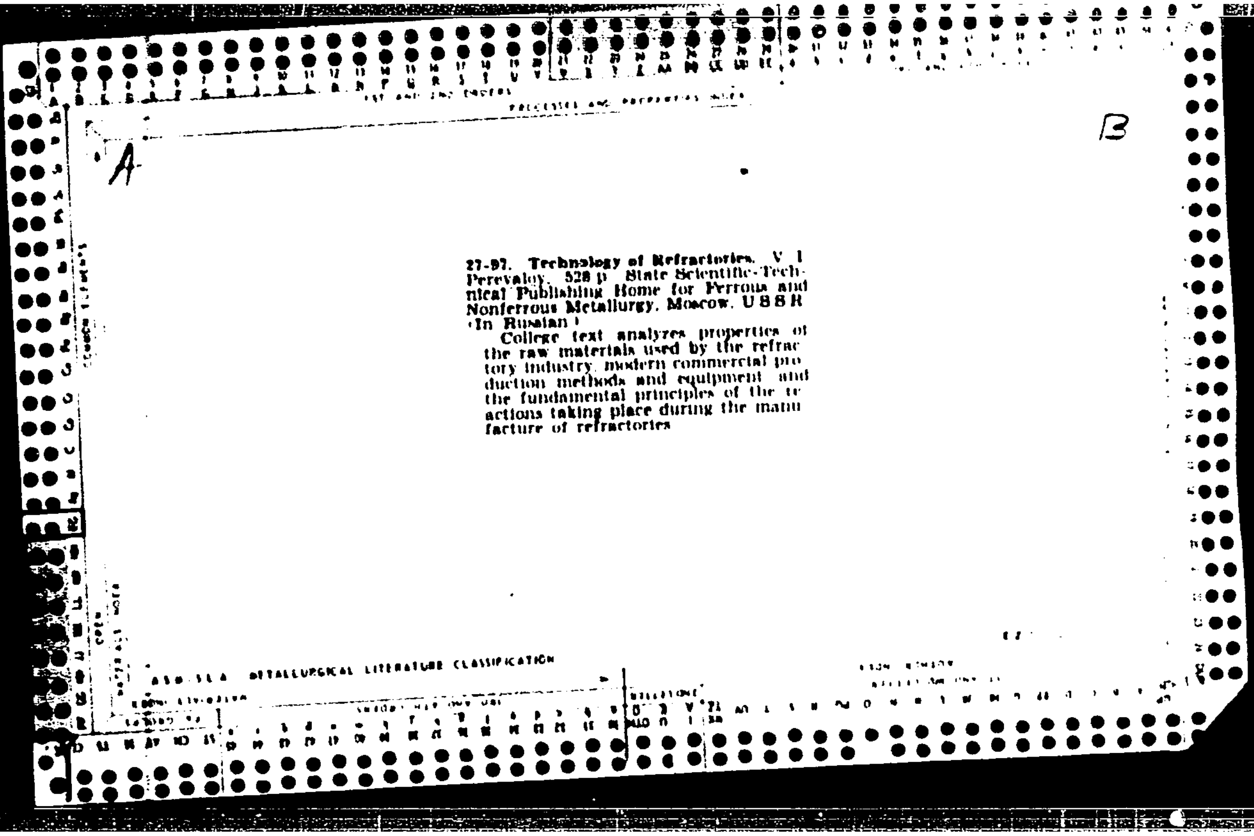
Technology of Ceramic Shapes (Tekhnologiya Keramicheskikh Izdeliy). P. P. BUDNIKOV, A.S. BEREZHNOY, V.I. PEREVALOV, and I.S. SMELYANSKIY. Published by Gosstroiizdat, Moscow, 1946. 524 pp., 208 illustrations. Price 36.25 rubles. Reviewed in Steklo i Keram., 5 (11) 23-24 (1948).-Part I covers raw materials. Technological properties and the scientific basis are presented in the light of modern physicochemical views. Part II covers structural ceramics; Part III, stone-ceramic shapes; and Part IV, refractory shapes. Parts V and VI are limited to glazes and ceramic colors. Numerous errors in the book are pointed out. It is approved as a text for chemical-technological institutes and faculties by the Ministry of Higher Education.

B. Z. K

C.S.

General
14

Storage of raw materials in refractory plants. Decisive factor in production. V. I. PEREVALOV AND S. M. ALMAZOV. *Ogneupory*, 1948, No. 5-6, pp. 312-19.—Suggestions are given to minimize the great waste taking place during the storage of raw materials. M.V.C.



A

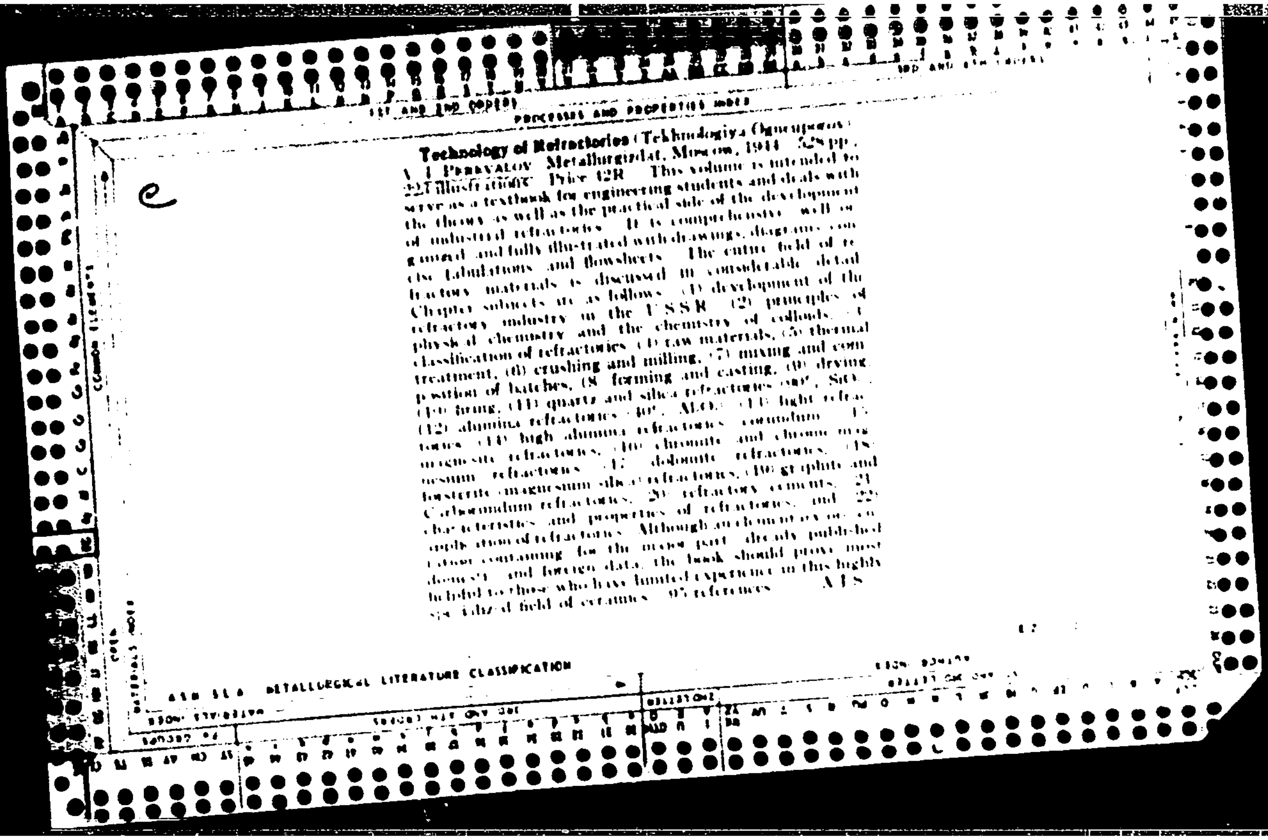
B

27-97. Technology of Refractories. V. I. Perevalov. 528 p. State Scientific-Technical Publishing House for Ferrous and Nonferrous Metallurgy, Moscow, U S S R. (In Russian.)

College text analyzes properties of the raw materials used by the refractory industry, modern commercial production methods and equipment, and the fundamental principles of the reactions taking place during the manufacture of refractories.

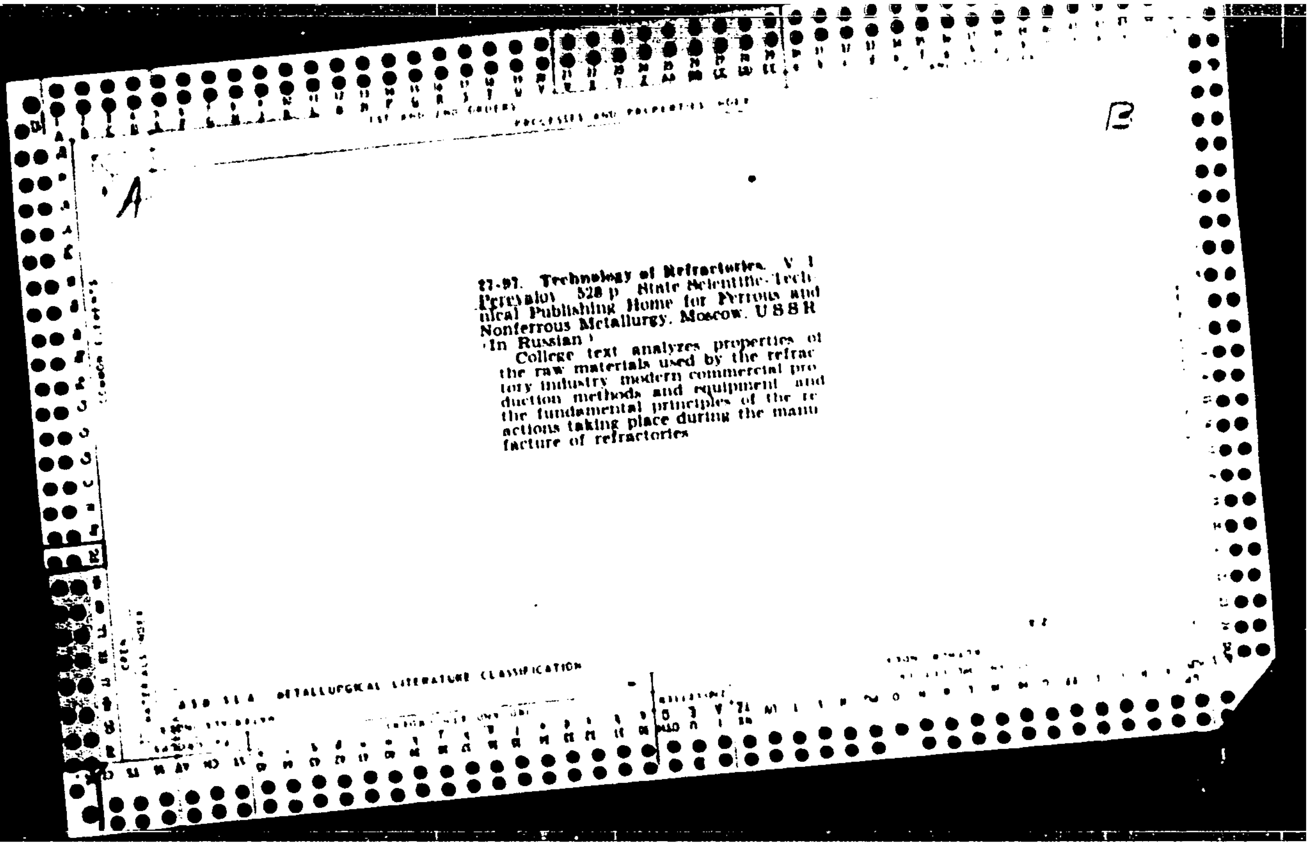
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

F[illegible] .AIO., [illegible] I.
I. F. [illegible] D[illegible], Tekh [illegible] skik[illegible] I. [illegible]ell1, 1[illegible], [illegible]



e

Technology of Refractories (Tekhnologiya Ogneuporov). A. I. **Perryalov**. Metallurgizdat, Moscow, 1944. 528 pp., 227 illustrations. Price 12R. This volume is intended to serve as a textbook for engineering students and deals with the theory as well as the practical side of the development of industrial refractories. It is comprehensive, well organized and fully illustrated with drawings, diagrams, concise tabulations and flowsheets. The entire field of refractory materials is discussed in considerable detail. Chapter subjects are as follows: (1) development of the refractory industry in the U.S.S.R., (2) principles of physical chemistry and the chemistry of colloids, (3) classification of refractories, (4) raw materials, (5) thermal treatment, (6) crushing and milling, (7) mixing and composition of batches, (8) forming and casting, (9) drying, (10) firing, (11) quartz and silica refractories (90% SiO_2), (12) alumina refractories (40% Al_2O_3), (13) light refractories, (14) high alumina refractories, corundum, (15) chromite and chrome magnesite refractories, (16) magnesite refractories, (17) dolomite refractories, (18) magnesium refractories, (19) graphite and forsterite (magnesium silicate) refractories, (20) refractory cements, (21) Carborundum refractories, and (22) characteristics and properties of refractories. Although an elementary compilation of refractories containing for the most part already published domestic and foreign data, the book should prove most helpful to those who have limited experience in this highly specialized field of ceramics. 97 references. A. I. S.



27-97. **Technology of Refractories.** V. I. Perevalov. 528 p. State Scientific-Technical Publishing Home for Ferrous and Nonferrous Metallurgy, Moscow, USSR. (In Russian.)

College text analyzes properties of the raw materials used by the refractory industry, modern commercial production methods and equipment, and the fundamental principles of the reactions taking place during the manufacture of refractories.

METALLURGICAL LITERATURE CLASSIFICATION

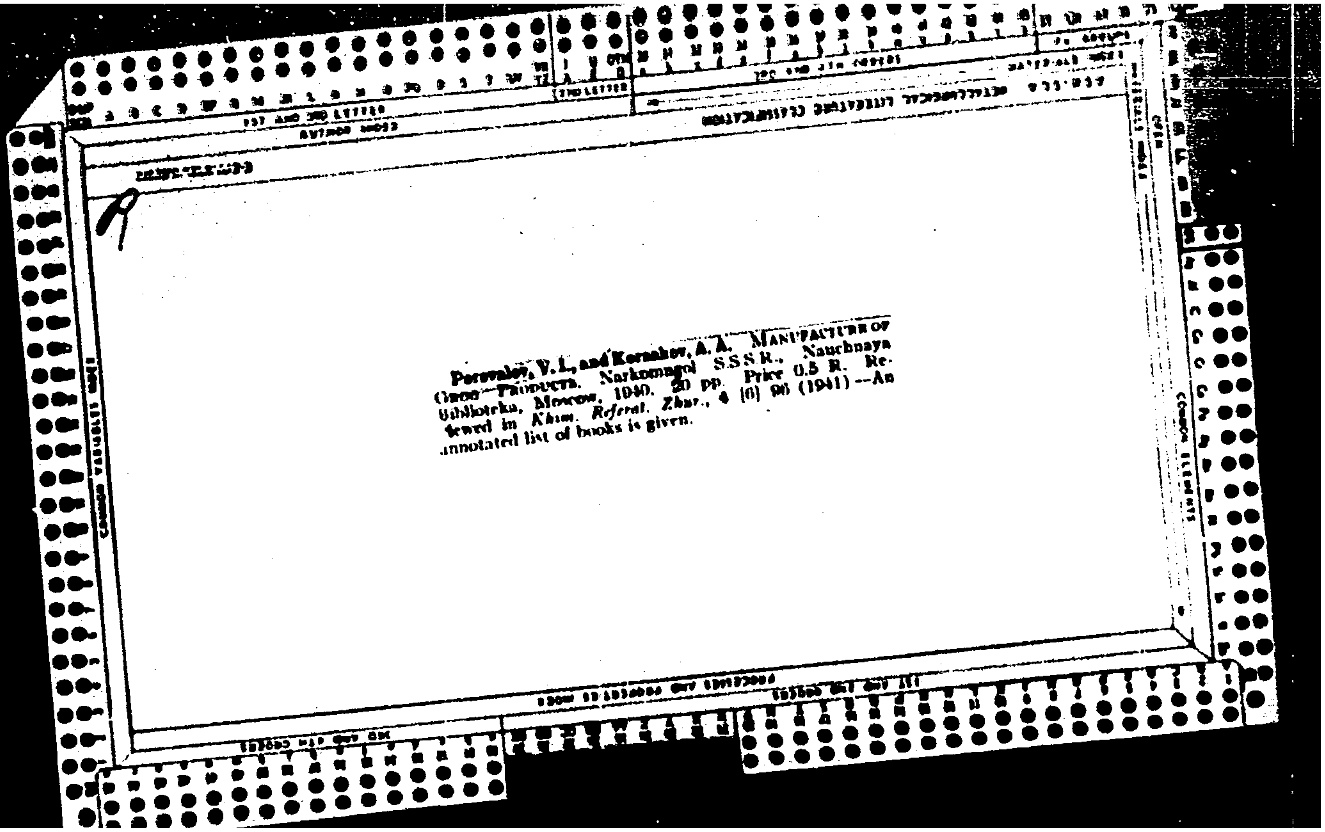
R

Perevalov, V. I., and Almazov, S. M. STORAGE OF RAW MATERIALS IN REFRACTORY PLANTS. DECISIVE FACTOR IN PRODUCTION. *Ogneupory*, 8 [5-6] 312-19 (1940).—Suggestions are given to minimize the great waste taking place during the storage of raw materials.

1ST AND 2ND CODES

PROCESSES AND PROPERTIES INDEX

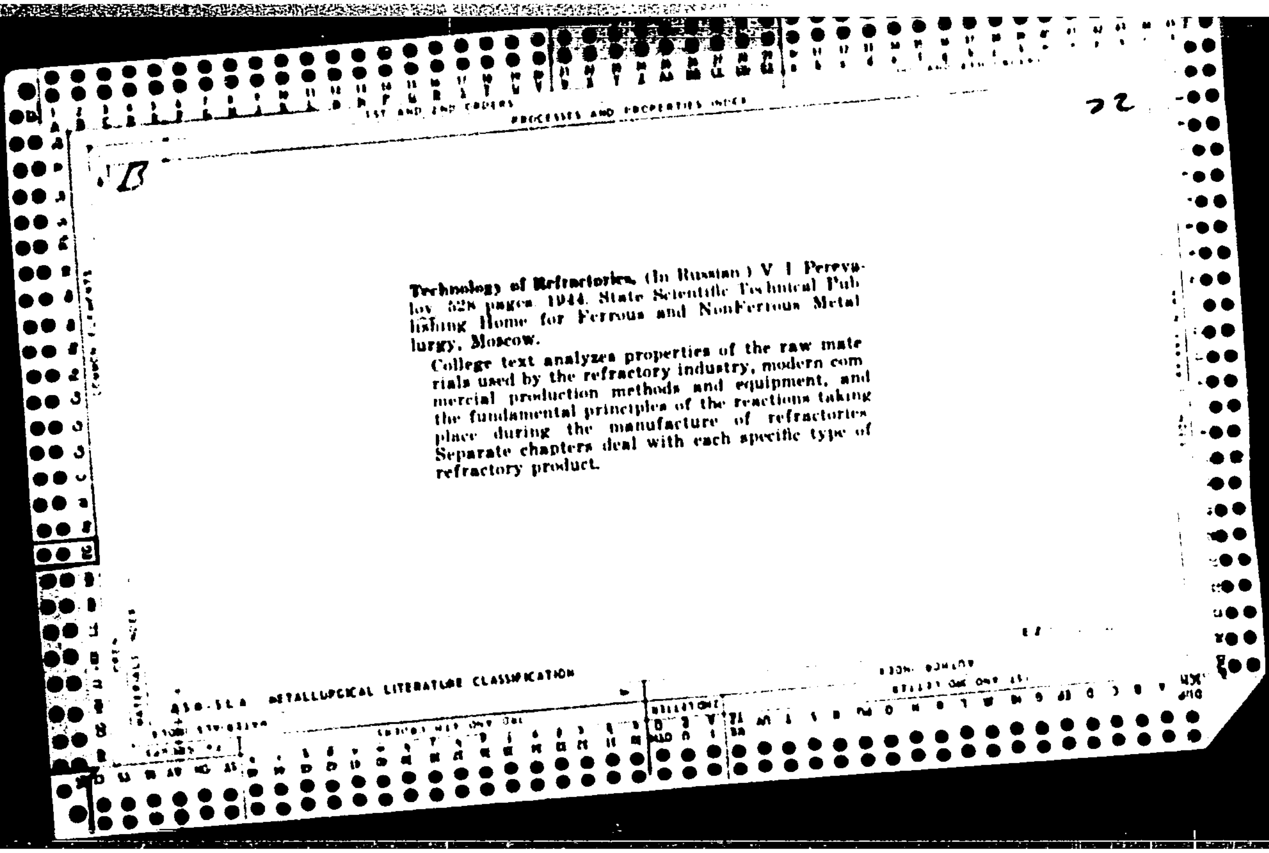
3RD AND 4TH CODES



A

Perevalov, V. L., and Kornakov, A. A. MANUFACTURE OF ONION PRODUCTS. Narkomagol S.S.S.R., Nauchnaya Bibliotека, Moscow, 1940. 20 pp. Price 0.5 R. Reviewed in *Khim. Referat. Zhur.*, 4 (6) 96 (1941)—An annotated list of books is given.

Manufacture of Coke Products. V. I. Persyalov, and A. A. Korsakov. Narkomugol S.S.S.R., Nauchnaya Bibliotska, Moscow, 1940. 30 pp. Price 0.5 R. Reviewed in *Khim. Referat. Zhur.*, 4 [6] 96 (1941).—An annotated list of books. M. Ho.



PROCESSES AND PROPERTIES INDEX

72

B

Technology of Refractories. (In Russian.) V. I. Perevalov. 528 pages. 1944. State Scientific Technical Publishing House for Ferrous and NonFerrous Metallurgy, Moscow.

College text analyzes properties of the raw materials used by the refractory industry, modern commercial production methods and equipment, and the fundamental principles of the reactions taking place during the manufacture of refractories. Separate chapters deal with each specific type of refractory product.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

R

Perevalov, V. L. TECHNOLOGY OF REFRACTORIES (Tekhnologiya Ogneuporov) Metallurgizdat, Moscow, 1944 328 pp., 223 illustrations Price 42R This volume is intended to serve as a textbook for engineering students and deals with the theory as well as the practical side of the development of industrial refractories It is comprehensive, well organized, and fully illustrated with drawings, diagrams, concise tabulations, and flowsheets The entire field of refractory materials is discussed in considerable detail Chapter subjects are as follows: (1) development of the refractory industry in the U.S.S.R., (2) principles of physical chemistry and the chemistry of colloids, (3) classification of refactories, (4) raw materials, (5) thermal treatment, (6) crushing and milling, (7) mixing and composition of batches, (8) forming and casting, (9) drying, (10) firing, (11) quartz and silica refractories (90% SiO, (12) alumina refractories (40% Al_2O_3), (13) light refractories, (14) high alumina refractories (corundum), (15) magnesite refractories, (16) chromite and chrome-magnesium refractories, (17) dolomite refractories, (18) forsterite (magnesium-silica) refractories, (19) graphite and silicon carbide refractories, (20) refractory cements, (21) characteristics and properties of refractories, and (22) application of refractories Although an elementary presentation containing, for the major part, already published domestic and foreign data, the book should prove most helpful to those who have limited experience in this highly specialized field of ceramics.

1. PEREVALOV, V. N.

2. USSR (600)

4. Kuril Islands

7. Kuril Islands. A. Solov'ev. Reviewed by V. N. Perevalov. Izv. Vses. geog. ob-va 79, No. 5, 1947.

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

L 36634-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5001517 S/0020/64/ 159/005/1075/1078

AUTHOR: Gubin, S. P.; Grandberg, K. I.; Perevalova, D. G.; Nesmeyanov, A. N. (Academician)

TITLE: Transannular electronic effects in the ferrocene nucleus. Dissociation constants of substituted ferrocene carboxylic acids

SOURCE: AN SSSR. Doklady, v. 159, no. 5, 1964, 1075-1078

TOPIC TAGS: ferrocenecarboxylic acid, dissociation constant, substituent effect, induction effect

ABSTRACT: In this work an investigation was made of the transmission of electronic effects in ferrocene using ferrocenecarboxylic acids in which the substituent and the reaction center are located in different rings. The apparent dissociation constants of these acids were measured potentiometrically in 50% ethanol. It was found that the investigated alkyl substituents lower the dissociation constant of ferrocenecarboxylic acid by approximately the same amount while all other substituents increase it. With the exception of halides the majority of substituents have an inductive effect on the dissociation constants of heteroannular ferrocene-

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2

carboxylic acids. It was concluded that induction conductivity of ferrocenyl and benzene rings are about the same. Orig. art. has: 2 tables and 1 figure

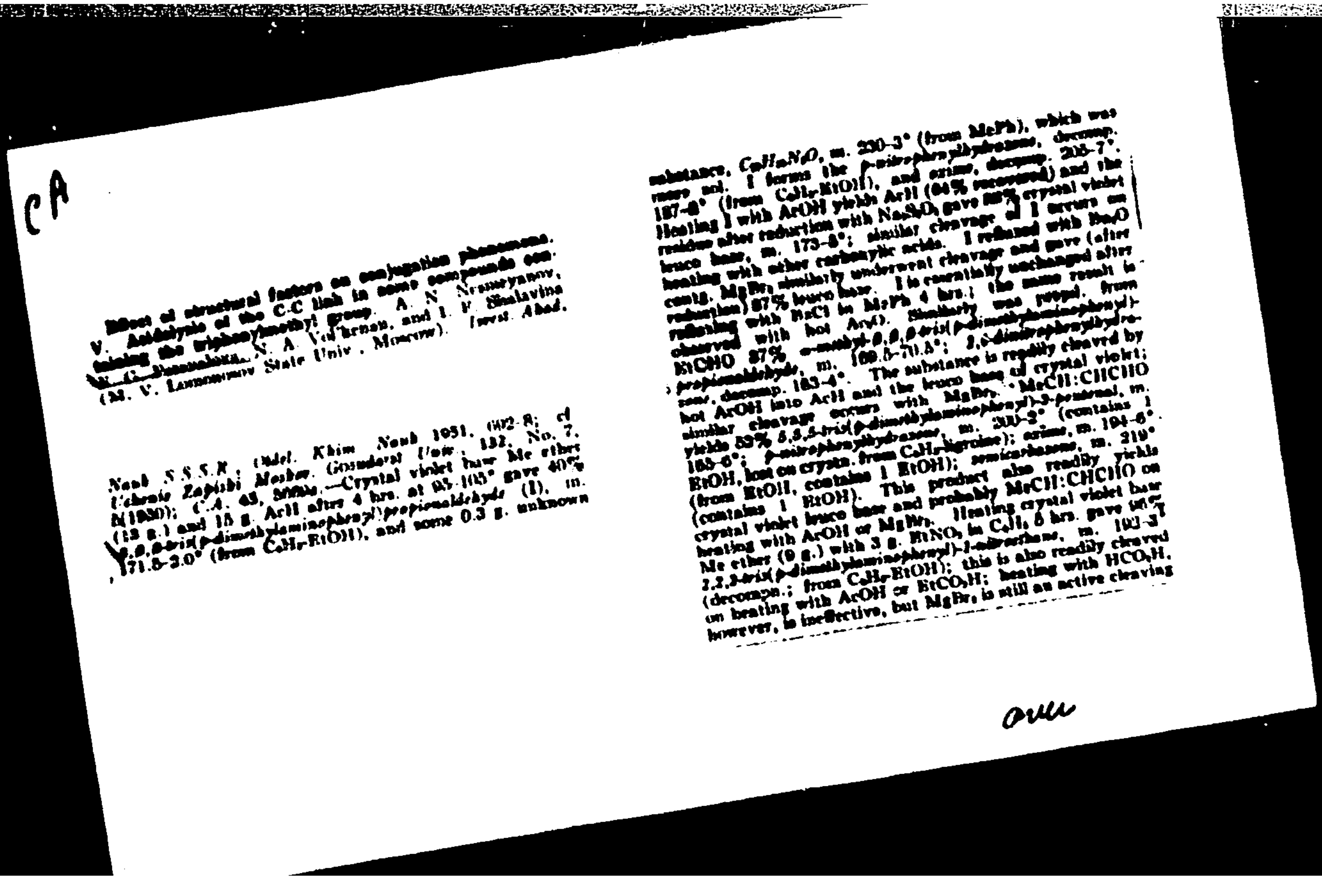
ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Organometallic Compounds, Academy of Sciences, SSSR); Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova) Moscow State University

SUBMITTED: 06Jul64 ENCL: 00 SUB CODE: OC, EC

NR REF SOV: 005 OTHER: 007

PEREVALOV, V.S.

Studying dynamic loading on the main mechanisms of an UER-type excavator by means of an electron model. Nauch. trudy Mosk. inst. radioelek. i gor. elektromekh. no. 49 pt. 2:31-39 '64 (MIRA 19:1)



CA

Effect of structural factors on conjugation phenomena. V. Acidolysis of the C-C link in some compounds containing the triphenylmethyl group. A. N. Nesmeyanov, [illegible], N. A. Vol'kenau, and I. F. Shalavina (M. V. Lomonosov State Univ., Moscow). *Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk* 1951, 692-8; cf. *Uchenye Zapiski Moskov. Gosudarst. Univ.* 132, No. 7, 8(1950); C.A. 45, 5665a.—Crystal violet base Me ether (13 g.) and 15 g. AcH after 4 hrs. at 95-105° gave 40% β,β,β-tris(p-dimethylaminophenyl)propionaldehyde (I), m. 171.5-2.0° (from C_6H_6-EtOH), and some 0.3 g. unknown substance, $C_{27}H_{33}N_3O$, m. 230-3° (from MePh), which was more sol. I forms the p-nitrophenylhydrazone, decomp. 187-8° (from C_6H_6-EtOH), and oxime, decomp. 205-7°. Heating I with AcOH yields ArH (64% recovered) and the residue after reduction with $Na_2S_2O_4$ gave 88% crystal violet leuco base, m. 173-5°; similar cleavage of I occurs on heating with other carboxylic acids. I refluxed with Bz_2O contg. $MgBr_2$ similarly underwent cleavage and gave (after reduction) 87% leuco base. I is essentially unchanged after refluxing with HCl in MePh 4 hrs.; the same result is observed with hot ArOH. Similarly was prepd. from EtCHO 87% α-methyl-β,β,β-tris(p-dimethylaminophenyl)propionaldehyde, m. 169.5-70.5°; 2,4-dinitrophenylhydrazone, decomp. 183-4°. The substance is readily cleaved by hot AcOH into ArH and the leuco base of crystal violet; similar cleavage occurs with $MgBr_2$. MeCH:CHCHO yields 53% 5,5,5-tris(p-dimethylaminophenyl)-3-pentenal, m. 200-2° (contains 1 EtOH, lost on crystn. from C_6H_6-ligroine); oxime, m. 194-6°; p-nitrophenylhydrazone, m. 165-6°; semicarbazone, m. 219° (from EtOH, contains 1 EtOH). This product also readily yields crystal violet leuco base and probably MeCH:CHCHO on heating with AcOH or $MgBr_2$. Heating crystal violet base Me ether (9 g.) with 3 g. $EtNO_2$ in C_6H_6 8 hrs. gave 56% 2,2,2-tris(p-dimethylaminophenyl)-1-nitroethane, m. 192-3° (decompn.; from C_6H_6-EtOH); this is also readily cleaved on heating with AcOH or $EtCO_2H$; heating with HCO_2H, however, is ineffective, but $MgBr_2$ is still an active cleaving

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[illegible]). Crystal violet (31 g.) added to $CH_2{:}CHCH_2MgCl$ (from 20 g. $CH_2{:}CHCH_2Cl$) gave 69% *tris(p-dimethylaminophenyl)-1-butene*, m. 125-6° (from C_6H_6-EtOH), which with Br in 50% HBr with cooling gave the *dibromide*, m. 175-80° (decompn.; from C_6H_6-EtOH). The allyl deriv. decomposes in ultraviolet light, yielding crystal violet; heating the compound with $MgBr_2$ does not yield crystal violet. The results are interpreted in terms of the conjugated system reacting in 1,4-manner with a shift of the reaction center to the C-C link of the central C of the Ph_3C group. VI. Deactivation of the saturated link in some compounds containing the triphenylmethyl group. A. N. Nesmeyanov, N. A. Vol'kenau, and E. G. Perevalova. *Ibid.* 699-707.—Reduction of $(p\text{-}Me_2NC_6H_4)_3CCH_2NO_2$ (I) with $SnCl_2$ in HCl 2 hrs. at 100° and neutralization with NH_4OH gave *tris(p-dimethylaminophenyl)acetaldehyde*, m. 233-4° (from C_6H_6-EtOH); *oxime*, m. 279-81° (from $CHCl_3$-EtOH); *2,4-dinitrophenylhydrazone*, m. 223-4°; *p-nitrophenylhydrazone*, decomp. 215-16°. The aldehyde boiled with AcOH 2 hrs. was totally unchanged; reduction with Zn dust in HCl gave 80% *1,1,1-tris(p-dimethylaminophenyl)ethane*, m. 176-8 (from C_6H_6-EtOH); reduction with Na-EtOH or Zn dust in AcOH failed. The aldehyde with 5 moles MeMgI showed no tendency to react. Refluxing I with concd. HCl 12 hrs. gave *tris(p-dimethylaminophenyl)acetic acid* (II), m. 208-9° (in a sealed tube), which with EtONa-EtOH gave the *Na salt*, decomp. 300-7°. Refluxing the acid with EtONa-EtOH and EtBr gave the *Et ester*, m. 175-6° (from EtOH); the ester is unchanged by hot AcOH and does not react with EtMgBr. Heating the free acid 3 hrs. with $SOCl_2$ gave 80% CO, while heating the residue with EtOH and reduction of the violet mass with $Na_2S_2O_4$ gave 71.5% crystal violet leuco base. The acid does not react with $SOCl_2$ in the cold. With $POCl_3$ in C_6H_6 the acid yields 88% CO and the residue behaves as above; PCl_3 or PCl_5 also causes CO evolution and formation of crystal violet. Re-[illegible]ing I 2 hrs. with concd. HCl and neutralization with NH_4OH gave $(p\text{-}Me_2NC_6H_4)_3CC{:}N \rightarrow O$, decomp. 212-13° (from C_6H_6), which, boiled with concd. HCl 10 hrs., yields II and $HONH_2$; with Zn-2 *N* HCl it gave 80% *tris(p-dimethylaminophenyl)acetonitrile*, m. 295-6°, also obtained from crystal violet and KCN; reduction with $SnCl_2$-HCl is similar, but no reaction takes place with $Na_2S_2O_4$, while Na-EtOH causes decompn. The nitrile oxide boiled with AcOH gives 97% crystal violet leuco base (after the reduction step). Crystal violet with PhMgBr gave *1,1,1-tris(p-dimethylaminophenyl)butane*, m. 131-3° (from $CHCl_3$-EtOH), and a larger amt. of crystal violet leuco base. The butane deriv. is identical with that obtained by hydrogenation of the allyl analog over Pt-C.

G. M. Kosolapoff

PEREVALOVA, E.G.

USSR/ Chemistry - Organic chemistry

Card 1/2 Pub. 40 - 8/27

Authors : Nesmeyanov, A. N., and Perevalova, E. G.

Title : Alkylation and acylation of chloromercuriacetaldehyde

Periodical : Izv. AN SSSR. Otd. khim. nauk 6, 1002-1007, Nov-Dec 1954

Abstract : It was established that the reaction of mercurized acetaldehyde with acid halides of carboxylic acid and tri-(p-nitrophenyl) bromomethane results in the formation of homologous vinyl ethers. The reaction takes place with the transfer of the reaction center according to the system of conjugated hg-C and C-O bonds.

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

Submitted : March 15, 1954

Periodical : Izv. AN SSSR. Otd. khim. nauk 6, 1002-1007, Nov-Dec 1954

Card 2/2 Pub. 40 - 8/27

Abstract : It was found that triphenylbromomethane plus mercurized acetaldehyde form triphenylmethylacetic aldehyde, i. e. C-alkylation takes place without shift of the reaction center. The derivation of hitherto unknown vinyl ethers of trichloroacetic, phenylacetic, triphenylacetic, p-nitrobenzoic acids and phthalylglycidine is announced. The synthesis and ozonization of triphenylallylmethane ane described. Eight references: 3 USSR, 4 USA and 1 German (1927-1953).

PEREVALOVA, E. G.

USSR/ Chemistr - Displacement

Card : 1/1

Authors : Nesmeyanov, A. N., Academician, Perevalova, E. G., Golovnya, R. V. and Nesmeyanova, O. A.

Title : Reactions of ferrocene hydrogen displacement

Periodical : Dokl. AN SSSR, 97, Ed. 3, 459 - 461, July 21, 1954

Abstract : The remarkable thermal and chemical stability, resistance to pyrolysis, acids and alkalis, of ferrocene (dicycloferropentadiene), are discussed. Ferrocene cannot be nitrated, sulfonated or halogenated but shows a great tendency toward displacement reactions. During proper metallization ferrocene is capable of forming mixed organo-metallic compounds the chemical structures of which are described. Three USA and 1 German references.

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

Submitted : May 20, 1954

PEREVALOVA, Ye.

NESMEYANOV, A.N., akademik; PEREVALOVA, E.G.; GOLOVNYA, R.V.

Reaction of ferrocene with diazo compounds. Dokl. AN SSSR 99 no.4: 539-542 D '54. (MLRA 8:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
(Diazo compounds) (Iron dicyclopentadienyl)

PEREVALOVA, ~~Ye. G.~~ Ye.G.

USSR/ Chemistry

Card 1/2 Pub. 22 - 18/47

Authors : Nesmeyanov, A. N., Academician,; Perevalova, E. G.; and Nesmeyanova, O. A.

Title : Halide compounds of ferrocene

Periodical : Dok. AN SSSR 100/6, 1099-1101, Feb 21, 1955

Abstract : The various halide compounds formed during the reaction of ferrocene with iodine or bromine are listed. Heating of ferrocene with Br in carbon tetrachloride results in the disintegration of the ferrocene and formation of pentabromocyclopentane with melting point of 103 -104°.

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

Submitted : December 30, 1954

Periodical : Dok. AN SSSR 100/6, 1099-1101, Feb 21, 1955

Card 2/2 Pub. 22 - 18/47

Abstract : The reaction of ferrocene with iodine in an organic solvent resulted in the formation of a complex containing about 93% iodine which corresponds to twenty iodine atoms per ferrocene molecule. The chemical properties of the complex are described. Three references: 1 USA, 1 USSR and 1 German (1952-1954). Graphs.

PEREVALOVA, E. G.

USSR/ Chemistry

Card 1/1 Pub. 22 - 31/62

Authors : Nesmeyanov, A. N., Academician; Perevalova, E. G.; Golovnya, R. V.; and Shilovtseva, L. S.

Title : About arylferrocenes and ferrocenylamine

Periodical : Dok. AN SSSR 102/3, 535-538, May 21, 1955

Abstract : Using various diazo-compounds the authors synthesized m-nitrophenylferrocene and p-ferrocenylphenol and then utilized the m-nitrophenylphenylferrocene and a previously described p-isomer for the synthesis of m and p-ferrocenylanilines. The ferrocenylamine was established to be an orange colored crystalline substance well soluble in organic solvent and when distilled in vacuo it offers acetylene and benzoyl derivatives. Ferrocenylamine chloride is soluble in water but not in hydrochloric acid. Four references: 3 USSR and 1 USA (1941-1955). Graphs.

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

Submitted : March 22, 1955

PEREVALOVA, E.G.

USSR/ Chemistry - Organic chemistry

Card 1/1 Pub. 22 - 21/46

Authors : Nesmeyanov, A. N., Academician; Perevalova, E. G.; and Golovnya, R. V.

Title : Effect of a ferrocenyl substitute on the functional groups in the benzene ring

Periodical : Dok. AN SSSR 103/1, 81-82, Jul 1, 1955

Abstract : The dissociation constants of p-ferrocenylaniline, m-ferrocenylaniline, ferrocenylamine and p-ferrocenylphenol are analyzed. It is shown that ferrocenyl as an electron-donor group is much stronger than the phenyl group. The ferrocenyl group introduced into the benzene ring was found to behave as an ortho-para-orientant substitute. It was established that ferrocenylamine is 21 times a more powerful base than aniline itself. Four references: 3 USSR and 1 USA (1938-1955). Table.

Institution : Moscow State University im. M. V. Lomonosov

Submitted : April 30, 1955

Perevalova, E.G.

6

Destruction of the ferrocene ring by hydrogenation and action of halogens. A. N. Nesmeyanov, E. G. Perevalova, ~~N. A. Simukova~~, R. V. Golovnya, T. V. Nikitina, and [illegible]. Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci. 1956, 749-51 (English translation). See C.A. 51, 1046[illegible]. H.M.R. 5/

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PEREVALOVA, E.G.

NESMEYANOV, A.N.; LAVRUSHIN, V.F.; SHMAYEVA, T.M.; PEREVALOVA, E.G.

Cleavage of the C -- C bond in compounds containing triphenylmethyl grouping. Izv.AN SSSR.Otd.khim.nauk no.3:309-312 Mr '56.(MLRA 9:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova i Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo.
(Carbon compounds)

NESMEYANOV, A.N.; PEREVALOVA, E.G.; GOLOVNYA, R.V.; NIKITINA, T.V.; SIMUKOVA, N.A.

Disruption of the ferrocene nucleus by hydrogenation and treatment with halides. Izv.AN SSSR Otd.khim.nauk no.6:739-741 Je '56. (MIRA 9:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Iron dicyclopentadienyl)

PEREVALOVA, E.G.

Reactivity of [illegible] and [illegible] diacetylferrocene. A. N. Nesmeyanov, E. G. Perevalova, R. V. Golovnya, [illegible] (M. V. Lomonosov State Univ., [illegible])

Nauk S.S.S.R., Otdel. Khim. [illegible] ment of p-nitrophenylferrocene with its [illegible] 15% bis[illegible] only [illegible] from [illegible] 67% [illegible] HCl to 81 [illegible] (from [illegible] (CH,Cl)₂ [illegible] phenyl)ferrocene, m. 107-[illegible] [illegible]

showing monomer mol. wt. Diacetylferrocene with [illegible] C₆H₅N[illegible] [illegible] starting material and [illegible] diazo, m. 190-7° (from cyclohexane). [illegible]

PEREVALOVA, E. G.

Reduction of ferrocenecarboxylic acids. A. N. Nesmeyanov, E. G. Perevalova, and Z. A. Beinoravichute (M. V. Lomonosov State Univ., Moscow). Doklady Akad. Nauk S.S.S.R. 112, 439-40(1957).—To PhNa (from 10 g. Na and 24 g. PhCl) in C_6H_6 was added 13.6 g. ferrocene, the mixt. kept overnight, refluxed 8 hrs., poured on Dry Ice, acidified, [illegible] BuOH, and the ferrocenedicarboxylic acid [illegible] dried in air and extd. with hot C_6H_6 to remove [illegible] ferrocene was [illegible] acid was [illegible]

[illegible] ether. If the prod. [illegible] as [illegible]

[illegible] PhMgBr [illegible] with di- [illegible] gave [illegible] [illegible] kenan, C.A. 50, [illegible]. G. M. Kosolapoff

Pereva Lova, E. G.

20-2-28/60

AUTHORS: Nesmeyanov, A. N., Member of the Academy,
Perevalova, E. G., Churanov, S. S.

TITLE: Ferrocene Sulphoacids (Ferrotsensul'fokisloty)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 2, pp. 335-338 (USSR)

ABSTRACT: The authors produced these compounds by using the method devised by A. P. Terent'yev and consisting of action by pyridinsulphotrioxide on ferrocene. V. Weinmayr obtained them at the same time only as ammonium salts at interaction of ferrocene and sulphuric acid in acetic anhydride. The paper under review describes the ferrocene sulphonation by pyridinsulphotrioxide in dichlorethane and by dioxansulphotrioxide, further the insulation of the free mono- and di-ferrocenesulphonic acid, of some of its salts, of the methylethers and of chloranhydride of the ferrocenesulphonic acid. In the above-mentioned reaction, which is brought about by heating through four hours, the mono-acid (84 % of the ferrocene entering the reaction) is produced. 22 % of ferrocene remain unchanged. By longer heating, 41 % of the dio-acid with small

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soluble in organic

20-2-28/60

Ferrocene Sulphoacids

solvents. Chlorine anhydride of the mono-acid is easily produced with good yield at shorter heating of the mono-acid or of its lead salt, with abundance of PCl_3. Unlike aromatic sulphonic acids, the acids under consideration are less hygroscopic and they are more easily insulted in their free state. The experimental part of the paper under review contains a description of the production methods together with constants and yields. There are 3 references, 2 of which are Soviet.

SUBMITTED: January 12, 1957

AVAILABLE: Library of Congress

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NESMEYANOV, A.N., akademik; PEREVALOVA, E.G., kand. khim. nauk.

New aromatic systems. Report No.1: Ferrocene as an aromatic system.
Khim. nauka i prom. 3 no.2:146-158 '58. (MIRA 11:6)
(Organic compounds) (Iron)

AUTHORS: Nesmeyanov, A. N., Perevalova, E. G., (Moscow) 74-27-1-1/4

TITLE: Cyclopentadienyl Compounds of Metals and Compounds Related to Them (Tsiklopentadiyenil'nyye soyedineniya metallov i rodstvennyye soyedineniya)

PERIODICAL: Uspekhi Khimii, 1958, Vol. 27, Nr 1, pp. 3-56 (USSR)

ABSTRACT: Initially the author deals with the problem of the possible separation of organic iron compounds. In 1951 - 1952 a special class of metalorganic compounds (special as to their structure and properties) was discovered. When trying to synthesize dicyclopentadienyl, $C_5H_5 - C_5H_5$, Kealy and Pauson obtained a substance containing iron and hydrogen, which later was called ferrocene and which attracted the attention of all chemists. In the course of the further investigation of the dicyclopentadienyl derivatives also the problem of the limits of the possibility of applying the theory of valence became topical. A detailed description of the methods of obtaining dicyclopentadienyl compounds of the metals is following. On the physical properties and the structure of the ferrocene: The first investigations showed that its

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