NEKHOTYAYEVA, O.V., glavnyy metodist; ZHURAVLEVA, P.A.; OKLOVA, V.P., redaktor; ZUBRILINA, Z.P., tekhnicheskiy redaktor

["Hydrometeorological service" pavilion; a guidebook] Pavil'on "Gidrometsluzhba"; putevoditel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 15 p. (MLRA 9:8)

1. Moscow. Vsesoyuznaya sel'skokhozyaystvennaya vystavka, 1954-
2. Direktor pavil'ona (for Zhuravleva)
(Meteorology, Agricultural)
(Moscow--Agricultural exhibitions)

15-57-3-3515D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3, p 150 (USSR)

AUTHOR: Zhuravleva, P. I.

TITLE: The Geologic Structure and the Oil and Gas Potential on the Right-Hand Bank Along the Kama River (Between Sarapul and Molotov) /Geologicheskoye stroyeniye i perspektivy neftegazonosnosti pravoberezh'ya techeniya r. Kamy (Mezhdu Sarapulom i Molotovym)/

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Geological and Mineralogical Sciences, presented to the Vses. n.-i. geologorazved. neft. in-t (All-Union Scientific Geological Prospecting and Petroleum Institute), Moscow, 1955

ASSOCIATION: Vses. n.-i. geologorazved. neft. in-t (All-Union Scientific Geological Prospecting and Petroleum Institute), Moscow

Card 1/1

ZHURAVLEVA, P.I.

Geothermal characteristics of the Kotur-Tepa oil field. Nauch. tekh. sbor. po dob. nefti no.27:13-16 '65. (MIRA 18:9)

1. Institut geologii i razrabotki goryuchikh iskopayemykh, Moskva.

VASIL'YEV, N.; DEMIN, D.; YEROKHOVETS, A.; ZHURAVLEV, V.; ZHURAVLEVA, R.; KANDYBA, Yu.; KOLOBKOVA, G.; KRASNOV, V.; KUVSHINNIKOV, V.; MATUSHEVSKIY, V.; PLEKHANOV, G.; SHIKALOV, L.; SUKHOVA, G.M., red.; RUBINOVA, L.Ye., tekhn. red.

[On the trail of the Tunguska catastrophe] Po sledam Tungusskoi katastrofy. Tomsk, Tomskoe knizhnoe izd-vo, 1960. 157 p. (MIRA 16:10)
(Podkamennaya Tuguska Valley--Meteorites)

ZHURAVLEVA, R.M. 110-12-4/19

AUTHOR: Kulakova, R.V., Candidate of Technical Sciences, Kreyn, S.E. Doctor of Technical Sciences, and Zhuravleva, R.M., Engineer.

TITLE: An Investigation into the Decomposition of Oils, Individual Groups of Hydrocarbons and their Mixtures in an Electric Field. (Issledovaniye razlozheniya masel, otdel'nykh grupp uglevodorodov i ikh smesey v elektricheskom pole)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.12, pp. 11 - 15 (USSR).

ABSTRACT: The reliable operation of oil-impregnated and oil-filled cables is affected by the evolution of gas in the oil through ionisation. The article describes work with a "gassing" cell very similar to the old Pirelli cell; the inner electrode is a tungsten rod 2 mm diameter; and the outer electrode is tin foil on glass. Tests were made with atmospheres of air, hydrogen and nitrogen; the results are given in Fig.2. Nitrogen gave considerable gas evolution and air considerable absorption, whilst hydrogen was more stable. Accordingly, a hydrogen atmosphere was used in the subsequent work. After assessing the influence of experimental variables, a study was made of the gassing properties of low and high viscosity oils from both naphthenic and paraffinic crudes; the properties of the oils

Cardl/2 are given in Table 1. The more viscous oils did not evolve gas

An Investigation into the Decomposition of Oils, Individual Groups of Hydrocarbons and their Mixtures in an Electric Field.

but the low-viscosity oils were much more active. The curves given in Fig. 9 show how the degree of refinement of transformer oil influences the gas evolution. The results of gassing tests on naphthenic paraffinic fractions completely de-asphalted and freed of aromatics are given in Fig. 10; all were gas-evolving, but again the heavier oils were more stable. The effect of adding aromatic hydro-carbons in reducing the gas evolution of the fraction is shown by the data in Fig. 7. The oils were also analysed after exposure to ionisation, which was found to cause somewhat greater complication of the molecules. Because fractions from which the aromatics have been removed are more gas-evolving, it is concluded that the aromatics prevent gas evolution; further, that their addition reduces the tendency to gas-evolution. On exposure to ionisation, the dielectric properties of almost all the oils became worse. There are 10 figures, 2 tables and 12 references, 2 of which are Slavic.

ASSOCIATION: NII KP

SUBMITTED: December 20, 1956

AVAILABLE: Library of Congress

Card 2/2

ZHURAVLEVA, S.

In the Institute for Concrete and Reinforced Concrete. Na stroi. Ros. no.5:3 of cover My '61. (MIRA 14:7)
(Concrete)

KRETOVICH, V.L.; GEYKO, N.S.; Prinimali uchastiye: ZHURAVLEVA, S.; GARMSEN, O.; GRISHINA, T.

Content of keto acids in plants. Dokl. AN SSSR 158 no.2:471-473 S '64. (MIRA 17:10)

1. Institut biokhimii im. A.N.Bakha AN SSSR i Tekhnologicheskiy institut pishchevoy promyshlennosti. 2. Chlen-korrespondent AN SSSR (for Kretovich).

ZHURAVLEVA, S.I.; CHUMICHEV, D.A.

Regions of agricultural specialization in Bulgaria. Izv. AN SSSR. Ser. geog. no.2:82-87 Mr-Ap '62. (MIRA 15:3)

1. Institut geografii AN SSSR.
(Bulgaria--Agricultural geography)

KUDELINA, Ye.N.; ZHURAVLEVA, S.K.

Feeding habits of copepods and barnacle larvae in the Sea of Azov. Trudy AzNIIRKH no.6:71-82 '63. (MIRA 17:8)

ZOTOV, V.P.; SILUYANOV, V.G.; GUGINA, Ye.F.; AUERMAN, L.Ya.; ALEKHINA, M.S.; BEZZUBOV, A.D.; BODROV, V.A.; BUDNYY, A.V.; BURTSEV, Ye.L.; VAYNSHTEYN, V.O.; GAVRILOV, A.N.; GORBATOV, V.M.; GRITSENKO, N.N.; DOLGUSHEVA, L.I.; YEDYGENOV, K.Ye.; ZHURAVLEVA, S.S.; ZACHESKIN, Ya.A.; IVKIN, A.P.; IZOTOV, A.K.; IL'INSKIY, N.A.; IRINARKHOVA, A.M.; KARPENKO, A.K.; LYSOGOR, P.M.; LUPISH, A.T.; OLEYNIKOV, V.V.; ORANZHEREYEVA, V.F.; PETROV, N.A.; PYATIBRATOV, M.A.; ROMANOV, A.N.; RAUBE, P.V.; RYZHENKO, L.P.; SEMYKIN, A.A.; SHEFER, A.P.

G.IA.Ivanov; obituary. NTO 4 no.10:39 O '62. (MIRA 15:9)
(Ivanov, Georgii IAkovlevich, 1897-1962)

VERNYY, A.N.; ZHURAVLEVA, S.S., vedushchiy red.

[Modernization of the Blagoveshchensk Liqueur and Vodka Plant] Opyt rekonstruktsii Blagoveshchenskogo likero-vodochnogo zavoda. Moskva, Gos.nauchno-issl.in-t nauchn. i tekhn.informatsii, 1959. 6 p. (MIRA 13:6)
(Blagoveshchensk (Amur Province)--Liquor industry)

AUTHORS: Sokolova, Ye. B., Krasnova, G. V., Zhuravleva, T. A. SOV/156-58-2-32/48

TITLE: The Synthesis of Mono-Alkyl-Cyclohexanes of a C_{15} - C_{18} Composition With an Increased Density (Sintez monoalkiltsiklogeksanov sostava C_{15}-C_{18} s povyshennoy plotnost'yu)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp. 330 - 334 (USSR)

ABSTRACT: A hydrocarbon fuel with a maximum calorific power per unit volume and with good combustion characteristics can be obtained only by a rational component selection of components, taking into account the composition and the structure. The paraffin- and naphthene hydrocarbons the densities of which are increased owing to the branched structure, are most interesting in this connection. Among the first the isomers with quadrivalent carbon atoms are most interesting. The increase of the number of lateral chains and the more compact position of the chains in the polysubstituted cyclohexane homologues or the presence of a carbon atom in the lateral chain of the monosubstituted alkyl-cyclohexanes lead to a

Card 1/4

The Synthesis of Mono-Alkyl-Cyclohexanes of a C_{15}-C_{18} SOV/156-58-2-32/48
Composition With an Increased Density

considerable density even at a constant molecular weight. It was the purpose of this paper to produce a number of monosubstituted cyclohexane homologues the carbon structure of which contains 1 or 2 carbon atoms; furthermore the evaluation of the influence of a branched structure on the density. After presenting a detailed experimental part the authors draw the following final conclusions: 1) 4 new mono-alkyl-substituted benzene homologues were synthetized and characterized according to their main physical and chemical properties; from these 4 new monc-alkyl-substituted cyclohexane homologues were produced by catalytic hydration, containing 1 or 2 carbon atoms in the lateral chain. 5 new tertiary alcohols were produced for the first time as intermediates in the synthesis. The mentioned final products are the following: 2,4-dimethyl-1-4-cyclohexyl octane, 2,6-dimethyl-4-propyl-4-cyclohexyl heptane, 2,2,4,6-tetramethyl-4-cyclohexyl heptane, and 2,2,5-trimethyl-3-cyclohexyl hexane. The density of these cyclanes amounts to from 0,8392 to 0,8450. This surpasses considerably the density

Card 2/4

The Synthesis of Mono-Alkyl-Cyclohexanes of a C_{15}-C_{18} Composition With an Increased Density SOV/156-58-2-32/48

of the mono-alkyl-substituted homologues of the cyclohexane of the same composition with a normal or only to a small extent branched lateral chain. The density increase in consequence of the structure ramification amounts to approximately 3% for the synthetized hydrocarbons. The increase of the calorific value per unit volume connected with it is of considerable practical interest. There are 1 figure and 6 references, 2 of which are Soviet.

ASSOCIATION: Kafedra tekhnologii iskusstvennogo zhidkogo topliva i gazov Moskovskogo khimiko-tekhnologicheskogo instituta im. D.I. Mendeleyeva (Chair of Technology of Artificial Liquid Fuels and Gases of the Moscow Institute of Chemical Technology imeni D.I.Mendeleyev)

SUBMITTED: October 3, 1957

Card 3/4

The Synthesis of Mono-Alkyl-Cyclohexanes of a C_{15}-C_{18} Composition With an Increased Density SOV/156-58-2-32/48

Card 4/4

L 58324-65
ACCESSION NR: AP5016463 UR/0140/65/008/003/0093/0098

AUTHOR: Zhuravleva, T. A.; Karmalyev, K. B.; Shtarkberger, G. A.

TITLE: The use of electronic computers for the selection of a true unit of quasi-equilibrated bridges allowing separate measurements of complex impedance components

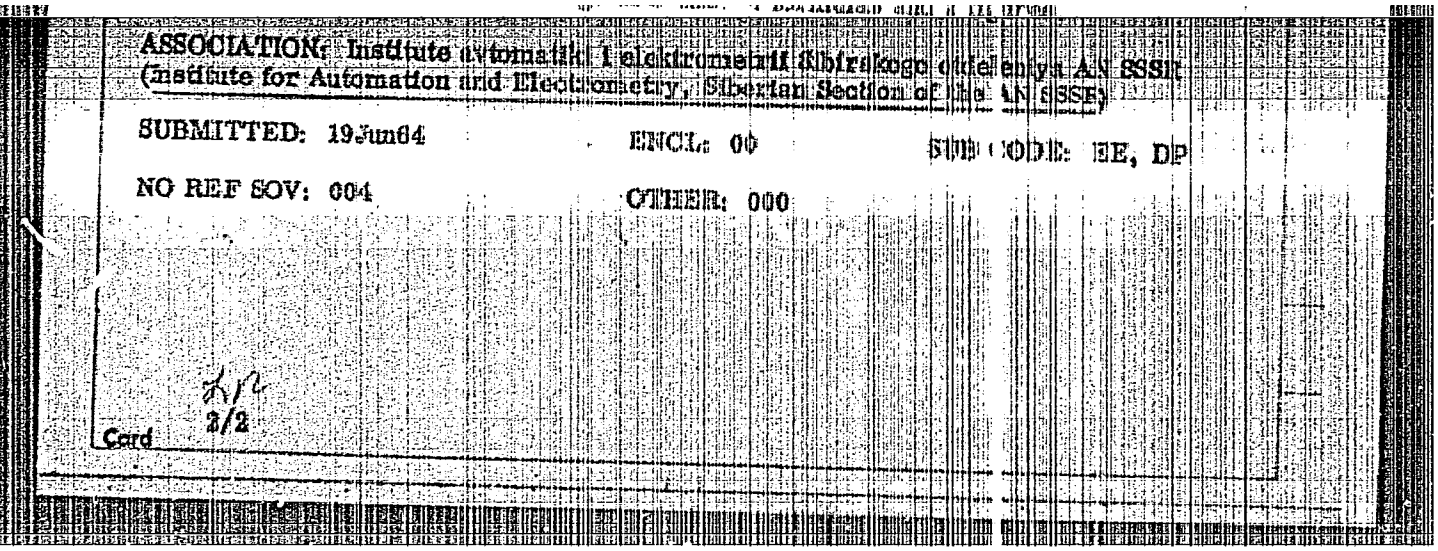
SOURCE: IVUZ, Priborostroyeniye, v. 8, no. 3, 1965, 93-98

TOPIC TAGS: electric bridge analysis, complex impedance bridge circuit, impedance component measurement, quasiequilibrated bridge, bridge circuit analysis, computer program

ABSTRACT: By means of quasi-equilibrated a.c. bridges, one can carry out separate independent measurements of the module, phase angle, active and reactive components,

L 58324-65
ACCESSION NR: AP5016462

who prepared a program for the analysis of 4-branch bridges and for estimating the possibility of separate measurement of the individual active and reactive components of the desired impedance during the quadrature between two voltages. The main weakness of this algorithm was the need for a substantial number of "manual" operations. The present paper establishes programs for complete computer analysis of [illegible] complex bridge circuits in a general manner. [illegible]



ASSOCIATION: Institute Avtomatiki i Elektrometrii Sibirskogo otdeleniya AN SSSR (Institute for Automation and Electrometry, Siberian Section of the AN SSSR)

SUBMITTED: 19Jun64 ENCL: 00 SUB CODE: EE, DP

NO REF SOV: 004 OTHER: 000

Card 2/2

ZHURAVLEVA, T.A.; ODABASHYAN, G.V.; LEONOVA, T.S.; PETROV, A.D.

Reaction of dichlorosilane with organic chlorides at high temperatures. Dokl. AN SSSR 154 no.1:144-147 Ja '64.
(MIRA 17:2)

1. Moskovskiy khimiko-tekhnologicheskiy institut im. D.I. Mendeleyeva. 2. Chlen-korrespondent AN SSSR (for Petrov).

DUDKEVICH, B.N. (Novosibirsk); ZHUKAVLEVA, T.A. (Novosibirsk)

Conditions for the individual measurement of the components of a complex impedance. Avtometriia no.3:88-96 '65.
(MIRA 19:1)

1. Submitted Feb. 23, 1965.

34751
S/020/62/142/003/018/027
B106/B110

15.8170
5.3700

AUTHORS: Oganashyan, G. V., Zhuravleva, T. A., and Petrov, A. D., Corresponding Member of the AS USSR

TITLE: Study of the addition reaction of dichloro silane to alkenyl silanes

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 3, 1962, 604 - 607

TEXT: Silicon hydrides and alkenyl silanes react easily and with good yields in the presence of platinum hydrochloric acid under comparatively mild conditions following the scheme:

(a) $X_3Si(CH_2)_nCH=CH_2 + HSiX_3 \longrightarrow X_3Si(CH_2)_nCH_2CH_2SiX_3$,

(b) $X_2Si\left[(CH_2)_nCH=CH_2\right]_2 + 2HSiX_3 \longrightarrow X_2Si\left[(CH_2)_nCH_2CH_2SiX_3\right]_2$

($X = CH_3$, C_2H_5, C_3H_7, C_4H_9, C_6H_5; Cl; $n = 0, 1$). The possibility of producing organosilicon monomers by adding dichloro silane to alkenyl silanes in the presence of platinum hydrochloric acid, was studied in this connection: $H_2SiCl_2 + 2CH_2=CH(CH_2)_nSiX_3 \longrightarrow Cl_2Si\left[CH_2CH_2(CH_2)_nSiX_3\right]_2$

Card 1/5

Study of the addition reaction...

(X = CH_3, C_2H_5, Cl; n = 0, 1). All reactions were conducted in a 50 ml steel autoclave. Table 1 shows the reaction conditions and yields of reaction products. The structure of alkenyl silane largely affects the yield of addition products which decrease as the number of electronegative groups on the silicon atom of alkenyl silane increases, and also during the conversion of vinyl silanes into allyl silanes. According to A. V. Topchiyev, N. S. Nametkin, and S. G. Durgar'yan (Ref. 18: DAN, 130, 105 (1960)) it is vice versa when trichloro silane is added to diallyl silane in the presence of platinum hydrochloric acid. Addition of dichloro silane to alkenyl silanes takes place stepwise: first, one Si-H bond reacts, then the other with the relative reaction rate of the first Si-H bond being higher than that of the second one. This behavior agrees with the data given by two of the authors and V. A. Ponomarenko (Ref. 20: DAN, 126, 1009 (1959); Ref. 21: DAN, 130, 333 (1960)) on the addition of silicon hydrides to olefins, and may be used for the synthesis of organosilicon monomers with various bridge bonds:

(a) $H_2SiCl_2 + CH_2{=}CHSiX_3 \longrightarrow H(Cl_2)SiCH_2CH_2SiX_3$,

(b) $H(Cl)_2SiCH_2CH_2SiX_3 + CH_2{=}CHCH_2SiX_3 \longrightarrow Cl_2Si(CH_2CH_2SiX_3)(CH_2CH_2CH_2SiX_3)$.

Card 2/ 6

Study of the addition reaction...

A study of the infrared spectra of synthesized organosilicon bridge compounds showed that the addition of dichloro silane to vinyl and allyl silanes does not follow the Markovnikov's rule. The physical properties of the synthesized compounds are the following:

Card 3/6

Study of the addition reaction...

Compound	Bp, °C/mm Hg	Fp, °C	d_4^{20}	n_D^{20}	MR_D
$Cl_2Si(CH_2CH_2SiCl_3)_2$	140-142/6	58-60			
$Cl_2Si[CH_2CH_2Si(CH_3)Cl_2]_2$	165-166/13	80-81			
$Cl_2Si[CH_2CH_2Si(CH_3)_3]_2$	135/17	66-68			
$Cl_2Si[CH_2CH_2Si(C_2H_5)Cl_2]_2$	171-172/8	29-32+			
$Cl_2Si[CH_2CH_2Si(C_2H_5)_3]_2$	176-178/6		0.9639	1.4775	113.15
$Cl_2Si(CH_2CH_2CH_2SiCl_3)_2$	172-173/12	28+	1.4160 ++	1.4934 ++	92.85
$Cl_2Si[CH_2CH_2CH_2Si(CH_3)Cl_2]_2$	198-200/16	47-48			
$Cl_2Si[CH_2CH_2CH_2Si(CH_3)_3]_2$	121-122/4		0.9386	1.4560	95.44
$(C_2H_5)_3SiCH_2CH_2SiHCl_2$	109-111/12		1.0066	1.4650	66.83
$Cl_2Si[CH_2CH_2Si(C_2H_5)_3]$ · $[CH_2CH_2CH_2Si(CH_3)_3]$	165-167/10		0.9573	1.4680	103.84
$(CH_3)_2Si[CH_2CH_2CH_2Si(CH_3)_3]_2$	116-118/8		0.7960	1.4410	95.77
$(CH_3)_2Si[CH_2CH_2Si(CH_3)_3]_2$	101-103/14		0.7952	1.4402	86.42

Card 4/6

+ solidification point; ++ for the supercooled liquid. Ye. D. Lubuzh is mentioned. There are 1 table and 21 references: 16 Soviet and 5 non-Soviet. The three most recent references to English-language publications read as follows: L. H. Sommer, F. A. Mitch, G. M. Goldberg, J. Am. Chem. Soc., 71, 2746 (1949); L. H. Sommer, G. R. Ansul, J. Am. Chem. Soc., 77, 2482 (1955); P. D. George, H. Prober, I. R. Elliott, Chem. Rev., 56, 1065 (1956).

SUBMITTED: October 20, 1961

Table 1. Addition of dichloro silane to vinyl and allyl silanes in the presence of 0.1 ml of a 0.1 M solution of $H_2PtCl_6 \cdot 6H_2O$ in isopropyl alcohol (reaction time 1.5 hrs from the beginning of heating onward).

Legend: (a) Initial products; (b) amount; (c) g; (d) moles; (e) maximum reaction temperature, °C; (f) maximum pressure, atm; (g) isolated from reaction products; (h) yields; * calculated for the alkenyl silanes added; ** described in publications.

ODABASHYAN, G.V.; ZHURAVLEVA, T.A.; PETROV, A.D.

Reaction of addition of dichlorosilane to alkenylsilanes. Dokl. AN SSSR 142 no.3:604-607 Ja '62. (MIRA 15:1)

1. Chlen-korrespondent AN SSSR (for Petrov).
(Silane)

ZHURAVLEVA, T.B.

TUSHINSKAYA, M.M.; ZHURAVLEVA, T.B. (Leningrad)

A case of primary systemic amyloidosis. Klin.med. 36 no.2:95-101 F '58. (MIRA 11:4)

1. Iz fakul'tetskoy terapevticheskoy kliniki (zav. - prof. T.S. Istomanova) i kafedry patologicheskoy anatomii (zav. - prof. M.A.Zakhar'yevskaya) I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova.

(AMYLOIDOSIS, case reports
primary systemic (Rus))

USSR / General Problems of Pathology. Experimental Treatment. U-5

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 47011

Author : Zhuravleva, T. B.
Inst : Not given
Title : The Prognostic Significance of So-Called Cribral Growths of the Epithelium as a Biopsy Diagnosis for Breast Cancer.

Orig Pub : Vopr. onkologii, 1957, 3, No. 2, 153-161

Abstract : Some section series were studied of 123 mastopathy cases and of 50 cancer of the breast cases. Three morphological variations of mastopathy were established, namely, fibrous (50 cases) and fibrous-cystic mastopathy. The latter was subdivided into a cystic type (30 cases) and a cribral type (43 cases) mastopathy. In cribral mastopathy, some adenomatosic growths are found which are located in the lumen of the cyst and in widened ducts,

Card 1/2

USSR/General Problems of Pathology. Tumors

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 66004

Author : Zhuravleva, T.B.
Inst : -
Title : A Contribution to the Morphology of Experimental Mastopathy

Orig Pub : Vopr. onkologii, 1957, 3, No 2, 162-169

Abstract : Both the continuous (180 observations) and the intermittent (20 observations) administrations of sinestrol (I) to castrated male rats were accompanied by the appearance in the ammary gland (MG) of hyperplasia of the mastopathy type. The dynamics of the process were traced from an initial tissue reaction to the development of the MG cancer. Various forms of the multicentric epithelial proliferation were observed; the appearance of the peculiar adenomatous proliferates, so-called cribriform structures, in the ducts and cysts was characteristic of the later stages of the experiment and, as a rule, preceded the development of cancer. Cancer of the MG was found in 13 cases; it was found only in 5 of 180

Card : 1/2

ZHURAVLEVA, T. B. (Leningrad)

Metaplasia of the epithelium of the mammary gland in various types of pathological proliferation. Arkh. pat. no.6:16-23 '61. (MIRA 14:12)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. M. A. Zakhar'yevskaya) I Leningradskogo meditsinskogo instituta imeni akad. I. P. Pavlova.

(MAMMARY GLANDS) (EPITHELIUM—DISEASES)

ZHURAVLEVA, T.B.

Dyshormonal hyperplasia of the mammary glands of guinea pigs; on the problem of species specificity in the reaction to hormonal influences. Arkh. pat. 23 no.3:43-50 '61. (MIRA 14:3)
(BREAST—DISEASES) (ESTROGENS)

ZHURAVLEVA, T. B. (Leningrad)

Amyloid deposits in the thyroid gland and pituitary in general amyloidosis. Arkh. pat. no.6:73-75 '62. (MIRA 15:7)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. M. A. Zakhar'yevskaya) I Leningradskogo meditsinskogo instituta imeni I. P. Pavlova.

(AMYLOIDOSIS) (THYROID GLAND) (PITUITARY BODY)

ZHURAVLEVA, T.B.

Inflammatory proliferation of the mammary epithelium in normal and pathological oscillations of the hormonal level. Arkh.pat. 21 no.11:51-57 '59. (MIRA 13:12)
(BREAST--DISEASES) (HORMONES)

ZHURAVLEVA, T.B. (Leningrad)

Connective-tissue tumors induced by estrogen administration in guinea pigs. Arkh. pat. 26 no.6:65-72 '64.

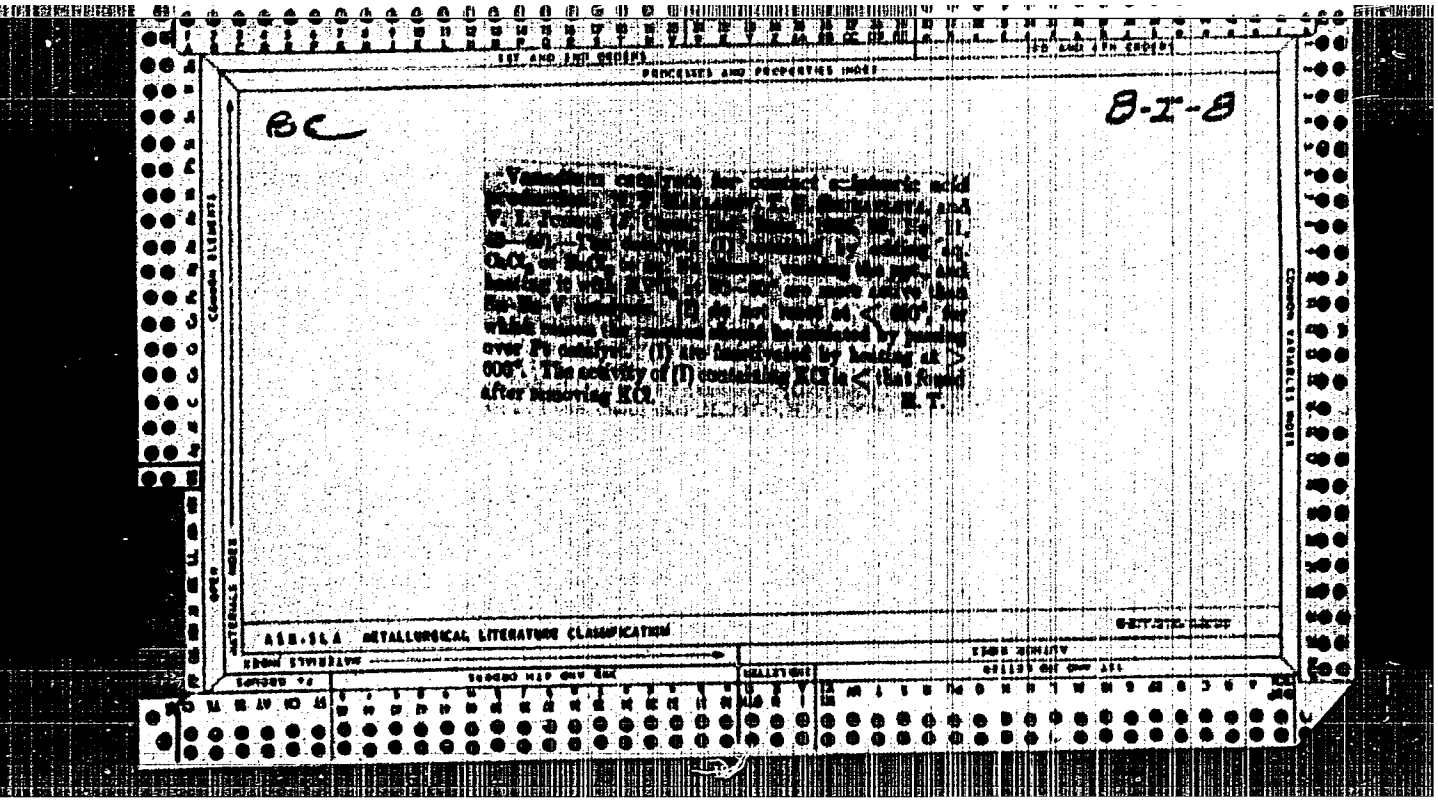
(MIRA 18:12)

1. Kafedra patologicheskoy anatomii (zav. - prof. Zakhar'yevskaya) I Leningradskogo meditsinskogo instituta imeni Pavlova. Submitted December 12, 1961.

ZHURAVLEVA, T.B.; NEVOROTIN, A.I.; PROCHUKHANOV, R.A.; PFYANISHNIKOV, V.A.; KHARITONOVA, L.V. (Leningrad)

Changes in the hypophysial-adrenal system in disorders of the balance of sex hormones; experimental study. Arkh. pat. 27 no.11:20-29 '65. (MIRA 18:12)

1. Kafedra patologicheskoy anatomii (zav. - prof. M.A. Zakhar'yevskaya) I Leningradskogo meditsinskogo instituta imeni I.P.Pavlova. Submitted February 14, 1964.



Ca

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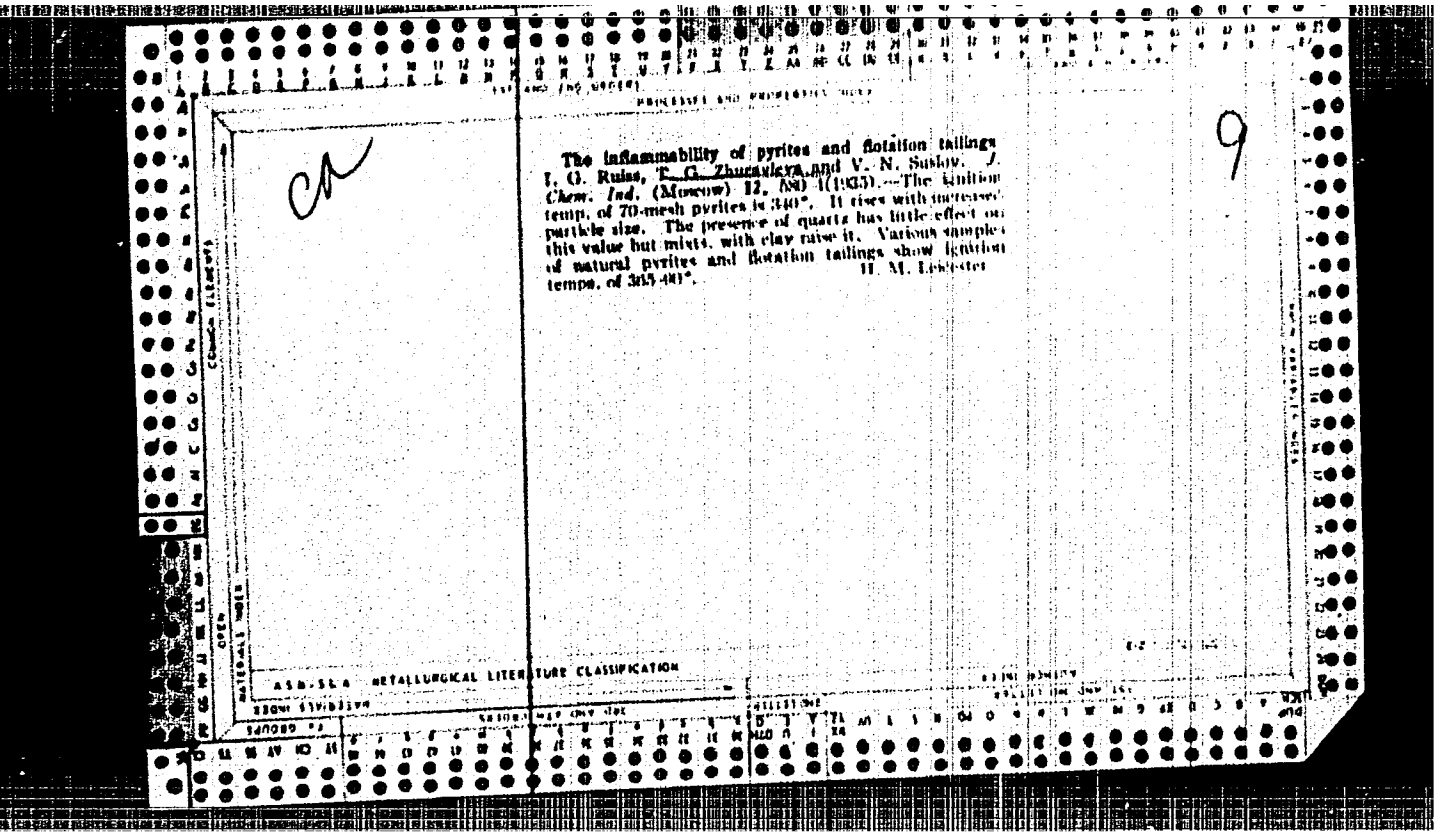
PROCESSES AND PROPERTIES INDEX

Vanadium catalysts for the production of contact sulfuric acid. N. F. Maklakov, T. G. Zhuravleva and V. I. Yudina. *J. Chem. Ind.* (Moscow) 1934, No. 11, 45-9.—Ba-V and Ca-V catalysts are more active than those composed of Sn-Ba-V. They do not act properly below 450° or above 600°. K has a very strong activating effect on such catalysts.

H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



The inflammability of pyrites and flotation tailings
I. G. Ruins, T. G. Zhuravleva, and V. N. Sushov. *J. Chem. Ind.* (Moscow) 12, 58) 1(1935).—The ignition temp. of 70-mesh pyrites is 340°. It rises with increase particle size. The presence of quartz has little effect on this value but mixts. with clay raise it. Various samples of natural pyrites and flotation tailings show ignition temps. of 315-401°. H. M. Liebster

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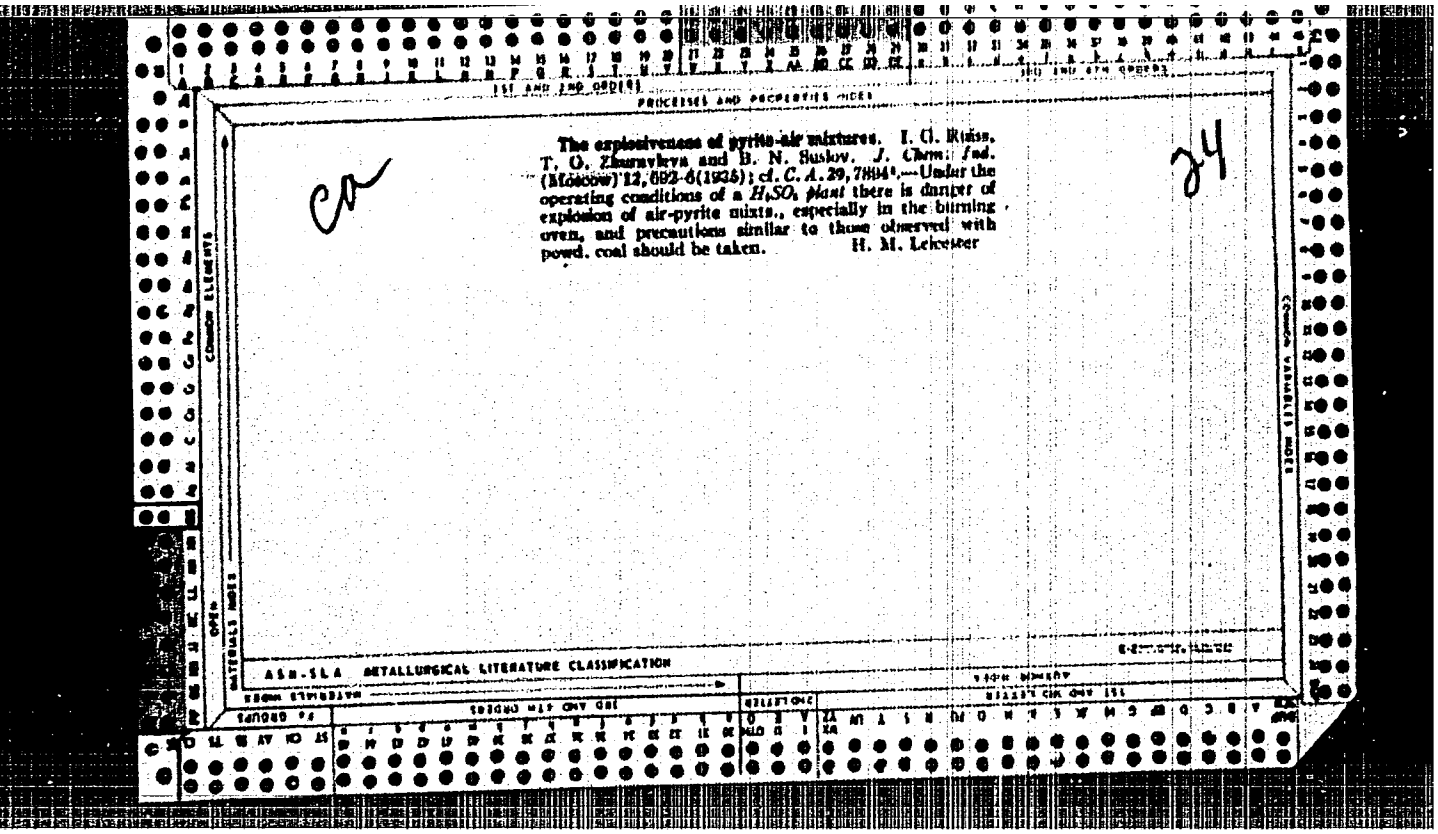
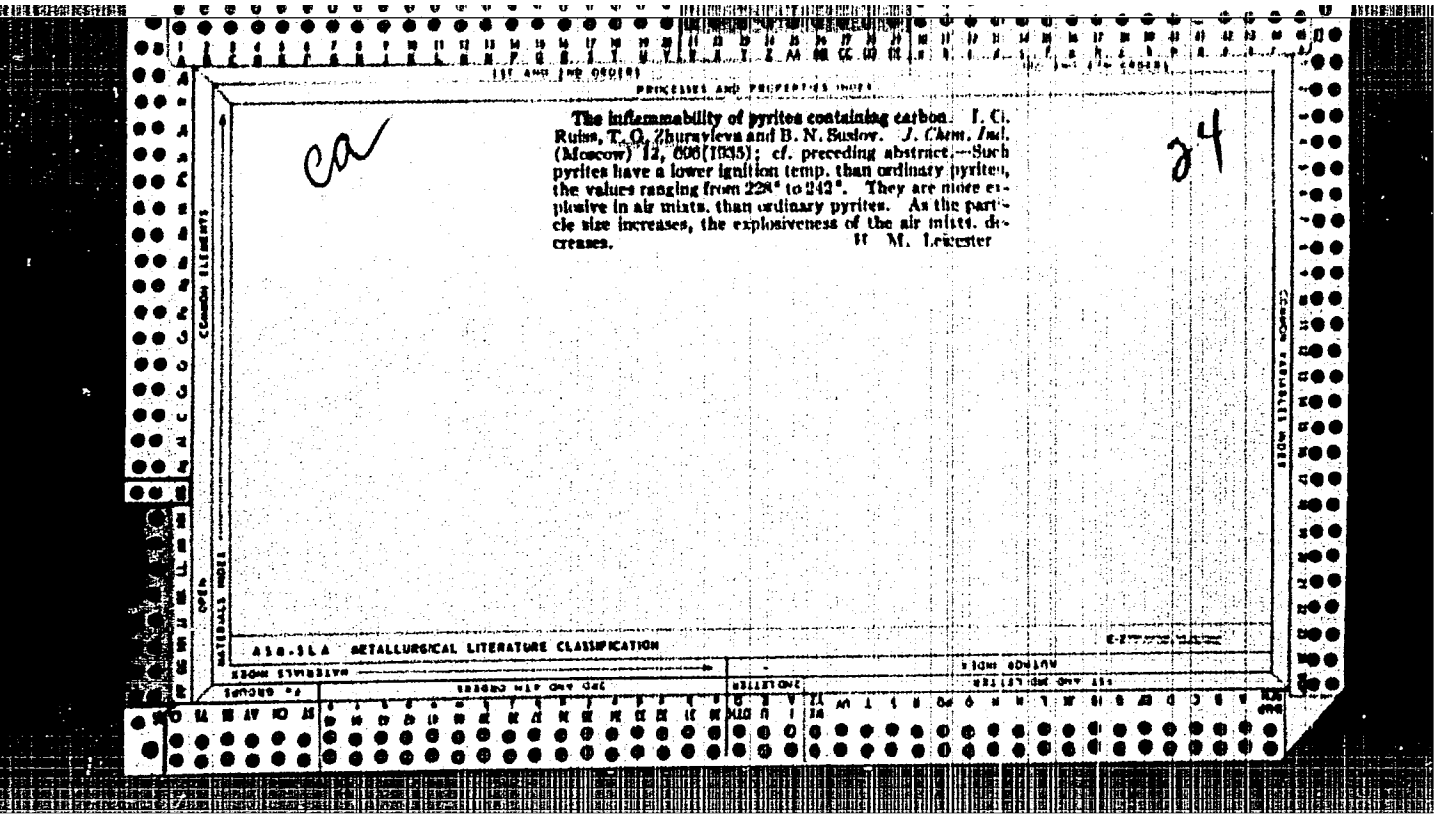
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



The explosiveness of pyrite-air mixtures. I. G. Rinn, T. O. Zhurovleva and B. N. Suslov. *J. Chem. Ind. (Moscow)* 12, 692-6(1935); *cf. C. A.* 29, 7884⁴.—Under the operating conditions of a H_2SO_4 *plant* there is danger of explosion of air-pyrite mixts., especially in the burning oven, and precautions similar to those observed with powd. coal should be taken. H. M. Leicester



ca

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The inflammability of pyrites containing carbon. I. Ci. Rubin, T. Q. Zhuravleva and B. N. Sustov. *J. Chem. Ind.* (Moscow) 12, 606(1935); cf. preceding abstract.—Such pyrites have a lower ignition temp. than ordinary pyrites, the values ranging from 228° to 242°. They are more explosive in air mixts. than ordinary pyrites. As the particle size increases, the explosiveness of the air mixts. decreases. H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

CO

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The corrosion of iron, cast iron and lead by a solution of nitrosylsulfuric acid in sulfuric acid. E. Yushmanov, T. G. Zhuravleva and L. Orlova. *J. Chem. Ind.* (U. S. S. R.) 15, No. 7, 2-10 (1938); cf. *C. A.* 32, 6219^1.—Cold concd. H_2SO_4 attacks various forms of Fe slowly, but the hot acid corrodes them rapidly. When the cold acid contains N_2O_3 it attacks Fe for a time and then the metal becomes passivated. If this acid is hot, passivation occurs almost at once, and the Fe is then not corroded by cold acid. Riveting the Fe does not change its behavior toward acids. Pb is strongly corroded by H_2SO_4 contg. N_2O_3. H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

AUTHORS: Tinyakova, Ye., I., Bogomol'nyy, V.Ya., Zhuravleva, T. G. SOV/62-58-9-12/26

TITLE: Reactions of the Triazenes With Dienols and Acids in Anhydrous Hydrocarbon Media (Reaktsii triazenov s diyenolami i kislotami v uglevodorodnykh bezvodnykh sredakh)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 9, pp 1o94 - 1o98 (USSR)

ABSTRACT: It has already been found that the decomposition of aliphatic-aromatic triazenes in anhydrous media is accelerated by the catalytic effect of dienols and acids or acid-containing substances. The decomposition of triazenes can also be definitely accelerated in anhydrous hydrocarbon media in the presence of acids. This reaction is not a

Reactions of the Triazenes With Dienols and Acids in Anhydrous Hydrocarbon Media SOV/62-58-9-12/26

in the alkylation or arylation of dienol groups. It was found that in anhydrous hydrocarbon media dioxymaleic acid and its diethyl ester and ascorbic acid accelerate the decomposition of the triazenes. The reaction is accompanied by the formation of nitrogen and the alkylation (or arylation) of the carboxyl and dienol groups. The authors found that the decomposition reaction of triazenes under the effect of acids can be used for the volumetric quantitative determination of carboxyl groups (especially in polymers) in anhydrous hydrocarbon media. There are 2 figures, 3 tables, and 8 references, 4 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High Molecular Compounds, AS USSR)

SUBMITTED: January 30, 1957.

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SOV/79-29-4-50/77

5(3)

AUTHORS: Tinyakova, Ye. I., Zhuravleva, T. G.

TITLE: On the Decomposition Mechanism of Isopropylbenzene Hydrogen Peroxide Under the Influence of Salts of Metals of Variable Valencies (O mekhanizme raspada gidroperekisi izopropilbenzola pod vliyaniyem soley metallov peremennoy valentnosti)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 4, pp 1262-1269 (USSR)

ABSTRACT: The study of the effect of these salts on the decomposition of hydrogen peroxides is of great importance on account of the role played by them in the oxidation, polymerization, and other radical processes. It is known that salts of this kind in their lower oxide- and oxide forms accelerate the decomposition of hydrogen peroxide catalytically. The decomposition of hydrogen peroxides in aqueous solutions below 50°, and in hydrocarbon solutions below 90-100° takes place only under the influence of ferrous salts, hydrogen peroxide and salts Fe^{2+} being consumed in equivalent quantities. In hydrocarbon solutions the catalytic splitting of hydrogen peroxide under the influence of small amounts of ferric salts takes place only at 100° and up, while the reaction takes place instantly even at

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On the Decomposition Mechanism of Isopropylbenzene Hydrogen Peroxide Under the Influence of Salts of Metals of Variable Valencies

-70° if the ferrous salt is used (Ref 1). The decomposition of hydrogen peroxides is also accelerated by the salts of other metals, e.g. by the naphthenates of Co, Cu, Pd, Mn, Pb, Ag, Cr, Ni, and Fe; the activity of the metals drops in that series from Co to Fe. For the mechanism of the effect of these metals the following scheme has been suggested (Ref 1):

$$ROOH + Me^{n} \rightarrow RO\cdot + Me^{n+1} + HO^{-} \quad (1)$$

$$ROOH + Me^{n+1} \rightarrow ROO\cdot + Me^{n} + H^{+} \quad (2)$$

Hydrogen peroxide thus plays the part alternatively of an oxidizing and reducing agent. This has, however, not yet been proved by experiments. In the present paper the experimental data regarding the decomposition of isopropylbenzene hydrogen peroxide in the presence of the naphthenates of the metals Mn, Cu, Co, and Pd in various solvents are given. The results confirm the validity of the suggested scheme. Tables and figures illustrate these results. There are 3 figures, 2 tables, and 17 references, 4 of which are Soviet.

SOV/79-29-4-50/77

On the Decomposition Mechanism of Isopropylbenzene Hydrogen Peroxide Under the Influence of Salts of Metals of Variable Valencies

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High Molecular Weight Compounds of the Academy of Sciences USSR)

SUBMITTED: March 3, 1958

Card 3/3

5.3831

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67919

SOV/20-129-5-29/64

AUTHORS: Tinyakova, Ye. I., Dolgoplosk, B. A., Corresponding Member, AS USSR, Zhuravleva, T. G., Kovalevskaya, R. N., Kuren'gina, T. N.

TITLE: Polymerization of Dienes and Olefins Under the Action of Cobalt Oxides and Diethyl Aluminum Halides, and a Study of the Structure of Polymers

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 5, pp 1068 - 1070 (USSR)

ABSTRACT: The authors supply data concerning the polymerization of dienes: butadiene, isoprene, pentadiene-1-3, and 2-3-dimethyl butadiene-1-3, as well as olefins: α-butene, styrene and α-methyl styrene in the presence of cobalt oxides (Co_2O_3-Co_3O_4, Ref 6), and diethyl aluminum chloride or diethyl aluminum bromide. The catalyst contained either 71-73% or 6.7% of Co. The latter content refers to cobalt oxide on aluminosilicate. Polymerization was carried out between 0 and 40° in different ratios between cobalt oxide and diethyl aluminum halide (concentration 0.5-2.5 of weight per

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cent referred to the monomer). Oxygen and humidity were kept off. In the polymers produced the content of 1-2-, 3-4- and 1-4-cis- and trans-members was determined by IR-spectroscopic measurement (spectra taken by N. V. Mikhaylova). The unsaturation was determined on the basis of the reaction with iodine chloride (Ref 7). The vitrification temperature was determined according to A. I. Marey (Ref 8). Table 1 gives the results along with the molecular weight. Under mentioned conditions butadiene is rapidly polymerized already at 0°. Cobalt oxide on aluminosilicate retards polymerization to some extent. The polymers obtained exhibit a degree of unsaturation which is 97.5-99% of theory. This points to the absence of secondary reactions with the double bonds of the polymer. Butadiene polymers have a fairly regular microstructure. On cobalt oxide without carrier the amount of the 1-2-members was 5-8%, the total amount of the 1-4-members was 95-92%, with the most part being in the 1-4-cis-position. By the use of cobalt oxide on

aluminosilicate, the amount of the 1-2-members in the chain rises. Due to the high content of 1-4-members this polybutadiene has a low vitrification temperature (down to -115°). Isoprene is polymerized more slowly and at higher temperatures (at about 40°) as compared to butadiene. Here too, the process runs more slowly with the use of aluminosilicate as carrier. It may be observed from table 1 that both the microstructure of polyisoprene and the vitrification temperature are not changed appreciably by the concentration of the aluminum-organic compound nor by the ratio between cobalt oxide and aluminum diethyl halide. Fairly large amounts (17-18%) of isopropenyl side-groups increase the vitrification temperature of the polymer considerably. The total content of 1-4-members is about 80%; their major part is in the trans-position. A further strong retardation of polymerization takes place in the transition to higher dienes. α-butene is not quickly polymerized at room temperature and does form no more than a caoutchouc-like substance. Neither styrene nor α-methyl styrene are polymerized by the procedure de-

Polymerization of Dienes and Olefins Under the Action of Cobalt Oxides and Diethyl Aluminum Halides, and a Study of the Structure of Polymers

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scribed. Finally the authors state that no gaseous hydrocarbon products are formed in the interaction between cobalt oxides and an aluminum-organic compound at 0 to 80°. There are 1 table and 9 references, 5 of which are Soviet.

ASSOCIATION: Institut vysokomolekulyarnykh soyedineniy Akademii nauk SSSR (Institute of High-molecular Compounds of the Academy of Sciences, USSR)

SUBMITTED: September 5, 1959

Card 4/4

ZHURAVLEVA, T. G., KOVALEVSKAYA, R. N., KURENGINA, T. N., TINYAKOVA, E. I. and

DOLGOPLOSK, B. A. (USSR)

Sintez tsis- i trans-polimerov dienov nad okisnymi katalizatorami
i izuchenie ikh struktury i svoistv
The synthesis of cis- and trans-diene polymers on oxide catalysts
and a study of their structure and properties
IUPAC S I:13-20

report presented at the Intl. Symposium on Macromolecular Chemistry, Moscow,
14-18 June 60.

ZHURAVLEVA T. G.

SOV/4982

International symposium on macromolecular chemistry, Moscow, 1960.

Mezhdunarodnyy simpozium po makromolekulyarnoy khimii SSSR, Moskva, 14-18 iyunya 1960 g.; doklady i avtoreferaty. Sektsiya I. (International Symposium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960; Papers and Summaries. Section I.) [Moscow, Izd-vo AN SSSR, 1960] 346 p. 5,500 copies printed.

Sponsoring Agency: The International Union of Pure and Applied Chemistry, Commission on Macromolecular Chemistry

Tech. Ed.: T. V. Polyakova.

PURPOSE: This collection of articles is intended for chemists and researchers interested in macromolecular chemistry.

COVERAGE: This is Section I of a multivolume work containing scientific papers on macromolecular chemistry in Moscow. The material includes data on the synthesis and properties of polymers, and on the processes of polymerization, copolymerization, polycondensation, and polyrecombination. Each text is presented in full or summarized in French, English, and Russian. There are 47 papers, 28 of which were presented by Soviet, Rumanian, Hungarian, and Czechoslovakian scientists. No personalities are mentioned. References accompany individual articles.

Card 6/9

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TINYAKOVA, Ye.I.; ZHURAVLEVA, T.G.; KUREN'GINA, T.N.; KIRIKOVA, N.S.; DOLGOPLOSK, B.A.

Cation activity of components of complex catalysts. Dokl.AN SSSR 144 no.3:592-595 My '62. (MIRA 15:5)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR. 2. Chlen-korrespondent AN SSSR (for Dolgoplosk).
(Catalysts) (Polymerization) (Cations)

M.I. SLAVSKAYA, Ye.B.; ZHURAVLEVA, T.G.

Polymerization of polar monomers under the effect of the system AlR_3 - benzoyl peroxide. Part 2. Vysokom. soed. 6 no.6:1035-1040 Je '64 (MIRA 18:2)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

MILOVSKAYA, Ye.B.; ZHURAVLEVA, T.G.; DOLGOPOL'SKAYA, P.I.; VESELOVA, L.I.

Radical polymerization of polar monomers induced by the system AlR_3 - benzoyl peroxide. Vysokom. soed. 6 no.3:412-416 Mr'64. (MIRA 17:5)

1. Institut vysokhomolekulyarnykh soyedineniy AN SSSR.

MILOVSKAYA, Ye. B.; ZHURAVLEVA, T. G.; DOLGOPOL'SKAYA, P. I.

Peroxy derivatives of organoaluminum compounds as initiators of radical polymerization. Report No. 1: System organoaluminum compound - oxygen or isopropylbenzene hydroperoxide. Izv AN SSSR Ser Khim no. 4:720-726 Ap '64. (MIRA 17:5)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

TRANSFER IMAGE SERIES 3004

S/0190/64/006/003/0412/0416

ACCESSION NR: AP4030352

AUTHORS: Milovskaya, Ye. B.; Zhuravleva, T. G.; Dolgopol'skaya, P. I.; Veselova, L. I.

TITLE: Radical polymerization of polar monomers induced by AlR_3 - benzoyl peroxide

SOURCE: Vysokomolekulyarnye soyedineniya, v. 6, no. 3, 1964, 412-416

TOPIC TAGS: polymerization, radical polymerization, polymerization initiator, alkylaluminum compound, triethylaluminum, triisobutylaluminum, polar monomer, vinylacetate, methylmethacrylate, acrylonitrile, benzoyl peroxide

ABSTRACT: Polymerization of the polar monomers vinylacetate, methylmethacrylate, and acrylonitrile was conducted in the presence of the systems $Al(C_2H_5)_3$ - benzoyl peroxide or $Al(iso\text{-}C_4H_9)_3$ - benzoyl peroxide as initiator. The polymerization of vinylacetate was conducted in 8-9 mole/liter solutions in benzene. It was found that the optimal conditions yielding polymers with specific viscosities of 0.68 and 0.85 were 1 mole/% of $Al(C_2H_5)_3$ (on the basis of the polymer), a 1/0.25 ratio of $Al(C_2H_5)_3$ to benzoyl peroxide, and temperatures of -25 and 0C. The polymeriza-

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ACCESSION NR: AP4030352

tion of methylmethacrylate took place in a 3 mole/liter solution in dimethylformamide at -2C and in a 7-9 mole/liter solution in xylene at -20C (the polymerization in xylene proceeding at a much faster rate). The polymerization of acrylonitrile was conducted in 2-3.5 mole/liter solutions in dimethylformamide. Satisfactory results were obtained only at 20C. It was observed that here the molecular weight reached a high value within a few hours and remained practically unchanged thereafter. The authors show also that polymerization does not occur in the absence of benzoyl peroxide and that it is essential to bring the alkylaluminum portion of the initiator system in contact with the monomer before adding the benzoyl peroxide. Orig. art. has: 2 charts and 2 tables.

ASSOCIATION: Institut vy*sokomolekulyarny*kh soyedineniy AN SSSR (Institute of High-Molecular Compounds AN SSSR)

SUBMITTED: 04Feb63 DATE ACQ: 07May64 ENCL: 00

SUB CODE: CH NO REF SOV: 006 OTHER: 004

Card 2/2

KHODAKOV, Yu.V.; ZHURAVLEVA, T.M.; MIL'CHENKO, V.V.

Determination of chromate and dichromate simultaneously. Zav.lab. 29 no.8:929 '63. (MIRA 16:9)

1. Moskovskiy aviatsionnyy institut imeni S.Ordzhonikidze.
(Chromates) (Dichromates)

ZHURAVLEVA, T.I., uchitel'nitsa

School biology evenings. Biol.v shkole no.1:46-48 Ja-F '60.
(MIRA 13:5)

1. Nazarovskaya srednyaya shkola No.1, Nazarovskogo rayona, Krasnoyarskogo kraya.
(Biology--Study and teaching)

SOV/144-58-10-15/17

AUTHORS: Pekker, I.I., Candidate of Technical Sciences, Docent and Zhuravleva, T.S., Senior Lecturer

TITLE: Use of a Differential Circuit with Semiconducting Hall E.M.F. Probes in Industrial (Quality) Control of Permanent Magnets (Primeneniye differentsial'noy skhemy vklyucheniya poluprovodnikovykh datchikov E.D.S. Kholla dlya promyshlennogo kontrolya postoyannykh magnitov)

PERIODICAL: Isvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 10, pp 151-156 (USSR)

ABSTRACT: Magnetic properties of permanent magnets may vary considerably due to even small departures from chemical composition and the conditions of thermal treatment. It is known that even in magnets from one melt the values of remanent induction and other parameters may vary between 15 and 20%. For this reason 100% control of magnetic properties of permanent magnets is desirable. Under the conditions of mass production of permanent magnets of only one type, the quality control should be fully automatic. When permanent magnets are produced in small batches full automation of the quality control is

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Use of a Differential Circuit with Semiconducting Hall E.M.F. Probes in Industrial (Quality) Control of Permanent Magnets

too expensive. In such cases it is necessary to have simple and reliable instruments which give highly reproducible results in non-automatic quality control. There are two widely used non-automatic methods in quality control of permanent magnets, the ballistic method and the use of a fluxmeter. Both these methods are not very accurate and the instruments used are easily damaged under industrial conditions. The Novocherkassk Permanent Magnet Factory asked the authors to develop a simple and reliable instrument for quality control of magnets under industrial conditions. Survey of the subject showed that the most suitable method would be one based on the Hall effect in semiconductors. There were two possibilities: either a direct-reading method or a differential (comparison) one could be used. The latter was chosen because it had certain advantages, to be mentioned later, over the direct-reading method. The comparison method requires a standard. This standard was a magnet whose magnetic properties were at the lower limit of permissible values. On testing, the induction

Use of a Differential Circuit with Semiconducting Hall E.M.F. Probes in Industrial (Quality) Control of Permanent Magnets

of a sample should be always equal to or greater than that of the standard. The diffential circuit using two Hall emf probes is shown in Fig 1. Each of these probes has an independent power supply. The power supplies may use either dry batteries, for example those of 1KS-U-3 "Saturn" type which supply 1.6 V each and are of 3.2 amp/hour capacity or the usual DGTs-based rectifier circuits. Each semiconducting probe was in the form of a rectangular plate. A milliammeter and a rheostat (R_1 and R_2), were included in each probe circuit in order to control the working current through the probe. The working current has to be chosen with care. If this current is too small the probe sensitivity is low (the Hall emf is too small for reliable reading). At high currents heating of the probes will distort the linear dependence of the Hall emf on the working current. The working current must be also of such value as to avoid the pointer of a null indicator going beyond its scale limits under conditions of unbalance. Each Hall probe

circuit includes also a low-resistance rheostat between the working contact of the probe and the Hall emf contact. These rheostats are shown as r_1 and r_2 in Fig 1. They are used to set the null indicator to zero in the absence of magnetic fields. The apparatus for quality control of permanent magnets consisted of two parts: (a) the differential measuring circuit with two Hall emf probes, described above, and (b) a null indicator (a tube amplifier or a galvanometer). Fig 2 shows the front panel and Fig 3 the interior of the instrument. The Hall emf probes were mounted in slots in V-shaped magnetic conductors. The standard and the tested magnets were placed in the sockets in such a way as to close the magnetic circuit of the V-shaped conductor. The magnetic circuit in the instrument may be made in exactly the same form as that in which the tested magnets are to be used eventually. The front panel contains also a milliammeter, a switch by means of which this milliammeter can be used to measure the working current in either of the Hall probe circuits and four handles

Use of a Differential Circuit with Semiconducting Hall E.M.F. Probes in Industrial (Quality) Control of Permanent Magnets

of the rheostat slides (r_1, r_2, R_1, R_2). The magnetic induction of the standard magnet is compared with that of a tested magnet by means of the two Hall emf probes, shown in Fig 1. Separate power supplies of the two probes ensure that the internal resistances of the Hall probes do not affect the voltage across them. The null indicator shows the difference between the Hall emf's induced in the two probes. The null indicator may be also made to show the difference between the Hall currents. A special circuit was used to allow for the fact that even in the absence of a magnetic field there usually exist small potential differences between the Hall electrodes. The procedure in the use of the instrument is as follows: The null-indicator zero position is set by means of the rheostats r_1 and r_2 in the absence of a magnetic field. Two identical standard magnets are placed in the sockets of the instrument and the null indicator is set to zero again. This is done by adjusting the working current by means

Use of a Differential Circuit with Semiconducting Hall E.M.F. Probes in Industrial (Quality) Control of Permanent Magnets

of rheostats R_1 and R_2. The standard and the tested magnets are then compared as follows: One of the standard magnets is removed from the right-hand socket and it is replaced by the magnet to be tested, leaving the other standard magnet in the left-hand socket. If the induction due to the tested magnet is not equal to that of the standard magnet, then the null indicator will show the magnitude and the sign of the difference of the Hall emf's induced by these two magnets. The Hall constant of the material used for the probes will vary with the temperature of the surrounding medium but this does not affect the instrument readings, since in the differential circuit used both probes are affected in the same way by the ambient temperature. In the case of varying external temperatures, all that is necessary is a check of the null indicator zero in the absence of a magnetic field and when two identical standard magnets are in the sockets. The instrument would have been much more compact and much lighter had it been possible to use a null galvanometer with a small internal resistance,

Use of a Differential Circuit with Semiconducting Hall E.M.F. Probes in Industrial (Quality) Control of Permanent Magnets

a small external critical resistance, a small time constant and high voltage sensitivity. Such galvanometers are not at the moment produced by the Soviet industry and the authors had to use an electronic tube null indicator which made the circuit much more complex and the instrument larger and heavier. The instrument described has the following advantages: (1) simplicity of setting and operation; (2) a high degree of reproducibility; (3) it is possible to test magnets under the conditions in which they will be later employed; (4) within certain limits, the geometrical dimensions of the tested magnets do not affect the results; (5) variations of the ambient temperature do not affect the instrument. A prototype of the instrument was made by V.I.Bogach and B.A.Antonov, of the Theoretical and General Electrotechnology Chair at the Novocherkassk Polytechnical Institute. The Director of the factory laboratory V.N.Titarenko and workers of the Novocherkassk Permanent Magnet Factory helped greatly in testing the prototype under industrial

Use of a Differential Circuit with Semiconducting Hall E.M.F. Probes in Industrial (Quality) Control of Permanent Magnets

conditions. The authors acknowledge a supply of high-quality semiconducting material, used for the Hall probes, by the Institute of Metallurgy imeni Baykov of the AS USSR. There are 4 figures and 5 references, 3 of which are Soviet, 1 English and 1 German.

ASSOCIATION: Kafedra Avtomaticheskikh i Izmeritel'nykh Ustroystv, (Pekker) Kafedra Teoreticheskoy i Obshchey Elektrotekhniki, (Zhuravleva) Novocherkasskogo Politekhnicheskogo Instituta (Chairs of Automatic and Measuring Apparatus and of Theoretical and General Electrical Engineering, Novocherkassk Polytechnical Institute)

SUBMITTED: 18th October 1958

L 36957-66 EWT(m)/EWP(j) JW/RM

ACC NR: AP6014901 SOURCE CODE: UR/0076/65/039/012/3118/3119

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B

AUTHOR: Zhuravleva, T. S.; Shigorin, D. N.

ORG: Moscow Physicochemical Institute im. L. Ya. Karpov (Moskovskiy fiziki-khimicheskiy institut)

TITLE: Generation of the radicals of a matrix using aromatic ethynyl derivatives

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 12, 1965, 3118-3119

TOPIC TAGS: luminescence spectrum, radical concentration, ethynyl

ABSTRACT: The article describes the use of electron paramagnetic resonance and the luminescence method to generate the radicals of a matrix at 77°K. The use of ethynyl derivatives as luminophores is interesting first of all because of the high reaction capacity of the C ≡ C bonds, and also because of their ability to form π -complexes between themselves and with the molecules of other compounds. In the present work, the luminophores used were aromatic derivatives of ethynyl: phenyl, ethylphenyl, diphenylacetylene (concentration of 10^{-1} to 10^{-4} gram-moles/liter in a standard matrix). The above luminophores were found to be luminescent under the conditions of the experiment (the

Card 1/2 UDC: 541.15

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ACC NR: AP6014901

region of approximately 3900-4500 Å, $\tau \sim 2$ sec); corresponding observations were made of their triplet electron paramagnetic resonance signal, with a g-factor approximately equal to 4. Orig. art. has: none.

SUB CODE: 07/ SUBM DATE: 26May65/ ORIG REF: 005/ OTH REF: 003

Card 2/2

24.7600

67896

SOV/144-59-12-15/21

AUTHOR: Zhuravleva, T.S., Senior Lecturer

TITLE: Secondary Hall Effect

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1959, Nr 12, pp 135-140 (USSR)

ABSTRACT: The system considered is shown diagrammatically in Fig 1. A semiconductor plate is placed in a perpendicular magnetic field (see the figure) and an emf is applied to the plate by means of two electrodes fixed to its shorter edges. Another pair of electrodes is fixed to the longer edges of the plate. An emf e_2 appears across these electrodes. That is given by

$$e_2 = R_H \frac{I_1 B}{d} \cdot F \qquad (1)$$

where R_H is the Hall constant,
I_1 is the current flowing into the plate from the source,
B is the magnetic field in V sec/cm^2,
d is the thickness of the plate in cm,
F is a quantity depending on the dimensions of the plate.

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Secondary Hall Effect

If a resistance is connected across the output electrodes of the system, a current I_2 is produced in the circuit and the equation of the system is:

$$e_{20} = r_2(B) \cdot I_2 + U_2 \qquad (2)$$

where e_{20} is the Hall emf at the output terminals when open-circuited,

U_2 is the voltage across the load resistance.

By introducing $\lambda = r_H/r_{20}$ and $I_2 = U_2/r_H$, Eq (2) can be written as Eq (3), where r_H is the load resistance and r_{20} is the resistance of the system as seen from the output terminals in the absence of the magnetic field. If it is assumed that the input current I_1 and the input voltage U_1 are constant, while the output resistance r_H is a variable (the magnetic field B being constant), a linear relationship between U_2 and I_2 is obtained. This is illustrated in Fig 2 for three different values of B. In practice, however, it is not possible to keep both the input current and voltage of the system constant.

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Secondary Hall Effect

One of these quantities is usually variable and this results in a coupling between the input and output of the system (transducer). By considering Fig 1, it can be seen that the input current I_1, together with the magnetic induction of the control field, produce the Hall emf at the output terminals. This is referred to as the primary emf e_2. However, since a current I_2 flows in the output circuit, its interaction with the magnetic field produces an emf e_1 at the input terminals; this can be referred to as the secondary Hall emf. The action of this force tends to increase the potential difference at the input terminals of the transducer. The secondary Hall effect can be explained theoretically. The operation of the transducer can be described by Eq (7). An experimental investigation of the system was carried out. The measurement circuit is shown diagrammatically in Fig 4. The input of the investigated transducer was connected to a battery and the input current could be controlled by varying the resistance between the battery and the transducer. The input voltage to the transducer was measured by means of a mV-meter. A resistance box

Secondary Hall Effect

was used as the load of the output circuit and the voltage across the load was measured by means of a mV-meter. The first set of measurements was carried out at a constant input current, constant magnetic field and a variable load. Further measurements were carried out at a constant input voltage and a constant field and a variable load. It was found that in this case, the relationship between U_2 and I_2 was nonlinear. The results of the experiments are shown in Fig 5a and 5b. The experiments showed that in the presence of a load across the output terminals of the transducer, an emf appears in its primary circuit; this emf tends to change the electric field of the primary Hall emf. The secondary emf varies with the changing output current. Finally, a Hall transducer which operates with a load is a nonlinear element. There are 5 figures and 5 references, 3 of which are Soviet and 2 German.

ASSOCIATION: Kafedra teoreticheskiy i obshchey elektrotekhniki Novocherkasskiy politekhnicheskiy institut (Chair of Theoretical and General Electrotechnics of

67896
SOV/144-59-12-15/21

Secondary Hall Effect

Novocherkassk Polytechnical Institute)

SUBMITTED: June 14, 1959

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S/144/61/000/006/004/004
D207/D306

AUTHORS: Pekker, I.I., Docent, Candidate of Technical Sciences, and Zhuravleva, T.S., Senior Instructor

TITLE: Summary of the conference on methods and instruments for testing of magnetic materials

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Elektromekhanika, no. 6, 1961, 109-113

TEXT: The conference was opened by Professor Ye. G. Shramkov, who formulated its purpose and main problems in the field of magnetic measurements. It was necessary, he said, to elaborate unified terminology, as it contains at present great differences. Three main problems require rapid solution: 1) Development of normative characteristics for different conditions and tasks of testing ferromagnetic materials; 2) The instruments for testing of ferromagnetic materials are produced in insufficient quantities and qualities; 3) It is necessary to create devices for determining basic properties of ferromagnetic materials with high accuracy and rapidity. Measurements should be based on the principle of compensation.

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S/144/61/000/006/004/004
D207/D306

Summary of the conference...

The first group of lectures was on methods of measurements and instruments for this purpose. N. G. Chernysheva (VNIIM) spoke on the increase of responsibility of producers for the quality of production. Producers should publish catalogues specifying average properties of materials produced and possible deviations. GOSTs for magnetic materials do not contain so far any developed sections on methods and instruments for testing magnetic properties of materials, nor on admissible errors in measurements. Methods of standard testing for all magnetic materials produced in the Soviet Union should be developed. There are not enough instruments to carry out testing, especially in factories producing such materials. O. N. Al'tgauzen (NII Chermet, Moscow) spoke on the automation of magnetic measurements and the choice of parameters to characterize the material in different working conditions. Special emphasis was laid on standards for conditions of measurements. I. M. Rozhanovskiy (Kiyevskiy politekhnicheskiy institut) discussed unification of magnetic characteristics in variable magnetic fields. It is suggested feeding the magnetization circuit of a ferromagnetic specimen with a sinusoidal voltage and then to determine reversible and irreversible energetic processes from first harmonics

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Summary of the conference...

of distorted curves. Professor M. A. Rozenblat (Institut avtomatiki telemekhaniki AN SSSR) criticized the above suggestion, showing that such a basis for the unification of characteristics is not acceptable, as it does not reflect the peculiarities of different working conditions. N. A. Semenova (NII Chermet, Moscow) spoke on the measurements of magnetic characteristics of alloys with high permeability in different conditions of magnetization. It was stated that different conditions change the curve of dependence of permeability in field intensity. The second report of the same author was on methods of determining initial permeability of modern magnetic alloys. R. I. Yanus, Yu. A. Vdovin and V. V. Druzhinin (Institut fiziki metallov sverdlovskogo filiala AN SSSR) discussed the results of study on creating and testing, in industrial conditions, automatic devices for the industrial control of quality of electrotechnical sheet steel. P. P. Markin (Politekhnicheskiy institut, Novocherkassk) spoke on the electronic ballistic galvanometer which he invented with the same sensitivity as the present GZB-47, simplicity in handling and rapidity of measurements. I. I. Pekker and P. P. Markin (Novocherkasskiy politekhnicheskiy institut) discussed a ferro-tester for constant magnets - a semi-automatic device which permits representation of a hysteresis loop

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Summary of the conference...

of a permanent magnet to be obtained on the screen of electronic oscillo-graph. Sh. I. Zusman (NII Chermet, Moscow) discussed methods of control-ing the thermal treatment of magnetic hard alloys with the aid of continu-ous observation of hysteresis loops on an oscillograph screen, in the temperature interval: room temp. - 900°C. Ye. N. Chechurina examined the work of VNIIM in the field of methods and instruments for testing normal specimens of ferromagnetic materials in the frequency region 50 cycles - 1 megacycle and in conditions of complex magnetization. S. M. Nizhniy and Ye. A. Budnitskaya spoke on device (Y5017) U5017 - (an improvement of U520) - an alternating current bridge for determining inductance and equivalent resistance for losses (as a function of magnetic field intensity or magnetic induction) of coils with specimens of ferromagnetic materials in ring form as cores. Frequency region: 400 - 10,000 cycles. I. I. Kifer and Tseplyayeva (MEI, Moscow) examined a method of determining characteristics of cores of ferro-sounds, showing the dependence of the second harmonic on magnitude of a sub-magnetizing field and the amplitude of an excitation field. E. S. Vasilevskaya, G. N. Pivigina, L. N. Syrkina, V. I. Telyatnikov and M. A. Shamovskaya (Leningrad) looked at methods and

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Summary of the conference...

instruments for measuring dynamic magnetostriction parameters, based on the theoretical study of transition processes in a magnetostriction vibrator with pulsed excitation. L. V. Mitel'man (Leningrad) examined two-coordinate automatic broad-band recorders for measuring parameters of ferromagnetic materials. Ya. P. Tsar' (L'vov) spoke on a device for the oscillographic observation of hysteresis loops at high and low frequencies of magnetization. P. P. Markina discussed a device for testing magnetically soft materials. O. A. Herashchenko, P. I. Dekhtyarenko and V. P. Karpenko (Kiyev) looked at an analysis of automatic regulation circuits of a differential calorimeter. A. L. Grokhol'skiy (Novoskbirsk) discussed devices for measuring magnetic characteristics of ferromagnetic materials in the frequency region 100 kilocycles - 100 megacycles. I. I. Pekker and V. N. Titarenko discussed some problems of technical control of permanent magnets. It is suggested basing such control on the working point of the characteristic or on a given segment of the demagnetization curve. T. S. Zhuravleva spoke on new instruments using the Hall effect in semiconductors for testing permanent magnets. G. Kh. Valyamyae (Tallin) lectured on a permeameter for continuously measuring magnetic properties

Summary of the conference...

of ferromagnetic materials. N. Ye. Fevraleva and S. G. Taranov (Institut elektrotekhniki ukrainskoy AN Kiyev) spoke on a device for measuring induction in magnetic systems with an air gap of 0.8mm and more: Limit of measuring - 3000 gauss. I. I. Pekker, A. D. Domanov, N. F. Shmoylov and A. N. Komov spoke on an automatic device for testing permanent magnets according to their magnetic properties: The control of magnets used in electric energy meters, by comparing demagnetization curves of tested magnet and standard magnet. T. I. Vasyutin and V. M. Yurchenko discussed measuring characteristics of ferrite cores in quasi-stationary regimes. E. M. Mushkarden spoke on a device for measuring complex magnetic permeability of ferrites in a radio frequency band. Ye. L. Gurvich and L. B. Shchukin examined the choice of a system of parameters and methods of measuring large quantities of ferrite cores with a rectangular hysteresis loop, used in automatic digital computers. L. I. Rabkin and N.P. Goryachev examined pulse measurements of ferromagnetics. A. Z. Veksler spoke on the determination of a magnetization curve in pulse regime. V. V. Bardizh lectured on static and pulse parameters of magnetic cores with rectangular hysteresis loop. Yu. I. Vizun spoke on instruments for investigating

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pulse properties of magnetic cores. Three lectures were given on problems of measuring magnetic properties of thin films (K. M. Polivanov, A. L. Frumkin, I. A. Yefimov). A. Korsunskiy discussed instruments for investigating the domain structure of ferromagnetic films.

ASSOCIATION: Novocherkasskiy orden trudovogo krasnogo znameni politekhnicheskiy institut (Order of Red Banner of Labor, Polytechnic Institute of Novocherkassk)

S/144/60/000/009/007/007
E073/E135

AUTHORS: Zhuravleva, T.S., and Shapovalov, G.N.

TITLE: Inter-College Conference on Modern Developments in the Field of Dielectrics and Semiconductors

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1960, No. 9, pp 161-162

TEXT: Between June 12 and 18, 1960 the Third Inter-College Conference on developments in the field of dielectrics and semiconductors was held with the participation of over 1200 representatives of various colleges, research organisations and industry. There were ten sections of the conference, namely: physics of dielectrics; inorganic dielectrics; organic dielectrics; effect of radiation on dielectrics and semiconductors; ferroelectrics and ferrites; crystals and crystallization; physics of semiconductors; semiconductor diodes and transistors; luminophors and photocells; semiconductor resistances and thermoelectric instruments. A total of 178 papers were discussed. The following participated in the discussions: Academician A.I. Berg, Corresponding Member Acad.Sci. USSR B.M. Vul,

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Inter-College Conference on Modern Developments in the Field of Dielectrics and Semiconductors.

Professors N.P. Bogoroditskiy, D.N. Nasledov, N.G. Drozdov, D.M. Kazarnovskiy, A.F. Alabyshev, B.M. Tareyev, V.T. Henne, V.V. Pasynkov, and others. During the first plenary meeting Professor Bororoditskiy read the paper on "Dielectrics and semiconductors in modern engineering". In his paper "Electronics and Cybernetics", Academician A.I. Berg tried to stimulate the scientific activity of university personnel, stating that the tempo of the progress in research work lags behind that of the development of the Soviet economy as a whole. It is particularly important to extend the work on semiconductors. Organisational problems became decisive in the development of the national economy and in this respect cybernetics is particularly important. In the conclusions he emphasised again the importance of research for the development of semiconductors. In his paper "Properties of certain $A_{III}B_V$ semiconductors" Professor D.N. Nasledov (Leningrad Institute of Physics and Technology, Acad.Sci. USSR) described the work of a team of scientists on the electric

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E073/E135

Inter-College Conference on Modern Developments in the Field of Electronics and Semiconductors

properties of modern semiconductors and the possibilities of their practical utilization under industrial conditions. He emphasized particularly work on the very promising semiconductors of the type $A_{III}B_{V}$, primarily InSb and GaAs. In InSb compounds the electron mobility at room temperature is of the order of 60 000 cm^2/sec. T.S. Zhuravleva (NPI) presented a paper on "Physics of Semiconductors", dealing with galvanomagnetic phenomena and their application for magnetic measurements. In the section on Semiconductor diodes and transistors, G.N. Shapovalov (NPI) presented a paper "On the temperature regime of p-n transitions" (thesis of Docent A.F. Gikis and the author). A paper on the state and the tasks in the field of manufacture of electrical insulation in the USSR was presented by the Chairman of the State Committee of the Electrical Industry, S.A. Yamanov; he reviewed foreign developments and the tasks facing the Soviet industry in that field. He paid particular attention to problems of improving industrial insulation materials and he outlined the

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S/144/60/000/009/007/007
E073/E135

Inter-College Conference on Modern Developments in the Field of Dielectrics and Semiconductors

tasks in this field during the Seven-year Plan period.

There are no figures, tables or literature references.

Card 4/4

PEKKER, Iosl' Iosifovich, kand.tekhn.nauk, dotsent; ZHURAVLEVA, Tat'yana Samoylovna, starshaya prepodavatel'nitsa

Check of permanent magnets using Hall transducers. Izv. vys. ucheb. zav.; elektromekh. 5 no.12:1379-1384 '62. (MIRA 16:6)

1. Kafedra avtomaticheskikh i izmeritel'nykh ustroystv Novocherkasskogo politekhnicheskogo instituta (for Pekker). 2. Kafedra teoreticheskoy i obshchey elektrotekhniki Novocherkasskogo politekhnicheskogo instituta (for Zhuravleva).
(Magnets—Testing)

ZHURAVLEVA, T.S.

Galvanomagnetic phenomena and their application in magnetic measurement techniques. Trudy inst. Kom.stand.mer i iam. prib no.64:109-110 '62. (MIRA 16:5)
(Magnetic measurements) (Hall effect)

E.p.r. spectra of gamma-irradiated ...

There are 2 figures and 2 tables.

Table 1. Legend: Integral power of irradiation ~10^7 rad. t_{KIP} = boiling point (in °C). * width determined from the first derivative of the absorption curve. ** number of lines hard to determine because of superposition of the spectrum of not completely deuterized methyl acetylene, *** spectrum was not found even at a dose of 1-40·10^6 rad, **** e.p.r. spectrum obtained at a dose of 1.5·10^7 rad. (1) initial compounds, (2) assumed radical, (3) number of lines, (4) overall width of spectrum, oe.

Table 2. Legend: Integral power of irradiation ~1.6·10^7 rad. * width determined from the first derivative of the absorption curve. ** data of the present authors. (1) initial compound, (2) assumed radical, (3) number of lines, (4) overall width of spectrum, oe.

E.p.r. spectra of gamma-irradiated ...

S/048/63/027/001/026/043
B108/B186

Исходные соединения 1	Предполагаемый радикал 2	Число линий 3	Общая ширина спектра, Oe 4
H—CH=O	$H_2C=C-O$	4	36 ± 1,0
CH_3—CH=O	H	6(8)	86 ± 2,0
CH_2—CH=CH_2	$[H_2C=CH-CH_2]$	5	58 ± 1,5
CH_3—C≡N	$[H_2C=C=N]$	9	~55,0
C_2H_5—C≡N	$[H_2C-CH=C=N]$	13(15)	~64,0

Table 2

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ACCESSION NR: AP4019525 S/0076/64/038/002/0469/0471

AUTHOR: Smirnova, V. I.; Zhuravleva, T. S.; Shigorin, D. N.; Gracheva, Ye. P.; Shostakovskiy, M. F.

TITLE: EPR spectra of some di-substituted acetylenes upon exposure to gamma rays and to light

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 2, 1964, 469-471

TOPIC TAGS: methylphenylacetylene structure, ethylphenylacetylene structure, dimethylacetylene structure, electron paramagnetic resonance, acetylene, alkyl radical, acrylic compound, methyl, EPR

ABSTRACT: This is a continuation of a work by the same authors (AN SSSR, Dokl., 140, 149, 1961) where they described how a number of acetylenes of the RC ≡ CH type (where R is an alkyl radical) upon exposure to gamma radiation form radicals where the unpaired electron is delocalized by the triple bond over the whole molecule. The present work transfers the above study to Ar - C ≡ C - R arylic compounds of a different structure. The object of the study were: methylphenylacetylene, its deuterium tagged form, ethylphenylacetylene and dimethylacetylene.

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ACCESSION NR: AP4019525

UV radiation was provided by the SVDSh - 1000 lamp. Gamma doses were 2 to 80 m. rad. Using the EPR method, the structure of radicals formed by gamma and light radiation of the above compounds was determined; the radicals are formed by tearing off a hydrogen atom from the methyl or methylene group. In these radicals the free electron is basically localized in the R group, whereas in the R - ≡ C - CH_2 radical (like the propynyl radical CH_2 ≡ C ≡ CH.) the unpaired electron is delocalized by the triple bond over the whole molecule. Orig. art. has: 5 figures, 2 formulas, 1 table.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physics and Chemistry Institute)

SUBMITTED: 08Feb63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: GC, GP NO REF SOV: 001 OTHER: 000

Card 1 2/2

EWT(m)/EPF(n)-2/EWA(h)/EWP(t)/ETI/EWP(k)/EWT(l)/EWT(m)/T/EWA(d) IJP(c) GG/RM/AT/
ACC NR: AP5014011 WW SOURCE CODE: UR/0192/65/006/003/0453/0454

AUTHOR: Zhuravleva, T. S.; Kessenikh, A. V. 61

ORG: Physicochemistry Institute im. L. Ya. Karpov (Fiziko-chimicheskiy institut) B

TITLE: Spin-lattice relaxation of some organic free radicals stabilized in a solid phase 21,44,55

SOURCE: Zhurnal strukturnoy khimii, v. 6, no. 3, 1965, 453-454

TOPIC TAGS: free radical, spin lattice relaxation, gamma irradiation, hydrocarbon, aldehyde, organic nitrile compound

ABSTRACT: The authors measure T_1 (Spin-Lattice Relaxation Time) at 77 and 4.2°K for a radical formed during gamma irradiation of chemically pure, deoxidized phenyl methyl acetylene, methyl acetylene, acetonitrile and acetal aldehyde. A table of spin relaxation time is presented. The authors thank L. S. Kornilyenko and N. Ye. Kask for their assistance in carrying-out the experiment and also I. V. Aleksandrov for discussions of the results. Orig. art. has: 1 table. [JPRS]

SUB CODE: 07, 20 / SUBM DATE: 26Oct64 / ORIG REF: 003 / OTH REF: 001

Card 1/1 UDC: 547.024

ZHURAVLEVA, T.S.; MISURKIN, I.A.

Distribution of spin density in the radicals of some acetylene derivatives. Zhur. strukt. khim. 5 no.4:656-658 Ag '64. (MIRA 18:3)

1. Fiziko-khimicheskiy institut imeni Karpova.

ZHURAVLEVA, T.S.; PETROV, E.S.; SHIGORIN, D.N.

Electron paramagnetic resonance spectrum of the anion radical of diphenylacetylene. Zhur. strukt. khim. 5 no.5:785-786 S-O '64 (MIRA 18:1)

1. Fiziko-khimicheskiy institut imeni L. Ya. Karpova.

ZHURAVLEVA, T.S.; LEBEDEV, Ya.S.; SHUVALOV, V.F.

Distribution of spin density in radicals of nitrile derivatives. Zhur. strukt. khim. 5 no.5:786-789 S-O '64 (MIRA 18:1)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova i Institut fizicheskoy khimii AN SSSR.

SMIRNOVA, V.I.; ZHURAVLEVA, T.S.; SHIGORIN, D.N.; GRACHEVA, Ye.P.; SHOSTAKOVSKIY, M.F.

Electron paramagnetic resonance spectra of some γ- and photo-irradiated disubstituted acetylenes. Zhur. fiz. khim. 38 no.2: 469-471 F '64. (MIRA 17:8)

1. Fiziko-khimicheskiy institut imeni Karpova.

TERNOVSKIY, S.D., prof. [deceased]; ZHURAVLEVA, T.V. (Moskva, K-6, Vorotnikovskiy pereulok, d.7, kv.42)

Problems in pediatric surgery in the works of N.I. Pirogov. Vest. khir. 89 no.10:135-137 O '62. (MIRA 17:10)

1. Iz kliniki detskoy khirurgii (zav. - prof. S.D. Ternovskiy [deceased]) 2-go Moskovskogo meditsinskogo instituta imeni Pirogova (rektor - dotsent M.G. Girotkina) na baze Detskoy klinicheskoy bol'nitsy imeni prof. Filatova (glavnyy vrach -L.A. Vorokhobov).

ZHURAVLEVA, T. V.

Late results of treating exstrophy of the bladder by the Maydl-Ternovskii method. Khirurgiia no.6:96-99 Je '62. (MIRA 15:7)

1. Iz kafedry khirurgii detskogo vozrasta (i. o. zav. - dotsent A. Ye. Zvyagintsev) II Moskovskogo meditsinskogo instituta imeni N. I. Pirogova na baze Detskoy bol'nitsy imeni N. F. Filatova (glavnyy vrach L. A. Vorokhobov)

(BLADDER--DISPLACEMENT)