

The Reduction of Diene Hydrocarbons With a Conjugate System of Double Bonds by Hydrogen at the Instant of Its Liberation" SOV/20-123-5-23/ 50

simultaneously with the hydrogen attachment to the double bond. It has recently become clear that the amides are capable of catalysing the displacement of the double bonds in mono- and diolefin hydrocarbons (Refs 7-10). Consequently, it could be expected that under certain conditions the structure of mono-olefins resulting from the attachment of a hydrogen molecule to the dienes should depend, not only on the structure of the initial diene, but also on the secondary reaction of the isomerization under the influence of the resulting metal amide. In order to eliminate the isomerizing effect of the metal amide, ethyl alcohol was added to the sodium solution in liquid ammonia (Ref 1). Besides, di-isopropenyl was reduced by calcium-hexa-ammoniate, and di-isocrotyl was reduced by sodium in liquid ammonia (Ref 2). The results are shown in table 1. From this it can be seen that on the reduction from all its sources at the moment of its liberation, hydrogen is attached almost exclusively in the 1.4-position of di-isopropenyl. The reduction of di-isocrotyl is less selective, although hydrogen is attached here in the 1.2-positions. From a comparison of the data for calcium-hexa-

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ammoniate as well as for sodium solution in liquid ammonia with those for the latter solution to which, however, ethanole has been added, it can be seen that although the secondary isomerization reaction somewhat modifies the results of the primary reaction, it does not distort them. Thus the rules governing the effect of the structure of dienes on the direction of their reduction, as specified in the papers by Levins, Kazanskiy, and collaborators, remain valid. There are 2 figures, 7 tables, and 16 references, 15 of which are Soviet.

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

SUBMITTED: August 5, 1958

Card 3/3

5 (3)

AUTHORS: Kazanskiy, B. A., Academician, SOV/20-126-6-33/67  
Gostunskaya, I. V., Leonova, A. I.

TITLE: Catalytic Hydrogenation of Diene Hydrocarbons With an Isolated System of Double Bonds in the Presence of Platinum and Palladium (Kataliticheskoye gidrirovaniye diyenovykh uglevodorodov s izolirovannoy sistemoy dvoynykh svyazey v prisutsvii platiny i palladiya)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 6, pp 1264 - 1267 (USSR)

ABSTRACT: The authors were interested in investigating the behaviour of the dienes mentioned in the title in the case of an incomplete hydrogenation. The mono-olefins yield, in the liquid phase, in the presence of Pd, new mono-olefins which are formed by the shifting of the double bonds in the initial hydrocarbon (Refs 1,2). Platinum does not have this effect (Refs 2,3). These two catalysts have the capability of catalyzing the hydrogen addition to unsaturated compounds, they behave, however, in a different way in hydrogenation. As is known, the dienes mentioned may be isomerized into dienes with a conjugate system of double bonds in the case of a heterogeneous catalysis at temperatures

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Platinum and Palladium

above 200° in the presence of Pr and Pd (Ref 4). In the present paper the following was used as investigation object: a) hexadiene-1,5 (di-allyl); b) 2-methyl-hexadiene-2,5; c) 2-methyl-hexadiene-1,5 and d) 2,5-dimethyl-hexadiene-1,5 (di-isobutenyl). Half of a hydrogen molecule was added to these compounds at room temperature in the presence of Pt and Pd; in each of these cases a mixture of equal amounts of mono- and diolefin was expected to be formed. It was found, however, that in the case of a partial hydrogenation of hexadiene-1,5 in the presence of platinum not only hexene-1 but also n-hexane had formed in the reaction products apart from diallyl which did not enter the reaction (see scheme). In the presence of palladium the hydrogenation product consisted of hexene-1 and of hexene-2 which is isomeric with respect to hexene-1; besides hexadiene-1,5 which did not enter the reaction, the product of its isomerization, hexadiene-1,4 was found. n-hexane however, was lacking. It must be emphasized that in the hydrogenation products of diallyl with palladium the diene with a conjugate double bond system expected, was not found. Also the

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hydrogenation products of the substances mentioned under c) and d) contained no conjugate dienes. i.e. in these cases only one of the double bonds was shifted. In contrast to the 1,5-dienes, 2-methyl-hexadiene-2,5 was isomerized under the same conditions into a diene with one conjugate double bond system to about 15%. Apparently the lacking of the conjugate dienes in the hydrogenation of the 1,5-dienes with palladium may be explained by an unfavorable interrelation of the reaction rates of hydrogenation and isomerization on the palladium surface. Conclusions concerning the connection between the structure of the compound to be hydrogenated and the hydrogen addition rate must, however, be drawn very carefully. The shifting of the double bond may influence the addition kinetics of the hydrogens during the hydrogenation with palladium. For this reason these possible complications must be taken into account. There are 3 figures, 6 tables, and 6 references, 4 of which are Soviet.

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Isolated System of Double Bonds in the Presence of  
Platinum and Palladium

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

SUBMITTED: April 18, 1959

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GOSTUNSKAYA, I.V.; LEONOVA, A.I.; DOERCSEDOVA, N.B.; KAZANSKIY, B.A.

Isomerization of hexenes under conditions of liquid-phase hydrogenation in the presence of palladium black. Neftekhimiia 3 no.4:498-502 JI-Ag '63. (MIRA 16:11)

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

KAZANSKIY, B.A.; GOSTUNSKAYA, I.V.; CHESNOKOVA, S.Ye.; DOBROSERDOVA, N.B.;  
LEONOVA, A.I.

Stereoisomeric conversions of individual cis- and trans-3-methyl-  
2-pentenes in the presence of aluminum oxide calcium amide. Nef-  
tekhimii 3 no.6:871-875 N-D '63. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova, kafedra  
khirii nefi.



DOBROSERDOVA, N.B.; BANHMET'YEVVA, G.S.; LEONOVA, A.I.; GOSTUNOKAYA, I.V.;  
KAZANSKIY, B.A.

Displacement of double bonds in hexenes in the presence of  
platinum catalysts. Neftekhimiya 4 no.2:215-218 1964  
(M RA 17:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,  
khimicheskiy fakul'tet.

GOSTUNSKAYA, I.V.; LEONOVA, A.I.; KAZANSKIY, B.A.

Stereoisomeric conversions of individual cis- and trans-3-methylpentenes-2 under conditions of catalytic hydrogenation in the liquid phase. *Neftekhimiya* 4 no.3:379-381 My-Je '64.

(MIRA 13:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova, Khimicheskiy fakul'tet.

LEONOVA, Aleksandra Petrovna; MOSKALENKO, N., red.; GUTMAN, A., tekhn. red.

[Lightly salted herring; preparation at the place of catching in North Atlantic] Slabosolenaia sel'd'; prigotovlenie v usloviakh promysla v Severnoi Atlantike. Kaliningrad, Kaliningradskoe knizhnoe izd-vo, 1961. 33 p. (MIRA 14:11)  
(Atlantic Ocean--Herring)

PECHATINA, V.I.; LEONOVA, A.P.

Production of new types of canned herring. Trudy BaltNIRO no.7:  
193-194 '61. (MIRA 15:2)

(Herring, Canned)

DIKALOV, A.I.; LEONOVA, A.V.; STOROZHNIK, D.A.

New design of the charge distributor. Metallurg 8 no.8:9-11  
Ag '63. (MIRA 16:10)

1. Zaporozhskiy staleplavil'nyy zavod "Zaporozhstal" i  
Dnepropetrovskiy metallurgicheskiy institut.

KLYUCHNIK, V.K.; TSELYUK, A.L.; STOROZHNIK, D.A.; LEONOVA, A.V.

Standardizing blast furnace charging equipment. Met. i gornorud. prom.  
no.3:14-16 My-Je '63. (MIRA 17:1)

1. Dnepropetrovskiy proyektno-konstruktorskiy tekhnologicheskii institut (for Klyuchnik, Tserlyuk). 2. Dnepropetrovskiy metallurgicheskii institut (for Storozhnik, Leonova).

DAKALOV, A.I.; LEONOVA, A.V.; STOROZHNIK, D.A.

Increasing the durability of the charging equipment. Metallurg  
8 no.10:10-12 0 '63. (MIRA 16:12)

1. Zavod "Zaporozhstal", i Dnepropetrovskiy metallurgicheskiy  
institut.

GREBENIK, V. M.; LEONOVA, A. V.; STOROZHNIK, D. A.; NECHIPORENKO, V. N.

Investigating regularities of the gas flow and the wear of coupled parts in blast furnace charging arrangements. *Izv. vys. ucheb. zav.; chern. met.* 7 no. 4:182-185 '64. (MIRA 17:5)

1. Dnepropetrovskiy metallurgicheskiy institut.



VUKALOVICH, M.P.; GROMOV, N.K.; IMERITSKIY, M.I.; KARTOSHKIN,  
M.D.; KOERINA, R.B.; LEONOVA, A.Ya.; TROYANSKIY, Ye.A.;  
MANUYLOV, P.N.; SHUKHER, S.M., red.

[Heat engineer's handbook] Spravochnaia knizhka teplo-  
tekhnika. Izd.2., perer. i dop. Moskva, Energiia, 1964.  
287 p. (MIRA 17:12)

TITOV, Lev Fedorovich; PREEBRAZHENSKIY, Yu.V., redaktor; LEONOVA, B.I.,  
redaktor; SOLOVEYCHIK, A.A., tekhnicheskiy redaktor.

[Ocean and sea waves produced by the wind] Vetrovye volny na  
oceanakh i moriakh. Leningrad, Gidrometeorologicheskoe izd-vo,  
1955. 126 p. (Waves) (MLRA 9:6)

ZUBOV, Nikolay Nikolayevich; MAMAYEV, Oleg Ivanovich; LEONOVA, B.I.,  
redaktor; SOLOVEYCHIK, A.A., tekhnicheskii redaktor

[A dynamic method of calculating the elements of ocean currents]  
Dinamicheskii metod vyshisleniia elementov morskikh techenii.  
Leningrad, Gidrometeorologicheskoe izd-vo, 1956. 14 p. (MLRA 9:9)  
(Ocean currents)

TAUBER, G.M.; RUDOVITS, Leo Fritsovich, professor, doktor geograficheskikh nauk, otvetstvennyy redaktor; LEONOVA, B.I., redaktor; SOLOVEYCHIK, A.A., tekhnicheskiiy redaktor

[The Antarctic] Antarktika. Leningrad, Gidrometeorologicheskoe izd-vo. [Main feature of climate in weather] Osnovnye cherty klimata i pogody. 1956. 146 p. (MLRA 9:8)

1. Moscow. Gosudarstvennyy okeanograficheskiiy institut  
(Antarctic regions--Climate)

BELINSKIY, Nikolay Alekseyevich; ISTOSHIN, Yu.V., otvetstvennyy redaktor;  
LEONOVA, B.I., redaktor; FLAUM, M.I., tekhnicheskiy redaktor

[Maritime hydrometeorological information and forecasts] Morskoe  
gidrometeorologicheskoe informatsii i prognozy. Izd. 2-oe, perer.  
Leningrad, Gidrometeorologicheskoe izd-vo, 1956. 253 p. (MLRA 10:3)  
(Meteorology, Maritime)

LEONOVA, B.I.

MURANOV, Aleksandr Pavlovich; LEONOVA, B.I., redaktor; BRAYNINA, M.I.,  
tekhnicheskij redaktor

[The Hwang Ho River (Yellow River)] Reka Khuankhe (Zheltaia reka).  
Leningrad, Gidrometeor.izd-vo, 1957. 86 p. (MLRA 10:6)  
(Yellow River)

LEONOVA, B. I.

LAKTIONOV, Aleksandr Fedorovich; LEONOVA, B.I., redaktor; SOLOVEYCHIK, A.A.,  
tekhnicheskii redaktor

[International Geophysical Year in the Antarctic] Meznaunardnyi  
geofizicheskii god v Antarktike. Leningrad, Gidrometeor.izd-vo,  
1957. 178 p. (MLBA 10:10)

(International Geophysical Year)  
(Antarctic regions)

ЛЕОНОВА, Б. И.

ZUBOV, Nikolay Nikolayevich; LEONOVA, B.I., redaktor; BRAYMINA, M.I.,  
tekhnicheskiy redaktor

[Oceanographic tables] Okeanologicheskie tablitsy. Izd. 3-e,  
perer. i dop. Leningrad, Gidrometeor, izd-vo, 1957. 405 p.  
(MIRA 10:11)

(Oceanography--Tables, etc.)



*LEONOVA, B.I.*

MUROMTSEV, Aleksey Mikhaylovich; RUDOVITS, L.F., otvetstvennyy red.;  
LEONOVA, B.I., red.; MIRONENKO, Z.I., red.; VLADIMIROV, O.G.,  
tekhn. red.

[Principal hydrological features of the Pacific Ocean] Osnovnye  
cherty gidrologii Tikhogo okeana. Leningrad, Gidrometeor. izd-vo,  
1958. 629 p. [Appendix 2; atlas of vertical profiles and maps  
indicating temperature, salinity, density, and oxygen content]  
Prilozhenie 2; atlas vertikal'nykh razrezov i kart temperatury,  
solenosti, plotnosti i sodержaniia kislороda. 1958. 124 p.  
(Pacific Ocean) (MIRA 11:8)

FASTOVSKIY, Isya Abramovich; FURMANOV, Il'ya Mikhaylovich; VORONTSOV,  
A.Ye., otv.red.; LEONOVA, B.I., red.; SHISHKOVA, L.M., tekhn.red.

[Tracing and investigating sources of industrial radio inter-  
ferences] Poisk istochnikov industrial'nykh radiopomekh i ikh  
issledovanie. Leningrad, Gos.soiuznoe izd-vo sudostroit.  
promyshl., 1959. 60 p. (MIRA 12:10)  
(Radio--Interference)

VASIL'YEV, Yu.S., dots., kand. tekhn. nauk; VEL'NER, Kh.A., dots.,  
kand. tekhn. nauk; GINDUS, D.O., inzh.; GOLOVACHEVSKIY,  
N.I., dots., kand. tekhn. nauk; GROMOV, A.I., inzh.;  
DOMANSKIY, L.K., inzh.; ISAYEV, Yu.M., inzh.; KULESH, N.P.,  
dots., kand. tekhn. nauk; MIKHALEV, B.N., dots., kand.  
tekhn. nauk; MOROZOV, A.A., prof., doktor tekhn. nauk  
[deceased]; NALIMOV, S.M., st. nauchn. sotr., kand. tekhn.  
nauk; REZNIKOVSKIY, A.Sh., kand. tekhn. nauk; SVANIDZE, G.G.,  
doktor tekhn. nauk; TANANAYEV, A.V., dots., kand. tekhn. nauk;  
KHAZANOVA, A.Z., inzh.; CHERNYATIN, I.A., st. nauchn.  
sotr., kand. tekhn. nauk; SHCHAVELEV, D.S., prof., doktor  
tekhn. nauk; YAGODIN, N.N., st. nauchn. sotr., kand. tekhn.  
nauk; LEONOVA, B.I., red.

[Utilization of water power] Ispol'zovanie vodnoi energii.  
Moskva, Energiia, 1965. 563 p. (MIRA 19:1)

LEONOVA, E.A.

Flow and solidification of a metal in contact with a moving  
solid body. Vest. Mosk. un. Ser. 1: Mat., mekh. 20 no.4:  
57-66 J1-Ag '65. (MIRA 18:9)

1. Otdel prochnosti Nauchno-issledovatel'skogo instituta  
mekhaniki Moskovskogo gosudarstvennogo universiteta imeni  
M.V. Lomonosova.

AUTHOR: Leonova, E.P. (Engineer)

110-7-3/30

TITLE: A new series of power frequency induction furnaces for melting copper base alloys. (Novaya seriya induktsionnykh plavil'nykh pechey promyshlennoy chastoty dlya plavki splavov na mednoy osnove).

PERIODICAL: "Vestnik Elektropromyshlennosti" (Journal of the Electrical Industry), Vol.28, No.7, 1957, pp.8-11 (USSR).

ABSTRACT: In principle an iron-cored induction furnace is a kind of transformer with the primary winding on the iron core and with the molten metal as the secondary winding. In furnaces of this type some metal has to be left in the crucible in order to restart the furnace. This is very inconvenient when changing from one alloy to another. The most important advantage of these furnaces is the low loss of metal and the high efficiency and the uniform chemical composition of the alloy produced. The technical characteristics of a new series of induction furnaces for melting copper base alloys (brasses) developed by the "Elektropech'" Trust are given in Table 1. There are four sizes, of 0.75, 1.5, 3 and 15 tons capacity. The 15 ton furnace is mainly intended for melting oxygen free copper. Current densities of 13-15 A/mm<sup>2</sup> are used in the charge and 10-15 A/mm<sup>2</sup> in the

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A new series of power frequency induction furnaces for melting copper base alloys. (Cont.) 110-7-3/30

winding. A combined system of cooling is used, water cooling for the inductor and air cooling for the lining. The magnetic circuit is of the core type with a removable yoke instead of the shell type in the old design. Induction units of 250 kW are standardised for the entire range. The 1.5 ton furnace WMT-1.5 is illustrated in Fig.1. This furnace is supplied by a 1000 kVA transformer of 6000/557-458 V. The furnace is heated up and started by a 200 kVA auto-transformer of 380/228-38 V. With hand loading the output of furnace type WMT-1.5 is 60 tons per day and with mechanised loading 75 tons per day. The lining is good for 6700 melts. The 3 ton furnace WMT-3 is intended for melting brass and may be overloaded to 5 tons. The transformer and auto-transformer are of the type already described. The furnace is provided with a mechanical tilting drive. Furnace type WMT-3 is now being manufactured and may be used independently or together with a mixer. A melting-distributing set with furnace type WMT-3 and mixer is illustrated in Fig. 2. Furnace WMT-15 is intended for melting oxygen-free copper but can also be used for brass. It has six of the single-phase induction units connected in two three-phase groups,

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L 09331-67 EWP(m)/EWT(1) WW  
ACC NR: AF6030918

SOURCE CODE: UR/0207/66/000/004/0003/0018, 67

AUTHOR: Leonova, E. A. (Moscow)

ORG: none

TITLE: Group classification and invariant solutions of the equations of low and heat exchange of a viscous-plastic medium

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4, 1966, 3-18

TOPIC TAGS: group theory, plane flow, axisymmetric flow, rotational flow, viscous flow, plastic flow, fluid dynamics, heat transfer

ABSTRACT: Group theory and group-invariant procedures for solving differential equations are used to investigate three types of flow/ accompanied by heat exchange in a medium occupying a finite or infinite region: 1. Plane linear flow without a pressure gradient. 2. Linear axisymmetric flow without a pressure gradient such as produced by translation of a circular cylinder in the direction of its generators. 3. Flow produced by rotation of a circular cylinder about its axis. The system of heat-influx and motion differential equations are set up for a system whose shear resistance is a function of the shear deformation rate and of the temperature. The group of transformations against which the system is invariant are defined and the differential equations and their solutions are classified in accordance with the invariance properties. The obtained transformation group is then used to find particular solutions of the system and its various specialized modifications. A table of the invariant solutions

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S/137/62/000/006/009/163  
A006/A101

AUTHOR: Leonova, E. P.

TITLE: A series of induction mixers and crucible-type power-frequency furnaces

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 7 - 8, abstract 6B38 (In collection: "Vysokochastotn. elektroterm. ustanovki", Moscow-Leningrad, Gosenergoizdat, 1961, 129 - 138)

TEXT: Induction mixers for ferrous metals are intended for operation in a set with a cupola or other melting furnaces. The technical destination of induction mixers is the overheating of liquid cast-iron and steel prior to teeming, the assuring of constant temperature conditions in casting and alloying of cast-iron. An induction mixer makes it possible to eliminate, in a number of cases, cupola reduction and to preheat to the required temperature the liquid blast-furnace cast-iron; this assures savings in coke and reduced production costs of the liquid metal. In respect to the heating principle, the induction mixers are induction furnaces with a lesser specific capacity than that of melting

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000009-7

KUTS, Valentina Il'ichna; LEONOVA, G.K.

[Analysis of the economic activity of enterprises in the  
sugar industry] Analiz khoziaistvennoi deiatel'nosti pred-  
priiatii sakharnoi promyshlennosti. Moskva, Pishcheprom-  
izdat, 1962. 177 p. (MIRA 16:11)  
(Sugar industry)

ACC NR: AP6025389

SOURCE CODE: UR/0366/66/002/007/1155/1157

AUTHOR: Kruglikova, R. I.; Kalinina, G. R.; Khayetskaya, Y. V.; Leonova, G. S.

ORG: Moscow Institute of Fine Chemical Technology (Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova)

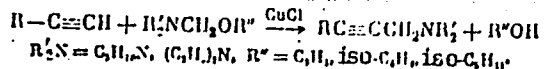
TITLE: The use of alkoxy methylamines in the preparation of  $\alpha$ -acetylenic amines

SOURCE: Zhurnal organicheskoy khimii, v. 2, no. 7, 1966, 1155-1157

TOPIC TAGS: acetylenic amine, alkoxy methylamine, ACETYLENE COMPOUND, AMINE, CHEMICAL REACTION

ABSTRACT:

The previously unreported I-V acetylenic amines (see table) were obtained by the Mannich reaction in the presence of CuCl using alkyl-alkoxy methylamines as aminomethylating agents:

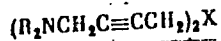


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UDC: 547.312+547.233

ACC NR: AP6025389

Hydrogenation of I over a Pd/BaSO<sub>4</sub> catalyst yielded amine VI. Composition and properties of the acetylenic amines are shown in the table.



No.	R	X	Yield (%)	bp (p in mm)	d <sub>4</sub> <sup>20</sup>	n <sub>D</sub> <sup>20</sup>	IR, cm <sup>-1</sup>		Found, %		
							Found	Calcd	C	H	N
I	C <sub>2</sub> H <sub>5</sub>	NC <sub>2</sub> H <sub>5</sub>	76	101-103 <sup>a</sup> (0.05)	0.8811	1.4790	79.99	79.86	77.40	11.32	11.16
			78	120-123 (0.04)	0.8950	1.4830	93.81	92.81	74.34	11.38	14.70
III	CH <sub>3</sub>	NC <sub>2</sub> H <sub>5</sub>	80	114-115.5 (0.4)	0.9039	1.4790	73.81	74.46	71.31	10.83	10.16
			73	141-143 (0.55)	0.9548	1.5051	87.31	87.60	64.32	10.13	12.23
IV	CH <sub>3</sub>	S	74	120-123 (0.7)	0.9716	1.5151	69.44	69.42	64.05	9.09	10.86
			83	79.5-80 (0.04)	0.8400	1.4562	82.46	82.96	75.04	14.80	10.86
VI	[(C <sub>2</sub> H <sub>5</sub> ) <sub>2</sub> N(CH <sub>2</sub> ) <sub>2</sub> ] <sub>2</sub>										

No.	Formula	Calculated %			R <sub>f</sub>	mp		
		C	H	N		Picrate	Methiodide	Hydrochloride
I	C <sub>16</sub> H <sub>26</sub> N <sub>2</sub>	77.36	11.36	11.28	0.68	184.5-185	184-184.5	154-154.5
		74.17	11.41	14.42	0.54	147.5-148.5	—	217-219
III	C <sub>10</sub> H <sub>18</sub> N <sub>2</sub>	71.43	10.70	17.86	0.31	105-105.5	—	—
		68.59	10.06	9.94	0.64	121-122	121-122	—
IV	C <sub>12</sub> H <sub>20</sub> N <sub>2</sub> S	64.28	8.93	12.50	0.43	131-131.5	175.5-177	—
		74.84	14.94	10.84	—	170.5-171	—	182-183.5

Orig. art. has: 1 table.

SUB CODE: 07/ SUBM DATE: 23Jul65/ OTH REF: 006/

[W.A. 50; CBE No. 10]

Card 2/2

KOZLOVA, P.K., inzhener; LEONOVA, I.N., inzhener; ISAKOVA, S.B.,  
inzhener; DARAZHIO, G.N., inzhener.

Weatherproof lacquer-paint coatings on agricultural machines.  
Sel'khoz mashina no.12:27-29 D '53. (MLRA 6:12)  
(Agricultural machinery--Painting)

LEONOVA, L.A. , vrach

Work and health of school children. Zdorov'e S no.4:19-20 Ap '62.

(INDUSTRIAL HYGIENE) (YOUTH--EMPLOYMENT)

(MIRA 15:4)

GRIGORUTSE, G.V.; POLEVOY, V.V.; LEONOVA, L.A.; KORNAKOVA, E.P.

Some characteristics of protein metabolism in corn coleoptile segments treated with  $\beta$ -indolineacetic acid. Izv. SO AN SSSR no.8 Ser. biol. med. nauk no.2:24-28 '64 (MIRA 18:1)

1. Vostochno-Sibirskiy biologicheskiy institut Sibirskogo otdeleniya AN SSSR, Irkutsk.

L 16310-65 EWT(1)/T/EWP(k) Pf-1/P1-1

ACCESSION NR: AR5012304

UR/0058/65/000/003/H081/K081

SOURCE: Ref. zh. Fizika, Abs. 3Zh498

20  
6

AUTHOR: Leonova, L. A.; Yakovlev, V. F.

TITLE: Ultrasonic relaxation absorption in mixtures of ethyl acetate and acetic acid

CITED SOURCE: Uch. zap. Irkutskiy gos. ped. in-t, vyp. 21, 1964, 102-109

TOPIC TAGS: ultrasonic relaxation absorption, ultrasonic absorption, liquid ultrasonic absorption

TRANSLATION: Ultrasonic absorption in mixtures of two relaxing liquids (acetic acid and ethyl acetate) was investigated. Graphs showing the relation between  $\alpha/v$  as a function of frequency for this mixture have been obtained and variation of the position of the maximum of this as a function of concentration (3 and 12% acetic acid in ethyl acetate) has been determined. Relaxation frequency  $\nu_f$  was determined from relaxation parameters from test data on absorption. Three points on the experimental curve of  $\alpha/v^2 = f(\nu)$  were selected: two at the ends of the curve and one in the middle. Taking values of  $\alpha/v^2$  corresponding to these points and solving

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L 46310-65

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ACCESSION NR: AR5012304

a system of three equations of the type:  $\alpha/v^2 = B + A/(1 + v^2/v_t^2)$ , relaxation parameters  $A$ ,  $B$  and  $v_t$  were found. The relation of  $\alpha/v$  to frequency for a 3% mixture of acetic acid the maximum of this function increases, and the relaxation frequency shifts to the low frequency side. A table of values of frequency and relaxation time  $\tau$  are presented: for an increase of the concentration of acetic acid  $\tau$  increases. A graph of  $v_t$  as a function of concentration is shown. The reason for the variation of  $v_t$  with concentration in mixtures of acetic acid and in associated liquids is analyzed. It is postulated that an unassociated solvent decreases the activation energy and less time is required for recovery of equilibrium. According to calculations the enthalpy of activation is 8.85 kcal/mol for acetic acid, 7.9 kcal/mol for a mixture of 45.5% acetic acid in ethyl acetate and 3.01 kcal/mol for 8.24% ethyl acetate and acetic acid. The following conclusions are made: 1) results of ultrasonic absorption measurements in a mixture of acetic acid and ethyl acetate in the 1-10 mc range is described well by relaxation theory with one relaxation time; 2) calculation of  $\alpha/v$  as a function of frequency yields a maximum of this function in all investigated mixtures; 3) relaxation frequency is a function of acetic acid concentration. I. Nikolayeva

SUB CODE: GP

ENCL: 00

Card 2/2

LEONOVA, L.A.; MAKSIMOV, Ye.V., kand. geograficheskikh nauk, nauchnyy  
rukovoditel' raboty

Vegetation of the Alpine belt of the Uzungarian Alatau in the  
Biyen and Akbulak basins. Uch. zap. Ped. inst. Gerts. 239:147-  
151 '64. (MIRA 18:3)

L 32990-66 EWT(1)/EWP(e)/EWT(m)/EWP(j)/T/EWP(k) RM/WH

ACC NR: AR6016270

SOURCE CODE: UR/0058/65/000/011/H062/H062

AUTHOR: Leonova, L. A.; Yakovlev, V. F. 52  
B

TITLE: Investigation of the absorption of ultrasound waves in mixtures of ethyl acetate and acetic acid in the frequency interval 1 - 10 Mcs

SOURCE: Ref. zh. Fizika, Abs. 11Zh427

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20, M., 1964, 135-139

TOPIC TAGS: ultrasound absorption, acetic acid, acetate, ~~absorption coefficient~~, acoustic measurement, ACOUSTIC FREQUENCY

ABSTRACT: Measurements were made of the absorption of ultrasound in a mixture of ethyl acetate and acetic acid at frequencies 1 - 10 Mcs. Mixtures of eight concentrations were investigated: 1.13, 3.2, 4.45, 6, 8.24, 10, 12, and 14 wt.% of acetic acid. Starting with the concentration 3.2% and higher, the curves showing the frequency dependence of the coefficient of absorption in one wavelength exhibits a clear maximum. The investigations were made by a pulse method with variable path, length using multiple echo signals, and also by the flux method. To increase the reliability of the results, thorough thermostating was used, the working chamber was insulated, and the planes of the quartz and of the reflector were made strictly parallel. The measurement accuracy, estimated from the experimental scatter of the points, is 4 - 6%. The composition of the mixtures was monitored before the measurement and after the

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I. 32990-66

ACC NR: AR6016270

measurement by determining the density and refractive index. Data are also presented for the frequency dependence of the absorption in a mixture containing 8.24% acetic acid at temperatures, -30, -20, -10, 0, 10, 20, 30, and 40C. I. Chaban. [Translation of abstract]

SUB CODE: 20

Card

2/2 BK

L 45506-66 EWT(m)/EWP(j) RM

ACC NR: AR6013717

SOURCE CODE: UR/0058/65/000/010/H074/H074

AUTHOR: Leonova, L. A.

TITLE: Determination of the relaxation parameters for an 8.24% mixture of acetic acid and ethyl acetate

SOURCE: Ref. zh. Fizika, Abs. 10Zh501

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 95-97

TOPIC TAGS: acetic acid, relaxation process, ultrasound absorption, temperature dependence, activation energy

ABSTRACT: To clarify the relaxation mechanism, an investigation was made of the absorption of ultrasonic waves in a mixture of acetic acid with another relaxing liquid in the frequency interval 2 - 10 Mcs, and also at frequencies 43.7 and 74.2 Mcs at temperatures from -10 to +10C. In the frequency interval 2 - 10 Mcs, at temperatures 40, 30, 20, and 10C, there exists a complete region of relaxation. The experimental results on the absorption of ultrasound are well described by the relaxation theory with a single relaxation time. Using this theory, knowing the classical part of the absorption and the absorption due to the high-frequency relaxation processes, and determining the experimental value of the absorption divided by the square of the frequency, the author has calculated the relaxation absorption and the relaxation frequency. A table of the relaxation parameters is presented. It is proposed that the anomalous absorption of ultrasound in an investigated mixture is connected with

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B

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L 45506-66

ACC NR: AR6013717

disturbance of the equilibrium between the two structure groups. The activation energy calculated on this basis for the mixture turned out to be approximately half as large as for pure acetic acid. L. Strel'tsov. [Translation of abstract]

SUB CODE: 20

hs

Card 2/2

YAKUBOVICH, I.A.; PASKHIN, N.P.; VILYANSKIY, M.P.; BABIN, S.Ye.; SLAVUTSKAYA,  
N.I.; Prinsipialni uchastkiye: PARADNYA, P.I.; RUPNEVSKAYA, M.I.; PURISMAN,  
V.I.; LEONOVA, I.F.; FACHKOV, A.S.; BACHURINA, K.M.; FECHIN, M.I.;  
YUKSINA, L.A.; PONOMAREV, Yu.F.; DYMOVICH, Ye.I.; PIKUSOVA, R.A.

Production and use of synthetic water-soluble polyacrylamide  
adhesives. Fern. i spirt.prom. 30 no.8:32-34 '64.

(MIRA 18:1)

1. Moskovskiy likero-vodochnyy zavod.

AUTHORS: Ratner, A.V. (Candidate of Technical Science) and  
Leonova, L.G. (Engineer) SOV/96-58-9-15/21

TITLE: The Possibility of Using Hard Alloys TsN-2, TsN-3 and  
TK4 for Sealing Surfaces of Steam Fittings working at  
High Temperatures (O vozmozhnosti primeneniya tverdykh  
splavov TsN-2, TsN-3 i TK-4 dlya uplotnitel'nykh  
poverkhnostey parovoy armatury, rabotayushchey pri  
vysokikh temperaturakh)

PERIODICAL: Teploenergetika, 1958, Nr 9, pp 70 - 74 (USSR)

ABSTRACT: The sealing surfaces of high-temperature fittings have to  
meet very strict requirements. The stellite alloys  
(TsN-2) now used are based on cobalt, which is scarce and  
expensive; substitutes are desirable. This article  
describes work done to investigate the possibility of  
using stellite TsN-2, sormite grade TsN-3 and alloy TK-4.  
Details are given of the steels on which these alloys were  
deposited, the thickness of the basic steel and of the  
deposit, the chemical analysis of the electrodes and  
electrode coatings, and the welding conditions. The  
electrode analyses are recorded in Tables 1 and 2. It

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SOV/96-58-9-15/21

The Possibility of using Hard Alloys TsN-2, TsN-3 and TK-4 for Sealing Surfaces of Steam Fittings working at High Temperatures

will be seen that TsN-3 differs from TsN-2 in containing 5-7% Ni and 1.5 - 3% Mn and no cobalt or tungsten. Both alloys contain 28 - 32% chromium. TK-4 is a chrome-nickel steel with a little manganese. Photo-micrographs of the structures of the three alloys are shown in Figs 1, 2 and 3. The structure of alloy TsN-2 after 9,500 hours ageing at 650°C is given in Fig 5 and it will be seen that it has changed somewhat; the carbides have coagulated and the dendritic structure has disappeared. Alloy TsN-3 changed very little after similar ageing, as will be seen from Fig 6. The graph, Fig 7, shows that from 5,000 - 9,500 hours ageing at 650°C the hardness of the two alloys is stable. Table 5 gives the results of scratch tests on alloys TK-4 and TK-4B. Similar data for TsN-2, TsN-3 and TK-4 in the initial conditions and after 5,000 hours ageing are given in Fig 10. The tests show that alloy TsN-2 has better resistance to scoring than alloy TsN-3. Tests made on stop-valves at 14C atmospheres and 570°C with alloys TsN-2 and TsN-3 on perlitic steel showed that TsN-2 was satisfactory whilst TsN-3 was

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The Possibility of using Hard Alloys TsN-2, TsN-3 and TK-4 for  
Sealing Surfaces of Steam Fittings working at High Temperatures

not. The reason may be that, of the two alloys, TsN-3 has a coefficient of expansion nearer to that of the base metal. It is concluded that it is inadvisable to use alloy TsN-3 in high-temperature fittings for steam temperatures greater than 560°C, and that alloys TK-4 and TsN-2 may be used for this purpose. However, if the working surfaces do not slide on one another TsN-3 can be used at temperatures up to 570°C.

There are 10 figures, 5 tables, 4 literature references (3 Soviet, 1 German)

ASSOCIATION: Vsesoyuznyy teplotekhnicheskii institut (All-Union Thermo-Technical Institute)

1. Steam pipes--Test results
2. Pipe fittings--Applications
3. Steel--Properties
4. Electrode coatings--Applications

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87844  
SOV/96-60-1-13/22

18.7100

AUTHORS: Ratner, A. V., Candidate of Technical Sciences and  
Leonova, L. G., Engineer

TITLE: An Investigation of the Behaviour of Nitrided Surfaces  
in Fittings at High Temperatures  $\gamma^1$

PERIODICAL: Teploenergetika, 1960, Nr 1, pp 59-63 (UCSR)

ABSTRACT: Nitriding of pearlitic steels has been widely applied to valve parts operating at steam conditions up to 100 atm and 500°C. However, as some stations are adopting steam temperatures of up to 570 - 580°C, it is advisable to investigate the maximum temperature at which nitriding can be applied to pearlitic steel. The behaviour of a nitrided layer on pearlitic steel 38 KhMYuA was investigated at 550°C, this temperature being chosen because the parts in question operate at temperatures some 20 - 30°C lower than the steam temperature. Brief details are given of the preliminary cleaning procedure and of the heat-treatment applied during the two-stage nitriding process. The samples were aged at a temperature of 550°C for 1700 hours. After 1000 hours at 550°C the microstructure of the basic metal was not appreciably changed, but the

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An Investigation of the Behaviour of Nitrided Surfaces in Fittings at High Temperatures

structure of the nitrided layer had altered and the hardness was reduced. After 1700 hours ageing nitriding had penetrated to a depth of 0.81 mm; the hardness was still further reduced and was still falling after 10000 hours at 550°C. A graph of the change in surface hardness is plotted in Fig 2. The investigation showed that at a temperature of 550°C the nitrided layer is unstable and so nitriding should not be used to strengthen pearlitic steel parts operating at this temperature. Nitrided spindles of steel 38 KhMYuA on high-pressure valves at a power station in the Moscow system were tested for about 15000 hours at a steam temperature of 500°C and then for 2000 hours at a temperature of 525 - 530°C. The distribution of micro-hardness in the depth of the nitrided layer after operation at 525°C is plotted in Fig 3, and the results are discussed. It is concluded that although the micro-hardness of the nitrided layer tends to decrease at temperatures of 500 - 530°C it is still adequate at a depth of 0.2 mm after 2000 hours' operation, which is satisfactory for the parts in question. However, these

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spindles are subject to corrosion which is liable to reduce their reliability, and something needs to be done about this. Spindles of valves for super-high steam conditions are made of steel grade EI-69 nitrided at 540°C for 60 hours. Tests were made on specimens prepared in this way and on a spindle after 4000 hours' operation in a power station. The treatment of the steel before nitriding is described. The temperatures reached during nitriding are such that the layer is somewhat hard and brittle; and the data in Table 2 indicates that the transition from the nitrided layer to the basic metal is discontinuous. The tendency of the nitrided layer to brittle fracture was determined by scratching with a Vickers diamond, and the brittleness of the layer was found to be 2 - 3 units on the standard scale of brittleness. Nitriding of the steel increases its resistance to abrasion, but after the steel had been maintained at a temperature of 550°C for 1000 hours the resistance to abrasion was much reduced. It is concluded that low-temperature nitriding, as described,

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An Investigation of the Behaviour of Nitrided Surfaces in Fittings at High Temperatures

does not give a satisfactory result on austenitic steel grade EI-69. The Leningrad Metal Works uses a three-stage high-temperature nitriding process for austenitic steel grade EI-405 which has been found to give a reasonably uniform and comparatively deep nitrided layer. This steel can be used for valve spindles and other parts for super-high pressure steam. The nitriding process applied to the specimens is described. Measurements of micro-hardness within the depth of the nitrided layer in the initial condition and after ageing at temperatures of 550, 600, and 650°C are plotted in Fig 4. The mechanical properties of the nitrided layer were also assessed by bending tests. The change of surface hardness during ageing is plotted in Fig 5, and after 5000 - 10000 hours at a temperature of 650°C the surface hardness was appreciably reduced. But after ageing for 5000 hours at 550 - 660 - 650°C the nature of the change and the absolute value of the micro-hardness across the thickness of the layer remain similar to the initial condition: 4

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An Investigation of the Behaviour of Nitrided Surfaces in Fittings  
at High Temperatures

the micro-hardness falls only slightly after further holding for 10000 hours. The resistance to corrosion of nitrided steel EI-405 appears to be satisfactory. It is concluded that nitrided spindles of austenitic steel grade EI-405 may be recommended for duty at temperatures of 600°C. There are 5 figures, 3 tables and 6 Soviet references. ✓

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut (All-Union Thermo-technical Institute)

Card 5/5

LEONOVA, L.G., metodist

Answering letters. Inform. biul. VNIKH no.10:14-15 '69.

(MIRA 12:5)

1. Pavil'on "Lesnoye khozyaystvo, lesnaya i derevoobrabatyvayushchaya promyshlennost'" na Vystavke dostizheniy narodnogo khozyaystva SSSR.



RATNER, A.V., kand. tekhn. nauk; MAZEL', R.Ye., kand. tekhn. nauki; LEONOVA,  
L.G., kand. tekhn. nauk; BOROVIN, G.K., inzh.

Design strength of joints welded by high-frequency currents.  
Teploenergetika 12 no.11:67-70 N '65. (MIRA 78:10)

1. Vsesoyuznyy teplotekhnicheskii institut.

S/096/60/000/012/001/008  
E194/E484

AUTHORS: Ratner, A.V., Candidate of Technical Sciences and  
Leonova, L.G., Engineer

TITLE: The Selection of Materials for Wearing Parts of High  
and Super-High Pressure Steam Fittings

PERIODICAL: Teploenergetika, 1960, No. 12, pp. 14-19

TEXT: With the regular use of steam conditions of up to 240 atm and 580°C, and with test turbines in existence for 300 atm and 650°C, it is very important to ensure reliability of wearing parts of fittings such as valve seatings, valve stems and screw threads. The requirements applicable to wearing parts of fittings for steam pressures of 240 to 300 atm are: absence of scoring during sliding with a pressure of at least 8 to 10 kg/mm<sup>2</sup> for sealing surfaces and not less than 4 kg/mm<sup>2</sup> for valve stem surfaces; resistance to corrosion and erosion comparable with that of austenitic chrome nickel steel; hardness not less than 40 R<sub>c</sub> and absence of cracking in service. Currently available materials for fittings do not fully meet the above requirements. Nitriding has its limitations. Surface reinforcement with cobalt stellite is expensive, difficult  
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S/096/60/000/012/001/008  
E194/E484

The Selection of Materials for Wearing Parts of High and Super-High Pressure Steam Fittings

and not entirely satisfactory. In the work described below, the results of scoring tests on the rig of the All-Union Thermo-Technical Institute in steam and air atmospheres were used as criteria of the suitability of various methods of reinforcing parts of fittings. In addition, the hardness and ageing stability of the materials were determined at temperatures up to 650°C and the corrosion and erosion resistance in condensate was assessed at temperatures up to 200°C with a flow of water through a slit. The principal test results are given in Table 1 and lead to the following conclusions: Unreinforced pearlitic steels are not suitable for wearing parts of fittings. Reinforcement of pearlitic steels by nitriding, borating, sulphiding and coating with aluminium (aliting) is not recommended because these procedures do not improve the resistance to erosion. Diffusion chromating is recommended for low alloy pearlitic steels as it greatly increases the resistance of the surface to scoring and also the corrosion and erosion resistance. However, the reinforced layer is thin (15 to 50 microns) and it might easily be

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E194/E484

The Selection of Materials for Wearing Parts of High and Super-High Pressure Steam Fittings

removed in service and, accordingly, this method of reinforcement is recommended only for valve stems of steels grades ЭМ-909 (EI-909) and ЭМ-723 (EI-723) operating at temperatures up to 565 to 580°C. Sulphiding of pearlitic steels is recommended for fitting parts which operate at temperatures up to 200 to 300°C without erosive wear. Sulphiding of chrome steels of types 3X13 (3Kh13) can be applied to parts subject to scoring and erosive wear in cases where, erosion conditions permitting, unreinforced steel grade 3Kh13 would normally be used. For valve stems operating at temperatures not above 510 to 540°C, nitriding may be used if there is no equipment for chromating. However, the nitrided layer has poor corrosion resistance in contact with asbestos and graphite asbestos glands. Electrolytic borating of pearlitic steels greatly increases the resistance to scoring and the hardness. However, the reinforced layer cracks after quite a short time, say 3000 hours at 550°C. Austenitic steels type ЭМ-1Т (EYalT), ЭМ-69 (EI-69), ЭМ-572 (EI-572), ЭМ-405 (EI-405) and ЭМ-612 (EI-612) etc. and also Card 3/5 ✓

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E194/E484

The Selection of Materials for Wearing Parts of High and Super-High Pressure Steam Fittings

titanium have good erosion<sup>d</sup> resistance but poor resistance to scoring and low hardness and are not recommended for valve seatings, valve stems, guide sleeves and other parts, they can only be used when there is no mutual dry friction at pressures above, for austenitic steels, 20 to 30 kg/cm<sup>2</sup> and for titanium, above 100 kg/cm<sup>2</sup>. Austenitic steels type 18/8 may be made hard by nitriding but this reduces their resistance to erosion. Gas borating is a promising method of reinforcing austenitic steels, it increases the hardness and the resistance to scoring. Titanium and its alloys with aluminium may be reinforced by nitriding or oxidizing and though the resistance to erosion is reduced thereby, it remains fairly high and such parts may be used for certain applications up to 300°C. The most promising method of reinforcement for seating surfaces of valves operating at temperatures up to 580°C is the deposition of weld metal type TK-4 (TK-4)<sup>b</sup> (UH-6 (TsN-6)<sup>b</sup>). For temperatures up to 650°C, use may be made of alloys similar to TsN-6 but with a higher content of Card 4/5 ✓

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The Selection of Materials for Wearing Parts of High and Super-High Pressure Steam Fittings

silicon (alloys УН-7 (TsN-7) and УН-8 (TsN-8))<sup>18</sup> additionally alloyed with molybdenum (7 to 10%) and Cobalt stellite alloys based on chromium carbide also gave satisfactory results at these temperatures. On the basis of the work done it is recommended to construct the wearing parts of high and super-high pressure steam fittings with the materials and methods of reinforcement given in Table 2. As a material for valve-sleeves, bronze should be replaced by steel 38 XHMA (38KhMYuA)<sup>18</sup> or ЭЖ-3 (EZh-3)<sup>18</sup> in the sulphided condition. There are 2 tables and 10 Soviet references. ✓

ASSOCIATION: Vsesoyuznyy teplotekhnicheskiy institut  
(All-Union Thermo-Technical Institute)

Card 5/5

RATNER, A.V., kand.tekhn.nauk; LEONOVA, L.G., inzh.

Ability of corrosion-resisting feed pump materials to  
withstand scratching. Elek.sta. 31 no.4:30-32

Ap '60. (MIRA 13:7)

(Pumping machinery)

RATNER, A.V., kand.tekhn.nauk; LEONOVA, L.G., inzh.

Possibility of applying the sulfide treatment to fittings.  
Teploenergetika 8 no.11:51-52 N '61. (MIRA 14:10)

1. Vsesoyuznyy teplotekhnicheskiiy institut.  
(Steel) (Surface hardening)



LEONOVA, L.G., starshiy inzh.-metodist.

Multipurpose machines in logging camps. Inform. biul. VNIKH no.11:  
8-9 N '63 (MIRA 18:1)

1. Pavil'on "Lesnoye khozyaystvo, lesnaya i derevoobrabatyvaya-  
shchaya promyshlennost' " na Vystavke dostizheniy narodnogo  
khozyaystva.

LEONOVA, L. I.

157. LAMP KEROSENE FROM THIMAZI PETROLEUM FROM THE DEMYANIN.  
Leonova, L.I. and Ivchenko, E.O. (Dov. Neft. Tekh. Neftepereprab. (Hans  
Petrol. Techn., Treatment, Moscow), 1956, (1), 15, 16; abstr. in Ref. Zh. Khim.  
(Ref. J. Chem., Moscow), 1956, (23), 75937). Kerosine fractions were  
treated with 56% sulphuric acid at 24, 55 and -12°C in contraflow apparatus in  
three stages, with an acid consumption of 3.3 to 10% by volume, in order to  
reduce the concentration of sulphur compounds and increase the height of the  
tongue of smoke-free flame. Treatment at 24°C was most successful and proved  
that it is possible to get lamp kerosine from this crude. Data are given  
on the concentrations of different classes of sulphur compounds in the  
several kerosine fractions.

KOZLOVSKAYA, V.P.; VASIL'YEVA, N.I.; NEPOMNYASHCHAYA, E.Z.; Primali  
uchastiye: LEONOVA, L.I.; MOLOSTOVA, I.I.; RUBLEVA, M.K.

Methods of eliminating the macrocrystalline rim in extruded  
products made of aluminum alloys. Alum. splavy no.3:251-262  
'64. (MIRA 17:6)

VOZNEVICH, A.A.; LEONOVA, L.K.

Some data on the effect of vertebrate hormones on the neuro-  
secretory system of insects. Dokl. AN SSSR 157 no.1:236-239  
M. 1964 (MIRA 17:8)

1. Laboratoriya eksperimental'noy endokrinologii AMN SSSR,  
Voronezh. Predstavleno akademikom N.N. Anichkovym.

VOYTKEVICH, A.A.; LEONOVA, L.K.; BUKHONOVA, A.I.

Effect of adrenalectomy and hormone therapy on the neurosecretory-  
hypophyseal system. Probl. endok. i gorm. 11 no.4:62-68 J1-Ag '68.  
(MIRA 18:11)

1. Laboratoriya eksperimental'noy endokrinologii AMN SSSR pri  
Voronezhskom meditsinskom institute.

LEONOVA, L. L.

Distribution of uranium in granitoid complex of the Sysanyr batholith (Central Tien Shan). L. V. Fanson, B. I. Zlobin, and L. L. Leonova (V. I. Vernadskii Inst. Geochem. and Anal. Chem., Acad. Sci. U.S.S.R., Moscow). *Geokhimiya* 1956, No. 7, 11-19. — Report of detn. of U contents in the Sysanyr batholith. U was detd. chemically by luminescent discharge. Accuracy of the detn. was  $\pm 20\%$ . A total of about 300 samples was analyzed. Av. U contents in the chief phases of the intrusion and in the group of vein haptites, which are the most acid members of the series, increase more than 4 times, from  $1.9 \times 10^{-4}\%$  in the diorites of the first phase of intrusion to  $7.6 \times 10^{-4}\%$  in the haptites. The U content of the Sysanyr batholith may be assumed to be  $3.5 \times 10^{-4}\%$ . Gladys S. Macy

Geo

LEONOVA, L. L.

7  
 ✓ Luminescence method of determination of small quantities of uranium in igneous rocks. L. L. Leonova (V. I. Vernadskii Inst. Geochem. and Anal. Chem. Acad. Sci. U.S.S.R., Moscow). Geokhimiya 1956, No. 8, 47-54. Methods are reviewed of detg. small quantities of U. A rapid method of detn. of U in small amts. is described. In this method the rock is decompd. by a mixt. of HCl and H<sub>2</sub>O<sub>2</sub>, the U is pptd. as U(HPO<sub>4</sub>)<sub>2</sub>·nH<sub>2</sub>O on a zircon carrier, and the U is detd. by the luminescence method. The method is useful when a large no. of analyses are to be made. Sensitivity of the method is  $1 \times 10^{-4}$  %, and accuracy of detn. is  $\pm 20$ %. 17 references. Gladys S. Macy

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dm fra amf

3(8)

AUTHORS:

Leonova, L.L., Tauson, L.V.

SOV/7-58-7-5/13

TITLE:

The Distribution of Uranium in the Minerals of Caledonian  
Granitoids of the Susamyr Batholith (Central Tian-Shan)  
(Raspredeleniye urana po mineralam kaledonskikh granitoidov  
Susamyrskogo batolita (Tsentral'nyy Tyan'-Shan'))

PERIODICAL:

Geokhimiya, 1958, Nr 7, pp 650 - 659 (USSR)

ABSTRACT:

The authors determined the content of uranium of the Susamyr batholith in various intrusion phases (table 1). The mineralogic compound was measured in large thin sections, the uranium content was proved by the luminiscence analysis of micro-weighing of the mineral with the fluorometer FM-42 (table 2). Uranium is to be found in every mineral: about 40 - 50 % in the rock forming, about 50 - 60 % in the accessory ones. By lying out with a 5 % solution of ammonium carbonate and with a 0.5 % solution of hydrochloric acid it was proved that uranium probably is contained in quartz and feldspar in the intercrystal space, as it can be readily lyed out. In return, the high content of uranium in biotite is connected with the mineral itself. Of the accessory minerals especially zircon and orthite contain uranium, sphene in less degree. The radio-graphic analysis also was applied besides the methods mentioned

Card 1/2



The Distribution of Uranium in the Minerals of Caledonian Granitoids of the Susamyr Batholith (Central Tian-Shan) SOV/7-58-7-5/13

above (Fig 1 to 4); photographic plates of the type AII NIKFI were used. The distribution of uranium in the different phases proves that uranium is accumulated in the remaining acid solutions; of the accessory minerals there is one in every phase acting as concentrator of uranium. There are 4 figures, 3 tables, and 12 references, 8 of which are Soviet.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im.V.I.Vernadskogo AN SSSR, Moskva (Institute of Geochemistry and Analytical Chemistry imeni V.I.Vernadskiy, AS USSR, Moscow)

SUBMITTED: August 19, 1958

Card 2/2

AKHMANOVA, M.V.; LEONOVA, L.L.;

Investigating the metamictization of zircons by the use of infrared absorption spectra. Geokhimiia no.5:401-414 '61. (MIRA 14:5)

I. V. I. Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., Moscow.  
(Zircon) (Metamict state)  
(Spectrum, Infrared)

DMITRIYEV, L.V.; LEONOVA, L.L.

Uranium and thorium in granitoids of the Kaibskiy massif  
(central Kazakhstan). Geokhimiia no.8:665-672 '62.  
(MIRA 15:9)

1. Vernadskiy Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences, U.S.S.R., Moscow.  
(Kazakhstan--Uranium) (Kazakhstan--Thorium)

AKHMANOVA, M.V.; LEONOVA, L.L.

Study of the metamict disintegration of silicates using infrared  
spectroscopy. Trudy Min. muz. no.14:3-31 '63. (MIRA 16:10)

(Silicates--Absorption spectra)

LEONOVA, L.L.

Uranium and thorium in the hydrothermally altered rocks of  
the Kzyl-Ompul (northern Tien Shan). Geokhimiia no.6:552-  
556 Je '63. (MIRA 16:8)

I. V.I. Vernadsky Institute of Geochemistry and Analytical  
Chemistry, Academy of Sciences, U.S.S.R., Moscow.

KLASSOVA, N.S.; LEONOVA, L.L.

Photometric determination of titanium in microgram portions of minerals and rocks by means of 2,7-dichlorochromotropic acid. Zhur. anal. khim. 19 no. 1:131-132 '64. (MIRA 17:5)

1. Institut geokhimii i analiticheskoy khimii imeni Vernadskogo AN SSSR, Moskva.

GHEBARG, T.V.; SEMENOV, Y.M.; LENNOVA, L.L.; SIDORENKO, G.A.; POBATOEV, V.D.

Crystalline granite high in alkali content in General Refs. Study  
Min. muz. no. 10.5/472 1951. (MIRA 1843)

LEONOVA, L.L.; GAVRILIN, R.D.; BAGREYEV, V.V.

Behavior of uranium and thorium in the intrusive complex of increased alkalinity as revealed by the Kzyl-Ompul Massif in the northern Tien-Shan. Geokhimiia no.12:1053-1058 '61. (MIRA 15:3)

I. Vernadskiy Institut of Geochemistry and Analytical Chemistry,  
Academy of Sciences U.S.S.R., Moscow.  
(Tien-Shan--Uranium) (Tien-Shan--Thorium)



LEONOVA, L. E.

"Investigating the Mechanism of Phase Coagulation of Metallic Alloys." (Cand  
Tech Sci, Leningrad Polytechnic Inst, Leningrad, 1954. (RZhKhim, No 23, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher  
Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

L 9206-66 EWT(1)/EEC(k)-2 IJP(c)

ACC NR: AR6000101

SOURCE CODE: UR/0058/65/000/008/A015/A016

SOURCE: Ref. zh. Fizika, Abs. 8A145

AUTHORS: Belugin, A. F.; Lecnova, L. M.; Osipova, V. N.; Smirnova, I. A.

ORG: none

TITLE: The SPV-1 spectrovisor

CITED SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 2, vyp. 1, 1964, 635-642

TOPIC TAGS: spectrophotometry, spectrum analysis, <sup>44,55</sup>continuous spectrum recording.

TRANSLATION: An automatic high-speed spectrophotometer-spectrovisor SPV-1 was developed, intended for the investigation of the intermediate products of substances that change during the course of time. The working range of the instrument is 220--1000 nm. The recorder employed was a cathode-ray tube. The recording rate can be set equal to 15 or 7.5 nm/sec, depending on the complexity of the investigated spectrum. Provision is made in the spectrovisor for connecting an EPP-09 automatic recorder, in which case the spectrum-registration speed is 4 nm/sec.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 000/ OTH REF: 000

Card 1/1 rds

2

LEONOVA, L. N. Cand Med Sci -- (diss) "Clinical anatomical discrepancies  
in cases of <sup>acute</sup> appendicitis." Mos, 1958. 7 pp (Min of Health RSFSR. Mos Med  
Stomatological Inst). (KL, 13-58, 100)

LEONOVA, L.N.

Intravenous penicillin injections in septic suppurative processes in the lungs and pleurae. Vrach.delo no.8:805-807 Ag '58 (MIRA 11:8)

1. Kafedra obshchey khirurgii (zav. -zaslyzhennyi deyatel' nauki prof. B.E. Linberg) Moskovskogo meditsinskogo stomatologicheskogo instituta.

(LUNGS--ABSCESS)  
(PENICILLIN)

LEONOVA, L.N., mladshiy nauchnyy sotrudnik

~~Periarteritis nodosa~~ in the appendix. Vest. khir. 80 no.2:117-119  
F '58. (MIRA 11:3)

1. Iz 1-go khirurgicheskogo otdeleniya (zav.-prof. B.E.Linberg)  
Moskovskogo oblastnogo nauchno-issledovatel'skogo instituta im.  
M.F. Vladimirovskogo (dir.-kand.med.nauk, P.M.Leonenko)  
(APPENDIX, blood supply  
periarteritis nodosa (Rus)  
(PERIARTERITIS NODOSA, case reports  
appendix (Rus)

LEONOVA, L.N., mladshiy nauchnyy sotrudnik

Clinical and anatomical discrepancies in acute appendicitis. Vrach.  
delo no.5:533 My '57. (MLRA 10:8)

1. Pervaya khirurgicheskaya klinika (rukovoditel' - zasl. deyatel'  
nauki, prof. B.E.Linberg) i patologoanatomicheskiy otdel (rukovodi-  
tel' - prof. S.B.Vaynberg) Moskovskogo oblastnogo nauchno-issledo-  
vatel'skogo klinicheskogo instituta  
(APPENDICITIS)

LEONOVA, L.N. kand.med.nauk (Moskva, B.Nalesnyy pereulok, 1/10, kv.3)

Clinical aspects of acute appendicitis in the absence of pathohistological changes in the appendix. Vest.khir. 83 no.12:72-77 D '59.  
(MIRA 13:5)

1. Iz kliniki obshchey khirurgii (zav. - prof. B.E. Linberg) Moskovskogo meditsinskogo stomatologicheskogo instituta.  
(APPENDICITIS pathology)

LINBERG, B.Ye.; LEONOVA, L.N.

Acute suppurative pleurisy of diverse etiology. Khirurgia 36  
no. 5:5-10 My '60. (MIRA 14:1)

(PLEURISY)



LEONOVA, L.N., kand.med.nauk; ROZENSHTAUKH, L.S., doktor med.nauk;  
ODENKOVA, V.A., kand.med.nauk

Clinical aspects, diagnosis, and treatment of tumors of the  
thymus. Khirurgiya 36 no.8:20-25 Ag '60. (MIRA 13:11)

1. Iz kafedry obshchey khirurgii (zav. - zasluzhennyy deyatel'  
nauki prof. B.E. Linberg) Moskovskogo meditsinskogo stomatolo-  
gicheskogo instituta, 1-y khirurgicheskoy kliniki (zav. - dots.  
N.I. Makhov) Moskovskogo oblastnogo nauchno-issledovatel'skogo  
klinicheskogo instituta, kafedry rentgenologii (zav. - prof.  
Yu.N. Sokolov) Tsentral'nogo instituta usovershenstvovaniya vra-  
chey, patologoanatomicheskogo otdela (zav. - prof. S.B. Vaynberg  
[deceased]) Moskovskogo oblastnogo nauchno-issledovatel'skogo  
klinicheskogo instituta.

(THYMUS GLAND—TUMORS)

PETRISHINA, O.L. (Moskva); KOVALEVA, A.F. (Moskva); LEONOVA, M.A. (Moskva)

Conducting school excursions to industries for the study of  
industrial hygiene and safety. Est.v shkole no.3:57-61 My-Je '56.  
(MLBA 9:8)

(School excursions) (Industrial hygiene) (Industrial safety)

*Leonova, M.A.*  
LEONOVA, M.A.; LUR'YE, M.S.

"Polytechnical training in the biology course." Reviewed by M.A. Leonova and M.S. Lur'e. Biol. v shkole no.6:85-86 N-D '57.

(MIRA 10:12)

1. Uchitel'nitsy shkol No.101 i 133, Moskva.  
(Biology--Study and teaching)

LEONOVA, M.A.

Study of the seasonal phenomena in nature. Biol. v shkole no.4:  
62-65 JI-Ag '63. (MIRA 16:9)

1. Odinnadtsatiletnyaya shkola No.101, Moskva.  
(Nature study)

LEONOVA, M. I.

"Flowering and Non-Flowering Plants of Kok-Sagyz (Taraxacum Kok-Saghyz Rod.)  
Compared with Reference to Their Industrial Productivity," Dokl. AN SSSR, 28, No.3,  
1940.

Lab. Plant Physiology, All-Union Inst. Rubber Plants

LEONOVA, N.; LOBACHEV, M., instruktor proizvodstvennogo obucheniya

Construction workers should master a second trade. Prof.-tekh.  
obr. 18 no. 7:29-30 JI '61. (MIRA 14:7)

1. Zamestitel' direktora uchebnogo kombinata upravleniya  
kapital'nogo remonta zhilykh domov Mosgorispolkoma (for Leonova).  
(Building trades--Study and teaching)

LECHOVA, N. A.

42676. MAKSIONOVICH, M. I., LECHOVA, N. A. i KUE'MINA, T. S. K Etiologii Grippoznoy Vspyshki 1946 G. V Tashkente. Autorezerat. Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, 1948, No 12, s. 76-77.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

*LEONOVA, N.A.*

PADERNO, I.P., kandidat tekhnicheskikh nauk; LEONOVA, N.A., inzhener.

Shall automatic telephone systems for station communication  
with selector call device. Avtom. elem. i svyaz' no.7:15-18

Jl '57.

(MLRA 10:8)

(Railroads--Stations)  
(Telephone, Automatic)



LEONOVA, N.A.

20-1-29/54

AUTHOR  
TITLE

NAMETKIN, N.S., TOFCHIYEV, A. V., Academician  
CHAN-LI Gu and LEONOVA N.A.,  
The Production and Properties of Mono-, Di- and Tri-p-Tolylalkylsilanes.  
(Sintez i svoystva mono-, di- i tri-p-tolilalkilsilanov -Russian)  
Doklady Akad.Nauk SSSR, 1957, Vol 115, Nr 1, pp 107 - 109 (U.S.S.R.)

PERIODICAL  
ABSTRACT

In recent years a great number of papers has been published in which the production methods and properties of silicon-hydrocarbons of various structure were described. The derivatives of these substances which contain functional groups in the organic radical have hitherto hardly been studied at all. They may be of theoretical as well as of practical interest. The authors thought of interest to produce silicon hydrocarbons with p-tolyl radicals and to study the production methods on their basis of compounds with functional groups in the organic radical. In the present paper mono-, di- and tri-p-tolylalkyl derivatives of silicon are described the properties of which are given in tables 1 and 2. p-tolyl-chloro(ethoxy)silanes, p-tolyltrichlorosilane and di-p-tolyl-dichlorosilane were produced from tetrachlorosilane and p-tolylmagnesiumbromide. Their properties agree with published data. p-tolyltriethoxy- and di-, as well as tri-, p-tolyl-diethoxysilane were obtained from tetraethoxysilane and p-tolylmagnesiumbromide. p-tolyl-propyl-ethoxysilane was isolated from the reaction products of the synthesis of di-tolyl-di-propylsilane. P-tolyl-di-isobutyl-ethoxy-silane was obtained from the interaction of isobutyl-lithium with p-tolyl-triethoxysilane.

Card 1/2

The Production and Properties of Mono-, Di- and Tri-p-Tolylalkylsilanes. 20-1-29/54

Mono-, di- and tri-p-tolylalkylsilanes. Production methods are described for: p-tolyl-trimethyl- and ethylsilane, p-tolyl-tripropyl- and -butylsilane, di-p-tolyl-dimethyl- and diethylsilane, di-p-tolyl-dipropyl- and dibutylsilane, di-p-tolyl-di-isobutyl- and -isoamylsilane, tri-p-tolyl-methyl- and ethylsilane, tri-p-tolyl-propyl- and -butylsilane, tri-p-isobutyl- and -isoamylsilane. All three tri-p-tolylalkylsilanes were recrystallized from ethanol.

(2 tables, 3 Slavic references)

ASSOCIATION  
PRESENTED BY  
SUBMITTED  
AVAILABLE  
Card 2/2

Moscow Petroleum Institute "I.M.Gubkin" (Moskovskiy neftyanoy institut im. I.M. Gubkina)  
25.3.1957  
Library of Congress.

20-118-4-29/61

**AUTHORS:** Topchiyev, A. V., Member of the Academy, Nametkin,  
N. S., Gu Chan-Li, Leonova, N. A.

**TITLE:** Production and Properties of Phenyl-, 3,4-Xylyl- and 4-Isopropyl-  
phenylalkylsilanes (Sintez i svoystva fenil-, 3,4-ksilil- i 4-  
izopropilfenilalkilsilanov)

**PERIODICAL:** Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 4, pp. 731-734(USSR)

**ABSTRACT:** More and more attention has been paid in the last years to the  
synthesis and the study of the physical, chemical and technical  
properties of silicon-hydrocarbons of different structure. Aryl-  
alkyl-silanes in which the aryl- and alkyl radicals are bound to  
the silicon atom are especially interesting. In a previous report  
of the authors (ref. 1) the mono-, di-, and tri-p-tolyl-alkyl-  
silanes are described. In the present paper the properties and the  
production of the phenyl- alkyl-silanes, 3,4-xylyl-alkyl-silanes,  
and of the 4-isopropyl-phenyl-alkyl-silanes are discussed. The  
properties are not yet described of the 3,4-xylyl-alkyl-silanes only  
one, the 3,4-xylyl-trimethyl-silane (ref. 2) is known. The phenyl-  
alkyl-silanes were synthesized in order to compare their physical  
and chemical properties to those of other aryl-alkyl-silanes.

Card 1/2

FAYNGOL'D, S.G.; LEONOVA, N.A.

Determining nitrogen oxides in denitrated sulfuric acid. *Koks*  
i khim. no.7:43-45 '63. (MIRA 16:8)

1. Yasinovskiy koksokhimicheskiy zavod.  
(Sulfuric acid) (Nitrogen oxides)

FAYNGOL'D, S.G.; LEONOVA, N.A.

New method for the denitration of sulfuric acid. Koks i khim. no.11:  
44-46 '63. (MIRA 16:12)

1. Yasinovskiy koksokhimicheskiy zavod.