

*Lenshina, N. Ya.*

AUTHORS: Yermolenko, I. N., Zhbakov, R. G., 62-2-27/28  
Ivanov, V. I., Lenshina, N. Ya., Ivanova, V. S.,

TITLE: The Investigation of Some Oxidation Reactions of Cellulose by  
the Method of Infrared Spectroscopy (Issledovaniye nekotorykh  
okislitel'nykh reaktsiy tsellyulozy metodom infrakrasnoy  
spektroskopii)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958, Nr 2,  
pp. 249-251 (USSR)

ABSTRACT: In the present paper the authors use the hitherto known methods  
and investigation results in the field of adsorption spectro-  
scopy for the purpose of finding out the directions of reaction  
with subsequent formation of functional groups in the compli-  
cated structure of the respective oxidation products of cellu-  
lose. The modifications in the infrared spectra connected with  
the formation of carboxyl- and carboxyl-groups have hitherto  
been determined. The presence of carboxyl groups was judged ac-  
cording to the adsorption band at  $5,57\mu$  (oscillation C=O). This  
method is, however, not reliable. It is well-known that the ad-  
sorption band at  $7\mu$  depends exclusively on the velocity of de-

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The Investigation of Some Oxidation Reactions of Cellulose by the Method of Infrared Spectroscopy 62-2-27/28

formation of the  $\text{CH}_2$ -groups. Consequently the oxidation-transformation of the carbon atom can be estimated according to the modification of the intensity of adsorption (according to the wave length). Monocarboxyl cellulose contains so-called loss-carboxyls. The band at  $11\mu$  is not connected with carboxyl groups. The authors also investigated the oxidation of  $\text{C}_6$  with the action of  $\text{N}_2\text{O}_4$  in the elementary member of the macromolecule of cellulose in dependence on the general accumulation of carboxyls (see figure 4). The adsorption band at  $11\mu$  characterizes the occurrence of aldehyde-groups in dialdehyde cellulose in a bound form. There are 4 figures, and 10 references, 6 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry imeni N.D. Zelinskiy AN USSR (Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: March 7, 1957

AVAILABLE: Library of Congress  
Card 2/2

1. Cellulose-Oxidation reduction reactions 2. Infrared spectroscopy-Applications

5(4), 5(3)  
AUTHORS:

SOV/62-58-12-19/22

Yermolenko, I. N., Zhbakov, R. G., Lenshina, N. Ya., Ivanova,  
V. S., Ivanov, V. I.

TITLE:

Spectroscopic Investigation of the Consumption of Hydroxyl  
Groups of Cellulose on the Action of Nitrogen Dioxide  
(Spektroskopicheskoye issledovaniye raskhoda gidroksil'nykh  
grupp tsellyulozy pri deystvii na neye dvaokisi azota)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,  
1958, Nr 12, pp 1495-1496 (USSR)

ABSTRACT:

In this brief report the authors mention the transformations of hydroxyl groups of cellulose in their oxidation by means of nitrogen vapors. Cotton cellulose was oxidized under static conditions (Ref 5). The change of the hydroxyl groups during the course of reaction was determined according to the spectroscopic method in the infrared range. The absorption spectra were taken according to the earlier described method (Ref 6) by means of the infrared spectrograph IKS-11 with an NaCl prism. It was found that the reaction takes a quasihomogeneous course. In the first stage mainly those products are accumulated which form due to the oxidation of primary hydroxyl groups and

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Spectroscopic Investigation of the Consumption of Hydroxyl Groups of Cellulose  
on the Action of Nitrogen Dioxide

SOV/62-58-12-19/22

in the second stage those products that form due to the oxidation of primary and secondary hydroxyl groups. The results obtained agree with the other papers (Refs 1,4). There are 2 figures and 7 references, 6 of which are Soviet.

ASSOCIATION:

Institut organicheskoy khimii imeni N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy Academy of Sciences, USSR) Institut fiziki i matematiki Akademii nauk BSSR (Institute of Physics and Mathematics, Academy of Sciences, Belorussian SSR)

SUBMITTED:

June 2, 1958

Card 2/2

5(3)

AUTHORS:

Lenshina, N. Ya., Ivanova, V. S.,  
Ivanov, V. I.

SOV/62-59-3-32/37

TITLE:

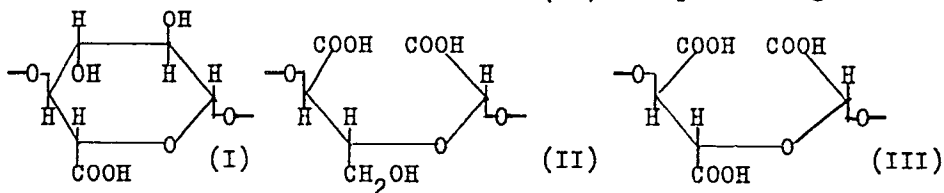
On the Production of New Carboxyl Derivatives of Cellulose  
(O poluchenii novykh karboksil'nykh proizvodnykh tsellyulozy)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,  
1959, Nr 3, p 559 (USSR)

ABSTRACT:

In the present letter to the editor the authors write: carboxy-cellulose preparations were obtained by combined oxidation of cotton cellulose. They contained up to 50.8 % of carboxyl groups with respect to oxycellulose. In the determination of the position of the carboxyl groups in the glucose group structures (I), (II), and (III) were observed in the corresponding product. In this connection structure (II) was prevailing.



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On the Production of New Carboxyl Derivatives of  
Cellulose

SOV/62-59-3-32/37

The products obtained retain their fibrous structure after washing and drying. In comparison to dicarboxycellulose they are less hygroscopic. They have a high exchangeability up to 11.4 mg equivalents/g. The ion-exchange units of oxycelluloses which have been known up to now have an exchangeability of ~5 mg equivalents/g. The carboxycelluloses obtained are easily soluble in aqueous solutions of alkali.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: December 13, 1958

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LENSHINA, N.Y.A.

PHASE I BOOK EXPLOITATION SOV/988

International symposium on macromolecular chemistry. Moscow, 1960.

Mezhdunarodny simpozium po makromolekulyarnoy khimii SSSR, Moskva, 14-18 Iyuna, 1960 g. doklady i svyazferaty. Sektzia III (Informatsionny Simpozium on Macromolecular Chemistry Held in Moscow, June 14-18, 1960: Papers and Summaries) Section III. (Moscow, Izd-vo AN SSSR, 1960) 469 p. 55,000 copies printed.

Tech. Ed.: P. S. Kashina.

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

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high molecular compounds.

COVERAGE: This is section III of a multivolume work containing papers on macromolecular chemistry. The articles in the book deal with the kinetics of polymerization reactions, the synthesis of special-purpose polymers, e.g., ion exchange polymers, semiconductor materials, etc., methods of catalytic polymerization reactions, properties and chemical interactions of high molecular materials, and the effects of various factors on polymerization and the degradation of high molecular compounds. No personalities are mentioned. References given follow the articles.

Ushakov, Kh. V., U. N. Masnyev, and R. S. Tilyayev (USSR). The Radiation Method of Copolymerizing Acrylonitrile with Polystyrene and Perchlorovinyl	170
Rafikov, S. R., G. N. Shelokova, I. V. Zhuravleva, and P. N. Gribova (USSR). Oxymethylation of Carbochain and Heterochain Polymers	184
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Autorakiy, I. A., Z. I. Smalov, and V. M. Bystacy (USSR). The Interaction of Carboxyl-Containing Butadiene-Styrene Rubbers with Polyamides and ε-Caprolactam	224
Kolmanikov, G. S., and Ts'eng Han-ming (USSR). Synthesis of Grafts of Free Radicals on Crosslinking in Polyethylene	230
Mladenov, I., X. A. Tchorakiy, and B. A. Dogaikin (USSR). On the Wastefulness of Carboxyl-Containing Butadiene-Styrene Rubbers and Their Mixtures with ε-Caprolactam Under the Action of Gamma Radiation	243
Rogovin, Z. A., V. A. Derevyatkaya, Sun T'ung, Chang Wei-Kang, and L. S. Gilibayev (USSR). Synthesis of New Cellulose Derivatives and Other Polysaccharides	302
Yermolenko, I. N., and P. N. Kaputskiy (USSR). Initiation of the Controlled Synthesis of Modified Celluloses with Oxides of Nitrogen	310
Lenshin, V. I., M. Ya. Lenshina, V. S. Ivanova (USSR). Occasional Transformations in Chains of Cellulose Molecules	321
Berlin, A. A., Ye. A. Penakaya, and G. I. Volkova (USSR). Mechanochemical Transformations and Block Copolymerization During the Freezing of Starch Solutions	334
Umanov, Kh. U., B. I. Akhmedshayev, and H. Azizov (USSR). Modification of the Properties of Cellulose by Grafting	344

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IVANOV, V.I.; LENSHINA, N.Ya.; IVANOVA, V.S.

Effect of the pyran ring on the acid hydrolysis of cellulose.

Izv.AN SSSR.Otd.khim.nauk no.6:1136-1138 J1 '60.

(MIRA 13:7)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo Akademii nauk SSSR.

(Pyran) (Cellulose) (Hydrolysis)



LENSHINA, N.Y.; IVANOVA, V.S.; IVANOV, V.I.

Oxidation of dicarboxycellulose with nitrogen oxides. Izv. AN SSSR  
Otd. khim. nauk no.10:1894-1896 O '60. (MIRA 13:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk  
SSSR.

(Nitrogen oxide)

(Cellulose)

IVANOV, V.I.; LENSHINA, N.Ya.

Use of modified cellulose in analytical chemistry. Trudy kom.  
anal. khim. 11:418-421 '60. (MIRA 13:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.  
(Cellulose) (Ion exchange)

IVANOV, V.I.; YERMOLENKO, I.N.; GUSEV, S.S.; LENSHINA, N.Ya.; IVANOVA, V.S.

Study of dialdehyde celluloses by means of infrared spectra. Izv.  
AN SSSR.Otd. khim. nauk no.12:2249-2252 D '60. (MIRA 13:12)

1. Institut organicheskoy khimii im.N.D.Zelinskogo AN SSSR.  
(Cellulose--Spectra)

LENSHINA, N. YA., CAND CHEM SCI, "CHEMICAL CONVERSIONS  
OF MODIFIED CELLULOSES UNDER <sup>the</sup> ACTION OF NITRIC OXIDES AND  
CERTAIN ~~OF THEIR~~ <sup>of them</sup> PROPERTIES." MOSCOW, 1961. (ACAD SCI  
USSR, INST OF ORG CHEM. IM N. D. ZELINSKIY). (KL, 3-61,  
201).

LENSHINA, N.Ya.; IVANOVA, V.S.; IVANOV, V.I.

Oxidation of dihydroxycellulose by nitrogen oxides. Izv. AN SSSR Otd.  
khim.nauk no.3:519-521 Mr '61. (MIRA 14:4)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.  
(Cellulose) (Nitrogen oxide)

LENSHINA, N.Ya.; DENIKEYEVA, M.F.; IVANOV, V.I.

Oxidation of low molecular weight hydroxyl-containing compounds  
with nitrogen oxides. Izv.AN SSSR.Otd.khim.nauk no.10:1899-1900  
0 '61. (MIRA 14:10)

1. Institut organicheskoy khimii im.N.D.Zelinskogo AN SSSR.  
(Hydroxy compounds) (Oxidation)

IVANOV, V.I.; KUZNETSOVA, Z.I.; LENSHINA, N.Ya.; IVANOVA, V.S.

Structure of cellulose chain molecules. Trudy LTA  
no.91:33-37 '60. (MIRA 15:12)

1. Institut organicheskoy khimii AN SSSR.  
(Cellulose) (Molecules)

LEONKAYA, G. N., and BEISKOVA, I. I.

Variants of *B. pestis*. *Vest. Microbiol., Epidemiol. & Parasitol.* 6:270-9, 1929.



LENSHAYA, G. <sup>[N.]</sup> and BEESONOVA, A. A.

Dissociation of *B. pestis*. Zentrbl. f. Bakt. I Abt. Orig. 119:430-3. '30-31.

LENSKIYA, G. N., KOLICHTOVA, P. F., KOSLOVA, O. N., SEMENOVA, A. A.

Report of some facts of spontaneous transition of *B. pestis* into *B. pseudotuberculosis rodentium*. Vest. Microbiol., Epidemiol. & Parasitol. 15, No 2, '36.

ZHUKOV-VEREZHNIKOV, N.N.; LENSKAYA, G.N.

Forty years of work of Soviet scientists on the problems of plague.  
Zhur.mikrobiol.epid. i immun. 28 no.11:84-91 N '57. (MIRA 11:3)  
(PLAGUE,  
research in Russia (Rus)

LENSKAYA, G. N.

LENSKAYA, G. N.

"The questions of the variability of the plague microbe pertaining to the study of the plague with a natural focus." p. 245

Desyatoye Soveshchaniye po parazitologicheskim problemam i prirodnoochagovym boleznyam. 22-29 Oktyabrya 1959 g. (Tenth Conference on Parasitological Problems and Diseases with Natural Foci 22-29 October 1959), Moscow-Leningrad, 1959, Academy of Medical Sciences USSR and Academy of Sciences USSR, No. 1 254pp.

"Microbe" Inst., Saratov

NIKOLAYEV, N.I., otv. red.; LENSKAYA, G.N., zam. otv. red.; PASTUKHOV, B.N., zam. otv. red.; FENYUK, B.K., zam. otv. red.; ISHUNINA, T.I., red.; AKIYEV, A.K., red.; DCMARADSKIY, I.V., red.; DROZHEVKINA, M.S., red.; ZHOVTYY, I.F., red.; KOROBKOVA, Ye.I., red.; KRAMINSKIY, V.A., red.; KRATINOV, A.G., red.; LEVI, M.I., red.; LOBANOV, V.N., red.; MIRONOV, N.P., red.; PETROV, V.S., red.; PLANKINA, Z.A., red.; PYPINA, I.M., red.; SMIRNOV, S.M., red.; TER-VARTANOV, V.N., red.; TIFLOV, V.Ye., red.; FEDOROV, V.N., red.; PARNES, Ya.A., red.; PRONINA, N.D., tekhn. red.

[Especially dangerous natural focus infections] Osobo opasnye i prirodnoochagovye infektsii; sbornik nauchnykh rabot protivochumnykh uchrezhdenii. Moskva, Medgiz, 1962. 271 p.

(MIRA 16:5)

(COMMUNICABLE DISEASES)

NIKOLAYEV, N.I., otv. red. (Saratov); LENSKAYA, G.N., zam. red.;  
DOMARADSKIY, I.V., red.; DROZHEVKINA, M.S., red.;  
KOROBKOVA, Ye.I., red.; AYKIMBAYEV, K.A., red.;  
TER-VARTANOV, V.N., red.; STYCHINSKIY, G.A., red.

[Specific prevention of particularly dangerous infections; a collection of scientific papers of antiplague institutions] Spetsificheskaya profilaktika osobo opasnykh infektsii; sbornik nauchnykh rabot protivochumnykh uchrezhdenii. Moskva, Meditsina, 1964. 383 p. (MIRA 17:6)

NIKOLA EV, N.I.(Saratov), red.; FENYUK, B.K.(Saratov), red.;  
AKIYEV, A.K.(Saratov), red.; LENSKAYA, G.N., red.;  
ISHUNINA, T.I., red.; PARNES, Ya.A., red.

[Epidemiology and epizootiology of especially dangerous  
infections] Epidemiologiya i epizootologiya osobo opasnykh  
infektsii; sbornik nauchnykh rabot protivochumnykh uch-  
rezhdenii. Moskva, Meditsina, 1965. 415 p.  
(MIRA 18:4)

LENSKAYA, K.K.; VERZHBOVSKAYA, Ye.I.

Aluminum determination in slags. Sbor. trud. TSNIICM no.24:  
184-187 '62. (MIRA 15:6)  
(Slag--Analysis) (Aluminum--Analysis)



ACC NR: AT6030227

SOURCE CODE: UR/2776/66/000/049/0048/0052

AUTHOR: Lenskaya, K. K.; Tikhomirova, O. F.; Golubeva, V. M.; Sorokina, N. N.;  
Suchelenkova, L. M.

ORG: none

TITLE: Spectrochemical method for determining the composition of tungsten-molybdenum alloys

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 49, 1966. Novyye metody ispytaniy metallov; khimicheskiy kontrol' v metallurgii (New methods in the analysis of metals; chemical control in metallurgy), 48-52

TOPIC TAGS: tungsten containing alloy, molybdenum containing alloy, spectrographic analysis, metal chemical analysis

ABSTRACT: The article describes a spectrochemical method for analysis of tungsten-molybdenum alloys for titanium and zirconium (0.010-50%); tungsten (10-70%); and hafnium, lanthanum, and yttrium (0.001-0.1%). The contents of titanium, zirconium, hafnium, lanthanum, and yttrium are determined in tungsten-molybdenum alloys of constant composition, and the tungsten composition in alloys of varying composition. The proposed method for determination of titanium, zirconium, hafnium, lanthanum, and

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ACC NR: AT6030227

yttrium includes the following steps: introduction of the sample into solution, introduction of a collector, separation of the elements being investigated from the base elements, and spectral analysis of the concentrate. The article gives a detailed description of the methods used to prepare standard solutions of each of the elements under consideration, and for preparation of the samples for X ray analysis. Orig. art. has: 1 figure and 2 tables.

SUB CODE: 07, 11/ SUBM DATE: none/ ORIG REF: 001

Card 2/2

ACC NR: AT6036334

(N)

SOURCE CODE: UR/3234/65/000/003/0076/0084

AUTHOR: Lenskaya, O. A. (Tallin)

ORG: GMO

TITLE: Bringing order into the results of sea level observations in the Estonian SSR

SOURCE: Tallinn. Gidrometeorologicheskaya observatoriya. Sbornik rabot, no. 3, 1965, 76-84

TOPIC TAGS: oceanography, hydrometeorology, scientific research, research program, ocean tide, ocean dynamics

ABSTRACT: Hydraulic engineering construction work along the Estonian coast in recent years, as well as the many requests received from economic organizations, has resulted in an urgent requirement to bring order into sea level observations. Work was begun in 1962, with the compilation of a "Catalogue of Level Observations Made by Hydrometeorological Stations and Posts Located on the Baltic Sea on the Expanse Serviced by the UGMS ESSR," the basic purpose of which is to equate all sea level observations to a single datum, and compile the Catalogue. The Catalogue will contain data from sea level observations made at 24 water gage stations in Estonia through 1960. Correction factors, use of which will make it possible to convert

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ACC NR: AT6036334

daily and standard sea levels for the various posts to the Kronshtadt gage datum in the Baltic system, as well as to permit the use of tide meter recordings, will be compiled. The methodology to be used in analyzing the observation materials, and for reducing the levels to a single datum for each post for the entire period of the observations at that post, is described. Orig. art. has: 2 figures and 1 table.

SUB CODE: 08/SUBM DATE: None/ORIG REF: 015

Card 2/2

MOGILEVICH, P.N.; LENSKAYA, L.A. (Kiyev)

Organization of work without administrative quality control.  
Shvein.prom. no.2:31-32 Mr-Ap '61.

(MIRA 14:4)

1. Fabrika "Ukraina".

(Clothing industry---Quality control)

L 58901-65 ENT(m)/EMP(1)/EMP(b)/EMP(e)/EMP(t) IJP(c) JD  
ACCESSION NR: AP5016097 UR/0075/65/020/006/0747/0749  
543.70

AUTHOR: Vasilovskaya, A. Ye., Lenskaya, L. K.

TITLE: Determination of boron in certain natural substances by means of salicylic acid and crystal violet

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 6, 1965, 747-749

TOPIC TAGS: boron determination, crystal violet, salicylic acid, water analysis, soil analysis

14  
13  
B

ABSTRACT: The authors increased the sensitivity of the determination of boron by using salicylate complexes, and developed a method applicable to the analysis of natural substances. To this end, dyes of the triphenylmethane series and thionine derivatives were tested. It was found that compounds of borosalicylic acid with the first group of dyes are best extracted by CCl<sub>4</sub>, and those with the second group, by chloroform. Of all the dyes studied, the highest molar coefficient was obtained for crystal violet, which was chosen for the determination. Since almost all cations interfere, boron must be distilled off or separated by ion exchange, which was preferred. The procedures employed in the determination of boron in natural waters and in rocks, soils, coals, and plants are described.

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L 58901-55

ACCESSION NR: AP5016097

Statistical treatment of the results showed a relative error of + 8.7% for the waters and + 5.0% for the rocks. The sensitivity of the method is 0.1  $\mu\text{g}$  per 10 ml of solution.  
Orig. art. has: 1 table.

ASSOCIATION: Institut mineral'nykh resursov, Simferopol' (Institute of Mineral Resources)

SUBMITTED: 11Jun64

ENCL:00

SUB CODE: IC

NO REF SOV: 005

OTHER: 002

Card

*nc*  
2/2

VASILYEVAYA, A.P.; LENSKAYA, L.K.

Determination of carbon in some natural materials by means of picric acid and crystal violet. Zhur. anal. khim. 20 no. 3:747-749 '65. (MIRA 15:7)

1. Institut mineral'nykh resursov, Tiflisopol'.

L 32265-65 EPF(c)/EPR/ENG(v)/EWP(j)/EWF(m)/T PC-4/Pe-5/Pt-7/Ps-A RM/WH  
8/0191/65/000/003/0041/0043

ACCESSION NR: AP5006562

AUTHOR: Graboy, L. P.; Lenskaya, L. P.; Chudnovskiy, A. R. 40 B 15

TITLE: Determination of the thermal conductivity of graphite-filled plastics based on epoxy resins

SOURCE: Plasticheskiye massy, no. 3, 1965, 41-43

TOPIC TAGS: graphite filled plastic, epoxy resin, graphite, injection molding, capron, polyethylene, mold material, thermal conductivity

ABSTRACT: A new material has been developed for making molds for injection molding of plastics such as capron or polyethylene. The material consists of 100 parts by weight of thermosetting E-1200 epoxy resin, 6 parts of polyethylene polyamine (curing agent), and 100-200 parts of electrode graphite (filler). The material exhibits high thermal conductivity and high heat resistance. The effect of temperature from 45.7 to 228.6C on the thermal conductivity of the new material was studied by a method developed by A. A. Semenov. Formulas are given for calculation of the thermal conductivity. Results of the study, given in the form of tables, indicate that the thermal conductivity of graphite-filled plastics with a high graphite content increases with the temperature of the



L 32265-65

ACCESSION NR: AP5006562

specimen. Heat treatment stabilizes the higher thermal conductivity so that it is maintained at room temperature. The new material exhibits lasting heat resistance and strength at temperatures up to 300C. In view of their simple production technology, the use of molds made with the new material is recommended by the authors. Orig. art. has: 2 figures and 2 tables. [B0]

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MF

NO REF SOV: 001

OTHER: 000

ATD PRESS: 3203

Card 2/2

SVETLOVA, A.K.; KONSTANTINOVA, N.P.; LENSKAYA, N.A.; ZHBANKOVA, N.S.

Sinobronchitis and sinopneumopathies in infants. *Pediatrics* 41  
no.9:19-24 S '62. (MIRA 15:12)

1. Iz kafedry detskikh bolezney (zav. - deystvitel'nyy chlen  
AMN SSSR prof. Yu.F.Dombrovskaya) i kafedry bolezney ukha,  
gorla i nosa (zav. - zasluzhennyy deyatel' nauki prof. A.G.  
Likhachev) I Moskovskogo ordena Lenina meditsinskogo instituta  
imeni Sechenova.

(SINUSITIS) (BRONCHITIS) (PNEUMONIA)

GOLUTVINA, M.M.; SHITIKOVA, M.G.; LEVIN, V.I.; LENSKAYA, R.V.

Obtaining sodium chromate ( $\text{Na}_2\text{Cr}^{51}\text{O}$ ) and chromium chloride ( $\text{Cr}^{51}\text{Cl}_3$ )  
and their utilization for labeling erythrocytes and plasma proteins.  
Med. rad. 4 no.3:61-65 Mr '59. (MIRA 12:7)

1. Iz Tsentral'nogo ordena Lenina instituta gematologii i perelivaniya  
krovi Ministerstva zdravookhraneniya SSSR.

(CHROMIUM,

prep. of sodium chromate & chromium chloride & labeling  
erythrocytes & plasma protein (Rus))

(BLOOD PROTEINS,

labeling with chromium chloride & sodium chromate (Rus))

(ERYTHROCYTES,

same)

LENSKAYA, R.V.; POLUSHINA, T.V.

Use of polyglucin for a study of blood vessel permeability in  
dogs in acute radiation sickness. Probl. gemat. i perel. krovi  
5 no. 9:57-60 '60. (MIRA 14:1)  
(RADIATION SICKNESS) (DEXTRAN) (BLOOD VESSELS--PERMEABILITY)

LENSKAYA, R.V.

Vascular permeability in dogs in acute radiation sickness. Med.  
rad. no.9:26-29 '61. (MIRA 15:1)

1. Iz radiologicheskoy laboratorii Tsentral'nogo ordena Lenina  
instituta gematologii i perelivaniya krovi Ministerstva Zdra-  
vookhraneniya SSSR.  
(RADIATION SICKNESS) (BLOOD VESSELS---PERMEABILITY)

CHERNOV, G.A.; SHEREMET, S.I.; LONSKAYA, R.V.

Effect of irradiation on the permeability of blood vessels and  
on the mucopolysaccharide and serotonin level in the blood.  
Med. rad. 9 no.2:58-62 D '64.

(MIRA 18:12)

1. Radiobiologicheskaya laboratoriya (za. - prof. M.O.  
Raushenbaki) Tsentral'nogo ordena Lenina instituta gematologii  
i perelivaniya krovi Ministerstva zdavookhraneniya SSSR,  
Moskva.

KOZLOVA, O.V., doktor ekon. nauk, prof.; BISHAYEV, M.; LENSKAYA, S.;  
MURZOV, K.; BUDARINA, V., red.; KIRSANOVA, I., mladshiy red.;  
ULANOVA, L., tekhn. red.

[Communal labor during the period of the large scale building  
of communism] Obshchestvennyi trud v period razvernutoy stroi-  
tel'stva kommunizma. Pod obshchei red. O.V.Kozlovoi. Moskva,  
Sotsekgiz, 1963. 306 p. (MIRA 16:7)  
(Labor and laboring classes) (Communism)

KAMAYEV, V.D., kand. ekon. nauk; PRUZNER, S.L., kand. tekhn. nauk;  
CHECHIK, Ye.L., inzh.; LENSKAYA, S.A., kand.ekon. nauk;  
OSIPOV, A.P., kand. ist. nauk; BORISOVSKAYA, M.A., red.;  
PONOMAREVA, A.A., tekhn. red.

[Technological progress in the U.S.S.R.] Nauchno-tekhniche-  
skii progress v SSSR. Moskva, Ekonomizdat. 1962. 274 p.  
(MIRA 16:2)

(Russia--Industries) (Technology)



KAMAYEV, Vladimir Dorofeyevich, kand. ekon. nauk; LENSKAYA,  
Svetlana Alekseyevna, kand. ekon. nauk; LAVRENT'YEV, D.F.,  
red.

{The role of automation in the building of communism in the  
U.S.S.R.} Rol' avtomatizatsii v stroitel'stve kommunizma v  
SSSR. Moskva, Vysshaya shkola, 1963. 91 p. (MIRA 17:3)

LENSKAYA, S.I., starshaya meditsinskaya sestra; KOLESNIKOVA, Z.P.,  
starshaya meditsinskaya sestra; DAVYDOV, S.Yu.; KORMILITSYNA,  
Ye.I., meditsinskaya sestra

Nurses councils. Med.sestra 19 no.4:46-48 Ap '60.

(MIRA 13:6)

1. Dom rebenka No.15 Baymanskogo rayona Moskvyy (for Lenskaya).
2. Iz Alchevskoy gorodskoy bol'nitsy, Luganskaya oblast' (for Kolesnikova.
3. Iz Shakhrizyabskoy gorodskoy ob'yedinennoy bol'nitsy (for Davydov).
4. 1-ya gorodskaya bol'nitsa g. Vladimira (oblastnoy) (for Kormilitsyna).

(NURSES AND NURSING)

FILICHKIN, S.Ye.; LENSKAYA, S.M.

Effectiveness of treating dysentery and colineteritis in children with antibiotics and sulfanamides using as a control the sensitivity of the causative agents to them. Vop. okh. mat. i det. 8 no.7: 87 JI '63. (MIRA 17:2)

1. Iz kafedry mikrobiologii Smolenskogo meditsinskogo instituta i Detskoy gorodskoy bol'nitsy.

L 42978-65 EWP(e)/EWT(m)/EPF(c)/EWP(i)/EPR/EWP(t)/EWP(b) Pr-4/Ps-4 IJP(c)  
JD/WH

ACCESSION NR: AP5009429

S/0289/64/900/003/0156/0157

AUTHOR: Sobolev, Ye. V.; Samsonenko, I.D.; Lenskaya, S.V.

36  
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TITLE: The state of nitrogen present as an impurity in natural diamonds 27

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya Khimicheskikh nauk, no. 3, 1964, 156-157

TOPIC TAGS: diamond structure, nitrogen admixture, infrared spectrum, ammonium tetraethylbromide, paramagnetic center, electron paramagnetic resonance

ABSTRACT: The authors studied the IR spectrum of ammonium tetraethyl bromide (containing a nitrogen atom bound to four carbon atoms) as a model system and determined the concentration of paramagnetic centers in diamonds by comparing this with the spectrum of a standard (CuCl<sub>2</sub>·2H<sub>2</sub>O). They also determined the number of absorbing centers in the IR and ESR spectra. The study showed that C-N bonds should be present in diamonds; the formation of such bonds is thought to be due to the substitution of nitrogen for carbon. The discrepancy between the number of paramagnetic centers and the total number of nitrogen atoms is discussed. Variation in the ratio  $\frac{N_{total}}{N_{param}}$  from one

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L 42978-65

ACCESSION NR: AP5009429

kind of diamond crystal to another are considered. Also treated is the problem of the influence of the conditions of formation of diamonds on the character of the ESR spectra. The authors express the hope that comparative studies of optical and ESR spectra of diamond crystals from various deposits will provide information on the conditions of their formation and their differences, which will be of unquestionable interest to crystal chemistry and geology.

ASSOCIATION: Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR, Novosibirsk (Institute of Inorganic Chemistry, Siberian Branch AN SSSR)

SUBMITTED: 09Jul64

ENCL: 00

SUB CODE: IC, MT

NO REF SOV: 003

OTHER: 005

*llc*  
Card 2/2

SOBOLEV, Ye.V.; LENSKAYA, S.V.

Evidence of "gaseous" impurities in the spectra of natural diamonds.  
Geol. i geofiz. no.2:157-159 '65. (MIRA 18:9)

1. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR,  
Novosibirsk.

LENSKAYA, U.S.S.R.

V 1257. Analysis of bronzes by means of a cationite.  
 V. I. Lenskaya and L. I. Pen'kova. *Dokl. Akad. Nauk SSSR*, 1954, 84, 185-188; *Refractions*  
*Zh. Khim.*, 1955, Abstr. No. 14,263. — Bronze (1 g)  
 is dissolved in 15 to 20 ml of dil. HNO<sub>3</sub> (1 + 1), the  
 solution is evaporated to a vol. of 3 to 10 ml; 100 ml  
 of hot water and 20 ml of 15 per cent. ammonium  
 nitrate solution are added and the solution is boiled  
 and set aside in a hot place. The metastannic acid  
 is filtered off and washed with hot dil. HNO<sub>3</sub> (3  
 per cent.) and the filtrate is diluted to 200 ml in a  
 calibrated flask. A 20-ml aliquot of the solution  
 is made just alkaline with *N* NaOH and then just  
 acid with 2 per cent. aq. HNO<sub>3</sub> and passed through  
 a sulphophtenol ammonium cationite filter at the  
 rate of 5 to 6 drops a min. Aluminium, Cu and Fe  
 are adsorbed. The Al is extracted by washing the  
 filter with 50 ml of 6 per cent. aq. NaOH at the  
 rate of 8 to 10 ml per min., followed by 100 to 120  
 ml of water, and is determined colorimetrically or  
 gravimetrically. To extract the Cu and Fe, the  
 cationite is washed with hot 6 per cent. HCl solution  
 into a receiver containing 20 to 30 ml of conc.  
 aq. NH<sub>3</sub>. The ppt. of Fe(OH)<sub>3</sub> is collected and  
 dissolved in HCl and the Fe is determined colorimetrically  
 as thiocyanate. The Cu is determined  
 by electrolysis of the ammoniacal solution.

G. S. SMITH

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1. KUL'BERG, L. M.; LENSKAYA, V. N.
2. USSR (600)
4. Microchemistry
7. Use of cationites in microanalysis and spot analysis. Ukr. khim. zhur.  
18 No. 1, 1952.

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



LENSKAYA, V.N.

Reaction of some cationites with solutions of oxidants and analytical use of this phenomenon. V. N. Lenskaya (State Univ., Saratov). *Trudy Komissii Anal. Khim. Akad. Nauk S.S.S.R. Inst. Geokhim. i Anal. Khim.* 6, 333-42(1955).—The influence of pH on the oxidation of cationite NSK, RSK, PFSK, SPG, PK, GKh, SBS, SBSR, and MSF by  $KMnO_4$ ,  $K_2Cr_2O_7$ , and  $KBrO_3$  was studied.  $Fe^{+++}$ ,  $Au^{+++}$ ,  $Cu^{++}$ , and salts of  $H_2AsO_4$  were also used as oxidants. Cationite (0.1 g.) was added to 15 ml. of a buffered 0.05N soln. of the oxidant and stirred 1 hr. The soln. was sepd. from the solid and analyzed. For NSK,

PFSK, MFS, SBSR, SBS, and PK the reduction of  $KMnO_4$  decreased as pH increased until at pH 0 or above the amt. of  $KMnO_4$  reduced was const. regardless of pH.  $K_2Cr_2O_7$  oxidized at pH 1-8,  $KBrO_3$  at pH 1-5. The oxidation of GKh by  $KMnO_4$  was not influenced by pH. For  $KMnO_4$ , the reduction capacity of cationites decreased in the order: NSK, SPG, MSF, RSK, SBS, SBSR, PFSK, GKh, and PK. For  $K_2Cr_2O_7$  this series was: SPG, RSK, SBS, MSF, NSK, SBSR, PFSK, and GKh. For  $KBrO_3$  this series was: PFSK, GKh, NSK, and RSK. The oxidation-reduction potential of a resin could be estd. from the lowest-potential oxidant it reacted with and highest-potential oxidant it did not react with. These resins should not be used with ions which have an oxidation-reduction potential above +0.70 v. However, PK could be used to det.  $Cr_2O_7^{--}$  in the presence of a small amt. of  $KMnO_4$ .

Eurilla Mayerle

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LENSKAYA, V.N.

✓ The effect of the nature of active groups on the exchange properties of adsorbents. V. N. Lenskaya and M. F. Garafina (N. G. Chernyshevskii State Univ. Saratov, *Lavochkaya Lab.*, 21, 1426-3 (1955)) — Three new cation-adsorbent resins were tested. They were prepd. by the addn. of 20-30% oxalic or citric acid or of quercitrin to *p*-phenol-sulfonic acid. The exchange properties of the resins so prepd. were materially changed. The 2 acids, which form complex ions with Fe and Al, greatly increased the adsorption of these ions. These addns. to the resins either greatly increase the no. of activity centers, or reduce the no. of active sulfo groups in the resins. The hope is expressed that the selection of suitable addns. can regulate the selectivity in the exchange reactions of resins. W.M.R.

2 M.A. YOUTZ  
2 copies

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*LENSKAYA, V. N.*

Category: USSR/Analytical Chemistry - Analysis of inorganic substances

G-2

Abs Jour: Referat Zhur-Khimiya, No 9, 1957, 30972

Author : Lenskaya V. N., Kul'berg, L.M.

Inst : Saratov University

Title : Accelerated Semimicro Method for Determination of Calcium in Cement by Treatment with Cathionite

Orig Pub: Uch. zap. Saratovsk. un-ta, 1956, 43, 141-144

Abstract: Moist PFSK cathionite in H-form, which had been previously kept for 6-8 hours in water, is placed into a column (10-12 g); the cement sample (20-30 mg) is treated with 0.5 ml concentrated HCl, the solution is diluted with 10 ml water and passed through the cathionite at a rate of 0.5 ml/minute. The column is washed with 10 ml water (2-2.5 ml/minute); 100 ml of hot 0.1 N solution of  $(\text{NH}_4)_2\text{C}_2\text{O}_4$  are then passed through the column (2-2.5 ml/minute). The filtrate containing Fe, Al, Mg and alkali metal ions, and excess  $\text{C}_2\text{O}_4^{2-}$ , is acidified with 25 ml dilute  $\text{H}_2\text{SO}_4$  (1:5), heated to  $70-80^\circ$  and titrated with 0.1 N solution of  $\text{KMnO}_4$ . The cathion-

Card : 1/2

-11-

LENSKAYA, V. N.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5, 15-57-5-6327  
p 92 (USSR)

AUTHORS: Lenskaya, V. N., Gurova, Ye. A., Kul'berg, L. M.

TITLE: A Rapid Method of Determining the Ions of Calcium and Magnesium in Natural Waters (Uskorennyy metod opredeleniya ionov kal'tsiya i magniya v prirodnykh vodakh)

PERIODICAL: Uch. zap. Saratovsk. un-ta, 1956, Vol 43, pp 145-148.

ABSTRACT: The authors present a method for analyzing natural waters. One to two milliliters of HCl (1:1) are added to 50 ml to 100 ml of water. The acidified water is heated to 70° or 80° and calcium oxalate is precipitated in it by the general method of adding 20 ml to 25 ml of heated saturated solution of sodium oxalate. To this solution are added ten drops of an alcohol solution of phenophalein and crystalline sodium bicarbonate until the CO<sub>2</sub> ceases to be given off, and then 0.1-normal alkali solution until the solution turns a scarcely detectable rose color. The subsequent addition of one to two drops

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A Rapid Method of Determining the Ions of Calcium (Cont.) 15-57-5-6327

of 0.1-normal HCl or H<sub>2</sub>SO<sub>4</sub> destroys the color of the solution. Thus the pH of the solution is brought up to the value for precipitating Mg hydroxide and then 1-normal alkali is added to the solution, during constant shaking, until flocculent Mg hydroxide appears and then 1 ml to 2 ml more 1-normal alkali solution is added. The precipitated sediment is then filtered off through a filter filled with steamed paper mass and the excess alkali is washed from the filtered residue by distilled water. The filtrate and wash water are quantitatively transferred to a 500 ml graduated flask and diluted with sufficient water to bring the fluid to the 500 ml mark. An aliquot part of this solution (25 ml or 50 ml) is titrated with a 0.1-normal solution of acid until the solution becomes colorless. The Mg is calculated by the equation:

$$\text{Mg (in mg/liter)} = \frac{(v_1 k_1 - \frac{v_2 k_2}{10}) 12 V_4 \cdot 1000}{v_3 v_5},$$

where  $v_1$  is the volume of titrated approximately 1-normal alkali  
Card 2/3

LEN SKAYA, V. IV

5(2)

SOV/156-59-1-16/54

AUTHORS: Chunosov, V. I., Lenskaya, V. N.

TITLE: Investigation of the Interaction of Potassium Ferrocyanide With Calcium and Magnesium Salts by the Method of Amperometric Titration (Izucheniye vzaimodeystviya ferrotsianida kaliya s solyami kal'tsiya i magniya metodom amperometriche- kogo titrovaniya)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 67 - 69 (USSR)

ABSTRACT: Amperometric titration which is mainly used for practical purposes of rapid analyses can also be used for solving theoretical problems. Two different curves were measured (Diagram, Fig 1) in the titration of calcium salts. The first curve is formed with a large KCl excess and shows a marked minimum with subsequent increase of the diffusion current. The second curve, however, shows a flat course after the minimum. The end points of both curves do not coincide. For precipitating the same quantity of calcium, but different quantities of ferrocyanide are necessary. Graduation curves (Diagram, Fig 2) were plotted for both curves:

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Investigation of the Interaction of Potassium Ferro- SOV/156-59-1-16/54  
cyanide With Calcium and Magnesium Salts by the Method of Amperometric  
Titration

abscissa - ml Ca salt, ordinate - ml potassium ferrocyanide, which corresponded to the end points measured. The rectilinear course of these graduation curves indicates that the ratio between calcium and ferrocyanide remains constant, but is different for each of the two titration curves (Table). Thus there are two precipitates. The first one corresponds to the formula  $\text{CaK}_2[\text{Fe}(\text{CN})_6]$ , the second one to the formula  $\text{Ca}_4\text{K}_4[\text{Fe}(\text{CN})_6]_3$ . The second compound is little soluble as may be seen from the constancy of the diffusion current. The first compound probably forms a new soluble compound,  $\text{Ca}_3\text{K}_{10}[\text{Fe}(\text{CN})_6]_4$ , in the ferrocyanide excess, thus causing again an increase of the diffusion current after attaining the end point. Consequently, the stability of the precipitate formed may be assumed on account of the course of the diffusion current after attaining the end point. On the titration of magnesium salts the diffusion current showed two minima. The points of the second minimum only could be arranged on a

Card 2/3

Investigation of the Interaction of Potassium Ferro- SOV/156-59-1-16/54  
cyanide With Calcium and Magnesium Salts by the Method of Amperometric  
Titration

calibration curve and correspond to the formula  
 $MgK_{10}[Fe(CN)_6]_3$ . The precipitate of the first minimum is  
unstable and passes during the titration into the compound  
mentioned above. There are 2 figures, 1 table and 4 Soviet  
references.

ASSOCIATION: Kafedra analiticheskoy khimii Saratovskogo gosudarstvennogo  
universiteta i.m. N. G. Chernyshevskogo (Chair of Analytical  
Chemistry of Saratov State University imeni N. G. Cherny-  
shevskiy)

SUBMITTED: July 8, 1958

Card 3/3



LENSKAYA, V. N.; TEREKHOVA, R. K.

Amperometric determination of sulfides in the presence of sulfates, thiosulfates, sulfites, and carbonates in alkaline wastes of petroleum refining and of phosphates in phosphate catalysts. Izv. vys. ucheb. zav.; khim. i khim. tekhn. 5 no.5:717-721 '62. (MIRA 16:1)

1. Saratovskiy gosudarstvennyy universitet imeni N. G. Chernyshevskogo, kafedra analiticheskoy khimii.

(Sulfides) (Phosphates)  
(Conductometric analysis)

LENSKAYA, V.N.; BRYANTSEVA, I.N.

Specific action of a cation exchanger as dependent on the  
amount of new active groups introduced. Uch.zap. SGU 75:  
88-90 '62. (MIRA 17:3)

MUSTAFIN, I.S.; LENSKAYA, V.N.; TEREKHOVA, R.K.

Interaction between copper and chromium salts. Zhur. neorg.  
khim. 8 no.10:2314-2317. O '63. (MIRA 16:10)

1. Saratovskiy gosudarstvennyy universitet im. N.G. Chernyshev-  
skogo, kafedra analiticheskoy khimii.  
(Copper salts) (Chromium salts)

KOMAROVA, G.Ye.; LENSKAYA, V.N.

Polarographic study of alizarin S. Izv. vys. ucheb. zav.;  
khim. i khim. tekhn. 8 no.1869-74 '65. (MIRA 18:6)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo  
kafedra analiticheskoy khimii.

S/144/60/000/009/002/007  
E041/E135

AUTHOR: Lenskiy, A.N. (Assistant)  
TITLE: Electronic Simulation of Electromechanical Systems  
Including Coupling, Elasticity and Backlash  
PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,  
Elektromekhanika, 1960, No. 9, pp 11-20

TEXT: This paper forms part of a larger investigation of the behaviour of a composite system which includes a long transmission line and heavy metal-works subject to periodic loading. The present aim is an accurate electrical model of the typical rolling mill. The essential parts are shown in Fig. 1 where masses  $\theta_1$  and  $\theta_2$  are coupled by an elastic shaft. Mass  $\theta_1$  consists of two parts geared together with defined backlash. The equations of motion are:

$$\ddot{M}_{(1)2} + [\beta_{12}^2] M_{(1)2} = \frac{C_{12}}{\theta_1} M_1'' - \frac{C_{12}}{\theta_2} M_2 \quad (4)$$

$$\ddot{M}_{(1)2} = \frac{C_{12}}{\theta_1} M_1 + \frac{C_{12}}{\theta_1} M_1'' - \frac{C_{12}}{\theta_2} (M_{(1)2} + M_2), \quad (5)$$

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S/144/60/000/009/002/007  
E041/E135

Electronic Simulation of Electromechanical Systems Including  
Coupling Elasticity and Backlash

where  $M(1)_{12}$  - moment of the elasticity forces associated with the elementary system formed by the masses  $\theta_1$ ,  $\theta_2$  and the elastic coupling  $C_{12}$ ;  $M(1)''_2$  - the relative coordinate of displacement of the mass  $\theta_1$  expressed in dimensions of the moment of the elastic forces;  $\beta_{12}$  is the circular frequency of natural oscillations of the system. Depending on whether or not contact is made between the separate parts of the divided mass  $M_1$ , the dynamic conditions will be different. After allowing for these conditions and introducing appropriate scale factors, the analogue computer equations are

$$\ddot{M}(1)_{12} = - [a_2 M(1)_{12} + a_3 (-a_7 M(1)''_2 - a_8 M_1) + a_5 M_2]; \quad (12)$$

$$-\ddot{M}(1)''_2 = a_4 M_1 + a_5 M(1)_{12} - a_4 M_1 + a_5 M_2 \quad (13)$$

when the gears are in contact and  
Card 2/4



S/144/60/000/009/002/007  
E041/E135

Electronic Simulation of Electromechanical Systems Including  
Coupling Elasticity and Backlash

$$\ddot{M}_{(1)2} = -[a_2^M(1)2 + a_5^M2], \tag{16}$$

$$- \ddot{M}_{(1)2} = a_5^M(1)2 - a_4^M1 + a_5^M2 \tag{17}$$

when contact is broken. Fig. 2 is a block diagram of the system. The system excitation due to varying load torque is provided by the standard function generator EM-3 (BN-3). The drive motor is assumed to be a separately excited d.c. machine whose differential current and speed equations are Eqs (18), (19). The equivalent block diagram is in Fig. 3. Fig. 4 shows the overall simulation of rolling mill 2180 at the Zaporozhstal' Works. The backlash is 0.008 radian, the coupling elasticity is  $160 \cdot 10^4$  kg.m. In Fig. 5, (b) is the simulator result, (a) is the experimental result. The curves give: 1, roll pressure; 2, elastic coupling torque; 3, roll gap; 4, armature current. The method can be extended to multi-mass systems and already agreement to within 6-15% between simulation and experiment has been found on a 3-mass system. ✓

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S/144/60/000/009/002/007  
E041/E135

Electronic Simulation of Electromechanical Systems Including  
Coupling Elasticity and Backlash

There are 5 figures and 4 Soviet references.

ASSOCIATION: Kafedra avtomatizatsii metallurgicheskogo  
oborudovaniya, Dnepropetrovskiy metallurgicheskoy  
institut ✓  
(Department for Automation of Metallurgical  
Equipment, Dnepropetrovsk Metallurgical Institute)

SUBMITTED: July 17, 1960

Card 4/4



S/148/60/000/010/017/018  
A161/A030

AUTHORS: Kozhevnikov, S.N.; Lenskiy, A.N.

TITLE: An Investigation of Processes in the Long-Run Pneumatic Cylinder of a Tube Piercing Mill

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya, 1960, No. 10, pp. 172 - 178

TEXT: The work of the arbor thrust bearing displacement mechanism (Fig. 1) has been studied in a "140" piercing mill at the truboprokatnyy zavod im. Lenina (Tube Rolling Plant im. Lenin) to see if the manoeuverability of the thrust bearing may be improved and the arbor work travel control automated. The pneumatic cylinder piston speed was measured with a device (Fig. 2) transforming the piston motion into rotation of a tachodynamo (1) rotor, and the bearing motion was recorded with a circular rheochord (2) and a slider (4) on the pulley (3); the rheochord was connected into a bridge circuit, and the piston travel oscillographed (in a sawtooth curve because of the path of piston exceeding the circumference length of the pulley). The air pressure in the cylinder was measured by graphite and wire pickups and a pressure gauge, and the distributor valve position

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S/148/60/000/010/017/018  
A161/A030

An Investigation of Processes in the Long-Run Pneumatic Cylinder of a Tube Piercing Mill

recorded with an air transformer the core of which was hinged to a rocking lever connected to the valve rod. Current on the air transformer output corresponding to the transformer core position was oscillographed. A process oscillogram is included (Fig. 5). It was stated that the acceleration of the thrust bearing toward the lock was delayed comparing with the acceleration in travel away from the lock, which was due to the slow air flow out of the right piston chamber after the reverse, and in due time out of the left chamber during piercing. The maximum speed of the thrust bearing to the right was higher ( $v = 2.5$  m/sec) than to the left ( $v = 2.1$  m/sec) due to gravitation forces from the weight of the levers adding to the motive force in the right travel. The total friction force in the motion of the bearing on the guides, of the piston in the cylinder, and of the piston rod in the gland amounted to 160 kg, and it had a considerable effect on the maximum established speed of the thrust bearing motion, i.e., the bearing speed changed 10 - 12% when the friction force changed 20%. Thus it was obvious that the productivity of the piercing mill is affected very considerably by the tightness of the gland as well as by jam in the gland cover. The air pressure

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A161/A030

## An Investigation of Processes in the Long-Run Pneumatic Cylinder of a Tube Piercing Mill

variations which were mainly before the distributor also had an effect on the established bearing speed - a pressure variation of 8 - 10% changed the established speed about 12%. The outrun of the thrust bearing varied between 0.250 and 0.500 m under the joint effect of forces and resistances and other factors. This caused either blows at the approach to the front position (with 0.5 - 1.5 m/sec), or time losses (of 0.4 - 0.6 sec). Conclusions: 1) The work time variation of the arbor thrust bearing is high (7.1 - 9.5 sec). 2) The time losses between the approach of the bearing to front position and the start of piercing occur at random and are manually controlled. They vary between 0.5 and 1.6 sec. 3) The time variation of the auxiliary operations affects the productivity about 20% in piercing short work, and about 18% in piercing long. 4) The productivity ought to be raised by cutting the auxiliary time. 5) The present state of air lines causes about 15% speed variation of the thrust bearing. The maximum motion speed from the lock is 2.15 m/sec, and toward the lock 2.5 m/sec at 3.2 atm pressure in the main. 6) Setting the distributors for closing both cylinder spaces considerably lowers the manoeuvrability of the system. There are 6 figures and 2 Soviet references.

Card 3/6

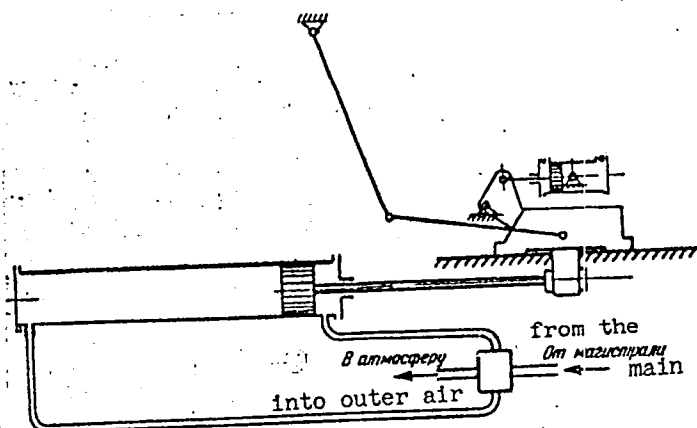
S/148/60/000/010/017/018  
A161/A030

An Investigation of Processes in the Long-Run Pneumatic Cylinder of a Tube Piercing Mill

ASSOCIATION: Dnepropetrovskiy metallurgicheskii institut. (Dnepropetrovsk Metallurgical Institute)

SUBMITTED: May 9, 1960

Figure 1: Schematic diagram of the thrust bearing drive system.



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KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; LENSKIY, A.N., inzh.;  
TKACHENKO, A.S., inzh.

Investigating the 950 blooming mill at the Dzerzhinskii plant  
by experimental and analytical means and with help of an  
electron model. Trudy Inst.chern.met.AN URSR 16:37-55 '62.  
(MIRA 15:12)

1. Chlen-korrespondent AN UkrSSR (for Kozhevnikov).  
(Dneprodzerzhinsk---Rolling mills---Testing)  
(Electronic analog computers)

KOZHEVNIKOV, S.N.; SKICHKO, P.Ya., kand.tekhn.nauk; LENSKIY, A.N., inzh.;  
LOBODA, V.M., inzh.; BOL'SHAKOV, V.I., inzh.

Determination of optima conditions of reduction mill operations.  
Trudy Inst.chern.met.AN URSR 16:70-77 '62. (MIRA 15:12)  
(Rolling mills--Electromechanical analogies)

KOZHEVNIKOV, S.N.; FRAZDNIKOV, A.V., kand.tekhn.nauk; LENSKIY, A.N., inzh.;  
BOL'SHAKOV, V.I., inzh.

Investigating on an electron model the performance of the main  
line of a Pilgrim mill. Trudy Inst.chern.met.AN URSR 16:88-  
104 '62. (MIRA 15:12)

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(Rolling mills)  
(Electronic analog computers)

KOZHEVNIKOV, S.N.; LENSKIY, A.N.; SKICHKO, P. Ya.

Using electronic models for determining loads in the main lines  
of rolling mills. Teor. mash. i mekh. no.96/97:74-84 '63.  
(MIRA 17:1)



LENSKIY, Aleksandr Nikolayevich, kand.tekhn.nauk, starshiy nauchnyy  
sotrudnik; BOL'SHAKOV, Vadim Ivanovich, starshiy inzhener

Program control block of an electronic model of a reversive rolling  
mill. Izv.vys.ucheb.zav.; elektromekh. 7 no.1:80-85 '64.  
(MIRA 17:9)

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AUTHOR: Lenskiy, A. N.; Bol'shakov, V. I.

53  
B

ORG: none

TITLE: Electronic modeling of collisions in mechanical systems

SOURCE: <sup>166</sup>IVUZ. Elektromekhanika, no. 2, 1966, 213-214

TOPIC TAGS: mathematic model, electronic circuit, circuit design, mechanical engineering, model

ABSTRACT: A general method is suggested for modeling mechanical systems with play, based on the usage of a single mathematical description, in contrast to the previously used varying mathematical systems of description for systems with varying types of masses and varying connections. According to the method suggested, the movement equations for three-mass mechanical systems with gaps between masses and gaps in the connecting system can be described identically. A schematic diagram of the electronic circuit to realize the single equation is presented. The question of energy degradation is not discussed. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 13, 09 / SUBM DATE: 26Nov63 / ORIG REF: 001

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LENSKIY, A. N.

ISSUE I BOOK EXPLOITATION SOV/MS30

Vsesoyuznoye soveshchaniye po anonomym problemam teorii mashin

I mashinostroy. 2d, Moscow, 1958.

Dinamika mashin; sbornik statey (Dynamics of machines; collection of articles) Moscow, Mashgiz, 1960. 240 p. (Issued in 2 parts) Kireta slip inserted. 3,000 copies printed.

Sponsoring Agency: Institut mashinovedeniya Akademii nauk SSSR.

Editorial Board: I. I. Artyobolevskiy (Resp. Ed.), Academician, S. I. Artyobolevskiy, Doctor of Technical Sciences, Professor, G. G. Baranov, Doctor of Technical Sciences, Professor, A. I. Bessonov, Candidate of Technical Sciences, Professor, V. A. Gerasimov, Doctor of Technical Sciences, Professor, N. I. A. Ye. Korshakov, Doctor of Technical Sciences, Professor, and L. N. Reshetov, Doctor of Technical Sciences, Professor; Ed. I. V. Bermanov, Candidate of Technical Sciences; Managing Ed. for General Technical Literature and Literature on Transport Machine Building (Mashgiz); A. P. Kalayev, Engineer; Tech. Ed. I. Jucel'.

PURPOSE: This collection of articles is intended for engineers, designers, workers at scientific research institutes, and instructors at schools of higher technical education.

COVERAGE: This collection consists of reports presented at the All-Union Conference on Problems in the Theory of Machines and Mechanisms held in Moscow in 1958. The reports discuss several problems of the general design of complex mechanical systems. No personal letters are mentioned. References accompany most of the articles.

DOUGLAS, R. K., Palmandi, and I. Kalmanchuk (Bucharest). Mechanical and Electrical Transmitters for the Experimental Determination of Resonance in Plane Mechanisms. Stands for Testing Objects for Impact Vibration. 47

BURMAN, A. N., Candidate of Technical Sciences. Stands for Testing Objects for Impact Vibration. 54

VOROB'YEV, F. S., Candidate of Technical Sciences. Dynamics of the Rotation of Vertical Turbines. 66

MURAVYEV, M., Candidate of Technical Sciences. Certain Cases of Forced Natural Vibrations of Mechanisms with Elastic Elements. 72

KORSHAKOV, A. Ye., Doctor of Technical Sciences. The Theory of Vibration-Impact Mechanisms. 85

KOZHAMBERG, S. V., and A. N. Lenskiy, Corresponding Members, Academy of Sciences USSR. Dynamic Investigation of Mechanisms with Free Play in Kinematic Pairs. 85

BORISOV, V.M.; LENSKIY, A.S.

Basic means for the development and tasks of the mineral fertilizer industry. Khim.prom. no.1:13-16 Ja '64. (MIRA 17:2)

1. Nauchno-issledovatel'skiy institut po udobreniyam i insektofungitsidam im. Ya.V.Samoylova.

*Yelena Nikolayevna*

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Lenskaya, Ye. N. "The self-purification properties of the soil of the City of Saratov", Trudy Sarat. gos. med. in-ta, *Chin. med. Zhurnal* Vol. VI, 1947, p. 239-50.

SO: U-4631, 16 Sept. 53 (Letopis 'Zhurnal 'nykh Statey, No. 26, 1949).

SHOSTAKOVSKIY, M.F.; ATAVIN, A.S.; LENSKIKH, G.V.; AL'PERT, M.L.

Reactivity of the hydrate forms of aldehydes. Interaction of chloral hydrate with some vinly ethers. Dokl. AN SSSR 154 no. 3:657-660 Ja '64. (MIRA 17:5)

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Interaction between calocal hemiacetals and vinyl esters.  
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CHOSTAKOVSKIY, M.F.; ATAVIN, A.S.; AL'PERT, M.L.; IENSAKIN, G.V.

Reactivity of aldehyde hydrates. Reaction of colored pyridine  
hemiacetal with vinyl butyl ether. Zhur. ob. Khim. 35 no. 1  
198 Ja '65. (MIRA 184)

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LENSKIY, A.A.

Reindeer

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No. 4, 1952.

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Dissertation (Vychernyya Moskva, Moscow, 1952.)

SI: 106, 10 Aug 1954

5.2400

27512  
S/080/60/033/006/012/041/XX  
D232/D302

AUTHORS: Ryadneva, L.P. and Lenskiy, A.S.

TITLE: Saturated vapor pressure of  $S_2O_5Cl_2$ PERIODICAL: Zhurnal prikladnoy khimii, v. 33, no. 6, 1960,  
1272 - 1280

TEXT: The present work aimed at determining the effect of temperature on the vapor pressure of  $S_2O_5Cl_2$ . To do this and to determine the effect of chemical disassociation of  $S_2O_5Cl_2$  on the vapor pressure, the author employed three different methods: dynamic, static and flow. Experimental work is then described. The  $S_2O_5Cl_2$  obtained appeared as a transparent, colorless, volatile liquid. It contained 99.7 - 99.9 % of  $S_2O_5Cl_2$ ;  $HSO_3Cl$  was determined by a special method and found to be present only as slight traces or to be completely absent. Determination of the vapor pressure by the

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D232/D302

Saturated vapor pressure of ...

was established that  $S_2O_5Cl_2$  undergoes partial chemical decomposition at much lower temperatures than suggested by earlier investigations. A production method is suggested for the production of high purity  $S_2O_5Cl_2$  completely free from moisture (fractional crystallization in vacuum) and from  $HCO_2Cl$ . There are 4 figures, 1 table and 18 references: 3 Soviet-bloc and 15 non-Soviet-bloc. The four most recent references to the English-language publications read as follows: Am. Pat. 2530410 (1950); W. Smetlawski, J. Chem. Ed., 5, 469, 1928; Bull. Soc. Chim. 49, 1583, 1931; E.W. Wilson, N.K. Adam, Trans. Faraday Soc. 44, 6, 306, 1948; G. Hill Douglass, J. Am. Chem. Soc., 53, 3192, 1931.

ASSOCIATION: Nauchno-issledovatel'skiy institut udobreniy i insektofungisidov (Scientific Research Institute of Fertilizers and Insecticides)

SUBMITTED: June 29, 1959

Card 3/3

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36155

S/080/62/035/004/005/022  
D267/D301

5.2400  
AUTHORS:

Lenskiy, A. S., Shaposhnikova, A. D. and Alliluyeva,  
A. S.

TITLE: Physico-chemical properties of difluorophosphoric acid

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 4, 1962, 760-768

TEXT: In view of the growing industrial importance of the difluorophosphoric acid the authors decided to carry out a detailed study of the following properties of this substance: Density, viscosity and saturated vapor pressure as functions of temperature. The method of preparing the acid and the apparatus used for the various determinations are described in detail. For the density the following equation was obtained by the method of least squares (for the range from -40 to +60°C):

$$D_4^t = 1.6397 - 2.451 \cdot 10^{-3} \cdot t + 1.12 \cdot 10^{-6} \cdot t^2$$

(3)

X

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Physico-chemical properties ...

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where  $D_4^T$  is in g/ml and  $t$  in deg. C. The equation for viscosity ( $\eta$  in poises) at temperatures  $T$  (in deg. K) was

$$\lg \eta = -1.27912 + \frac{405.35}{T} - 0.0045507 \cdot T \quad (4)$$

(for the range from  $-40$  to  $+45^\circ\text{C}$ ). For the saturated vapor pressure (range from  $-22$  to  $+108^\circ\text{C}$ ) the following equation was obtained by the static method:

$$\lg P = -\frac{421.195}{T} - 0.478214 \cdot \log T + 0.0137121 \cdot T \quad (5)$$

whereas the dynamic method (ebullioscopy) yielded

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RYADNEVA, L.P.; LENSKIY, A.S.

Saturated vapor pressure of  $\text{HSO}_3\text{Cl}$ . Zhur. prikl. khim. 36  
no.11:2413-2419 N '63. (MIRA 17:1)

LENSKIY, A.S.; SHAPOSHNIKOVA, A.P.; ANKULOVA, Ye.S.

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Khim. 3 no.12:2716-2726 1963.

Zhur. 2900g.  
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Thermal constants of chlorosulfonic acid and of mixtures  
of fluosulfonic acid with sulfuric anhydride. Zhur. neorg.  
khim. 9 no.5:1147-1154 My '64. (MIRA 17:9)



PASECHNIKOV, H.S.; LEMSKIY, A.V.

Determining the periodicity of cleaning the rotor of a tractor  
centrifugal oil filter. Sbor. rab. GOSNITI no.17:24-28 '62.

(MIRA 17:9)

LENSKIY, A.V., inzh.; PASECHNIKOV, N.S., inzh.

Study of the accumulation of impurities in the oil of a tractor engine. Mekh. i elek. sots. sel'khoz. 21 no.4:32-35 '63.

(MIRA 16:9)

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(Tractors--Engines)

YATSENKO, Viktor Afanas'yevich; LENSKIY, A.Ye., inzh., retsenzent;  
POLUEKTOV, Ye.V., inzh., red.; EL'KIND, V.D., tekhn.red.

[Safety engineering in the operation of agricultural  
machinery] Tekhnika bezopasnosti pri eksploatatsii sel'-  
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conditions of the Yessentuki health resort <sup>by means</sup> <sup>intestinal</sup> and ~~with~~ <sup>administration</sup> of irrigation, "  
~~of the intestines~~ Mos, 1960 (Min of Health USSR. Central Inst of <sup>Health & Sport Science</sup> ~~Haematology~~  
and Physiotherapy). (KL, 1-61, 208)

VISHNEVSKIY, A.S., prof.; NANAZIASHVILI, I.S., nauchnyy sotrudnik; prinitiali  
uchastiye: KOVALENKO, M.D.; ZHEMARTSEVA, T.I.; LENSKIY, B.S.

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'60. (MIRA 15:10)

1. Sanatoriy No.7, Yessentuki (for Kovalenko). 2. Sanatoriy No.11  
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Yessentuji (for Lenskiy).

(LIVER--CIRRHOSIS) (LIVER--DISEASES)  
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LENSKIY, B.V.

Development of electric power production in China. Biul.  
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LENSKIY, B.V.

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LENSKIY, B.V.

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