

IVANOV, B.I.; ISTOMINA, V.N.; LYUDKOVSKAYA, A.A.; KOSTIKOVA, A.Ya.;  
TALYZENKOVA, G.P.

Methods of preparing thixotropic lacquer and paint materials.  
Lakokras. mat. i ikh. prim. no.4:21-27 '61. (MIRA 16:7)

(Paint materials) (Thixotropic substances)

LYUDKOVSKAYA, B. G.

USSR/Physical Chemistry - Electrochemistry, B-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61195

Author: Yeremin, Ye. N., Lyudkovskaya, B. G.

Institution: None

Title: On the Nature of Activation During the Reaction of Oxidation of Nitrogen in Electric Discharge

Original

Periodical: Tr. Gos. n.-i. i proyekt. in-ta azot. prom-sti, 1953, No 2, 98-110

Abstract: A study of the influence of pressure (P) and current intensity (i) on "equilibrium stationary concentration" (ESC) of NO during synthesis of NO from air in glowing discharge. With  $i = 175$  ma ESC of NO at first increases sharply with P and then having reached a maximum (8.05% at 200 mm Hg) decreases gradually. At the same P and i mixture consisting of 47.5%  $O_2$  and 51.9%  $N_2$  gives an ESC of NO of 11.4%. With  $P = 200$  mm Hg ESC of NO increases with i from 50 to 500 ma and at 500 ma reaches 1.8%. It is shown that with increase of i and P, ESC of NO first increases linearly with increase

Card 1/2

USSR/Physical Chemistry - Electrochemistry, B-12

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61195

Abstract: of the product iP, but at high values of iP, ESC of NO passes through a maximum. Discussed is the question of the role of surface reaction in the formation of NO which is explained by recombination of atoms of N and O at the surface. The assumption is made of a partial homogeneous formation of NO on recombining of N and O atoms.

Card 2/2

LYUDKOVSKAYA, B.G.; SARYCHEV, B.L.

X-ray diffraction studies of iron oxidized by steam at high  
temperatures. Trudy GIAP no.8:259-267 '57. (MIRA 12:9)  
(Iron oxide) (X rays--Industrial applications)

YEREMIN, Ye.N.; KOBOZEV, N.I.; LYUDKOVSKAYA, B.G.

Conversion of methane to acetylene in a high-voltage arc. Part 1:  
Effect of pressure [with summary in English] Zhur.fiz.khim. 32  
no.10:2315-2323 0 '58. (MIRA 11:12)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.  
(Methane) (Acetylene)

5(4)

AUTHORS:

Yere in, Ye. N., K. G. G. G., M. I.,  
Lyudkovskaya, E. G.

S. Y. 86-32-32-17, 3-

TITLE:

The Conversion of Methane into Acetylene in a High Voltage  
Arc (Pevracheniye metana v atsetilen v vysokovol'tnoy tsepe)  
II. The Effect of Hydrogen (II. Vliyeniye vodoroda)

PERIODICAL:

Zhurnal fizicheskoy khimii, 1958, Vol 31, No 12,  
pp 2767 - 2771 (USSR)

ABSTRACT:

The contradictory results of earlier experiments are discussed (Refs 2 to 11). The investigation was carried on to determine the effect of hydrogen admixture on the methane cracking in an electric arc. Experiments were carried out by means of an alternating current high voltage arc at atmospheric pressure; the methane and hydrogen ratios were 69.4:30.6, 50.1:49.9 and 18.0:82.0. It was found that the general cracking of methane increases with a hydrogen admixture of up to 27%, while the acetylene concentration and the chemical energy yield (0.194 m<sup>3</sup>/kWh) remain unchanged. In practice, this means that acetylene may be produced in the same apparatus with both pure methane and methane

Card 1, 2

The Conversion of Methane Into Acetylene in a High Voltage Arc. II. The Effect of Hydrogen. S. V. 76-32-12-17, 22

containing a hydrogen admixture. Under these test conditions hydrogen acted as an inert diluent without active influence on the methane transformation. There are 2 figures, 1 table, and 12 references, 7 of which are Soviet.

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

SUBMITTED: May 4, 1977

Card 2/2

2001/10/13/01, 13.6

PHASE I BOOK EXHIBITION 507/321

Академия наук СССР. Институт Физикохимии

Проблемы Кинетики и Катализа. (t) 10; Физико-химия Катализа (Problems of Kinetics and Catalysis. [vol.] 10: Physics and Physical Chemistry of Catalysis) Moscow, Izd-vo AN SSSR, 1960. 461 p. Errata slip inserted. 2,600 copies printed.

Eds.: G.J. Roginskii, Corresponding Member of the Academy of Sciences USSR, and O.V. Knyazev, Candidate of Chemistry; Ed. of Publishing House: A.I. Maslovskii; Tech. Ed.: G.A. Astaf'yeva.

FOREWORD: This collection of articles is addressed to physicists and chemists and to the community of scientists in general interested in recent research on the physics and physical chemistry of catalysis.

CONTENTS: The articles in this collection were read at the conference on the Physics and Physical Chemistry of Catalysis organized by the Ural Institute of the AN SSSR (Section of Chemical Sciences, Academy of Sciences USSR) and by the Academic Council on the problem of "the scientific bases for the selection of catalysis." The Conference was held at the Institut Fiziko-khimicheskoi Kinetiki (Institute of Physical Chemistry of the AN USSR) in Moscow, from 20-23, 1959. Of the great volume of material presented at the conference, only papers and published abstracts were included in this collection.

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Vol'mentsev, P.P., and V.B. Samoilovich (Institute of Physical Chemistry AS USSR). Effect of an External Electric Field on the Adsorptive Capacity of a Semiconductor	61
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Yakovlev, P.O., G.Ye. Brada, T.A. Gerasova, and S.G. Indikorskiya (Central Research Institute Alloy Prometmetall, State Institute of the Atomic Industry). Investigation of Zinc, Charcoal, and Copper Oxide Base Catalyst for the Conversion of Carbon Monoxide	90
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PLANS I BOOK EXPOSITION 50V/7421

Abdomalya nauk SSSR. Institut fizicheskoy khimii

Problemy khimii i kataliza. (S) 10. Fizika i khimiko-kataliticheskiye katalizatory. (Problemy kataliza. (vol. 10). Physics and Physical Chemistry of Catalysis) Moscow, Izdatvo AN SSSR, 1960. 401 p. Errata slip inserted. 2,500 copies printed.

Eds.: S.Z. Roginskii, Corresponding Member of the Academy of Sciences USSR, and O.V. Knylov, Candidate of Chemistry; Ed. of Publishing House: A.M. Bakhvutsaer; Tech. Ed.: O.A. Artaf'yeva.

PURPOSE: This collection of articles is addressed to physicists and chemists and to the community of scientists in general interested in recent research on the physics and physical chemistry of catalysis.

CONTENTS: The articles in this collection were read at the conference on the Physics and Physical Chemistry of Catalysis organized by the Otdel khimicheskikh nauk AN SSSR (Section of Chemical Sciences, Academy of Sciences USSR) and by the Academic Council on the problem of "the scientific bases for the selection of catalytic." The Conference was held at the Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry of the AN USSR) in Moscow, March 20-21, 1960. Of the great volume of material presented at the conference, only papers not published elsewhere were included in this collection.

Prof. V.M. O.V. Knylov, and S.Z. Roginskii, [Institute of Physical Chemistry of the AN USSR]. Catalytic Properties of Germanium 102

Eshayev, V.L., and O.K. Borozov [Fiziko-khimicheskiy Institut Iman Li Fa Sarjora (Physicochemical Institute Iman Li Fa Sarjor)]. Investigation of the Relation Between the Catalytic Activity and the Semiconductor Properties of Germanium 108

Ipschenko, V.I., G.P. Romanov, and I.I. Stepan [Institute of Physics of the AN USSR]. Change in the Surface Contact Potential of Germanium During Adsorption and Catalysis 111

Knylov, O.V., S.Z. Roginskii, and Ye. A. Fulin [Institute of Physical Chemistry of the AN USSR]. Catalysis Over Semiconductors in the Selfcombustion Zone 117

Kalashnik, I.V. [Eastern Siberian branch of the AN USSR]. Selection of High Temperature Sulfide Catalysts for Various Cases of Restrictive Hydrogenation 121

III. CATALYSIS OVER METALS

Andreev, O.K. [Physicochemical Institute Iman Li Fa Sarjor]. Catalysis Over Metals 128

Bauch-Bryant, V.L., and V.B. Shabo [Department of Physics of Moscow State University]. Contribution to the Theory of Chemical Absorption of Metals 131

Treshchinskii, V.K. [Institute of Physical Chemistry of the Polish Academy of Sciences, Wrocław]. Structure and Magnetic Properties of Some Metallic Contacts 135

Shchegolev, I.I. [Institute of Physical Chemistry of the AN USSR]. Investigation of the Absorption of Gases on Metals with the Aid of an Electron Projector 139

Gorbunovskiy, Ye. B. [Institut fizicheskoy khimii Iman Li Fa Sarjora] and AN USSR Institute of Physical Chemistry Iman Li Fa Sarjora (Institute of the AN USSR). On the Problem of the Relation of Catalysis and Chemisorption to the Electron State of Metal Surfaces 143

Krasil'nikov, A.I., and L.G. Antonov. Investigation by Electrochemical Methods of the Side Reactions of Catalytic Hydrogenation 172

Shagal'nik, D.Y. [Academy of Sciences, Kazakhskaya SSR]. On the Problem of Principles in the Selection of Catalysts for Liquid Phase Hydrogenation 175

Prud'kin, L.D. [Institute of Organic Chemistry of the AN USSR]. Investigation of the Selective Action of Catalysts in Hydrogenation and Reduction Reactions 187

Gorbanov, A.I., and O.K. Borozov [Moscow Chemical Technological Institute Iman Li Fa Sarjora]. Catalysis of Isotopic Exchange in Molecular Hydrogen by Transition Metals of the 4th Period 188

Isachenko, S.S., L.D. Rumyantsev, V.A. Kuznetsov, V.S. Chelchikov, L.M. Mitryukhin, and Ed. Khimicheskoye [Institute of the Nitrogen Industry]. Activity and Structure of Iron Catalysts with Three and Four Promoters for the Synthesis of Ammonia 199

Labaday, V.P. [Moscow State University]. Relation Between the Parameters of the Arrhenius Equation for Contact Platinum Catalysts 204

Roginskii, S.Z., Yu. Ye. Sinyuk, and M.I. Yanovsky [Institute of Physical Chemistry, AN USSR]. Investigation by the Isotope Method of the Surface of the Alkali Promoter of an Ammonia Catalyst 210

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5/051/60/000/121/010/115  
A005/A001

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Translation from: Referativnyy zhurnal, Khimiya, 1960, No. 21, p. 50, # 84986

AUTHORS: Ivanovskiy, F. P., Brayde, G. Ye., Semenova, T. A., Lyudkovskaya, B.G.

TITLE: An Investigation of a Carbon Monoxide Conversion Catalyst on the Base of the Oxides of Zinc, Chromium, and Copper

PERIODICAL: Probl. kinetiki i kataliza, 1960, Vol. 10, pp. 90-94

TEXT: The effect of the chemical composition on the catalytic activity and the properties of a low temperature Zn - Cr - Cu catalyst for CO conversion was investigated. It turned out that the catalytic activity increases with increasing Cu content, reaches a maximum at the catalyst composition  $ZnO \cdot Cr_2O_3 \cdot 0.5CuO$ , and then decreases. On the contrary, the activation energy decreases with increasing Cu content, reaches a minimum at the content of 0.5 molecules Cu in the catalyst, and then increases. Therefore, the minimum value of the activation energy corresponds to the maximum activity. It is assumed that the high catalyst activity is connected with the presence of the zinc-chromium spinel in it, which is formed at a lower temperature in the presence of Cu, which activates the catalyst in considerable degree.

Summary of the authors  
Translator's note: This is the full translation of the original Russian abstract.  
Card 1/i

*Doklady Akademiya Nauk SSSR, Institut Khimicheskoy Promyshlennosti*

3/CSU/60/000/001/009/018  
A005/A001

Translation from: Referativnyi zhurnal, Khimiya, 1960, No. 21, p. 50, # 53467

AUTHORS: Lezhnev, S. S., Kuznetsov, L. D., Kuznetsov, V. A., Shinkova, V. N.,  
Dul'tsyenko, L. M., Lyudskovskaya, S. I.

TITLE: The Activity and Structure of Iron Catalysts of the Ammonia Synthesis  
With Three and Four Activators

PERIODICAL: Probl. Kinetiki i Kataliza, 1960, Vol. 10, pp. 199-203

TEXT: The activity of an iron catalyst activated by  $\text{AgO} - \text{Al}_2\text{O}_3$  is higher with respect to the  $\text{NH}_3$  synthesis than the activity of  $\text{AgO} - \text{Al}_2\text{O}_3$  is activated by  $\text{AgO} - \text{Al}_2\text{O}_3$  and  $\text{K}_2\text{O} - \text{CaO} - \text{Al}_2\text{O}_3$ . The activity of an iron catalyst containing oxygen is higher than that of a catalyst containing iron. In comparison with an iron catalyst activated by  $\text{AgO} - \text{Al}_2\text{O}_3$ , the activity of an iron catalyst activated by  $\text{AgO} - \text{Al}_2\text{O}_3$  and  $\text{K}_2\text{O} - \text{CaO} - \text{Al}_2\text{O}_3$  is higher in terms of dispersion degree, and finer porosity. In the catalysts with an intricate activator composition, the  $\text{AgO} - \text{Al}_2\text{O}_3$  and  $\text{K}_2\text{O} - \text{CaO} - \text{Al}_2\text{O}_3$  increase

Card 1/2

3/CSU/60/000/001/009/018  
A005/A001

The Activity and Structure of Iron Catalysts of the Ammonia Synthesis with Three and Four Activators

The specific activity of the iron catalyst but not to a decrease in surface while the amount of  $\text{NH}_3$  and  $\text{CO}_2$  and refractory oxides increase the specific activity but increase the surface

From the summary of the authors  
Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

LEYBUSH, A.G.; LYUDKOVSKAYA, B.G.; GRUZINTSEVA, A.N.; LIKHACHEVA, A.S.;  
YANYKINA, Ye.V.; GOL'DMAN, A.M.

Effect of the thermal treatment of a nickel catalyst on the process  
of methane conversion. Khim. prom. no. 2:90-96 F '61. (MIRA 14:4)  
(Methane) (Catalysts)

MARKINA, M.I.; BORESKOV, G.K.; IVANOVSKIY, F.P.; LYUDKOVSKAYA, B.G.

Catalytic activity of iron-chromium catalysts in the interaction  
of carbon monoxide with water vapor. *Kin.i kat.* 2 no.6:867-871  
N-D '61. (MIRA 14:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut azotnoy  
promyshlennosti.

(Carbon monoxide)  
(Water vapor) (Catalysis)

SHENKIN, Ya.S.; KLEVKE, V.A.; LYUDKOVSKAYA, B.G.

Interaction of urea with the products of the nitric acid  
decomposition of phosphates. Dokl.AN SSSR 149 no.3:656-659  
Mr '63. (MIRA 16:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut  
azotnoy promyshlennosti i produktov organicheskogo sinteza.  
Predstavleno akademikom S.I.Vol'fkovichem.  
(Urea) (Phosphates)

KING, W. W.; HAYNES, A. G.; LITTLE, J. P.; ...  
SCROGGIN, R. J.

Study of nitro group reduction ...  
and methods. This ...

KOLTOVER, A.N.; GANNUSHKINA, I.V.; LYUDKOVSKAYA, I.G.

So-called obliterating endarteritis of the cerebral vessels in  
thrombosis of the internal carotid artery. Zhur. nevr. i psikh.  
61 no.5:657-664 '61. (MIRA 14:7)

1. Laboratoriya patomorfologii nervnoy sistemy (zav. - dotsent A.N.  
Koltover) Instituta nevrologii (dir. - prof. N.V.Konvalov) AMN SSSR,  
Moskva. (THROMBOSIS) (ARTERIES--DISEASES) (BRAIN--BLOOD SUPPLY)



KOLTOVER, A.N.; LYUDKOVSKAYA, I.G.

Morphological changes in the brain following rupture of an aneurysm of the system of anterior cerebral arteries. Zhur. nevr. i psikh 61 no.8:1182-1186 '61. (MIRA 15:3)

1. Laboratoriya patomorfologii nervnoy sistemy (zav. - dotsent A.N. Koltover) Instituta nevrologii (dir. - prof. N.V. Konovalov) AMN SSSR, Moskva.

(BRAIN)  
(INTRACRANIAL ANEURYSMS)

LYUDKOVSKIY, I.G.

FRENKEL', I.M., kand. tekhn. nauk; MIRONOV, S.A., doktor tekhn. nauk, prof.; BARANOV, A.T., kand. tekhn. nauk; BUZHEVICH, G.A., kand. tekhn. nauk; MIKHAYLOV, K.V., kand. tekhn. nauk; MULIN, N.M., kand. tekhn. nauk; KHAYDUKOV, G.K., kand. tekhn. nauk; KORNEV, N.A., kand. tekhn. nauk; TESLER, F.A., kand. tekhn. nauk; BERCICHEVSKIY, G.I., kand. tekhn. nauk; VASIL'YEV, A.P., kand. tekhn. nauk; LYUDKOVSKIY, I.G., kand. tekhn. nauk; SVETOV, A.A., kand. tekhn. nauk; CHINENKOV, Yu.V., kand. tekhn. nauk; BELOBROVYY, K., inzh.; KLEVTSOV, V.A., inzh.; DOBROMYSLOV, N.S., arkh.; DESOV, A.Ye., doktor tekhn. nauk, prof.; LITVER, S.L., kand. tekhn. nauk; PISHCHIK, M.A., inzh.; SKLYAR, B.L., inzh.; POPOV, A.P., kand. tekhn. nauk; NEKRASOV, K.D., doktor tekhn. nauk, prof.; MILOVANOV, A.F., kand. tekhn. nauk; TAL', K.E., kand. tekhn. nauk; KALATUROV, B.A., kand. tekhn. nauk; KARTASHOV, K.N., red.; MAKARICHEV, V.V., kand. tekhn. nauk, red.; YAKUSHEV, A.A., inzh., nauchnyy red.; BEGA, B.A., red. izd-va; NAUMOVA, G.D., tekhn. red.

[Reinforced concrete products; present state and prospects for development] Zhelozobetonnye konstruktsii; sostoianie i perspektivy razvitiia. Pod obshchei red. K.N.Kartashova i V.V.Makaricheva. Moskva, Gosstroizdat, 1962. 279 p.  
(MIRA 15:8)

(Continued on next card)

FRENKEL', I.M. --- (continued) Card 2.

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i zhelezobetona, Perovo. 2. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Kartashov). 3. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Mironov). 4. Gosudarstvennyy institut tipovogo proyektirovaniya i tekhnicheskikh issledovaniy (for Berdichevskiy, Vasil'yev, Lyudkovskiy, Svetov, Chinenkov, Belobrovyy, Klevtsov, Dobromyslov). 4. Vsesoyuznyy gosudarstvennyy proyektno-konstruktorskiy institut (for Desov, Litver, Pishchik).

(Precast concrete)

KOLTOVER, A.N.; LYUDKOVSKAYA, I.G. (Fomina); VERESHCHAGIN, N.V. (Moskva)

Pathogenesis and morphology of disorders of cerebral blood circulation in diseases of the carotid and vertebral arteries. Arkh. pat. 24 no.8:18-26 '62. (MIRA 15:8)

1. Iz laboratorii patomorfologii nervnoy sistemy (zav. - dotsent A.N. Koltover) Instituta nevrologii AMN SSSR (dir. - prof. N.V. Konovalov).

(CEREBROVASCULAR DISEASE) (CAROTID ARTERY—DISEASES)  
(VERTEBRAL ARTERY—DISEASES)

KOLTOVER, A.N.; LYUDKOVSKAYA, I.G.; GANNUSHKINA, I.V.

Morphological changes in the brain in various localizations  
of the thrombus in the internal carotid artery. Nauch. inform.  
Otd. nauch. med. inform. AMN SSSR no.1:56-58 '61.  
(MIRA 16:11)

1. Institut nevrologii (direktor - deystvitel'nyy chlen AMN  
SSSR prof. N.N. Konovalov) AMN SSSR, Moskva.

\*

SHMIDT, Ye.V.; D HIBLADZE, D.N.; LYUDKOVSKAYA, I.G.

Bilateral thrombosis and stenosis of the carotid arteries.  
Zhur. nevr. i psikh. 64 no.10:1433-1441 '64. (MIRA 17:11)

1. Institut neurologii (direktor - prof. N.V. Koncvalov)  
AMN SSSR, Moskva.

region of the extracranial space  
encephalomalacia. (Data from  
1. Institut neurologii i  
SSSR, Moskva.

LYUDKOVSKAYA, M. A.

ca

The purification of nitrogen-hydrogen mixtures from organic sulfur by a catalytic method. A. V. Avdeeva and M. A. Lyudkovskaya. *J. Chem. Ind. (U. S. S. R.)* 14, 314-31 (1937). - A catalyst consisting of a mixt. of  $Al_2O_3$ ,  $CaO$ ,  $SiO_2$  and  $TiCl_4$ , activated by addn. of 35% bauxite, is stable over long periods of time and removes 99% of the  $CS_2$  from a H-N mixt. at 300° and 100% at 400°.

H. M. Leicester

438 314 METALLURGICAL LITERATURE CLASSIFICATION



*Chem. Tech. Sci.*

LYUDKOVSKAYA, M. A.

"Solubility of Carbon Dioxide in Solutions of Ethanolamines Under Pressures." Sub 14 May 47, Moscow Order of Lenin Chemicotechnological Inst imeni D. I. Mendeleev

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum.No. 457, 18 Apr 55

CA LYUDKOVSKAYA, M.A.

Solubility of carbon dioxide in solutions of ethanolamines under pressure. M. A. Lyudkovskaya and A. G. Lefshah (State Inst. Nitrogen Ind.). *Zhur. Priklad. Khim.* (J. Applied Chem.) 22, 558-57 (1949).—Solubilities (in moles CO<sub>2</sub>/mole ethanolamine) were detd. at 25, 50, and 75° in 0.5, 2, and 5 N aq. solns. of mono- and triethanolamine (I and III) under CO<sub>2</sub> pressures p up to 40 atm. The dif. ference between the soly. in the soln. and in H<sub>2</sub>O gives the amt. of CO<sub>2</sub> bound chemically. That amt. increases with p. only up to a certain limit, and then remains const. with further increasing p, whereas the total soly. continues to increase with p. The limit corresponds evidently to the binding of the total ethanolamine present, and its values indicate that, in the process of absorption of CO<sub>2</sub>, the ethanolamine is converted to bicarbonate. With increasing concn. of ethanolamine, the equll. content of CO<sub>2</sub> (per l. of soln.) increases linearly in the case of I, whereas in the case of III the increase is linear only up to 2.5 N, and slower than linear between 3.5 and 5 N. The coeff. of utilization decreases with increasing concn.; thus, at 50°, under 10 atm., the soly. of CO<sub>2</sub> (mole/mole I) in a 0.5 N soln. is 1.3, and a 5 N soln. only 0.78. With the temp. rising from 25 to

75°, the soly. of CO<sub>2</sub> in either I or III decreases by a factor of 1.3-1.8. The equll. content y of CO<sub>2</sub> (in moles/1000 g. H<sub>2</sub>O) varies with the temp. t according to  $y = a - bt$ . Selected values of a, b, are: p(CO<sub>2</sub>) = 3, 10, 40 atm.: I, 0.5 N, a = 0.70, 0.92, 1.60, b = 0.0035, 0.0082, 0.0093; III, 5 N, a = 5.95, 6.35, 8.20, b = 0.023, 0.026, 0.032; III, 0.5 N, a = 0.76, 1.09, 1.76, b = 0.0053, 0.0074, 0.012; 5 N, a = 6.50, 7.70, 9.20, b = 0.033, 0.061, 0.054. The conversion of the ethanolamine to bicarbonate (not to carbonate) is borne out by thermodynamic calcn. which shows the equation  $f_2'/f_2 = (m_2 - m_2')/m_2$  [f = fugacity, CO<sub>2</sub>] to be in agreement with the Gibbs-Duhem equation. In the equation  $\log K' = \log [m_2/(m_2 - m_2')] + (\alpha/T)m_2 + (\gamma/T)m_2$ , with  $K' = K h_2/k_2$  (k = Henry coeff.,  $K = f_2'/a_2$ , with  $a_2$  = fugacity of the bicarbonate), the numerical values (in the range 0.5-4 N), at 25, 50, 75°, are: I, K = 29.8, 29.0, 7.0;  $10^4 \alpha = -4.3, -2.3, -1.6$ ;  $10^4 \gamma = 7.3, 5.0, 3.8$ ; II,  $K' = 7.95, 3.15, 1.63$ ;  $10^4 \alpha = 1.4, 1.4, 1.3$ ;  $10^4 \gamma = 0.67, 2.0, 2.6$ . Differential heats of soln.  $\Delta H$  of CO<sub>2</sub> in solns. of I and III, calcd. by the Gibbs-Helmholtz equation, vary with  $m_2$  and  $m_2'$ , the  $\Delta H$  are max. -15 kcal./mole CO<sub>2</sub> in solns. contg. little CO<sub>2</sub>, where the chem. reaction between CO<sub>2</sub> and the ethanolamine plays the preponderant role, and draw close to the 3-4 kcal. corresponding to soln. of CO<sub>2</sub> in pure H<sub>2</sub>O when most of the CO<sub>2</sub> is bound by the ethanolamine. N. Thon

Lyudkovskaya, M. A.

~~The present status of urea manufacture. N. A. Gol'dberg, M. A. Lyudkovskaya, S. D. Fridman, and V. I. Zagranichnyi. *Khim. Nauka i Prom.* 1, 669-80 (1955).  
Review with 84 references. I. Benowitz~~

4

5(1),5(4)

AUTHORS:

Lyudkovskaya, M. A., Candidate of SOV/64-58-7-10, 18  
Technical Sciences, Fridman, S. D., Candidate of Chemical  
Sciences, Savel'yeva, L. I.

TITLE:

Separation of the Mixtures Carbon Dioxide and Ammonia With  
Aqueous Solutions of Monoethanol Amines (Razdeleniye smesey  
dвуokisi ugleroda i ammiaka vodnymi rastvorami monoetanolamina)

PERIODICAL:

Khimicheskaya promyshlennost', 1958, Nr 7, pp 423-429 (USSR)

ABSTRACT:

V. S. Sveshnikova, M. Ya., Futoryanskaya, A. N., Mukhina, R. Ya,  
Kirindasova and M. D. Mantrova took part in this work. To devise  
a recirculation scheme of a selective CO<sub>2</sub>-absorption in aqueous  
monoethanol amine (MEA) solutions in the (Ref 1) urea synthesis  
data on the solubility and solution kinetics of the ammonia -  
carbon dioxide mixtures must be known. As there are no such data  
available in publications the authors carried out corresponding  
experiments. The phase equilibrium in the system MEA-NH<sub>3</sub>-CO<sub>2</sub>-H<sub>2</sub>O  
was investigated according to the dynamic method. The arrangement  
and method employed were taken from the paper by D. S. Tsiklis  
and A. N. Kofman (Ref 2). The partial pressure of CO<sub>2</sub> decreases  
(the solubility increases) with the increase of the NH<sub>3</sub> content

Card 1/3

Separation of the Mixtures Carbon Dioxide and Ammonia SCV/64-58-7-10/16  
With Aqueous Solutions of Monoethanol Amines

in the solution. The partial pressure of  $\text{NH}_3$  is a linear function of the  $\text{CO}_2$ -concentration. According to the diagrams  $\lg P = f\left(\frac{1}{T}\right)$  the solution heat of  $\text{NH}_3$  and  $\text{CO}_2$  were calculated. As compared to the solubilities in pure water it was found that by the presence of MEA the solubility of  $\text{CO}_2$  increases and that of  $\text{NH}_3$  decreases. Under certain conditions the partial pressure of  $\text{CO}_2$  can drop to zero whereas (under the same conditions) that of  $\text{NH}_3$  attains considerable values. In a schematically shown arrangement the influence exerted by some factors upon the absorption degree of  $\text{NH}_3$  was investigated. At a complete  $\text{CO}_2$ -absorption the absorption degree of  $\text{NH}_3$  decreases with the increase in temperature, the increase of the MEA concentration, a decrease of the intensity of moistening and an increase of the molar ratio  $\text{NH}_3 : \text{CO}_2$  in the gas mixture. In the experiments on the  $\text{NH}_3$  desorption the authors worked with steam besides an inert gas in a column suggested (Figure) by the Dzerzhinskiy filial GIAP (Dzerzhinskiy Branch of the GIAP). The viscosities of the MEA solutions with  $\text{CO}_2$  and  $\text{NH}_3$  were determined in a viscosimeter according to Pinkevich. At a constant  $\text{CO}_2$ -content

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Separation of the Mixtures Carbon Dioxide and Ammonia      SCV/64-58-7-10/18  
With Aqueous Solutions of Monoethanol Amines

the viscosity is practically independent of the  $\text{NH}_3$ -concentration, whereas at a constant  $\text{NH}_3$ -content the viscosity of the solutions increases considerably with the increase of the  $\text{CO}_2$ -concentration. Based on the results obtained a scheme for the separation of  $\text{NH}_3$  and  $\text{CO}_2$  from distillation gases according to the urea synthesis is given. There are 14 figures, 4 tables, and 5 references, 3 of which are Soviet.

Card 3/3

ACCESSION NR: AP4034713

S/0064/64/000/004/0244/0248

AUTHOR: Iovi, A; Torocheshnikov, N. S.; Lyudkovskaya, M. A.; Klevke, V. A.; Mukhina, A. I.

TITLE: Production of urea based on carbon monoxide

SOURCE: Khimicheskaya promy'shennost', no. 4, 1964, 244-248

TOPIC TAGS: urea, production, process, carbon monoxide, sulfur, solubility, methanol, sulfur methanol system, urea methanol system, heat of solution, reaction mechanism

ABSTRACT: To obtain data for the production of urea from CO, NH<sub>3</sub> and S in methanol solvent, the solubility of sulfur and of urea in methanol was determined, and the effects of temperature and pressure on the reaction were investigated. Sulfur is only slightly soluble in methanol, < 0.5 gm/100 gm at 50C, still less soluble in methanol + H<sub>2</sub>O, and only slightly more soluble in methanol + H<sub>2</sub>S or methanol + NH<sub>3</sub> (2 gm/100 gm methanol + 11.5% NH<sub>3</sub> at 150C). The solubility of sulfur in methanol containing NH<sub>3</sub> + H<sub>2</sub>S is sufficiently great (fig. 1, lines 4,5) to warrant using these methanol mixtures as solvents for the urea-forming reaction. The

Card 1/4

ACCESSION NR: AP4034713

solubility of urea in methanol is shown in fig. 2. The heats of solution of urea in methanol (5420 cal/mol) and of sulfur in methanol and in the various methanol,  $H_2S + NH_3$  mixtures were calculated. The effect of temperature on urea yield was studied in a series of laboratory runs: reaction time, 1 hour; S:NH<sub>3</sub>:CO = 1:1.28:1.36. The reaction mechanism proposed by R. A. Franz, F. Applegath (J. Org. Chem., 26, No. 9, 3304 (1961)) was substantiated. The rapid pressure drop in the first 10 minutes of reaction was attributed to solution of CO and formation of urea and ammonium hydrosulfide; after reaction was established, the slight pressure rise was attributed to H<sub>2</sub>S formation. The yield of urea increased as temperature increased from 90 to 120C, then progressively decreased at higher temperatures due to isocyanuric acid decomposition. Orig. art. has: 9 figures, 1 table and 6 equations.

ASSOCIATION: None

SUBMITTED: 00

ENCL: 02

SUB CODE: IC

NO REF SOV: 008

OTHER: 010

Card 2/4

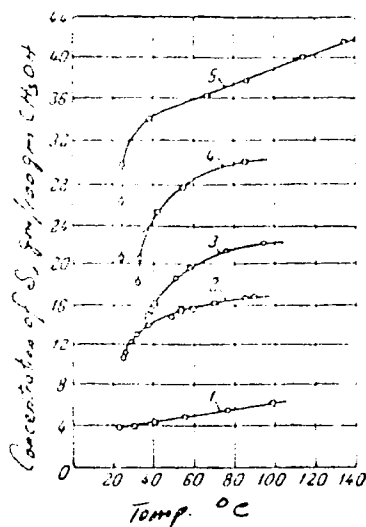


ACCESSION NR: AP4034713

ENCLOSURE: 01

Fig. 1. Solubility of sulfur in methanol containing ammonia and hydrogen sulfide:

- 1--11.5% NH<sub>3</sub> 0.83% H<sub>2</sub>S;
- 2--11.5% NH<sub>3</sub> 2.5% H<sub>2</sub>S;
- 3--21% NH<sub>3</sub> 2.55% H<sub>2</sub>S;
- 4--21% NH<sub>3</sub> 3.5% H<sub>2</sub>S;
- 5--21.5% NH<sub>3</sub> 4.33% H<sub>2</sub>S.



Card : 3/4

ACCESSION NR: AP4034713

ENCLOSURE: 02

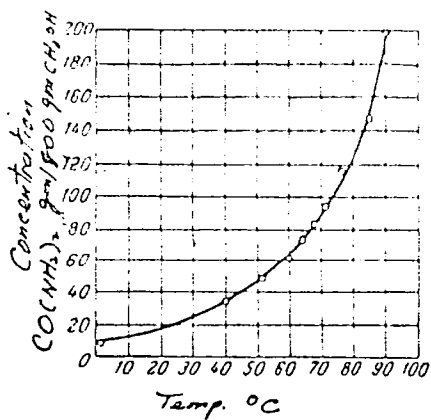


Fig. 2. Solubility of urea in methanol.

Card 4/4

1001  
K...

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L 8402-65 EWT(m)/EPF(c)/ENP(j) Pc-4/Pr-4/Pb-4 RPL/RAEM(1) RM

ACCESSION NR: AP4043754 S/0064/64/000/008/0025/0027

AUTHOR: Iovi, A.; Torochashnikov, N. S.; Lyudkovskaya, N. A.;  
Kievke, V. A. B

TITLE: Preparation of urea from carbon monoxide

SOURCE: Khimicheskaya promyshlennost', no. 8, 1964, 25-27

TOPIC TAGS: urea, urea preparation, ammonia, carbon monoxide, sulfur, hydrogen sulfide, methanol

ABSTRACT: The authors have described in a previous study (Khim. prom., no. 4, 1964, 244) equipment and a procedure for the preparation of urea from ammonia, carbon monoxide, and sulfur in methanol at 100-120C and at up to 21 atm. They showed that this process is of potential interest for the production of urea on an industrial scale. This paper deals with the effects of the component ratio, reaction time, and addition of hydrogen sulfide to the reaction mixture on the yield of urea under various conditions. Most experiments were conducted with a  $\text{NH}_3/\text{S}/\text{CO}$  ratio of 1.4/1/1.36. It was shown that: 1) The role of  $\text{H}_2\text{S}$  is reduced to facilitating the dissolution of S in methanol.

Card 1/2

L 8402-65

ACCESSION NR: AP4043754

2

H<sub>2</sub>S should not be used when urea is produced batchwise. H<sub>2</sub>S must be used when urea is prepared by a continuous process in which the reaction mixture is prepared outside the synthesis column in order to prevent the deposition of S in the apparatuses and tubing. 2) The highest urea yields are obtained when ammonia is used in 60--70% excess. 3) The methanol concentration of the reaction mixture can vary from 54 to 75% depending on other reaction conditions. 4) A reaction time of 25--30 min is adequate. 5) In one of the experiments the urea yield increased from 92% to 94.3% with an increase of the temperature from 100 to 120°. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: MKhTI im. Mendeleeva; GIAP

SUBMITTED: 00

ATD PRESS: 3101

ENCL: 00

SUB CODE: GC

NO REF SOV: 001

OTHER: 001

Card 2/2

IOVI, A.; TROCHESHNIKOV, N.S.; LYUDKOVSKAYA, M.A.; KLEVKE, V.A.

Production of urea on the base of carbon monoxide. Khim. prom.  
40 no.8:585-587 Ag '64. (MIRA 18:4)

1. Moskovskiy ordena Lenina khimiko-tekhnologicheskiiy institut  
imeni D.I.Mendeleyeva i Gosudarstvennyy nauchno-issledovatel'skiy  
i proyektnyy institut azotnoy promyshlennosti i produktov  
organicheskogo sinteza.

L 27954-66 EWT(m)/EWP(j) RM

ACC NR: AP6017735

SOURCE CODE: UR/0064/65/000/011/0020/0023

AUTHOR: Iovi, A.; Torochesnikov, N. S.; Lyudkovskaya, M. A.; Klayka, V. A.

ORG: MIKHTI im. D. I. Mendeleev; GIAP

30  
B

TITLE: Preparation of urea based on carbon monoxide

SOURCE: Khimicheskaya promyshlennost', no. 11, 1965, 20-23

TOPIC TAGS: urea, ammonia, carbon dioxide, carbon monoxide, organic synthetic process

ABSTRACT The synthesis of urea based on carbon monoxide has a number of advantages in comparison with its production from carbon dioxide and ammonia: considerably lower pressure (approximately 21 atm. instead of 200) and temperature (110° instead 200°C); higher yield of the product (98% instead of 50-60%) with a considerably lower excess of ammonia (40% instead of 100-200%) and higher degree of conversion to urea in a single pass (68.5% instead of 17-25%); possibility of using construction material of cheaper steels; use of gaseous ammonia.

The proposed method of obtaining urea from carbon monoxide not only expands the raw material base for its productions but also is economically advantageous. Orig. art. has: 4 figures and 1 table. [JPRS]

SUB CODE: 07/ SUBM DATE: none / ORIG REF: 005/ OTH REF 002

Card 1/1

BLG

UDC: 661.717.5.002.3:661.993

LYUDKOVSKAYA, M.A.; FRIDMAN, S.D.; KLEVKE, V.A.

Removal of carbon dioxide from gases by means of a "hot" potash solution. Khim. prom. 41 no.5:339-343 My '65. (MIRA 18:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza.



NISEVICH, Nina Ivanovna; LAGUTINA, Ye.V., red.; LYUDKOVSKAYA, N.I.,  
tekhn.izd.

[Diphtheria] Difteria. Moskva, Gos.izd-vo med.lit-ry, 1960.  
17 p. (MIRA 13:11)

(DIPHTHERIA)

LYUDKOVSKAYA, P.G.; KAYUSHIN, L.P.

Effect of ultraviolet irradiation on single nerve fibers.  
Biofizika 5 no.1:40-45 '60. (MIRA 13:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(ULTRAVIOLET RAYS eff.)  
(NEURONS radiation eff.)

LYUDKOVSKAYA, R.G.

Diffraction spectrum of striated muscle during different types of  
contraction. Trudy fiziol. inst. 4:235-268 '49. (MLRA 9:5)  
(MUSCLE) (SPECTRUM ANALYSIS)

LYUDKOVSKAYA, R.G.:FRANK, G.M.

Visual modifications in myelinated nerve during irritation. Doklady  
Akad. nauk SSSR 87 no. 3:389-392 21 Nov 1952. (CML 23:5)

1. Presented by Academician A. I. Oparin 20 September 1952. 2. In-  
stitute of Biophysics of the Academy of Sciences USSR.

1. LYUDKOVSKAYA, R. G.
2. USSR (600)
4. Unionidae
7. Structural processes in the nerve tissue of the Anodonta. Dokl. AN USSR 37 no. 5, 1952.

9. Monthly Lists of Russian Accessions, Library of Congress, March 1953, "Unclassified."

LYUDKOVSKAYA, R.G.

KAYUSHIN, L.P.; LYUDKOVSKAYA, R.G.

Study of elastic and volume modifications in nerve tissues by  
light-interference method. Dokl. AN SSSR 95 no.2:253-255 Mr '54.  
(MLRA 7:3)

1. Institut biologicheskoy fiziki Akademii nauk SSSR.  
(Nerves) (Interferometer)

LYUDKOVSKAYA, R.G.

Effect of the nervous system on the structure and functional stability  
of the muscle. Trudy Inst.biol.fiz. no.1:30-34 '55. (MLBA 9:9)  
(NERVOUS SYSTEM) (MUSCLE)

KAYSHIN, L.P.; LYUDKOVSKAYA, R.G.

Changes in the volumetric and elastic properties of the nerve during  
the conduction of excitation and their connection with bioelectric  
potentials. Trudy Inst.biol.fiz.no.1:40-49 '55. (MIRA 9:9)  
(NERVES) (ELECTROPHYSIOLOGY)



KAYUSHIN, L.P.; LYUDKOVSKAYA, P.G.

Elasticity and electric manifestations in the nerve in  
distribution of irritation. Dokl. AN SSSR 102 no. 4: 727-  
728 Je '55. (MIRA 8:9)

1. Institut biologicheskoy fiziki Akademii nauk SSSR  
(NERVES, physiology,  
eff. of impulse on elasticity & electrophysiol)

*Л. Ю. Д. К. О. В. С. К. А. Я. А. В. А.*  
LYUDKOVSKAYA, R.G.; ALEXSEYBENKO, N.Yu.

Effect of an ultrahigh-frequency field on the diffraction spectrum  
of striated muscles of the frog. Mat. po evol. fiziol. 1:183-191  
'56. (MIRA 11:1)

(MICROWAVES--PHYSIOLOGICAL EFFECTS)  
(MUSCLE) (DIFFRACTION)

Country : USSR  
 Author : Levin, I. P. & Golikova, N. G.\*  
 Institute : The Department of Polymer's Elastic Properties of the Academy of Sciences of the USSR  
 Title : Dependence of the Length of the Elastic Properties of Polymers on Temperature  
 Crit. Inc. : Phys. Rev., 1971, 1, 1, 101-111

Abstract : The relationship between the length of the elastic properties and the temperature was studied for polymers in the range 6 to 400 K. The length of the elastic properties was measured by the method of the change of the length of the polymer chains microscopically. The length of the elastic properties was measured and the length of the polymer chains remained constant. The length of the elastic properties was measured and the length of the polymer chains remained constant.

1/4

Country : USSR  
 Category : Muscular and Animal Physiology,  
 Nervous and Muscle Physiology.  
 Doc. No. : 100-103, 023, 1001, 100124

Author :  
 Institut.  
 Title :

Doc. No. :

Abstract :  
 (cont)

19611. The authors report their dependence to elastic properties of the nerve. As the nerve was continuously pulled, the elasticity became a function of length, called "flowing" of the elastic substance, it became somewhat weaker. In 10% of cases when 100% were used, the sample lost its dependence upon time some time after the load was applied. If the nerve length was stable, the curve of diminished tension was

Cont: 2/4



Country : USSR  
 Institute : Institute of Medical Physiology,  
 Army Medical Academy,  
 Moscow, U.S.S.R., 125180, U.S.S.R.

Author :  
 Institution :  
 Title :

Original Source :

Abstract :  
 (cont) ... of the ...  
 ... of the ...  
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Index : 1/4

USSR / Human and Animal Physiology (Normal and Pathological).  
Neuromuscular Physiology.

T

Abs Jour : Ref Zhur - *Biologiya*, No 13, 1958, No. 60664

Author : Lyudkovskaya, R. G.

Inst : Not given

Title : Some Structural and Chemical Phenomena in an Irritable Neuron

Orig Pub : *Biofizika*, 1957, 2, No 5, 589-601

Abstract : A short description of data obtained by a series of authors (X-ray methods, electron microscopy and other methods allowing intravital observation, double diffraction, light-scattering under different angles, dark field, spectral photometry in the ultraviolet region, intravital staining, etc.) indicates structural changes of the nerve conductor during excitation. Volume-elasticity changes are found in the excitation of myelin, as well as in

Card 1/2

USSR / Human and Animal Physiology (Normal and Pathological).  
Neuromuscular Physiology.

T

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 60604

unmyelinated nerve fibers. Proofs of shifts of protein metabolism changes in the nerve cell (cytochemical method) during excitation are adduced. Facts about nucleic acid, enzyme and nucleoprotein, indicate a connection with the structural changes in the physico-chemical state of the proteins in the process of nervous activity. -- F. I. Mamladze

Card 2/2

107



LYUDKOVSKAYA, R.G.; KAYUSHIN, L.P.

Effect of light on the electrical activity of the giant axon of a squid and the myelinated fiber of a frog. Biofizika 4 no. 4:404-413 (MIRA 14:4) '59.

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(ELECTROPHYSIOLOGY) (NERVES)  
(LIGHT—PHYSIOLOGICAL EFFECT)

KAYUSHIN, L.P.; LYUDKOVSKAYA, R.G.; SHMELEV, I.P.

Ultraviolet absorption by the giant axon of sepia in a state of rest  
and excitation. Biofizika 5 no.3:279-283 '60. (MIRA 13:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(NERVES) (ULTRAVIOLET RAYS)

L'VOV, K.M.; KAYUSHIN, L.P.; LYUDKOVSKAYA, R.G.

Relationship between highly elastic properties of the nerve fiber  
and certain functional characteristics. Biofizika 5 no. 3: 379-381  
'60. (MIRA 13:7)

1. Institut biologicheskoy fiziki AN SSSR. Moskva.  
(NERVES)

LYUDKOVSKAYA, R.G.; KAYUSHIN, L.P.

Photodynamic effect of various fluorescent dyes on the excitable  
giant axon. Biofizika 5 no. 6:663-670 '60. (MIRA 13:10)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(STAINS AND STAINING (MICROSCOPY)) (FLUORESCENCE)  
(ELECTROPHYSIOLOGY)

LYUDKOVSKAYA, R.G.

Some characteristics of photostimulation of the giant axon in cuttlefish. Biofizika 6 no.3:300-308 '61. (MIRA 14:6)

1. Institut biologicheskoy AN SSSR, Moskva.  
(LIGHT—PHYSIOLOGICAL EFFECT) (ELECTROPHYSIOLOGY)  
(NERVES)

LYUDKOVSKAYA, R.G.

Photostimulation of single myelin fibers in the frog. Biofizika 7  
no.4:417-425 '62. (MIRA 15:11)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.  
(NERVES) (LIGHT--PHYSIOLOGICAL EFFECT)

LYUDKOVSKAYA, R.G.

Light excitation of the giant cuttlefish axon and myelinated frog  
fiber. Trudy MOIP. Otd. biol. 9:230-234 '64.

(MIRA 18:1)

1. Institut biofiziki AN SSSR, Moskva.

LYUDKOVSKAYA, R.G.; PANGELOVA, T.K.

Light stimulation of the giant axon in rain worms. Biofizika 10 no.2:  
288-291 '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.



BURSHTEYN, E.A.; LYUDKOVSKAYA, R.G.; SUSLOVA, T.B.

Effect of acridine ~~and~~ and safranine on the kinetics of actomyosin  
enzyme substrate complex. Biofizika 10 no.2:217-220 '65. (MIRA 18:7)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.

LYUB KOVCHAY ...

Study of the optical properties of the ...  
and at different stages of ...  
520-550 ... Ag 168. MIRA 18 9

L. Laboratoriya ...  
Moskva

LYUDKOVSKIY, I. G.

35259. Vysokonapornyye predvaritel'no napryazhenyye zhelezobetonnyye truby.  
Trudy IV vsesoyoz. Konf-tsii po beton i zhelezobeton. Konstruktsiyam, Ch.  
I. M.-L., 1949, S. 248-60

SO: Letopis' Zhurnal'nykh Statey Vol. 34, 1949 Moskva

LYUDKOVSKIY, I.G., kandidat tekhnicheskikh nauk, laureat Stalinskoy premii.

Large panel floor and ceiling structures. *Biul.stroi.tekh.* 10 no.15:1-4  
0 '53. (MLRA 6:10)

I. Giprotis.

(Floors) (Ceilings)

LYUDKOVSKIY, I.G., kandidat tekhnicheskikh nauk.

Testing certain types of precast reinforced concrete elements.  
Biul. stroi. tekhn. 13 no.6:5-9 Je '56. (MLRA 9:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut promyshlennykh  
sooruzheniy.  
(Precast concrete--Testing)

LYUDKOVSKIY, I.G., kandidat tekhnicheskikh nauk.

Prestressed reinforced elements for roofs of industrial buildings.  
Biul.stroi.tekh.13 no.7:10-15 J1 '56. (MLRA 9:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut promyshlennykh  
sooruzheniy.  
(Girders) (Prestressed concrete construction)

LYUDKOVSKIY, I.O., and others.

Let's develop production of reinforced concrete pipes. Bet. 1:2000.-  
Pat. no. 51227. 1978. (MLRA 10:11)  
Pipe, Concrete.

LYUDKOVSKIY, I.G., kand.tekhn.nauk

Using reinforced concrete in heavy machinery and press manufacture.  
Izv.ASiA no.4:88-107 '59. (MIRA 13:6)  
(Reinforced concrete)  
(Machinery--Construction)  
(Power presses)



KARTASHOV, K.N.; LYUDKOVSKIY, I.G., kand. tekhn. nauk

Using reinforced concrete in heavy machinery manufacture.  
From. stroi. 37 no.6:33-39 Je '59. (MIRA 12:8)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury  
SSSR (for Kartashov). 2. Nauchno-issledovatel'skiy institut betona  
i zhelezobetona (for Lyudkovskiy).  
(Machinery industry) (Reinforced concrete)

LYUDKOVSKIY, I.G., kand.tekhn.nauk

Characteristics of cable-suspended systems and suspension shells  
and some recommendations concerning their design. Trudy  
NIIZHB no.25:31-56 '62. (MIRA 16:2)  
(Roofs, Suspension)

LYUDKOVSKIY, I.G., kand. tekhn. nauk, red.

[Use of reinforced concrete in the manufacture of machinery]  
Primenenie zhelezobetona v mashinostroenii; sbornik statei.  
Moskva, Mashinostroenie, 1964. 501 p. (MIRA 17:11)

L 34516-55 EWC(S)-2/EWT(m) Pr-4 GS

ACCESSION NR: AT5002400

S/0000/0000/000/0016/0042 12

B+1

15

AUTHOR: Lyudkovskiy, I. G.

TITLE: Some basic results of investigations on the use of reinforced concrete in heavy machine construction and press construction.

SOURCE: Primeneniye zhelezobetona v mashinostroyeni (Use of reinforced concrete in machinery manufacture); sbornik statey, Moscow, Izd-vo Mashinostroyeniye, 1964, 16-42

TOPIC TAGS: reinforced concrete, machine construction, press design, prestressed concrete, concrete strain

ABSTRACT: In a general review of the use of reinforced concrete in heavy machine construction and press construction, the author lists several factors which should be taken into consideration when reinforced concrete is to be used in heavy machinery. The first subject discussed is a study of the work of concrete and reinforced concrete, taking into account the characteristics of its use in elements of machines. Here, the author reports a detailed investigation of the deformation of reinforced concrete as a result of shrinkage, as well as the limit of elastic work and deformation rate of prestressed reinforced-concrete elements. After this, some  
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ACCESSION NR: AT5002400

new structural designs and diagrams for reinforced-concrete elements of machines are discussed. A detailed explanation of the design of reinforced-concrete hydraulic cylinders and plungers is given as an example. In addition, the rigidity of reinforced-concrete frames is also accounted for. The author concludes by listing the methods for calculating reinforced-concrete designs for machine construction. Orig. art. has: 14 figures and 2 tables.

ASSOCIATION: None

SUBMITTED: 14Apr64

ENGL: 00

SUB CODE: MT

NO REF SOV: 000

OTHER: 000

Card 2/2



L 40940-52

ACC NR: AP6030997

SOURCE CODE: BU/0015/66/027/001/0100/0104

AUTHOR: Filipov, Lyudmil St.

ORG: Main Center for Geological Studies (Glavno upravlenie za geol. prouchvaniya)

TITLE: Tectonic notes concerning a portion of the south-east Strandzha region

SOURCE: Bulgarsko geologicheskoto druzhestvo. Spisanie, v. 27, no. 1, 1966, 100-104

TOPIC TAGS: tectonics, physical geology

ABSTRACT: Portions of the south-east Strandzha region constitute a part of the upper Cretaceous monocline. It comprizes the Paleozoic granit, jura, cenoman, turon, senon, Sredna Gora intrusions, Pliocene and quartar. The author established also the Likurjak and Rozov-Mulde synclines and the Pchelinray anticline and offer a detailed geological descriptions of all these above mentioned forms. Orig. art. has: 2 figures. [JPRS: 36,844]

SUB CODE: 08 / SUBM DATE: 06Apr65 / ORIG REF: 008

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LYUDMILOV, D.S.(Vinnitsa);CHAYKOVSKIY, V.D.(Berdiansk);KUMINOV, G.I.(Shadrinsk)

Problems with practical contents. Mat. v shkole no.6:90 N-D '59  
(Mathematics--Problems, exercises, etc.) (MIRA 13:3)



LYUDMILOV, D.S. (Vinnitsa)

Some errors made in the content of geometrical problems. Mat.  
v shkole no.4:6<sup>4</sup>-65 J1-ag '60. (MIRA 13:9)  
(Geometry--Problems, exercises, etc.)

LYUDMILOV, Dmitriy Semenovich; SIDOROVA, L.A., red.; SMIRNOVA, M.I.,  
tekh. red.

[Problems without numerical data; textbook for teachers] Za-  
dachi bez chislovykh dannyykh; posobie dlia uchitelei. Moskva,  
Gos.uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 239 p.  
(MIRA 15:2)  
(Mathematics--Problems, exercises, etc.)

LYUDMILOV, D.S. (Vinnitsa)

Important means of the development of logical thinking. Mat. v  
shkole no.1:58-62 Ja-F '63. (MIRA 16:6)  
(Arithmetic--Problems, exercises, etc.)

LYUDMILOV, S.A. (Vinnitsa).

Approximate calculation of roots of algebraic equations. Mat. v  
shkole no.3:40-44 Ky-Je '57. (MLRA 10:6)  
(Equations, Roots of)

PHASE I BOOK EXPLOITATION

SOV/4487

Akademiya nauk SSSR. Institut mashinovedeniya. Seminar po teorii mashin i mekhanizmov

Trudy, t. 20, vyp. 80 (Transactions of the Institute of the Science of Machines, Seminar on the Theory of Machines and Mechanisms, Vol. 20, No. 80). Moscow, 1960. 80 p. Errata slip inserted. 3,500 copies printed.

Editorial Board: I.I. Artobolevskiy (Resp. Ed.) Academician, G.G. Baranov, Professor, Doctor of Technical Sciences, M.L. Bykhovskiy, Doctor of Technical Sciences, V.A. Gavrilenko, Professor, Doctor of Technical Sciences, V.A. Zinov'yev, Professor, Doctor of Technical Sciences, A.Ye. Kobrinskiy, Doctor of Technical Sciences, N.I. Levitskiy, Professor, Doctor of Technical Sciences, N.P. Rayevskiy, Candidate of Technical Sciences, L.N. Reshetov, Professor, Doctor of Technical Sciences, and M.A. Skuridin, Professor, Doctor of Technical Sciences; Ed. of Publishing House: V.A. Sokolova-Chestnova; Tech. Ed.: S.G. Tikhomirova.

PURPOSE: This collection of articles is intended for technical personnel interested in the theory of machines and mechanisms.

Card 1/4

Transactions of the Institute (Cont.)

SOV/4487

COVERAGE: The collection contains four articles submitted to the Seminar on the Theory of Machines and Mechanisms. The foreword to the collection was written by I.I. Artobolevskiy, Academician, Scientific Director of the Seminar. Included in the foreword are summaries of the four articles. References accompany three of the articles. All references are Soviet, with the exception of one translation from English.

TABLE OF CONTENTS:

Foreword

3

Sklyadnev, B.N. Application of Chebyshev's Method to the Design of a Conical Mechanism for the Measurement of Areas by a Light Beam

5

The author describes methods for determining optimum parameters of a conical mechanism by using Chebyshev's theory of the optimum approximation of functions. The "conical mechanism" is a cone-shaped instrument with three optical tubes and a photomultiplier tube. The "conical mechanism" is used for constructing pulse-counting devices for more accurate measuring and checking of plane figures.

Card 2/4

Transactions of the Institute (Cont.)

SOV/4487

Vasil'chikov, N.V. Measurement of Displacements by Means of Radioactive Isotopes in Closed Containers Under Pressure 23

The author discusses the problem of recording linear displacements of machine parts not connected with others (e.g., piston of an electro-pneumatic hammer).

Gerts, Ye. V., and G.V. Kreynin. Design of the Double-Acting Pneumatic Piston-Type Actuator 36

The authors describe the method of designing (using dimensionless parameters) a double-acting pneumatic piston-type actuator working with pressures of 5 -6 absolute atmospheres. The methods used in experimental investigation are examined and a comparative analysis of design and experimental data is given.

Lyudmirskaya, I.B. Application of Digital Computers for the Synthesis of Four-Bar Linkage-Type Computing Mechanisms 64

The author emphasizes the importance of digital computers in making it possible to develop new methods for finding the acceptable variant of

Card 3/4

Transactions of the Institute (Cont.)

SOV/4487

a mechanism. Two methods of the synthesis of four-bar linkages are discussed and preparatory work for their solution by computers is described. The author concludes that the method of the quickest triggering action may be used to determine a kinematically sound mechanism.

AVAILABLE: Library of Congress

Card 4/4

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11-18-60



LYUDMIRSKAYA, I. B.

Cand Tech Sci - (diss) "Constructive-precision synthesis of ball-shaped four-member mechanisms with the use of calculating machines." Moscow, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, All-Union Correspondence Polytechnic Inst); 150 copies; free; (KL, 6-61 sup, 220)

; LYUDMIRSKAYA, I.B.

Some results of the use of digital computers for the synthesis of  
four-bar calculating mechanisms. Trudy Inst.mash.Sem.po teor.mash. i  
mekh. 23 no.89/90:51-64 '62. (MIRA 1966)  
(Electronic calculating machines) (Mechanical movements)

LYDMIRSKAYA, L

Sovetska Bashkiriya [Soviet Bashkir] Moskva, Goskinoizdat, 1952.

27 p. illus., Map

119N/5  
621.01  
.L9

KHISHENBAUM, Ya.A., doktor tekhn. nauk; YU. L. KORNO, I.I., inzh.;  
AVERBYUK, B.A., inzh.

Hard facing by injection of a wear-resistant layer of white  
cast iron on steel. Svar. proizv. no.6:2-10 Je '66.

I. Moskovskiy institut neftekhimicheskoy i raznoy promyshlennosti  
im. I.M.Gubkina.

KERSHENBAUM, Ya.M.; LYUDMIRSKAYA, N.G.; TY YUY-FON; AVERBUKH, B.A.

Nature of the adherence of a layer of white cast iron to steel  
on plating by friction. Trudy MINKHIGP 46:213-219 '64.  
(MIRA 17:6)

MARKHASIN, E.L. [deceased]; ANTONOV, A.A. ; LYUDMIRSKAYA, N.G.

Wear of carbon and alloy steels from friction with an abrasive  
monolith. Trudy MINKHIGP no.34:69-78 '61. (MIRA 14:12)  
(Steel Testing)

KERSHENBAUM, Ya.M.; LYUBMIRSKAYA, N.G.; AVERBUKH, B.A.

Certain phenomena when building up bronze on steel by means  
of friction. Trudy MINKHIGP 46:219-226 '64. (MIRA 17:6)

KREIMENBAUM, Ya.M., doktor tekhn. nauk, AVERBUKH, B.A., inzh., LYUDMIRSKAYA,  
N.G., inzh.

Deposition of bronze on steel by friction. (var. poziv.  
no. 5x25-28 My '64. (MIRA 18:11)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti  
imeni Gubkina.



L.YU. DMIRSKIY, D.C.

23(5) PHASE I BOOK EXPLOITATION SOV/2304  
 Moscow. Doc nauchno-tekhnicheskoy propandey izmeni P.R.  
 Dzerzhinskogo

Kompleksnyy, avtomatizatsiya i mekhanizatsiya v mashinostroyeni  
 tekhnicheskoy teorii (Overall Automation and Mechanization in  
 Machine Manufacturing: Collection of Articles) Moscow,  
 Mashgiz, 1959. 312 p. 8,000 copies printed.

Additional Sponsoring Agency: Obshchestvo po rasprostraneniya  
 politicheskikh i nauchnykh znaniy NSPSR.

Ed. I. A. R. Malov, Candidate of Technical Sciences, Tech. Ed.;  
 B.I. Model', Managing Ed. for literature on Metalworking and  
 Toolmaking (Mashgiz); H.D. Beysel'man, Engineer.

PURPOSE: This collection of articles is intended for engineering  
 and technical personnel of plants manufacturing machines and  
 instruments.

COVERAGE: This book acquaints industrial workers with devices  
 and equipment necessary for the overall mechanization and  
 automation of technological processes in machine manufac-  
 turing. Individual articles deal with general problems of  
 automation and mechanization of processes in preparatory,  
 machine, and assembly shops, and with problems arising from  
 the introduction of transfer lines. The book also includes  
 examples of devices and equipment tested and used under actual  
 plant conditions. The source of these data was the meeting  
 on overall mechanization and automation of technological  
 processes held in 1957 by the Moscowskiy Dom nauchno-tekhnich-  
 eskoy propandey, then at Dzerzhinskogo House for  
 Scientific and Technical Propaganda (P. D. Beysel'man).  
 No personalities are mentioned. Several of the articles are  
 followed by references.

- Tubnikov, M.V. Candidate of Technical Sciences. Programmed  
 Control of Metalcutting Machine Tools 105
- Boltukhin, A.K. Engineer. Mechanization and Automation  
 of Machining Processes on Milling Machines 123
- Khitrak, R.S. Engineer. Mechanization and Automation of  
 Grinding Machines 148
- Ferfenov, O.D. Engineer. Self-resetting of Automatic Metal-  
 cutting Machine Tools 171
- Ryabov, M.G. Engineer. Automation of Assembling Pro-  
 cesses in Instrument Manufacture 196
- Yuditskiy, D.G. Engineer. Automatic Lines for Production  
 of Bearings 213
- Khabkin, L. N. Candidate of Technical Sciences. Automatic  
 Rotary Lines (Rotary Machines) 231
- Bobrov, V.P. Candidate of Technical Sciences. Transfer Systems  
 of Automatic Lines 246
- Malov, A.R. Candidate of Technical Sciences. Modern Design  
 of Magazine Loading Devices 266
- Bobrov, V.P. Candidate of Technical Sciences. Automation  
 and Mechanization of Chip Removal on Metalcutting Machine Tools 296

## PHASE I BOOK EXCITATION

SOV/291

Soveshcheniye po razvitiyemuy mekhanizatsii i avtomatizatsii tekhnicheskikh protsessov v mashinostroyeni. Ed. Moscow, 1956

Avtomatizatsiya mashinostroitel'nykh protsessov. t. III: Obrabotka rezaniyem i obrabotke voprosy avtomatizatsii (Automation of Machine-Building Processes. v. 3: Metal Cutting and General Automation Problems) Moscow, Izd-vo AN SSSR, 1958. 296 p. (Series: Its: Trudy, t. 3) 4,700 copies printed.

Sponsoring Agency: Akademiya nauk SSSR, Institut mashinovedeniya, Komitet po tekhnologii mashinostroyeniya.

Resp. Ed.: V. I. Dikushin, Academician; Ed. of Publishing House: V. A. Kotov; Tech. Ed.: I. F. Kuz'min.

PURPOSE: This collection of articles is intended for technical personnel concerned with the automation of the machine industry.

COVERAGE: This is Volume III of the transactions of the Second Conference on the Full Mechanization and Automation of Manufacturing Processes in the Machine Industry, held September 25-29, 1956. The transactions have been published in three volumes. Volume I deals with the hot pressworking of metals, and volume II, with the automation and control of machines. The present volume deals with the automation of metal machining and work-hardening, and with general problems encountered in automation. The transactions on the automation of metal-machining processes were published under the supervision of F. S. Dem'yanok and A. M. Karatygin, and those on the automation of work-hardening processes, under the supervision of E. A. Satei' and M. O. Yakobson. No personalities are mentioned. There are no references.

Eppsher, Yu. B. On the Operation of the Tools in Automatic Production Lines 32

Lovchinskiy, D. G. Experience of the SKB-6 [Special Design Office No. 6] in Designing and Mastering Automatic Production-Line Operations 43

Yegorov, B. V. Automation of Universal Metal-Cutting Machines for Mass Production 53

Meklyudov, G. I. Automatic Machining of Parts Used in Watchmaking 62

Automation of Machine-Building Processes (Cont.) SOV/291

Yakobson, M. O. Automated Production of Gears and Splined Shafts 66

Koshkin, L. N. Automation of Manufacturing Processes Used on Rotary Transfer Machines 82

Ryvkin, G. M. Metal-Cutting Tools for Automated Production 98

Derbisher, A. V. Automation of Manufacturing Processes at the 1 GPZ [1st State Heating Plant] 111

Sokolov, Yu. P. Experience in the Operation of Semiautomatic Hydraulic Copying Machines 124

Vasil'yev, V. S. Automatic Balancing Machines 129

Kuritsyna, A. D. New Advanced Processes for the Mass Production of Sliding Bearings 141

Card 4/7

S/121/63/000/002/004/010  
DC40/D112

AUTHORS: Kapel', A.P., and Lyudmirskiy, D.G.

TITLE: Automatic centerless grinders developed by SKB-6

PERIODICAL: Stanki i instrument, no.2, 1963, 12-16

TEXT: A detailed description is given of the design and operation of the new 6C (6S) basic range of centerless grinder models developed by the Design Office No 6 (SKB-6). It includes seven models - the 6S71, 6S133, 6S136, 6S137, 6S147, 6S68 and 6S168. The first four are now being produced by the Moscow "Stankoliniya" Plant, and the last two are still under development. In all models the grinding wheel and the regulating wheel heads move on the ways while the work rest is fixed, the grinding wheel is fed to the work by tilting the grinding head, the grinding wheel wear is automatically compensated, and the wheel truing is automatic. The basic models, which accommodate work with a maximum diameter between 390 and 15 mm, have also been modified for special purposes. Wide grinding wheels, and grinding on two or three grinders in line instead of using 6 to 20 grinding passes as is usual, are the design features. The hydraulic drive is eliminated in through-feed

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S/121/63/000/002/004/010  
D040/D112

Automatic centerless grinders developed by SKB-6

grinders, and in in-feed grinders the use of hydraulics is minimal. The control of the wheel motion to the work is highly accurate due to a special electrically sensitive limit stop which is illustrated and described. The accuracy of the grinding feed motion control is within 1-2 $\mu$ . If used in transfer lines, all grinders are fitted with automatic loading and unloading devices. A cross section view of the 6S136 is shown. There are 3 figures and 1 table. ✓

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