"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.M.; TAREYEV, B.M.; YAMANOVA, L.V.

"Film capacitors with organic synthetic dielectric" by V.T. Renne. Reviewed by M.M. Lerner, B.M. Tareev, and L.V. IAmanova. Elektrichestvo no.10:94 O '63. (MIRA 16:11)

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ACCESSION NR: AR4034664 S/0196/64/000/003/B014/B015

SOURCE: Ref. zh. Elektrotekhn. i energ., Abs. 3B70

AUTHOR: Lerner, M. M.

TITLE: Oxide capacitors. Lecture

CITED SOURCE: Vses. zaochn. energ. in-t. M., 1963, 84 str.

TOPIC TAGS: capacitor, oxide capacitor, Al oxide capacitor, Ta oxide capacitor, oxide capacitor processing

TRANSLATION: Modern developments in the design and production of oxide capacitors (chiefly based on Al and Ta) in the USSR and abroad are considered. Beside the widely used electrolytic capacitors (type I, according to the author) in which the second electrode is represented by an electrolyte, these other types are considered: type II — the oxide-semiconductor (the second electrode represented by a semiconductor) and type III — the oxide-metal (the second electrode represented by a sprayed metal). In all these cases, the first electrode is represented by a metal with an oxide film which serves as a dielectric. A short classification of oxide capacitors is given in the Section 1; in the Section 2, fundamental

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characteristics, design varieties, and the basic features of production of the oxide capacitors of all three types are described. Prospects of development of the oxide capacitors inferred from many recent publications are set forth in detail in the Section 2. It is noted that while the Al electrolytic capacitors (type I) have been traditionally used in radio and electrical engineering, the Ta electrolytic capacitors (type I) having better characteristics have come into use during the last decade. Wide replacement of Al capacitors with Ta capacitors has been limited by the high cost and critical supply of Ta. Development and wide production of new type II and type III capacitors permit returning to the cheap Al as an anode material which is only slightly inferior to Ta in these capacitors. Four ways for developing type I Al capacitors are considered: (1) reducing size, (2) increasing reliability, (3) widening the working temperature range, and (4) automation of production. The Section 3 sets forth the methods of production of the oxide insulation used in capacitors. Problems of dynamic forming of anode Al foil for the electrolytic capacitors are considered in detail. Trends are indicated in the design of a forming outfit for a specified productivity. It is noted that the fundamental shortcoming of the d-c forming is the necessity of a-c/d-c converters with smoothly controlled output voltage. With an a-c forming: (1) such converters are not required which cuts down the floor area and personnel; (2) standard 220/380-v power transformers can be used for forming the foil for

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various working voltages; in this case, the voltage control can be easily accomplished, first, by varying the length of the immersed part of the foil (i.e., varying the foil resistance), and second, by varying the electrolyte resistance. In addition, the a-c forming permits: (a) a substantially higher power factor of the plant because the forming outfits having a capacitance of a few thousand microfarads are directly connected to the supply network; (b) a complete, continuous, and nondestructive monitoring during the oxidation process by measuring the d-c component of the voltage rectified by the oxide film; (c) a substantial reduction of costly boric acid consumption in the Al-cell forming process because the cells are oxidized to the same degree as the foil; the oxide film protects the cells from corrosion and obviates frequent cleaning and changing the electrolyte; (d) production of higher quality foil which makes possible elimination of the additional preforming operation in the production of Al foil for medium- and high-voltage capacitors. Various schemes of a-c forming are analyzed with regard to: (1) higher quality of oxide film with a lower electric power consumption; (2) higher stability of forming, particularly: (a) independence of the forming conditions of the variation in the foil area and (b) correcting the forming electrolyte every 24 hours or longer periods; (3) supplying the outfits from standard power transformers. Design features of a high-productivity a-c outfit designed for 600 —800 amp in every cell are considered. A simplified

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supply circuit and the design of the cell and outfit protecting hoods are reported. The Section 4 considers the nature of unidirectional conductivity of oxide film on barrier-layer metals. It is demonstrated that the unidirectional conductivity and other characteristics of an oxidized specimen immersed in an electrolyte or dry can be explained by: (a) the existence of a p-n junction in the thin solid film on Al; (b) the presence of defects in the film; and (c) action of electrical-osmosis forces upon the electrolyte in the film pores (see RZhE, 1961, 5B122). Two tables, 20 illustrations. Bibliography: 300 titles.

DATE ACQ: 10Apr64 SUB CODE: EC ENCL: 00

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L 27380-65 EWG(j)/EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EWG(v)/EPR/EPA(w)-2/EWP(j)/T/EWP(t)/EWP(b) Pc-4/Pe-5/Pr-4/Ps-4/Pt-10/Pu-4/Pab-10 IJP(c) WW/RM/WH/JD

ACCESSION NR AM4042767 BOOK EXPLOITATION S/ 91

Tareyev, Boris Mikhaylovich; Lerner, Moisey Mordkovich

Oxidized insulation (Oksidnaya izolyatsiya), Moscow, Izd-vo "Energiya", 1964, 174 p. illus., biblio. 4,000 copies printed.

TOPIC TAGS: oxide insulation, oxide coating, aluminum wire, aluminum foil, anodization

PURPOSE AND COVERAGE: Oxide insulation of aluminum, obtained by electrochemical processing of this metal on alternating or direct current, has many valuable properties: low thickness, high heat resistance, the ability to form in oxide condensers high capacitance when the condenser is small. Oxide insulation is very widely used in condenser building. Besides, it is used to insulate wires in electrical equipment and transformers. This area of application of oxide insulation is very important since the XXII Congress of CPSU increased considerably the production of aluminum and its use in electrification, machine building, construction, and in consumer goods. The book describes methods of oxidizing aluminum, including the progressive continuous processes of oxidation, properties of oxide films, and the diverse applications of oxide insulation in electrical and radio engineering. The book is intended for a broad audience

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ACCESSION NR AM4042767

of engineers and technicians of the electrical and radio industries, workers of cable and condenser plants, designers of electrical and radio equipment, and students of technical educational institutions.

TABLE OF CONTENTS [abridged]:

Introduction -- 3
Ch. I. First-class oxide insulation -- 12
Ch. II. Second-class oxide insulation -- 62
Ch. III. Properties of aluminum oxide films -- 70
Ch. IIII. Use of oxide insulation -- 93
Bibliography -- 145

SUBMITTED: 06Feb64 SUB CODE: MM, EE

NO REF SOV: 156 OTHER: 564

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.M., kand. tekhn. nauk, dots. MATSONASHVILI, L.N., kand. fiz.-matem. nauk, RENNE, V.I., doktor tekhn. nauk, prof.; TAREYEV, B.M., doktor tekhn. nauk, prof., red.

[Electric engineering materials: electric condensers, wires, and cables] Elektrotekhnicheskie materialy, elektricheskie kondensatory, provoda i kabeli 1962-1963. Moskva, 1962. 158 p. (MIRA [illegible])

1. Akademiya nauk SSSR. Institut nauchnoy informatsii.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.N.

Dividing ships into accounting units and calculating costs.
Trudy NTO sud.prom. 8 no.2:91-94 '59. (MIRA 13:5)
(Shipbuilding--Accounting)

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KROKKO, Luidzhi [Crocco, Luigi]; CHZHEN SIN'-I [Cheng, Hsin-i]; ALTUKHOVA, T.F. [translator]; LERNER, M.O. [translator]; SHAULOV, Yu.Kh., red.

[Theory of combustion instability in liquid propellant rocket motors] Teoriia neustoichivosti goreniia v zhidkostnykh raketnykh dvigateliakh. Moskva, Izd-vo inostrannoi lit-ry, 1958. 351 p. [Translated from the English] (MIRA 12:7)
(Rockets (Aeronautics))

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

88001

S/065/60/000/010/005/010
E030/E412

11.7100

AUTHORS: Zaytsev, V.A. and Lerner, M.O.

TITLE: Determination of the Frequency of Surface Combustion in Spark Ignition Engines

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.10, pp.31-34

TEXT: An apparatus has been constructed for determining the frequency of occurrence of surface combustion in spark ignition engines. The fuel is mixed with air at 50°C and fed to a standard ИТ-9 (IT-9) single-cylinder, 900 rpm, spark-ignition research motor, with a compression ratio of 7.5. The occurrence of surface combustion is determined by a radiometer adjacent to the cylinder wall. The whole determination lasts 24 hours, during which the total number of impulses due to surface combustion is recorded by the apparatus. The frequency of occurrence of surface combustion varies with time of running in a complicated and erratic way but the number of pulses integrated over 24 hours is a very reliable and sensitive measure. The number is of the

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88001

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E030/E412

Determination of the Frequency of Surface Combustion in Spark Ignition Engines

order of one to five thousand per day. The variability of repeat results is of the order of 10%. The frequency of surface combustion in motor gasoline A-72 is increased 1.7 times, when it is leaded up to 2 mg/kg (using ethyl fluid Р-9 (R-9)). However, it can be reduced to an exceedingly small value by adding, together with the leading, 0.5 mg/kg of TCP (tricresyl phosphate). There are 4 figures, 2 tables and 11 references: 4 Soviet and 7 non-Soviet.

Acknowledgments are expressed to N. P. Chernov and N. N. Demidov for their participation in the construction of the apparatus.

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LERNER, M. O., Cand. Tech. Sci. (diss) "Investi ation of Properties of Cyclo-pentadiene-carbonyl of Manganese in Engines with Spark Ignition," Moscow, 1961, 12 pp. (Moscow Auto Inst.) 150 copies (KL Supp-12-61, 269).

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.O.

PHASE I BOOK EXPLOITATION SOV/5813

Shaulov, Yukhanan Khaimovich, and Moisey Ovseyevich Lerner

Goreniye v zhidkostnykh raketnykh dvigatelyakh (Combustion in Liquid-Propellant Rocket Engines) Moscow, Oborongiz, 1961. 194 p. Errata slip inserted. 6500 copies printed.

Ed.: V. V. Korobov, Candidate of Chemical Sciences; Ed. of Publishing House: L. I. Sheynfayn; Tech. Ed.: V. P. Rozhin; Managing Ed.: S. D. Krasil'nikov, Engineer.

PURPOSE : This book is intended for industrial engineers. It may also be useful to students in advanced courses and aspirants in related specialties.

COVERAGE: The book describes the fundamentals of the combustion theory and of the working processes in combustion chambers. Kinetics of chemical reactions in flames, combustion instability, and problems of physical and chemical modeling of processes in liquid propellant rocket engines are also discussed. ~~The authors~~

Card 1/1

Chlen-korrespondent AN SSSR (for Predsedatelev)

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S/262/62/000/022/006/007
E194/E135

11.6171

AUTHORS: Lerner, M.O., Zaytsev, V.A., and Aronov, D.M.

TITLE: New anti-knock additives

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk, Silovyye ustanovki, no.22, 1962, 50, abstract 42.22.331. (In collection: Ekspluat.-tekhn. svoystva i primeneniye avtomob. topliv, smazochn. materialov i spetszhidkostey. no.2, 1961, M., Avtotransizdat. 17-18)

TEXT: A new anti-knock additive type ЦТМ (TsTM), based on manganese, has been tested in respect of anti-knock effectiveness, anti-wear properties and the tendency to deposit formation. The results are given and are compared with the corresponding values of standard tetra-ethyl lead fluid P-9 (R-9).

[Abstractor's note: Complete translation.]

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

S/890/61/000/002/002/007
A059/A126

AUTHORS: Lerner, M.O., Engineer, Zaytsev, V.A., Aronov, D.M., - Candidates of Technical Sciences

TITLE: New antiknocks

SOURCE: Moscow. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta. Ekspluatatsionno-tekhnicheskiye svoystva i primeneniye avtomobil'nykh topliv, smazochnykh materialov i spetszhidkostey. no. 2, 1961, 17 - 18

TEXT: Antiknocks based on the dicyclopentadienyl derivatives of metals were found to be equivalent to or exceeding the efficiency of tetraethyl lead. From these compounds, cyclopentadienyl tricarbonyl manganese (CTM) and its methyl derivative (MTCM) were the most outstanding. The antiknock AK-33X (AK-33Kh) based on the latter is also of interest. The toxicity of these antiknocks was experimentally established to be insignificant. The physicochemical properties of many such compounds were described by A.N. Nesmeyanov and Ye.G. Perevalova [Tsiklopentadiamidnyye soyedineniya metallov i rodstvennyye im soyedineniya (Cy-

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A059/A126

New antiknocks

clopentadiamide compounds of metals and related compounds). Uspekhi khimii, XXVII, vyp. 1, 1958].

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

S/890/61/000/002/003/007
A059/A126

AUTHORS: Lerner, M.O., Engineer, Zaytsev, V.A., Aronov, D.M., Candidates of Technical Sciences, Malanichev, S.G., Engineer (Deceased)

TITLE: Antiknock properties of CTM (cyclopentadienyl tricarbonyl manganese)

SOURCE: Moscow. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta. Ekspluatatsionno-tekhnicheskiye svoystva i primeneniye avtomobil'nykh topliv, smazochnykh materialov i spetszhidkostey, no. 2, 1961, 18 - 22

TEXT: The increase in the octane number of technical-grade motor gasoline and mixtures of the individual hydrocarbons was determined in dependence on the CTM and ethylfluid P-9 (R-9) concentrations, respectively, together with the knock-promoting efficiency of hydrocarbon halides (dichloroethane and ethylene bromide) added to ethylfluid to remove completely the metal from the cylinder. The octane numbers were determined with the standard setups ИТ 9-2 (IT 9-2) (motor tests) and ИТ 9-6 (IT 9-6) (research tests), respectively. The response of various types of hydrocarbons to CTM and ethylfluid R-9 was examined with mix-

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tures consisting of n-heptane (40% by volume) and one of the following hydrocarbons: iso-octane, benzene, cyclohexane, and di-isobutylene. Equal response to both CTM and ethylfluid R-9 has been established in all cases. The response of cyclohexane and benzene to CTM was lower than that with iso-octane, while that of di-isobutylene was minimal. In all cases, CTM was more efficient than R-9 in the two technical-grade gasolines A -56 (A-56) and A -72 (A-72) with the response of the latter to both antiknocks being less than that of the former. The octane number of methyl cyclopentadienyl tricarbonyl manganese determined with the research test method is nearly equal to that of CTM. Ethyl bromide in gasoline A-72 containing CTM is less efficient in reducing the octane number of CTM than is dichloroethane. CTM was experimentally shown to be more efficient than tetraethyl lead, and is highly efficient particularly in promoting the response of the fuels. There are 3 figures and 3 tables.

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S/890/61/000/002/004/007
A059/A126

AUTHORS: Lerner, M.O., Engineer, Zaytsev, V.A., Aronov, D.M., - Candidates of Technical Sciences

TITLE: The influence of CTM (cyclopentadienyl tricarbonyl manganese) on sooting in the engine

SOURCE: Moscow. Nauchno-issledovatel'skiy institut avtomobil'nogo transporta. Ekspluatatsionno-tekhnicheskiye svoystva i primeneniye avtomobil'nykh topliv, smazochnykh materialov i spetszhidkostey. no. 2, 1961, 24 - 28

TEXT: The influence of CTM and ethylfluid P-9 (R-9) concentrations, respectively, on sooting with the motor gasoline A-72 (A-72) and the efficiency of hydrocarbon halides on the removal of manganese and its oxides from the combustion chamber have been examined. Antiknock-containing gasoline was tested by weighing the soot formed on the surface of a plug screwed into the combustion chamber. The method developed by K.K. Papok and collaborators [Nagary, lakovyye otlozheniya i osadki v automobil'nykh dvigatelyakh (Soots, deposited coatings,

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and sludges in automobile engines), Mashgiz, 1956] to evaluate sooting of Diesel fuels failed when it was used to examine the efficiency of metal and metal oxide removing agents. For this purpose, a soot-collecting valve was developed (Fig. 5). The quantity of soot on the valve was found to increase with the concentration of the antiknock, with CTM giving less soot than R-9. When, for instance, 1 g of CTM (0.27 g of metal) was contained in 1 kg of fuel, sooting was increased by 93% as compared to the gasoline containing no additive. When dichloroethane and ethyl bromide, respectively, were added in stoichiometric quantities (100%) to gasoline A-72 containing 1 g of CTM, sooting was reduced to 24 and 38%, respectively. If the concentration of the antiknock is further increased, the quantity of soot decreases and approaches that of antiknock-free gasoline. Halide-base removing agents are more efficient in the manganese-containing antiknock than in the lead-containing one. Thus, it has been shown that the new manganese antiknock produces less sooting than tetraethyl lead. There are 3 figures.

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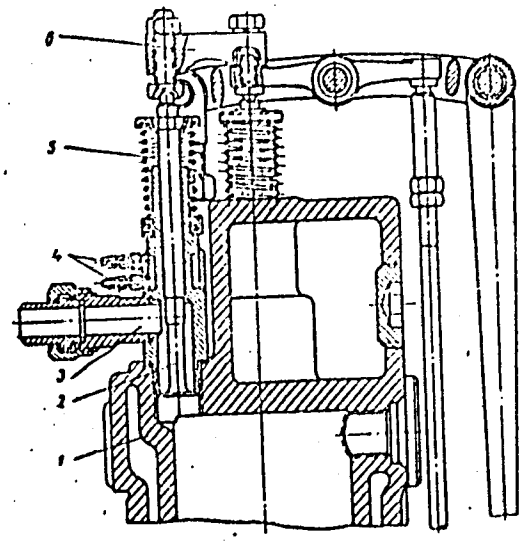

Figure 5: Scheme of the soot-collecting valve setup in the cylinder head of the engine ИТ 9-2 (IT 9-2): 1 - cylinder head; 2 - soot-collecting valve; 3 - outlet of exhaust gases; 4 - coolant supply to the valve sleeve; 5 - valve spring; 6 - valve drive.

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ZAYTSEV, V.A., kand. tekhn. nauk; [illegible], M.[illegible], kand. tekhn. [illegible]
kand. tekhn. nauk; BAKALEYNIK, A.M., inzh.

Effect of functional additives to manganese antiknock compound on the wear and scale formation in an engine. Ekspl.-tekh. [illegible] i prim. avt. top. smaz. mat. [illegible] spetsznid. no.3:5-[illegible]

Evaluating the effect of additives to gasoline on the [illegible] of spark plugs. Ibid.:9-15

[illegible]

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LERNER, M.F., kand. tekhn. nauk

Acoustical spectrometry of the combustion process in spark-ignition engines. Avt. prom. 31 no.8:6-8 Ag '65. (MIRA 18:8)

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L 47386-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACCESSION NR: AP5006823 S/0065/65/000/002/0046/0046

15

B

AUTHOR: Shtifman, L. M.; Kuryakova, L. G.; Lastovich, V. V.; Lerner, M. O.

TITLE: Determination of manganese in gasoline and carbon scale

27

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 2, 1965, 46

TOPIC TAGS: manganese, gasoline, polarographic analysis

ABSTRACT: The authors proposed a polarographic method of determining bivalent manganese in cyclopentadienyltricarbonyl manganese in a supporting electrolyte consisting of an alkaline solution of triethanolamine with preliminary mineralization of the manganese compound samples and carbon scale with concentrated sulfuric acid. For the determination of manganese in gasoline, 4-6 mℓ of gasoline are put in a 250 mℓ Kjeldahl flask and 20 mℓ of concentrated sulfuric acid and 0.4 grams of potassium sulfate are added. The flask is heated until the solution becomes completely clear; if it does not become clear, hydrogen peroxide is added drop by drop. The clear solution is transferred to a 50 mℓ quartz beaker and the liquid is boiled off; then the residue is roasted in a muffle furnace at 800°C. After cooling the

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residue is dissolved in sulfuric acid, transferred to a 100 mℓ measuring flask and distilled water is added to bring it up to the mark. Then 5 mℓ of the solution is transferred to a 50 mℓ measuring flask for polarographic analysis. Orig. art. has: 2 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: FP, GC

NO REF SOV: 002 OTHER: 005

Card 2/2

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L 4167-66 EWT(m)/EPF(c)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/WE

ACC NR: AP5024951

UR/0065/000/010/0043/0046
541.126:665.521.2

48
B

AUTHOR: Lerner, M. O.

TITLE: Characteristics of the combustion of fuels containing MCT

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 10, 1965, 43-46

TOPIC TAGS: fuel additive, manganese compound, combustion product

ABSTRACT: The combustion of A-72 and A-66 fuels containing the antiknock compound manganese cyclopentadienyltricarbonyl was studied in an MYeMZ-966 engine under partial load. Comparison of load characteristics shows that the presence of MCT improves the fuel economy of the engine by 4.8 to 14.3%; above 3000 rpm, the efficiency does not exceed 1 — 2%. Since an automobile engine running under city traffic conditions operates under loads amounting to only 30 — 50% of the full load, it is concluded that the presence of MCT raises the fuel efficiency significantly. A study of the effect of combustion products of fuels containing MCT on the knock showed that these products do not cause a decrease in the ignition angles of advance, but, on the contrary, cause a slight increase in these angles. Orig. art. has: 3 figures and 4 tables.

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: FP

NO REF SOV: 004 OTHER: 000

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

NESMEYANOV, A.N.; ZAYTSEV, V.A.; ANISIMOV, K.N.; LERNER, M.O.; KOLOBOVA, N.Ye.; PORETSKAYA, A.P.; MAGOMEDOV, G.K.

Antidetonating effectiveness of some organic compounds of manganese. Neftekhnimiia 5 no.6:892-896 N-D '65.

(MIRA 19:2)

1. Institut elementoorganicheskikh soyedineniy AN SSSR. Submitted Nov. 12, 1964.

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L 10644-66 EWT(m)/T WE/RM

ACC NR: AP6002075 SOURCE CODE: UR/0204/65/005/006/0892/0896

AUTHOR: Nesmeyanov, A. N.; Zaytsev, V. A.; Anisimov, K. N.; Lerner, M. O.; Kolobova, N. Ye.; Poretskaya, A. P.; Magomedov, G. K.

ORG: Institute of Heterorganic Compounds AN SSSR (Institut elementoorganicheskikh soyedineniy AN SSSR)

TITLE: Antiknock effectiveness of certain organomanganese compounds

SOURCE: Neftekhimiya, v. 5, no. 6, 1965, 892-896

TOPIC TAGS: antiknock compound, organomanganese compound, fuel additive

ABSTRACT: The antiknock effectiveness of manganese carbonyl (MC) and of cyclopentadienyltricarbonylmanganese (CTM) derivatives was compared with that of CTM and tetraethyllead (TEL). The effectiveness of the individual organomanganese compounds in different concentrations was studied in various fuels by the standard motor method for determining the octane number. It was shown that for a given metal content in the fuel: 1) the antiknock effectiveness of MC in comparison with that of CTM and TEL is as follows: a) In automotive gasolines A-66 and A-72, lower; b) in a mixture of isooctane (60%) and heptane (40%), nearly the same; c) in the aviation gasoline B-95/130, lower. 2) The antiknock effectiveness of MC-CTM mixture in B-95/130 gasoline is equal to that of CTM. 3) The antiknock effectiveness of 2[2-(alkoxy)-5-hexen-3-ynyl]cyclopentadienyltricarbonylmanganeses depends on the alkoxy group and

Card 1/2 UDC: 547.514.72'171.1:665.521.23

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ACC NR: AP6002075

drops in the sequence $-OC_2H_5 > -OC_3H_{7\text{-}n} > -OCH_2-CH=CH_2 > -OCH_3 > -OC_4H_9$. 2[2-(Ethoxy)-5-hexen-3-ynyl]cyclopentadienyltricarbonylmanganese improves the octane rating by two numbers as compared with CTM. 4) Introduction of acyl or benzayl groups into the CTM molecule lowers its antiknock effectiveness. Orig. art. has: 1 fig. and 6 tables.

[BO]

SUB CODE: 21/ SUBM DATE: 12Nov64/ ORIG REF: 003/ OTH REF: 002/ ATD PRESS: 4169

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

AROMOV, D.I.; GOLOV, V.I.; LERNER, M.S.

Effect of antiknock additives to gasoline on engine wear. Khim. i tekh.topl.i masel 5 no.7:43-46 Jl '60. (MIRA 13:7)
(Gasoline--Antiknock and antiknock mixtures)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M. E.

USSR/Chemistry - Lithium Jun 50

"Decomposition Potentials of Acetone Solutions of Lithium Chloride," O.K. Kudra, M.E. Lerner, Inst of Gen and Inorg Chem, Acad Sci Ukrainian SSR

"Ukrainskiy Khimicheskiy Zhurnal" Vol XVI, No 1, pp 137-148

The decompn potentials of acetone solns of lithium chloride in the concn range of 0.004 to 3.89% LiCl at various cathode currents are detd. The presence of 2 decompn potentials in all of the solns investigated was established: the 1st (low)

212T8

potential corresponds to the deposition of dense metal, and the 2d (high) corresponds to formation of a porous, black deposit. It is shown that the 2d potential is not connected with decompn of the solvent. From changes in the 2d potential depending on the concn, temp and addn of water, it follows that this potential results from decompn at the cathode of complex cations of the type:

$[Li_n + {}_1Cl_n]$ or $[Li_n + {}_1Cl_n \cdot mCH_3COCH_3]$.

The process of electrodeposition of lithium from acetone solns is clarified, and the optimum concn and voltage ranges are established.

212T8

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.E.

USSR/Chemistry - Lithium Jun 50

"The Decomposition Potentials of Lithium Chloride in Isobutyl and Isomyl Alcohols," O.K. Kudra, M.E. Lerner, Inst of Gen and Inorg Chem, Acad Sci Ukrainian SSR

"Ukrainskiy Khimicheskiy Zhurnal" Vol XVI, No 1, pp 149-161

The decomp potentials of lithium chloride in isobutyl and isoamyl alcs are measured by a modified method of taking current-voltage curves which allows the cathode processes to be made apparent separately. The presence of 3 decompn potentials is established. The 1st (low) potential is the

212T9

usual one for lithium, corresponding to the deposition of the dense metal; the 2d (medium) corresponds to a black, porous cathode deposit, and the 3d (high) is tied in with the decompn of complex cations in a manner similar to the 2d. The obtained results and conclusions agree well with other physicochemical properties of the system studied.

212T9

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

USSR/Chemistry - Lithium

Jun 50

"The Decomposition Potentials for Pyridine Solutions of Lithium Chloride," O.K. Kudra, M.E. Lerner, Inst of Gen and Inorg Chem, Acad Sci Ukrainian SSR

"Ukrainian Khimicheskiy Zhurnal" Vol XVI, No 1, pp 162-172

The decompn potentials of pyridine solns of lithium chloride at various levels of cathode currents was studied and the presence of 3 decompn potentials established. The 1st, ordinary one corresponds to the deposition of dense metal and the 2 higher ones to

212T10

a black, porous cathode deposit. It is shown that in the system LiCl - C_5H_5N there exists a complex equil between simple lithium ions and 2 types of complex cations with different levels of solvation, the compn of which changes with different concns and temps. In connection with the good complex forming properites of pyridine as a solvent, there arise, at definite solvent concns, favorable conditions for sharply delimiting zones of the dense and the porous cathode deposits. These zones then show great difference in values between the lower and the higher decompn potentials. The concns corresponding to the most favorable conditions for getting dense, light gray lithium deposits are given.

212T10

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M. E.
USSR/Chemistry - Decomposition

Card 1/1

Authors : Lerner, M. E., and Kudra, O. K.

Title : The Intensity of Decomposition of Aluminum Bromide Solutions in Ethyl Bromide.

Periodical : Zhur. Fiz. Khim. Vol. 28, Ed. 4, 656-660, Apr 1954

Abstract : Method for decomposing aluminum bromide solutions in ethyl bromide are described together with the observation and recording of the intensity and changes in decomposition by I-V curves. Ten references; tables; graphs; drawing.

Institution : Kiev Polytechnical Institute.

Submitted : June 14, 1953

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

USSR/ Chemistry Physical chemistry

Card : 1/1

Authors : Lerner, M. E., and Kudra, O. K.

Title : Decomposition intensities of the aluminum bromide - alkali metal halide - ethyl bromide system

Periodical : Zhur. fiz. khim. 28, Ed. 6, 1006 - 1012, June 1954

Abstract : The decomposition intensities of the ternary $AlBr_3$-MeHal-C_2H_5Br system were investigated at different concentrations and current-densities. In addition to two main decomposition intensities, connected with the separation of Al and MeHal, the authors discovered an additional intermediate intensity corresponding to the presence of a complex ion in the solution. The conditions most favorable for ion discharge of the MeHal from ethyl bromide solutions, are explained. Five USSR references. Tables, graphs.

Institution : The Polytechnicum, Kiev

Submitted : June 14, 1953

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.Ye.; KUDRA, O.K.

Decomposition potentials of nitrobenzene solutions of aluminum bromide and sodium bromides. Ukr. khim. zhur. 26 no.6:719-722 '60. (MIRA 14:1)

1. Kiyevskiy politekhnicheskiy institut i Kiyevskiy institut grazhdanskogo vozdushnogo flota.
(Aluminum bromide) (Sodium bromide)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.Ye.; KUDRA, O.K.

Decomposition voltages of some metal bromide solutions in nitrobenzene. Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.3:393-396 '61. (MIRA 14:10)

1. Kiyevskiy politekhnicheskiy institut, kafedra fizicheskoy i kolloidnoy khimii.

(Bromides)
(Electromotive force)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.Ye.; GALUSHKO, A.D.; LESHCHINER, R.M.

New electrolyte for electrolytic cadmium plating. Mashinostroenie no.1:74-75 Ja-F '62. (MIRA 15:2)

1. Kiyevskiy institut grazhdanskogo vozdushnogo flota.
(Electrolytes)
(Cadmium plating)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M. Ye.; SHIRYAYEVA, A. N.; FOMENKO, N. M.

Distribution of metal on the cathode surface in alkaline electrolytes used for tin plating. Mashinostroenie no.5: 69-71 S-O '62. (MIRA 16:1)

1. Kiyevskiy institut grazhdanskogo vozdushnogo flota.

(Electrolytes) (Tin plating)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.Ye.; KUDRA, O.K.

Discharge potentials for sulfuric acid solutions. Izv.vys.ucheb.zav.; khim.i khim.tekh. 6 no.4:588-590 '63. (MIRA 17:2)

1. Kiyevskiy politekhnicheskiy institut i Kiyevskiy institut Grazhdanskogo vozdushnogo flota. Kafedra fizicheskoy i kolloidnoy khimii.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, M.Ye.; GALUSHKO, A.D.; SHIRYAYEVA, A.N.

Alkaline electrolyte for bismuth plating. Ukr.khim.zhur. 30 no.11: 1234-1235 '64. (MIRA 18:2)

1. Kiyevskiy institut Grazhdanskogo vozdushnogo flota.

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

ACC NR: AR6024033 SOURCE CODE: UR/0044/66/000/004/B053/B053

AUTHOR: Lerner, M. Ye.

TITLE: Classes of hyperbolic type equations which do not obey the principle of absolute extremum

SOURCE: Ref zh. Matematika, Abs. 4B254

REF SOURCE: Volzhsk. matem. sb., vyp. 3, 1965, 255-264

TOPIC TAGS: hyperbolic equation, boundary value problem, function theory

ABSTRACT: The equation

$$u_{\xi\eta} + a(\xi, \eta) u_\xi + b(\xi, \eta) u_\eta + c(\xi, \eta) u = 0 \qquad (1)$$

is investigated within the region D bounded by the segment OC of the characteristics $\xi = 0$ [O(0, 0), C(0, -1)], the segment AC of the characteristic $\mu = -1$, [A(1, -1)], and the segment OA of the monotonic smooth curve, where the functions a, b, c, a_ξ, and b_ξ are continuous. The author proves that when within the region D the coefficients of Equation (1) satisfy the conditions $b > 0$, $b\mu + ab - c > 0$, $c > 0$, and the solution $u|_{\mu = -1} = 0$, then the maximum in $\bar{D}$ of the function u; if it is positive is attained only over the segment $\overline{OC}$ of the characteristic $\xi = 0$. All the possible orientations of the characteristic triangle are investigated together with the presentation of the conditions imposed on the coefficients within each triangle. The class of equations

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ACC NR: AR6024033

is established for which the principle of maximum of such type is valid. The author proved the uniqueness of the solution of the boundary problem with given conditions along two characteristics

$$1)\quad u|_{AC} = \chi(\xi),$$

$$2)\quad \left.\frac{\partial u}{\partial l}\right|_{OC} = \lambda(\eta) \quad \text{or} \quad \alpha(\eta)u + \beta(\eta)\left.\frac{\partial u}{\partial l}\right|_{OC} = \mu(\eta),$$

where $l(\mu)$ is a vector forming an angle with the characteristic $\xi = 0$ different from zero in each point of the segment OC and aiming towards the interior of the region D. [Translation of abstract] L. Vostrova

SUB CODE: 12

Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

ACC NR: AR6024031 SOURCE CODE: UR/0044/66/000/004/B050/B050

AUTHOR: Lerner, M. Ye.

TITLE: The problem concerning the principle of local extremum for hyperbolic type equations

SOURCE: Ref zh. Matematika, Abs. 4B244

REF SOURCE: Volzhsk. matem. sb., vyp. 3, 1965, 236-240

TOPIC TAGS: extremum principle, hyperbolic equation, Euler equation

ABSTRACT: The Euler-Darboux equation

$$u_{\xi\eta}-\frac{q}{\xi-\eta}(u_\xi-u_\eta)=0,\quad 0<q<\frac{1}{2}, \quad (1)$$

is studied in the region D, bounded by the segment AC of the characteristics $\eta=-1$ [A(1, -1), C(0, -1)], the segment OC of the characteristic $\xi=0$ [O(0, 0)] and the monotonic smooth curve OA. The author proves that along the characteristics AC the principle of local extremum is not valid for equations (1) of the class of functions continuous in $\bar{D}$ and having continuous derivatives of the first order in $\bar{D}\setminus O$. [Translation of abstract] L. Vostrova

SUB CODE: 12

Card 1/1 UDC: 517.946

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, N.P. (Nizhniy Tagil)

Cutting centers are needed. Avtom. svar. 16 no.6:85 Je '63. (MIRA 16:7)

(Gas welding and cutting)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

O. M. LERNER

Nov 51

USSR/Chemistry - Diketene

"Interaction of Diketene With Certain Weekly Basis Aromatic Amines, "V. V. Perekalin, O. M. Lerner

"Zhur Obshch Khim" Vol XXI, No 11, pp 1995-2001

Showed for the 1st time that diketene can be used sucessfully to prep acetoacetyl derivs of weakly basic amines. Prepd acetoacetyl derivs of onitroaniline and diphenylamine with much higher yields than by other methods. Showed feasibility of use of acetoacetyl derivs as azotols and for prepn of complex lepidone derivs. showed that acetoacetic acid chloride can be used to acylate amphoteric amines (carbazole, etc.). Proposes mechanism of activating action of pyridine on diketene.

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, O. M.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour : Ref Zhur - Khimiya, No. 8, 1957, 26710.

Author : Perekalin, V.V.; Lerner, O.M.
Inst :
Title : Interaction of Diketene with Amides of Carboxylic Acids.

Orig Pub : Zh. prikl, khimii, 1956, 29, No. 10, 1609.

Abstract : N-acetoacetylamides of acetic, n-butyric, n-caproic, phenylacetic, diphenylacetic, benzoic, n-toluic and cinnamic acids were prepared by the interaction of diketene (I) with amides of carboxylic acids in presence of basic catalysts. Their structure was established by the reaction of azofication, by producing phenylhydrazones and by a counter-synthesis of chloroanhydrides of acids and

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, O. M.

PEREKALIN, V.V.; LERNER, O.M.

Reaction of dinitrodiolefins with substances containing active hydrogen atoms in methylene groups. Zhur.prikl.khim. 29 no.10: 1610-1611 O '56. (MIRA 10:10)
(Olefins) (Chemical reactions)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

LERNER, O. M.

Distr: 4E4j/4E2c(j)

β-Nitrostyrenes. O. M. Lerner. U.S.S.R. 108,308, Oct. 25, 1957. The title compds. are obtained by condensation of aromatic aldehydes with nitroparaffins in the presence of ethylenediamine. M. Hosch

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1/1 2

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L. R. [illegible]R, C.[illegible], Cand. [illegible] Sci.—(diss.) "[illegible] A [illegible]
[illegible] substances [illegible] [illegible]."
[illegible], 195[illegible]. 15 [illegible] (Min. of [illegible] RSFSR), [illegible]
A.I.Gertsen. Chair of Organic Chemistry), ([illegible])

[illegible]R000929320018-7

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

SOV/79-28-7-19/64

AUTHORS: Perekalin, V. V., Lerner, O. M.

TITLE: The Conversion of Dinitro-Olefines With Compounds Having Mobile Hydrogen Atoms in the Methyl Groups (Vzaimodeystviye dinitrodiolefinov s soyedineniyami, soderzhashchimi podvizhnyye vodorodnyye atomy v metilenovykh gruppakh)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 7, pp 1815 - 1823 (USSR)

ABSTRACT: In completion of earlier papers and articles written by the same authors (Refs 1-8) it seemed useful to them to improve certain methods of the synthesis of some dinitro-olefines, viz. derivatives of terephthalaldehyde, and to investigate their conversion with compounds having mobile hydrogen atoms in the methyl groups When using ethylene diamine (Ref 9) as catalyst the authors modified known methods of the condensation of terephthalaldehyde with nitromethane (Refs 5,10) and in some cases obtained a considerably higher yield of dinitro-olefines (Table). The synthetized dinitro-olefines were caused to react with a great number of compounds having mobile hydrogen atoms in their methyl groups, viz. with malonic ester and acetic ester,

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

SOV/79-28-7-13/64

The Conversion of Dinitro-Olefines With Compounds Having Mobile Hydrogen Atoms in the Methyl Groups

with phenyl-methyl pyrazolone, cyanacetic- and nitroacetic esters, as well as with phenylnitromethane. The nitro groups at various molecule terminals in the above mentioned nitro-olefines produce two combined systems in an opposite direction, which fact was of interest for the reactivity of such compounds, and which has hitherto not been investigated. It was found that the presence of two combined systems in an opposite direction in the dinitro-olefines is no hindrance for the condensation course with active methylene components under the action of two nitro-vinyl groups. There are 1 table and 14 references, 5 of which are Soviet.

ASSOCIATION: Leningradskiy pedagogicheskiy institut imeni A.I.Gertsena (Leningrad Pedagogical Institute imeni A.I.Gertsen)

SUBMITTED: June 17, 1957

Card 2/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

SOV/79-28-7-19/64

The Conversion of Dinitro-Olefines With Compounds Having Mobile Hydrogen Atoms in the Methyl Groups

1. Dinitroethylenes--Chemical reactions 2. Methyl radicals--Chemical reactions
3. Condensation reactions

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

SOV/80-32-4-47/47

5(3)

AUTHORS: Perekalin, V.V. and Lerner, O.M.

TITLE: The Condensation of Isophthalic Aldehyde With Nitromethane (Kondensatsiya izoftalevogo al'degida s nitrometanom)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 939-940 (USSR)

ABSTRACT: The condensation of isophthalic aldehyde with nitromethane was already studied by Ruggli and Schetty [Ref 6] who obtained dinitrodiolefin with a yield of 35% by using methylamine and benzylamine as catalysts. The authors of the present note continued to study this reaction and achieved an increase in the yield of dinitrodiolefin, which attained 67%. The method for increasing the yield of the final product was the use of the aqueous concentrated solution of caustic soda as a condensing means taken in excess. The experimental part of the investigation and

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

SOV/80-32-4-47/47

The Condensation of Isophthalic Aldehyde With Nitromethane

the various phases of reactions are described in detail. There are 9 references, 3 of which are Soviet, 3 German, 2 American and 1 Swiss.

SUBMITTED: July 11, 1958

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Card 2/2

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

68163

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SOV/20-129-6-29/69

~~5 (3)~~

AUTHORS: Perekalin, V. V., Lerner, O. M.

TITLE: Synthesis of Conjugated Dinitrodiene

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 6, pp 1303 - 1305 (USSR)

ABSTRACT: Aliphatic unsaturated nitro compounds with 2 conjugated nitrovinyl groups had not been described in publications. Since the structure and reactivity of such dinitrodienes are of interest, the authors synthesized the simplest dinitrodiolefine: 1,4-dinitrobutadiene-1,3 (V). They started from 1,4-dinitrobutene-2 (I). Usable directions for the preparation of 1,4-dinitrobutene in the only way possible (by addition of nitrogen tetraoxide to divinyl) are missing in the publications (Refs 2-5). It was found that a rapid addition of N_2O_4 to divinyl under vaccination with crystalline I is necessary for successful nitration. 1,4-dinitrobutene-2 was transformed into fumaric acid (II) by acid hydrolysis to prove the structure; thus, a simple method of synthesis of fumaric acid and, consequently, of maleic acid anhydride was found (Ref 6). Contrary to data from publications (Ref 5), 1,4-diaminobutene-2 (III) was obtained in the reduction of I with tin and hydrochloric acid, and not 1,4-diaminobutane.

Card 1/3

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68163
SOV/20-129-6-29/69

Synthesis of Conjugated Dinitrodiene

In the presence of iodine traces, I slowly deposits chlorine and turns into 2,3-dichloro-1,4-dinitrobutane (IV). This compound is very unstable as compared with alkalis and organic bases. On account of the Raman spectra, the double bond in 1,4-dinitrobutene-2 (contrary to nitroallyl) participates in the conjugation with the nitro groups (Ref 7). HCl is separated during the effect of lead acetate in glacial acetic acid on IV. and 1,4-dinitrobutadiene-1,3 (V) is formed. This synthesis apparently is the first example of using lead acetate for the transformation of 1,2-halogen-nitroalkanes into unsaturated nitro compounds. V proved to be a very resistant compound. It did not enter the diene-synthesis reaction, did not react with the active hydrogen atoms of the methylene groups as do mononitroolefines, and could be slowly brominated. Thus, a dibromide was formed. The intensity of the bands of the double bond in the Raman spectrum of V (Table 1) exceeds the respective value of the mononitroolefines by about one order of magnitude. This indicates the presence of a conjugated system. There are 1 table and 8 references, 3 of which are Soviet.

Card 2/3

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

68163

SOV/20-129-6-29/69

Synthesis of Conjugated Dinitrodiene

PRESENTED: July 11, 1959, by M. I. Kabachnikov, Academician

SUBMITTED: July 13, 1959

Card 3/3

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

ZONIS, E.S.; LERNER, O.M.; PEREKALIN, V.V.

Synthesis of dinitrotrienes. Zhur.prikl.khim. 34 no.3:711-712 Mr '61. (MIRA 14:5)
(Olefins)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

PEREKALIN, Vsevolod Vasil'yevich; Prinimali uchastiye: SOPOVA, A.V.; LERNER, O.M.; ZONIS, E.S.; ZOBACHEVA, M.M.; KVITKO, S.M.; BASKOV, Yu.V.; KAPLIN, S.V.; POLYANSKAYA, A.S.; PADVA, G.D.; ZONIS, S.A., red.; FOMKINA, T.A., tekhn. red.

[Unsaturated nitro compounds] Nepredel'nye nitrosoedineniia. Leningrad, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1961. 335 p. (MIRA 14:7)

(Nitro compounds)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

FEL'DMAN, I.Kh.; LERNER, O.M.

Synthesis of octatesnin (1-[N-(azacyclooctyl)-ethyl]-2 guanidine-sulfate). Med. prom. 16 no.1:16-18 Ja '62. (MIRA 15:3)

(GUANIDINE)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, O.M.; PEREKALIN, V.V.

Synthesis of γ-trinitromethyl ketones. Dokl.AN SSSR 145 no.4:804-805 Ag '62. (MIRA 15:7)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut im. Gertsena. Predstavleno akademikom M.I.Kabachnikom.
(Ketone)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, O.M.; FEL'DMAN, I.Kh.

Use of acetone cyanohydrin in the reaction of cyanomethylation of some secondary amines. Zhur.prikl.khim. 36 no.6:1347-1348 Je '63. (MIRA 16:8)

(Cyanohydrins) (Amines)

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L 51071-65 EWG(j)/EWT(m)/EPF(c)/EWP(j)/T/EWA(h)/EWA(c)/EWA(1) Pc-4/Pr-4/
Peb EM
ACCESSION NR: AP5011187 UR/0366/65/001/004/0636/0640

33
30
B

AUTHORS: Sokovishina, I. F.; Perekalin, V. V.; Lerner, O. M.; Andreyeva, L. M.

TITLE: Synthesis and isomerization of nitro-alpha-oxides

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 4, 1965, 636-640

TOPIC TAGS: organic synthesis, isomeric transition, oxide, nitro compound

ABSTRACT: Because of the antibacterial activity of some nitro compounds and the fungicidal properties of some alpha oxides, the authors attempted to combine the two. Nitro-replaced alpha oxides were first obtained by an exchange reaction of iodine-replaced oxides with silver nitrite. The structure was determined by IR spectra: the 862 and 1260 cm^{-1} bands characteristic of alpha oxide rings and the 1362 and 1560 cm^{-1} bands of the nitro group were all detected. Chemical analysis also confirmed the composition of the compound. The oxide of 1-nitropropen-2 was converted, on heating with water, to 1-nitropropylene glycol-2,3, and this was then converted to a benzil derivative. When the nitro oxide was acted on by hydrogen chloride, 1-chloro-3-nitropropanol-2 was obtained, and this was hydrolyzed to 3-chloropropanol-2 acid, from which an acyl derivative was obtained. It was found that the oxide of 1-nitropropen-2 when acted on by a base, by ultraviolet light or

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ACCESSION NR: AP5011187

gamma radiation, or when heated undergoes extraordinary isomerization to the more stable conjugated nitroalkenol-1-nitropropen-1-ol-3. Orig. art. has: 4 formulas.

ASSOCIATION: Leningradskiy gosudarstvennyy pedagogicheskiy institut imeni A. I. Gertsena (Leningrad State Pedagogical Institute)

SUBMITTED: 06Mar63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 005 OTHER: 002

Card 2/2

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M.; FEDOTOVA, Z.G., red.; KOLOSKOVA, L.A., red.; TSAY, A., tekhn. red.

[Problems of hygiene in designing dwellings for hot climatic conditions] Gigienicheskie voprosy proektirovaniia zhilishch v usloviiakh zharkogo klimata. Tashkent, Medgiz, UzSSR, 1961. 123 p. (MIRA 15:7)

(SOVIET CENTRAL ASIA—DWELLINGS)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M.; ISKANDAR'YAN, Z.G.

Epidemiological characteristics of an incidence of typhoid fever in settlement point S. Zhur. mikrobiol. epid. i immun. 32 no.6:137-138 Je '61. (MIRA 15:5)

1. Iz Samarkandskoy oblastnoy sanitarno-epidemiologicheskoy stantsii.
(SAMARKAND PROVINCE—TYPHOID FEVER)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M.

Hygienic basis in planning housing in the hot zone of the U.S.S.R. Gig.i san. no.8:26-30 Ag '53. (MLRA 6:9)

1. Samarkandskiy meditsinskiy institut i oblastnaya sanitarno-epidemiologicheskaya stantsiya. (Dwellings)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P. M. Cand Med Sci -- (diss) "Principal Hygienic Problems of the Planning of Housing in the Hot-Climate Region of the USSR." MIN Mos, 1957. 15 pp 20 cm. (Min of Health USSR, Central Inst for the Advanced Training of Physicians, Samarkand Oblast Sanitary-Epidemiological Station), 200 copies (KL, 27-57, 110)

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7"

"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M.

Methods for reducing the incidence of and eradicating ascariasis. Med.paraz.i paraz.bol. 29 no.4:386-390 Jl-Ag '60. (MIRA 13:11)

1. Iz Samarkandskogo oblastnogo otdela zdravookhraneniya.
(ASCARIDS AND ASCARIASIS)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M.

Epidemiological education in relation to rapid decrease and eradication of infectious diseases in U.S.S.R. Zhur. mikrobiol. epid. i immun. 31 no.2:23-26 D '60. (MIRA 14:6)

1. Iz Samarkandskogo meditsinskogo instituta.
(EPIDEMIOLOGY--STUDY AND TEACHING)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M., dotsent; LEMELEV, V.R., student VI kursa; DANILOVA, R.G., studentka VI kursa; LEMELEVA, Ye.G., studentka VI kursa

Combination of a dysenteric infection with protozoal and helminthic invasions and other accompanying diseases according to materials from Katta-Kurgan. Nauch. trudy SamMI 21:36-38 '62. (MERA 17:5)

1. Iz kafedry infektsionnykh bolezney Samarkandskogo meditsinskogo instituta imeni Pavlova.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M., dotsent; KANTSEROVA, V., studentka VI kursa; BUGROVA, A., studentka VI kursa

Materials on the study of the epidemiology of influenza outbreaks in Samarkand in 1959 and 1962. Nauch. trudy SamMI 21:39-42 '62. (MIRA 17:5)

1. Iz kafedry infektsionnykh bolezney Samarkandskogo meditsinskogo instituta imeni Pavlova.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, P.M.; [illegible]

Some problems of the [illegible] against hymenolepiasis [illegible] paraz. i paraz. bol. 34 no.[illegible] '65. [illegible]

1. Kafedra infektsionnykh [illegible] Samarkandskogo [illegible] instituta, Respublikanskaya [illegible] tuberkuleznaya bol'nitsa [illegible] V.I. Lenina i [illegible] sanitarno-[illegible] cheskaya [illegible].

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

KISTER, E.G.; LERNER, R.A.; ALIKIN, S.I.; GRAF, E.K.; MARIAMPOL'SKIY, N.A.

Using oxidized petrolatum to improve the lubricating qualities of drilling muds. Burenie no.4:25-28 '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut burovoy tekhniki i Permskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta burovoy tekhniki.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

KISTER, E.G.; LERNER, R.S.; ROGOZIN, G.V.

Investigating the lubricating properties of circulating fluids. (MIRA 17:9)
Trudy VNIIBT no.8:140-153 '63.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, R.Z., inzhener.

Changing the layout of the coking section in order to effect a considerable increase in the number of ovens in a battery. Koks i khim. no.2:26-32 '55. (MLRA 9:3)

1. Glavkoks. (Coke industry)

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VODNEV, G.G.; SHELKOV, A.K.; DIDENKO, V.Ye.; FILIPPOV, B.S.; TSAREV, M.N.; ZASHVARA, V.G.; LITVINENKO, M.S.; MEDVEDEV, K.P.; MOLODTSOV, I.G.; LGALOV, K.I.; RUBIN, P.G.; SAPOZHNIKOV, L.M.; TYUTYUNNIKOV, G.N.; DMITRIYEV, M.M.; LEYTES, V.A.; LERNER, B.Z.; MEDVEDEV, S.M.; REVYAKIN, A.A.; TAYCHER, M.M.; TSOGLIN, M.E.; DVORIN, S.S.; RAK, A.I.; OBUKHOVSKIY, Ya.M.; KOTKIN, A.M.; ARONOV, S.G.; VOLOSHIN, A.I.; VIROZUB, Ye.V.; SHVARTS, S.A.; GINSBURG, Ya.Ye.; KOLYANDR, L.Ya.; BELETSKAYA, A.F.; KUSHNEREVICH, N.R.; BRODOVICH, A.I.; NOSALEVICH, I.M.; SHTROMBERG, B.I.; MIROSHNICHENKO, A.M.; KOPELIOVICH, V.M.; TOPORKOV, V.Ya.; AFONIN, K.B.; GOFTMAN, M.V.; SEMENENKO, D.P.; IVANOV, Ye.B.; PEYSAKHZON, I.B.; KULAKOV, N.K.; IZRAELIT, E.M.; KVASHA, A.S.; KAFTAN, S.I.; CHERMNYKH, M.S.; SHAPIRO, A.I.; KHALABUZAR', G.S.; SEKT, P.Ye.; GABAY, L.I.; SMUL'SON, A.S.

Boris Iosifovich Kustov; obituary. Koks i khim. no.2:64 '55.(MLRA 9:3)
(Kustov, Boris Iosifovich, 1910-1955)

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LERNER, R.Z.

Proceedings of the Conference on the Construction of Large-Capacity Coke Ovens. R. Z. Lerner. (*Stal'*, 1955, (6), 396-397). [In Russian]. At a conference organized by the Ministry of Ferrous Metallurgy, the building in the U.S.S.R. of two experimental coke ovens was recommended, the proposed chamber widths, lengths and heights being 450, 15,000 and 5000 mm, respectively.—S. K.

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

DIDENKO, V.Ye.; TSAREV, M.N.; DMITRIYEV, M.M.; LEYTES, V.A.; OBUKHOVSKIY, Ya.M.; IVANOV, Ye.B.; CHERTOK, V.T.; URSALENKO, R.N.; KRIGER, I.Ya.; PINCHUK, A.K.; ANTONENKO, N.Z.; SMUL'SON, A.S.; VASIL'CHENKO, S.I.; DRASHKO, A.M.; RAYEVSKIY, B.N.; KUCHIRYAVENKO, D.N.; SAVCHUK, A.I.; ZHURAVLEVA, L.I.; BAUTIN, I.G.; KHRIYENKO, V.Ya.; MOSENKO, N.K.; CHEBONENKO, G.P.; LISSOV, L.K.; MAMONTOV, V.V.; BELUKHA, A.A.; POYDUN, V.F.; VOLODARSKIY, M.B.; KAL'CHENKO, G.D.; LEVCHENKO, V.M.; BASHKIROV, A.A.; VOROB'YEV, M.F.; IL'CHENKO, L.I.; PODSHIVALOV, F.S.; MOGIL'NYY, P.P.; LEVI, A.R.; VASLYAYEV, G.P.; DURNEV, V.V.; OSYPA, S.S.; SAMOFALOV, G.N.; FOMIN, A.F.; LESHCHINA, A.I.; FANKEL'BERG, G.Ye.; KHODANKOV, A.T.; MAKARENKO, I.S.; KARPOVA, K.K.; VASILENKO, I.M.; VOLOSHCHUK, A.S.; SHELKOV, A.K.; FILIPPOV, B.S.; TYUTYUNNIKOV, G.N.; DOLINSKIY, M.Yu.; NIKITINA, P.P.; MEDVEDEV, S.M.; TSOGLIN, M.E.; LERNER, R.Z.; BOGACHEV, V.I.

Mihail IAkovlevich Moroz; obituary. Koks i khim.no.3:64 '56.(MLRA 9:8)
(Moroz, Mikhail IAkovlevich, 1902?-1956)

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LERNER, R.Z.

2329. CONFERENCE ON SMOKELESS CHARGING OF COKE OVENS. Lerner, R.Z. (Koks i Khim. (Coke & Chem., Moscow). 1956, (7), 23-25). Procedures used at different works were considered and that used at the Moscow coke and gas works and the Nizhni Tagil coke and chemical works was approved for general adoption. (L).

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LERNER, R.Z

68-11-7/11

AUTHOR: Lerner, R.Z.

TITLE: Complete Mechanization and Automation of Coke Ovens (Kompleksnaya mekhanizatsiya i avtomatizatsiya v koksovykh tsekhakh)

PERIODICAL: Koks i Khimiya, 1957, No.11, pp. 35 - 40 (USSR)

ABSTRACT: The following problems are discussed in general terms: charging of ovens, pushing of coke; quenching of coke, complex mechanisation and remote control; heating of ovens and increase in the productivity of labour. There are 3 figures.

ASSOCIATION: Gosplan RSFSR

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LERNER, R. Z.

9(1) PHASE I BOOK EXPLOITATION SOV/2127

Koksokhimicheskoye proizvodstvo; sbornik statey (By-Product Coking Industry; Collection of Articles) Moscow, Metallurgizdat, 1959. 240 p. 2,500 copies printed.

Ed.: B. S. Filippov; Ed. of Publishing House: A. A. Revyukin; Tech. Ed.: F. S. Islent'yeva

PURPOSE: The book is intended for engineers and technicians in the by-product coking industry and in scientific research institutes. The book may also be used by students in secondary and higher technical schools.

COVERAGE: The articles in this collection on the by-product coking industry appeared originally either in the periodical Koks i Khimiya (Coke and Chemistry) or in other publications during 1955-1958. The book discusses the development of raw-material reserves for coking, technology of the manufacture of coke, quality of coke and further enlargement of the number of chemical coking products obtained. Some articles are devoted to a new procedure for preparing and beneficiating coals, new methods for coking, and to the mechanization and automation of industrial processes. References accompany individual articles.

Lerner, R. Z. [Gosplan RSFSR]. Partial Mechanization and Automation in Coking Plants 183

Kashchenko, B. S. [Metallurgizdat], and S. A. Sazonov [Gosplan RSFSR]. Ferro-Coke and Its Use in the Blast Furnace 197

Krol', V. I. [Magnitogorskiy metallurgicheskiy kombinat - Magnitogorsk Metallurgical Combine]. Methods of Increasing the 60-80 mm Fraction of Metallurgical Coke 212

Litvinenko, M. S., and I. M. Moselevich [VNIKI]. Prospects of the Development of Processing Chemical Obtained in the By-Product Coking Industry in the USSR. During 1959-1965 227

Moselevich, I. M. [VNIKI]. Progress in Developing a Larger Number of Primary Products in the Processing of Coal Tar 254

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

SOV/68-59-6-6/25

AUTHOR: Lerner, R.Z.

TITLE: Theoretical Basis of Rational Sequence of Charging-Discharging Coke Ovens (Teoreticheskiye osnovy ratsional'noy seriynosti v tekhnologii koksovogo proizvodstva)

PERIODICAL: Koks i Khimiya, 1959, Nr 6, pp 17-24 (USSR)

ABSTRACT: A mathematical analysis of the variation in the heating conditions of a coke oven battery depending on the sequence of charging the individual ovens is considered. It is shown that in a battery consisting of n ovens the number of possible sequences is n^2. Sequences can be named by stating two numbers in a general form (m-n). For example, at m = 10 and n = 3, the sequence of charging will be:

1, 11, 21, 31, 41, etc.
4, 14, 24, 34, 44, etc.
7, 17, 27, 37, 47, etc.

It is considered that the battery consists of a number of independent heating elements - heating walls with coal charges adjoining them from each side. The tar line plane (temperature seam) divides one such element from

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SOV/68-59-6-6/25

Theoretical Basis of Rational Sequence of Charging-Discharging Coke Ovens

another and thermal changes taking place in one system have no influence on another; only the position of the temperature seam changes, i.e. the thickness of the charge adjoining to one or another elementary system. Temperature conditions of each elementary system are not constant due to a periodic charging and discharging of the ovens. The best uniformity of thermal and mechanical loads is attained when the temperature variations are harmonic in character (cosine or sine curves). It is shown that the best sequence is such in which the period between charging-discharging of two neighbouring ovens equals half of the coking period. The 2 - 1 sequence satisfies all the conditions required. In addition

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Theoretical Basis of Rational Sequence of Charging-Discharging Coke Ovens SOV/68-59-6-6/25

sequences 9 - 2 and 11 - 2 can be recommended.
There are 4 figures, 4 tables and 3 Soviet references.

ASSOCIATION: Gosplan RSFSR

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

DVORIN, S.S.; ZHITOV, B.N.; LERNER, R.Z.; MAKAROV, G.N.; SAZONOV, S.A.; SYSKOV, K.I.

Coking of preheated coals as a method of intensifying the production of coke and improving its quality. Trudy MKHTI no.28:28-37 '59. (MIRA 13:11)

(Coal--Carbonization)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

KHANIN, I.M.; LERNER, R.Z.; KUPRIYENKO, I.G.; PODOL'KHOV, I.S.

Mechanism for the turning of twin gas and air valves. Biul. TSIICHM no.4:53 '61. (MIRA 14:10)
(Coke ovens--Equipment and supplies)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

KHANIN, I.M.; KUPRIYENKO, I.G.; YAREMCHUK, V.A.; LERNER, R.Z.; PODOL'KHOV, I.S.

Designing reversible gas-air valves for combination coke ovens with two-hearth flues. Koks i khim. no.1:36-38 '62. (MIRA 15:2)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut (for Khanin, Kupriyenko, Yaremchuk). 2. Gosplan RSFSR (for Lerner). 3. Dnepropetrovskiy koksokhimicheskiy zavod (for Podol'khov).
(Coke ovens)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, R.Z.

Cyclis method for operating coke ovens. Koks i khim. no.11:22-30 '61. (MIRA 15:1)

1. Gosplan RSFSR. (Coke ovens)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

SICHENKO, V.K.; IVANOV, B.V.; POLYAKOV, I.I.; REZNIKOV, A.A.; DORFMAN, G.A.; IZRAELIT, E.M.; NOTYCH, A.G.; TOPYGIN, L.A.; CHALYY, G.Ya.; STETSENKO, Ye.Ya.; UDOVICHENKO, L.V.; FILIPPOV, B.S., nauchn. red.; LERNER, R.Z., nauchn. red.; GOL'DIN, Ya.A., glav. red.; KULESHOV, M.M., red.; POLOTSK, S.M., red.

[By-product coke industry] Koksokhimicheskoe proizvodstvo. Moskva, Metallurgiia, 1965. 167 p. (MIRA 18:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut informatsii i tekhniko-ekonomicheskikh issledovaniy chernoy metallurgii. 2. Direktor Tsentral'nogo nauchno-issledovatel'skogo instituta informatsii i tekhniko-ekonomicheskikh issledovaniy chernoy metallurgii (for Kuleshov).

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

LERNER, S.M.

USSR

Autoclaving structural materials made of granulated slags. S. M. Lerner and I. A. Lyakhovich. *Stroitel. Prom.* 33, No. 2, 32-3(1955).—Slag contg. SiO_2 40.6, Al_2O_3 6.38, FeO 0.77, CaO 43.82, MgO 3.41, SO_3 3.91, and MnO 2.11% was ground to the fineness of cement, mixed with 0-75% sand and 20% water, molded, and autoclaved at 3 atm. for 7 hrs. Blocks so made showed a crushing strength of 109-241 kg./sq. cm., the latter being attained with a 50:50 mixt. Cementing characteristics of the ground slag checked in making structural blocks and panels using a sand-limestone aggregate were found satisfactory. J. D. Gat

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LERNER, S.M.; RYBKIN, F.G.; SHVETS, V.K.; KOVALENKO, V.I.; LOBANOVA, Ye.G.

Changing the slaking process of the silicate mass in producing silicate bricks. Rats. i izobr.predl. v stroi. no.118:11-12 '55. (MLRA 9:7)
(Brickmaking)

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USSR/Chemical Technology -- Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1670

Author: Lerner, S.M., Lyakhovich, I., Puzanova, L., and Khvorostanskaya, Ye.

Institution: None

Title: The Production of Large Blocks from Vibrated Mixtures

Original Periodical: Stroit. materialy, izdeliya, i konstruktsii, 1956, No 4, 26-28

Abstract: The production of large blocks from vibrated (Tr. Note: blended) silicate mixtures, consisting of sand, lime, and finely ground additives, has been investigated. The particle size distribution of the sand was 30% 1.2-0.6 mm and 70% -0.6 mm. The optimum activated lime content was 5-6% and the moisture 9-11%. Silica brick dust, granulated slag, or flue dust from steam heat electric power stations can be used as finely ground additives (in amounts not exceeding 20%). Vibration was carried out by means of electromechanical vibrators with a frequency of 3,000 cycles per minute and an amplitude of one mm.

Card 1/2

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USSR/Chemical Technology -- Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1670

Abstract: Heating was carried out in an autoclave at 8 atm. The heating time for solid blocks was 18.5 hours (including 12 hours soaking at 8 atm); the heating time for hollow blocks was 11.5 hours (including 8 hours soaking at 8 atm). The product dimensions were: length 735-2,190 mm, thickness 300-500 mm.

Card 2/2

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LERNER, S.M., inzh.

Using silica-brick fractions in making sand-lime binding materials. (MIRA 13:9)
Sbor. trud. IUZHNII no.2:17-20 '59.

1. Stroykombinat No.3 stroytresta No.94.
(Binding materials)

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MOGILEVKIN, M.A., inzh.; LERNER, V.A., inzh.

Machinery for casting polyamide articles. Transp. stroi. 15 no.1: 29-30 Ja '65. (MIRA 18:3)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

KARMELYUK, N.S. (Stalino); LERNER, V.I. (Stalino)

Large-capacity tanks made of large reinforced concrete slabs. (MIRA 14:9)
Vod. i san. tekh. no.8:3-9 Ag '61.
(Tanks)
(Donets Basin--Precast concrete construction)

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"APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929320018-7

BARGMAN, M.Ye., inzh.; GORELOV, L.N., inzh.; DUBININ, V.I., inzh.; LERNER, V.I., inzh.

Building the underground parts of structures by the caisson method. Mekh.stroi. 19 no.3:8-11 Mr '62. (MIRA 15:3)
(Underground construction)

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Lerner, V. I.

99-10-4/8

AUTHOR: Degtyar', V.A., Engineer, and Lerner, V.I., Engineer

TITLE: "Northern Donets-Donbass Canal"(Kanal Severnyy Donets-Donbass)

PERIODICAL: "Gidrotekhnika i Melioratsiya", 1957, # 10, p 39-49 (USSR)

ABSTRACT: Construction of the Northern Donets-Donbass canal was started in 1954. This 125-km long canal will supply water to the population and industries of the Donbass. The canal begins at the village Raygorodok, from where a double pipe siphon, 288 m long, passes underneath of the Kazernyy Torets river. Where the canal traverses loose and permeable ground, the bottom and sides are either lined with prefabricated reinforced concrete slabs, or have been given a monolithic lining, consisting of 20-40 cm of sand and 10 cm of concrete. Construction of the canal is planned to be carried out in 2 stages. During the first stage Gorlovka, Artemovsk, Chasov-Yar, Stalino, Yasinovataya, Yenakievo, Makayevka and other towns of the Donbass are to be supplied with water by 1957-1958. During the second stage of construction to be completed by 1959, the flow capacity will be increased from

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