SVYAZHIN, N.V.; LEVIN, V.Ya.

Nelsonite from the Kyshtym region in the Urals. Trudy Inst. geol. UFAN SSSR no.70:91-95 '65. (MIRA 18:12)

L 15712-66 EWT(l)/EWT(m)/EWP(m)/EWA(d)/T/FCS(k)/EWA(l) WW/JW/WE

ACC NR: AT6003104 SOURCE CODE: UR/3181/63/000/015/0325/0330

AUTHOR: Dorofeyev, V.M.; Levin, V.Ya.; Yemel'yanov, Ye.I.

47

B+1

ORG: None

TITLE: Method of testing powder type gas generators

SOURCE: Kuybyshev. Aviatsionnyy institut. Trudy, no. 15, pt. 2, 1963. Doklady kustovoy nauchno-tekhnicheskoy konferentsii po voprosam mekhaniki zhidkosti i gaza (Reports of the Joint scientific-technical conference on problems of the mechanics of liquid and gas), 325-330

TOPIC TAGS: gas engineering, combustion engineering, test method

ABSTRACT: The experimental unit permitted oscillograph recording of the change in weight of the fuel charge during the combustion process. A scheme of the apparatus is given in the article. The experiments were aimed at answering a series of practical questions in the design of more efficient powder type gas generators: determination of the gas flow rate through the nozzle, temperature of the gas before the nozzle, velocity of the gas through the nozzle opening, and the magnitude of the linear rate of fuel combustion in the chamber, as well as measurement of the change in weight of the fuel. Formulas are developed in the article for calculation of the temperature of the gas before and

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L 15712-66

ACC NR: AT6003104

after the nozzle. No actual experimental data are given. Orig. art. has: 14 formulas and 5 figures.

SUB CODE: 10 21 SUBM DATE: 00/ ORIG REF: 001/ SOV REF: 000/ OTH REF: 000

Card 2/2

L 14571-66 EWT(m)/EWP(j)/T WW/RM

ACC NR: AP6004390 (A) SOURCE CODE: UR/0020/66/166/003/0593/0594

AUTHOR: Andrianov, K. A. (Academician); Slonimskiy, G. L.; Kitaygorodskiy, A. I.; Zhdanov, A. A.; Belavtseva, Ye. M.; Levin, V. Yu.

ORG: Institute of Heteroorganic Compounds, Academy of Sciences SSSR (Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR)

TITLE: Morphological forms of high-elastic polymers

SOURCE: AN SSSR. Doklady v. 166, no. 3, 1966, 593-594

TOPIC TAGS: morphological form, high elastic polymer, silicone, polysiloxane

ABSTRACT: Recent studies of morphological forms in high-elastic polymers have disproved the older theory of high elasticity which is based on the idea of random entangled macromolecules. V. A. Kargin and associates (DAN, 144, 1089, 1962) have observed fibrillar structures in these polymers. In this study the morphological forms of high-elastic polymers have been studied with polyaluminodimethylsiloxanes (I) synthesized by polycondensation of aluminum butoxide with α, ω-dihydroxypolydimethylsiloxane. The morphological forms of I were investigated by electron microscopy. I was shown to have a globular structure with globular formations varying in size from 50—100 to over 1000Å. The small globules were, possibly, macromolecules. The large globular formations consisted of small globules which were either aggregated as a result of molecular interaction, or linked by chemical bonds formed in polycon-

Card 1/2 UDC: 541.68

L 14571-66

ACC NR: AP6004390

densation, or both. This globular structure, formed in two steps, is apparently one of the common morphological forms in amorphous polymers both in the high-elastic and the glassy (G. L. Slonimskiy, V. V. Korshak, et al. DAN,156, 924, 1964) states. The presence of globular and above-mentioned fibrillar morphological forms in high-elastic polymers raises the following problems: 1) fundamental review of the older theory of high elasticity; 2) studies of the effect of the morphological forms of amorphous polymers and their high-elastic and mechanical properties; 3) determination of the effect of the synthesis conditions and conditions for the formations of a solid or elastic body on the type of morphological forms produced. Orig. art. has: 1 figure. [BO]

SUB CODE: 11/ SUBM DATE: 20Jul65/ ORIG REF: 007/ ATD PRESS: 4190

Card 2/2

L 27824-66 EPF(n)-2/EWT(m)/ETC(F)/EWG(m)/EWP(t)/ETI MW/JG/JD

ACC NR: AP6015731 (A) SOURCE CODE: UR/0032/66/032/005/0626/0627

AUTHOR: Yelyutin, V. P.; Kostikov, V. I.; Levin, V. Ya.; Maurakh, M. A.; Mitin, B. S.

ORG: Moscow Institute of Steel and Alloys (Moskovskiy institut stali i splavov)

TITLE: Unit for studying the wetting of solids with liquid refractory metals or compounds

SOURCE: Zavodskaya laboratoriya, v. 32, no. 5, 1966, 626-627

TOPIC TAGS: wetting, refractory metal, liquid metal

ABSTRACT: A unit for studying the wetting of solids with liquid refractory metals such as titanium, zirconium, vanadium, chromium, niobium, molybdenum, rhenium, tantalum, and tungsten has been designed and built. The spreading of a molten metal droplet on the solid, the contact angle, and other parameters are recorded by a high-speed motion-picture camera and can also be observed by television. The unit has a water-cooled vacuum chamber where the tested specimen (150 mm long and 50 mm wide) is placed and heated by the electric current to the desired temperature, up to 3000C. At the top of the vacuum chamber, a tiny arc furnace melts the tested metal, a droplet of which is dropped on the tested solid. A shielding gas atmosphere may be used in testing, and the vacuum in the chamber may be varied from $5 \cdot 10^{-5}$ mm Hg at room tempera-

Card 1/2 UDC: 532.23.07

L 27824-66

ACC NR: AP6015731 O

ture to $1 \cdot 10^{-3}$ mm Hg at 3000C. The specimen temperature is measured by an electron pyrometer. Orig. art. has: 1 figure. [ND]

SUB CODE: 11/ 11/ SUBM DATE: none/ ORIG REF: 001/ ATD PRESS: 5003

Card 2/2

L 13561-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG/WB

ACC NR: AP6001238 SOURCE CODE: UR/0363/65/001/012/2208/2211

AUTHOR: Yelyutin, V. P.; Kostikov, V. I.; Levin, V. Ya.; Maurakh, M. A.; Mitin, B. S.

ORG: Institute of Steel and Alloys (Institut stali i splavov)

TITLE: Wetting of tungsten with liquid aluminum oxide

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 12, 1965, 2208-2211

TOPIC TAGS: tungsten, aluminum oxide, silicon dioxide, molybdenum, METAL FINISHING

ABSTRACT: The wetting of tungsten and molybdenum with liquid Al_2O_3 and of tungsten with a liquid Al_2O_3-SiO_2 mixture was studied by placing a drop of the liquid oxide or mixture on a plate of rolled W or Mo. The drop was allowed to spread, the temperature was quickly lowered, and the area covered by the oxide was measured. A formula was derived for the dependence of this area on the mass of the drop in the absence of interaction between the liquid and solid and for small equilibrium contact angles:

$$m = \rho \pi r^2 \sqrt{k \cos\theta - 2}$$

$$m = \frac{\rho}{\sqrt{\pi}} \sqrt{k \cos\theta - 2} \cdot S^{3/4},$$

where S is the area of spread. S was calculated from this formula for the systems W-Al_2O_3, W-Al_2O_3-SiO_2 and Mo-Al_2O_3, and was compared with the measured values. It was shown that

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UDC: 546.78:532.64

ACC NR: AP6001238

as the interaction between the solid and liquid increases, the discrepancies between the two sets of values become more appreciable: in the case of Mo-Al_2O_3, the deviations from the calculated curve were much greater than in the case of W-Al_2O_3, because the effective charge of Mo is greater than that of W. Orig. art. has: 3 figures and 6 formulas.

SUB CODE: 11 / SUBM DATE: 05Jul65 / ORIG REF: 002 / OTH REF: 001

LEVIN, Vasiliy Yevgen'yevich; MEL'NIKOVA, A.I., red.; MAZEL', Ye.I., tekhn. red.

[Nuclear reactors] IAdernye raktory. Moskva, Gosatomizdat. 1963. 303 p. (MIRA 16:11)
(Nuclear reactors)

LEVIN, V. Yu.

"Expanded Plenum of the Committee on Comets and Meteors of the Astronomical Council, AS USSR," Byul. VAGO, No.10, pp. 55-56, 1951

Translation 569459

LEVIN, V.Yu.; SLONIMSKIY, G.L.

On the origin of meteoritic chondrules. Dokl. AN SSSR 113 no.1:62-64 Mr-Ap '57. (MLRA 10:6)

1. Institut fiziki Zemli im. O.Yu. Shmidta i Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR. Predstavleno akademikom V.A. Karginym.

(Meteorites)

L 11121-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD

ACCESSION NR: AP3002020 S/0195/63/004/003/0422/0430

AUTHOR: Gorgoraki, Vl. I.; Kasatkina, L. A.; Levin, V. Yu. 58 57

TITLE: Study of the effect of various lithium and gallium admixtures on the catalytic properties of zinc oxide in the homomolecular exchange of oxygen isotopes 19

SOURCE: Kinetika i kataliz, v. 4, no. 3, 1963, 422-430

TOPIC TAGS: oxygen isotope exchange, ZnO catalyst, Li, Ga, kinetics

ABSTRACT: Within a temperature range of 425-550C and oxygen pressures of 5-200 mm Hg, the authors studied the homomolecular exchange of oxygen isotopes (see enclosure) in the presence of ZnO and ZnO to which Li sub 2 CO sub 3 (0.25, 0.5, and 0.75 atom % Li) and metallic Ga (0.25 and 0.5 atom % Ga) had been added. The activation energy for this reaction was about 40kcal/mol. It was first-order with regard to O. Addition of Li to ZnO increased the reaction rate, while addition of Ga slowed it down. There was an inverse relationship between the amount of Ga present and the reaction rate. The greatest loss of activity was found with a ZnO preparation containing 0.5 atom % Li. The electronic work functions measured for pure ZnO catalysts and those containing Li and Ga were almost identical. In an oxygen atmosphere (40 mm Hg), addition of both Li and Ga reduced the work function

Card 1/2

L 11121-63
ACCESSION NR: AP3002020

to values below that for pure ZnO. The authors conclude that the limiting stage is the sorption of oxygen molecules with dissociation into their atoms. A comparison is made of the physical and catalytic properties of these preparations. A possible mechanism for the effect of Li and Ga is hypothesized. Orig. art. has: 5 figures, 3 schematic diagrams, 2 tables, and 3 formulas.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Chemical Engineering Institute)

SUBMITTED: 04May62 LATE ACQ: 12Jul63 ENCL: 01

SUB CODE: 00 NO REF SOV: 006 OTHER: 006

Card 2/3 2

ACCESSION NR: AP4008167 S/0195/63/004/006/0863/0866

AUTHOR: Gorgoraki, V. I.; Kasatkina, L. A.; Levin, V. Yu.

TITLE: Effect of additives and operating conditions on isotope exchange between oxygen and zinc oxide

SOURCE: Kinetika i kataliz, v. 4, no. 6, 1963, 863-866

TOPIC TAGS: zinc oxide, zinc oxide lithium, zinc oxide gallium, zinc oxide indium, oxygen 18, isotope exchange, homomolecular exchange, isotope exchange rate, zinc oxide calcination, lithium, gallium, indium

ABSTRACT: The effects of adding Li, Ga and In and of changing conditions of preparing the catalyst, on the kinetics of ZnO isotope exchange (O_{18}) were investigated by methods described in authors' previous work (Kinetika i kataliz 4, 422, 1963). Data obtained are compared with results of studies on homomolecular exchange by the same preparations. Increasing temperature of ZnO calcining from 850-1200C somewhat increases isotope exchange rate. Addition

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ACCESSION NR: AP4008167

of Li (0.5 + 0.75 at. %), introduced at 850C, increases the rate of the ZnO isotope exchange, the rate becoming greater than the rate of the homomolecular exchange reaction. Addition of Ga and In, introduced at 850C, decreases isotope exchange rate. Increading temperature of calcining ZnO containing 0.5% Ga from 850 - 1200C increases isotope exchange rate to the point that it equals the rate of pure ZnO calcined at 1200C. In all cases with the exception of 0.5 and 0.75 at.% Li additions, the rate of the homomolecular exchange reaction is about that of, or somewhat greater than the isotope exchange rate of ZnO; with Li the homomolecular exchange is slower. The authors consider it their obligation to thank G. K. Boreskov for discussing the material of the present work." Orig. art. has: 2 tables and 3 figures

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut im. D. I. Mendelayeva (Moscow Chemical Technological Institute)

SUBMITTED: 21Jan63 DATE ACQ: 09Jan64 ENCL: 00

SUB CODE: MA NO REF SOV: 004 OTHER: 003

Card 2/2

ANDRIANOV, K.A., akademik; SLONIMSKIY, G.L.; KITAYGORODSKIY, A.I.; ZHDANOV, A.A.; BELAVTSEVA, Ye.M.; LEVIN, V.Yu.

Supermolecular structures of highly elastic polymers. Dokl. AN SSSR 166 no.3:593-594 Ja '66. (MIRA 19:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 37010-66 EWP(j)/EWT(m)/T IJP(c) RM/WW/JWD

ACC NR: AP6023434 SOURCE CODE: UR/0190/66/008/007/1312/1313

AUTHOR: Slonimskiy, G. L.; Andrianov, K. A.; Zhdanov, A. A.; Levin, V. Yu.; Belaytseva, Ye. M.

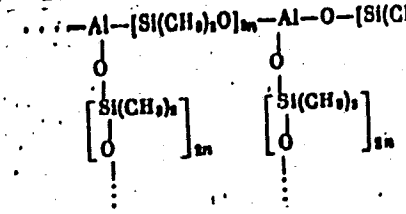
ORG: none

TITLE: Supramolecular structures of cross-linked high elastic polymers

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 7, 1966, 1312-1313

TOPIC TAGS: elastic polymer, ~~morphological form,~~ supramolecular form, globular structure, siloxane, alumosiloxane, polyaluminodimethylsiloxane, network structure, rubber, polymer cross linking, polymer structure, polycondensation, solubility, elasticity

ABSTRACT: A study of the structure of cross-linked polyaluminodimethylsiloxane rubber was completed by means of electron microscopic photographs of platinum-carbon replica. A UMV-100 electron microscope was used. The rubber used had the following chemical structure:



UDC: 678.01:53+678.84

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L 33514-66 EWT(m)/EWP(j)/T IJP(c) WW/RM

ACC NR: AP6015054 (A) SOURCE CODE: UR/0190/66/008/005/0898/0902

AUTHOR: Andrianov, K. A.; Slonimskiy, G. L.; Zhdanov, A. A.; Kashutina, E. A.; Levin, V. Yu.

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

TITLE: Thermomechanical investigation of polyorganometallic siloxanes containing bivalent metals

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 8, no. 5, 1966, 898-902

TOPIC TAGS: polymer, metal, siloxane, atom, thermomechanical property, bivalent metal

ABSTRACT: Thermomechanical properties of polymers with atoms of bivalent metals in the siloxane chain have been investigated. It was shown that the introduction into the basic polymer chain of metal atoms capable of forming coordination bonds considerably changed the thermomechanical properties of polymers. The effect of metal atoms on the flow temperature of polymers depends on the distance between the metal atoms and on the nature of the metal. Orig. art. has: 5 figures, 1 formula, and 1 table. [NT]

SUB CODE: 11, 07/ SUBM DATE: 22May65/ ORIG REF: 009/ OTH REF: 001

Card 1/1 UDC: 678.01:53+678.84

SOV-107-58-8-26/53

AUTHOR: Dryzgo, Ye; Levin, Ya.

TITLE: The "Voskhod" Radio Receiver (Radiopriyemnik "Voskhod")

PERIODICAL: Radio, 1958, Nr 8, pp 23-24 (USSR)

ABSTRACT: The "Voskhod" receiver uses 8 transistor triodes in a superheterodyne circuit and covers 720-2,000 m LW and 187-577 m MW. The set is adapted for use as a pick-up amplifier. The set consists of a converter, heterodyne-cum-mixer with tapped auto-transformer coupling, 2 IF stages, 3 AF stages for radio reception, and used when with the pick-up, the triode detector acts as a fourth AF amplifier. Frequency response feedback is used in the amplifier section. Printed circuits are used and the set is powered by four 1.5 v batteries connected in series. It is thus very suitable for country areas lacking electricity supply from a grid. There are 2 drawings and 1 circuit diagram.

1. Radio receivers--Equipment 2. Radio receivers--Performance

Card 1/1

GOROKHOVSKIY, V.M.; LEVIN, Ya.A.

Determining the presence of fog-promoting constituents in the 5-methyl-7-hydroxy-1,3,4-triazaindolizine photographic stabilizer. Zhur.nauch.i prikl.fot. i kin. 6 no.5:385-386 S-O '61.

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, g. Kazan'.

(Photographic emulsions)
(Triazolopyramidine)

LEVIN, Ya.A.; KUKHTIN, V.A.; GOROKHOVSKIY, V.M.

Effect of structural factors on the stabilizing action of purines. Zhur.nauch.i prikl.fot.i kin. 7 no.5:388-389 S-O '62. (MIRA 15:11)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, Kazan'.
(Photographic emulsions) (Purines)

NEGOROSHKOVA, N.A.; LEVIN, Ya.A.; KUKHTIN, V.A.

Condensed heterocycles. Derivatives of 1-phenyl-[2,3-a]-pyrazolino-pyrimidine. Zhur. ob. khim. 31 no. 2:495-497 F '61. (MIRA 14:2)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta.
(Pyrimidine)

LEVIN, Ya.A.; KUKHTIN, V.A.

Some new types of the Arbuzov rearrangement. Part 12: Action of mercury acetate on trialkyl phosphites. Zhur.ob.khim. 31 no.5: 1552-1553 My '61. (MIRA 14:5)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta.
(Phosphorous acid) (Mercury acetate)

LEVIN, Ya.A.; MOKHOVA, A.P.; KUKHTIN, V.A.

Synthesis of some derivatives of 4, 5, 6, 7-dibenz-1, 3-diaza-2, 4, 6-cycloheptatriene. Zhur.ob.khim. 31 no.5:1573-1576 My '61. (MIRA 14:5)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta.
(Cycloheptatriene)

LEVIN, Ya.A.; KUKHTIN, V.A.

2-Sulfo-4-hydroxy-6-methylpyrimidine. Zhur.ob.khim. 32 no.5: 1709-1710 My '62. (MIRA 15:5)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta.
(Pyrimidine)

GOROKHOVSKIY, V.M.; LEVIN, Ya.A.; KISELEVA, I.P.; GALIMOVA, A.M.

Relation between the desensitization action and the height of the oscillographic peak of desorption of the homologues of 4-oxo-6-methyl-1,2,4 triazolo-(2,3-a) pyrimidine. Zhur. nauch. i prikl. fot. i kin. 8 no.3:205-206 My-Je '63. (MIRA 16:6)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofoto-instituta, Kazan'.

(Triazolopyrimidine)
(Photographic emulsions)

LEVIN, Ya.A.; FEDOTOVA, A.P.; RAKOVA, N.F.; SAVICHEVA, G.A.; KUKHTIN, V.A.

Condensed heterocycles. Part 2: Condensation of 5-alky-3-amino -1-3-amino-1,2,4-triazoles with acetoacetic ester. Zhur.ob.khim. 33 no.4:1309-1314 Ap '63. (MIRA 16:5)

1. Kazanskiy filial Nauchno-issledovatel'skogo kinofotoinstituta.
(Triazole) (Acetoacetic acid)

LEVIN, Ya.A.; GUL'KINA, N.A.; KUKHTIN, V.A.

Condensed heterocycles. Part 3: Condensation of 3-amino-1,2,4-triazole with some β-ketocarboxylic esters. Zhur. ob. khim. 33 no.8:2673-2677 Ag '63. (MIRA 16:11)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta.

LEVIN, Ya.A.; KUKHTIN, V.A.

Condensed heterocycles. Part 4: Condensation of 3-amino-1,2,4-triazoles with diaceto- and dipropionitriles. Zhur. ob. khim. 33 no.8:2678-2682 Ag '63. (MIRA 16:11)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstututa.

LEVIN, Ya.A.; SERGEYEVA, E.M.; KUKHTIN, V.A.

Condensed heterocycles. Part 5: Interaction of 4-chloro-6-methyl-1,2,3-triazolo[2,3-a]pyrimidine with some nitrogen bases. Zhur.ob.khim. 34 no. 1:205-209 Ja '64. (MIRA 17:3)

1. Kazanskiy filial Nauchno-issledovatel'skogo kinofotoinstituta.

IVIN, Ya.A.; FEDOTOVA, A.P.; KUKHTIN, V.A.

Condensed heterocycles. Part 6: Mechanism of the formation of the system 6-oxo-1,2,4-triazolo[2,3-]pyrimidine. Zhur.ob.khim. 34 no.2:499-501 F '64. (MIRA 17:3)

1. Institut organicheskoy khimii AN SSSR, Kazan'.

LEVIN, Ya.A.; KUKHTIN, V.A.

Condensed heterocycles. Part 7: Syntheses and transformations of some 4-substituted 6-methyl-1,2,4-triazolo[2,3-a]pyrimidines. Zhur.ob.khim. 34 no.2:502-508 F '64. (MIRA 17:3)

1. Institut organicheskoy khimii AN SSSR, g. Kazan'.

LEVIN, Ya.A.; PLATONOVA, R.N.; KUKHTIN, V.A.

Condensed heterocycles. Report No.8: Condensation of 3-amino-1,2,4-triazole with cyanoacetic ester. Izv. AN SSSR. Ser. khim. no.8:1475-1480 Ag '64. (MIRA 17:9)

1. Institut organicheskoy khimii AN SSSR, Kazan'.

LEVIN, Ya.A.; SHVINK, N.A.; KUKHTIN, V.A.

Condensed heterocycles. Report No.9: Condensation products of ethoxymethylenemalonic ester with 2-amonothiadiazoles and 2-aminothiazoles. Izv. AN SSSR. Ser. khim. no.8:1481-1484 Ag '64. (MIRA 17:9)

1. Institut organicheskoy khimii AN SSSR, Kazan'.

GOROKHOVSKIY, V.M.; KUKHTIN, V.A.; LEVIN, Ya.A.; BORIN, A.V.; KISELEVA, I.P.; VARZANOSOVA, T.P.

Studying the stabilizing effect of some derivatives of 1,3,4 - triazaindolizine. Trudy NIKFI no.46:26-30 '62. (MIRA 18:8)

L 31451-66 EWT(m)/EWP(j)/T RM/JH/JHD/RM

ACC NR: AP6023114 SOURCE CODE: UR/0379/66/002/001/0142/0143

AUTHOR: Il'yasov, A. V.; Levin, Ya. A.; Sotnikova, N. N.; Valitova, F. G. 55 14 B

ORG: Institute of Organic and Physical Chemistry, AN SSSR, Kazan' (Institut organicheskoy i fizicheskoy khimii AN SSSR)

TITLE: Electrochemical generation of hydrazyl radicals 1

SOURCE: Teoreticheskaya i eksperimental'naya khimiya, v. 2, no. 1, 1966, 142-143

TOPIC TAGS: electrochemistry, free radical, hydrazine derivative, electrolytic cell, electron spectrum, electron paramagnetic resonance, redox reaction, resonator/RE-1301 resonator

ABSTRACT: It is known that organic free radicals of the type α, α'-diphenyl-β-picrylhydrazyl (DPPH) are obtained by treating the corresponding hydrazines with lead dioxide or other oxidizing agents. The authors studied the possibility of obtaining these radicals by electrochemical oxidation. An electrolytic cell containing platinum electrodes, as described previously, was placed directly into the RE-1301 radiospectrometer resonator. Measurements were made in acetonitrile, dimethylformamide, dioxane, alcohol, and aqueous-alcoholic solutions with a hydrazine concentration of about 10^{-2} M/liter. Tetramethyl-ammonium iodide and chloride were used as the supporting electrolyte. To improve the resolution of electron paramagnetic spectra, the

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0915 1320

solutions were degassed by the freezing method. The formation of hydrazyls in electrochemical oxidation of the original compounds can be depicted by the scheme:

$$Ph_2N\text{-}NH\text{-}R + OH^- \rightleftarrows Ph_2N - \bar{N} - R + H_2O,$$

$$Ph_2N - \bar{N} - R \rightleftarrows Ph_2N - \dot{N} - R + e.$$

Thus, the authors have shown that electrochemical oxidation as well as electrochemical reduction of compounds of the diphenylpicrylhydrazine type lead to the formation of free radicals, the properties and structure of which can be studied by the electron paramagnetic resonance method. [JPRS]

SUB CODE: 07 / SUBM DATE: 21Jun65 / ORIG REF: 006 / OTH REF: 004

L 39728-66 EWT(1)/EWG(m)/EWP(n)-2/ETC(f) WW/RM/GD-2

ACC NR: AP6007189 SOURCE CODE: UR/0170/66/010/002/0225/0227

AUTHORS: Levin, Ya. A.; Prikhod'ko, I. M.

ORG: none

TITLE: The temperature of a thin body under a periodic change in the heat transfer coefficient and in the ambient temperature

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 10, no. 2, 1966, 225-227

TOPIC TAGS: heat transfer, temperature distribution, periodic coefficient, heat transfer coefficient

ABSTRACT. The heat transfer to a thin body under a periodically varying heat transfer coefficient α and ambient temperature t_c is investigated. The analysis is carried out in two steps. First, the solution is found for the first period of the oscillation in α and t_c. To this end, the curves of $\alpha(\tau)$ and $t_c(\tau)$ are approximated by straight lines. The second step in the calculation consists of determining the temperature of the thin object at the end of any period of the oscillating α and t_c. To do this, the properties of second-order inverse sequences are used. This leads to the equation

Card 1/2

UDC: 536.244

Card 2/2 fts

LEVIN, Ya.

New schematic of an intermediate-frequency channel. Radio no.3: 24-25 Mr '60. (MIRA 13:6)
(Radio--Receivers and reception)

LEVIN, Ya., inzh.

River fleet at the Exhibition of Achievements of the National Economy of the U.S.S.R. Rech. transp. 19 no.10:54-56 O '60. (MIRA 13:11)
(Moscow--Exhibitions)
(Inland water transportation--Exhibitions)

SOV/96-59-12-7/20

AUTHOR: Levin, Ya. A., Candidate of Technical Sciences

TITLE: A Study of the Cooling of Gas-Turbine Blades by an Air-Water Mixture

PERIODICAL: Teploenergetika, 1959, Nr 12, pp 43-46 (USSR)

ABSTRACT: One way of increasing the operating temperature of gas turbines is to cool the blades, but attempts that have been made to cool the rotor blades internally have so far been unsuccessful. The present article describes a method of external cooling that was tried. In this method a mixture of air and water is discharged from slots in the outlet edges of the nozzle guide vanes. The general arrangement is clearly shown in Fig 1; water is delivered through an elliptical copper tube to a position as near as possible to the root of the guide vane. The bottom end of the copper tube was sealed off and a single hole was made near the bottom facing in the direction of the outlet edge. Devices of this kind were installed on 17 of the nozzle blades, and water could be supplied at different pressures to different numbers of blades. Thermo-couples were fitted on the rotor at the blade root and a quarter and half way up

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A Study of the Cooling of Gas-Turbine Blades by an Air-Water Mixture

the blades. The measurement procedure is briefly described. Typical test results are plotted in Fig 2 for the case when the water was delivered through four blades. The curve numbered (1) relates to the thermo-couple half way up the blade and curve (2) to that one quarter way up. It will be seen that cooling was very much more effective at the centre of the blade than a quarter way up. It was very much less effective at the root, though, in any case, the temperature there is only some 300 to 360°C as against 550 to 650°C at the middle of the blades. The reason for this poor cooling of the blade roots was that relatively little water was delivered to them. This occurred because it was not possible to discharge the water closer than 30 mm from the nozzle blade roots. The salt content of the cooling water used was fairly high, and the water distribution could be judged from the friable deposits formed on the blades. Most of the deposits were on a band 40 to 50 mm wide, the lower edge of which was at the level of the

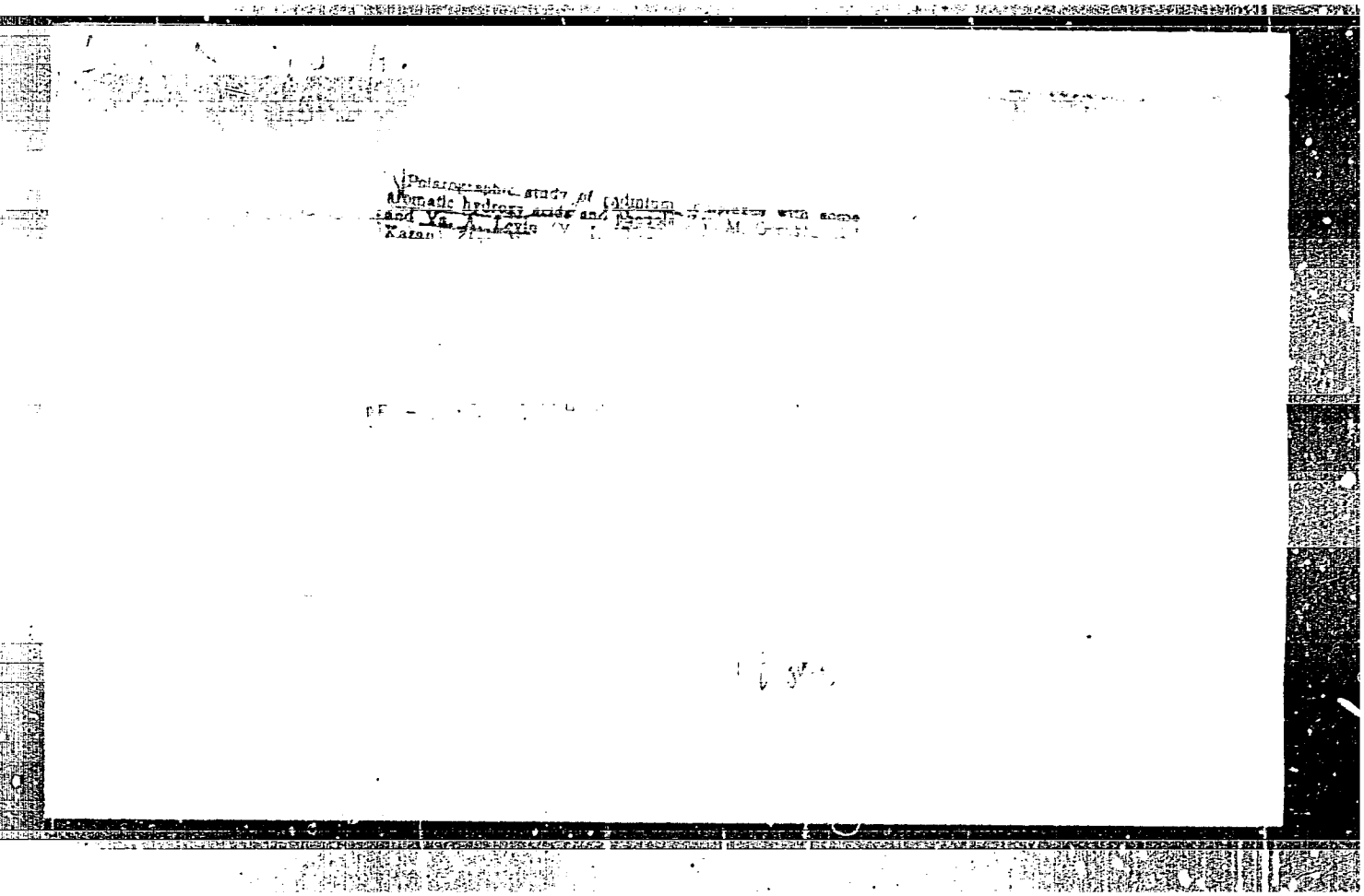
A Study of the Cooling of Gas-Turbine Blades by an Air-Water Mixture

holes supplying water. The deposits were caused by relatively large drops of water striking the blades. If it had been possible to deliver the water at the blade roots, drops of water would have cooled the entire blade surface except for a small part near the periphery. A discussion then follows about the rate of supply of water and its distribution. If the drops of water leaving the nozzle vanes are too small or too large, cooling is less effective than for an intermediate value. Accordingly, optimum cooling conditions may be obtained by selecting the optimum flow rate through blades and varying the number of blades through which water is discharged. An approximate formula is given to represent curve 1 of Fig 2. Further tests are required covering a wider range of gas temperatures and rotor speeds to see whether the formula is more generally applicable. It is concluded that this method of blade cooling is promising. The nozzle blades are also cooled, blade erosion by the water is hardly likely to occur, and there are not likely

A Study of the Cooling of Gas-Turbine Blades by an Air-Water Mixture

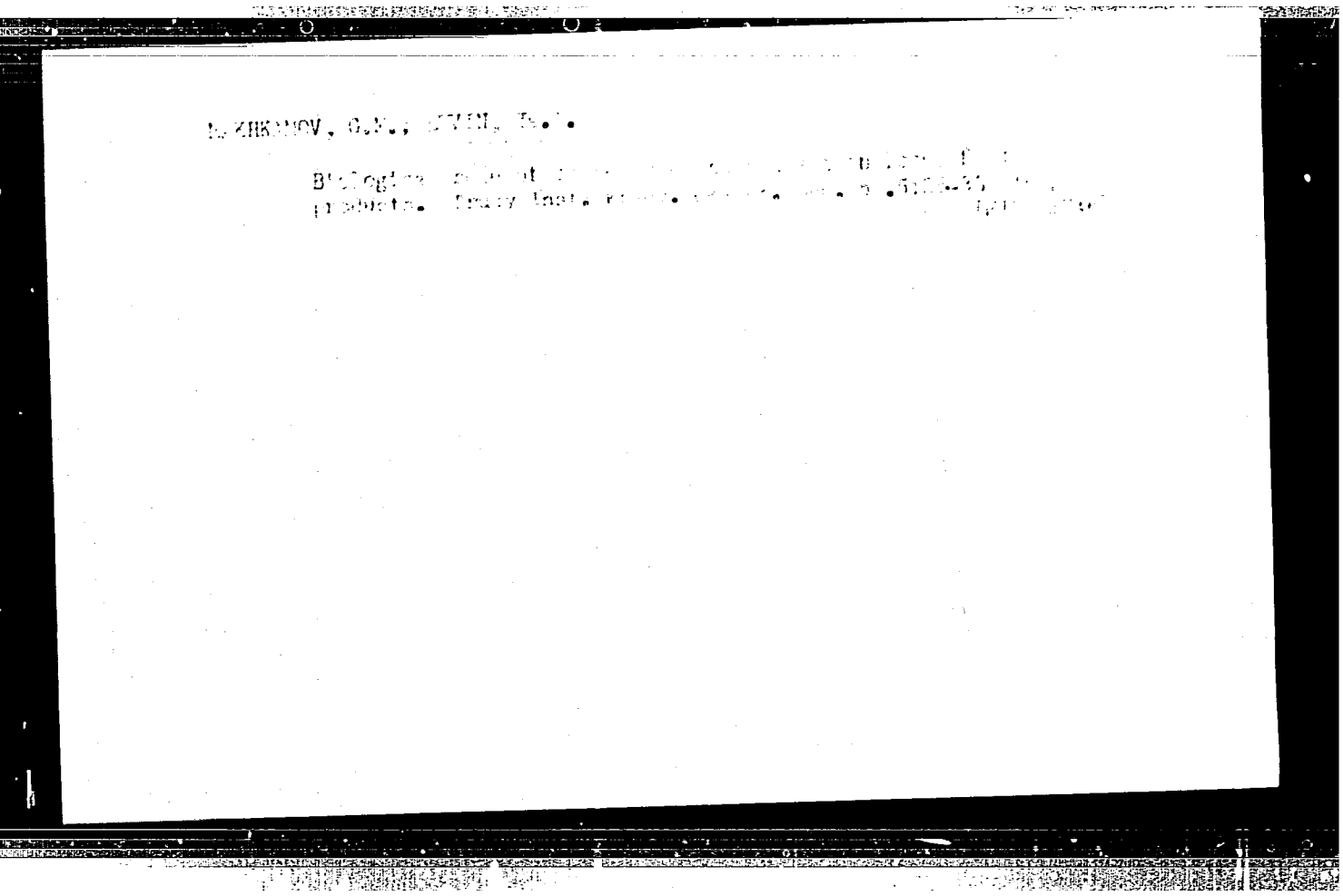
to be variations of temperature that could damage the blade. The problem of deposit formation requires further study. There are 2 figures and 2 English references.

Card 4/4



MAKHKAMOV, G.M.; LEVIN, Ya.L.; [illegible], E.D.

Iodine content of food products in Tashkent Province. Trudy Inst. kraev. eksper. med. no.5:13-17 '63. (MIRA 17:6)



MAL'CHENKO, V.I.; LEVIN, Ya.B.

Structural defects in presses for the SM-143 stiff mud process.
Ogneupory 19 no.1:35-38 '54. (MIRA 11:8)
(Refractory materials) (Power presses)

IEVIN, Ya.F. and GENKIN, R.L.

Clinical Considerations, Classification and Treatment of Frostbite. Sovetskaya Medicina 1943, 11-2, 12-15.

Translation-2524467 30 Apr 1954.

LEVIN, Ya. F.

29316. Kliniko-rentgenologicheskiye osobennosti diagnostiki raka kardial'nogo otdela zheludka. Voprosy onkologii i rentgenologii, No. 1-2, 19 8, s. 57-67.

SO: Izvwatya Ak. Nauk Latvivskoy SSR, No. 9, Sept., 1955

LEVIN, YA. F.

2917 Rentgenoterapiya raka gortani. Voprosy onkologii i rentgenologii, No 1-2, 1948, S. 147-53

SO: Letopsi' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

LEVIN, YA. F.

29265 Kliniko-rentgenologicheskiye osobennosti yazvy kardial'nogo otdela zheludka. Voprosy onkologii i rentgenologii, No 1-2, 1949, s. 244-51

SO: Letopsi' Zhurnal'nykh Statey, Vol. 39, Moskva, 1949

LEVIN, YA. F.

~~LEVIN, YA. F.~~

28624

I Isyukhno, Z. I. O Lyechyenii Gipofizarnoy Gipyertonii i, V Chastnosti, Bolyezni Kushinga. Vrachyeb Dyelo, 1949, No. 9, STB. 787-92
12. Myeditsinskaya Mikrobiologiya, Immunologiya Parazitologiya Infyektsionnyye Bulyezni Epidyemiologiya A.Myeditsinskaya Mikrobiologiya, Immunologiyai Parazitologiya Epidyemiologiya

SC: LETOPIS NO. 38

LEVIN, Ya.F.; ROZENGAUZ, D.Ye.

Roentgenotherapy of disseminated laryngeal cancer. Vest. otorinolar., Moskva 14 no. 3:62-66 May-June 1952. (CLML 22:4)

1. Docents. 2. Of the Ukrainian Roentgen-Radiological Oncological Institute (Director -- Docent Ye. A. Baslov), Khar'kov.

DEVIN, Ya.F.; ROZENGAUZ, D.Ye.

Clinical aspects and roentgenotherapy of malignant tumors of the nasopharynx. Vest. otorinolar., Moskva 15 no. 1:45-49 Jan-Feb 1953. (CIML 24:1)

1. Docents. 2. Of the Ukrainian Roentgen - Radiological and Oncological Institute (Director -- Docent Ye. A. Baslov) and of the Clinic for Diseases of the Ear, Throat, and Nose (Head -- Prof. A. M. Natanson), Khar'kov Medical Institute.

ROZENGAUZ, D.Ye., dotsent; LEVIN, Ya.F., dotsent.

Clinical aspect of malignant tumors of palatine tonsils and X-ray therapy. Vest.oto-rin. 15 no.5:59-64 S-O '53. (MLRA 6:11)

1. Ukrainskiy tsentral'nyy rentgeno-radiologicheskiy i onkologicheskiy institut. (Tonsils--Tumors) (X-rays--Therapeutic use)

69. LEVIN Ya. F., ROZENGAUZ D. E. and YANKELEVITCH M. E. Med. Inst., Kharkoff. * Effectiveness of roentgen therapy and teleradium therapy in laryngeal cancer after preventive dissection of afferent vessels (Russian text) VESTN. OTO-RINO-LARING. 1955, 2 (51-55) Tables 1

All 3 patients treated by this combined treatment in the first stage of the disease were free of recurrences for 13 to 22 months. Of 20 patients treated in the 2nd stage 16 were free of recurrences (6 observed for 1 yr., 4 for 2 and 6 for 3 yr.). Of 18 patients treated in stage III, 5 were free of recurrences (3 observed for 1 yr., 1 for more than 1 yr. and 1 for 3.5 yr.). Of 10 patients treated in stage IV only 1 remained cured for 3.5 yr. In the treatment of laryngeal cancer radium seems to give better results than roentgen therapy. Körbler - Zagreb (XI, 5, 14, 16)

LEVIN, Ya.F.,dotsent; ROZENGAUZ, D.Ye.,dotsent; YANKELEVICH, M.Ye.,dotsent.

On the paper by T.M. Klepikova-Troitskaia "On radiotherapy of laryngeal cancer with a preliminary ligation of afferent vessels" Vest. rent i rad. no.6:74-75 N-D '55. (MLRA 9:4)

1. Iz Ukrainskogo rentgeno-radiologicheskogo i onkologicheskogo instituta (dir.Dotsent Ye.A.Bazlov)

(LARYNX, neoplasms
ther., radiother., with preliminary ligation of afferent blood vessels)
(RADIOTHERAPY, in various dis.
cancer of larynx, preliminary ligation of afferent blood vessels)

LEVIN, Ya.F., dotsent; ROZENGAUZ, D.Ye., dotsent; YANKELEVICH, M.Ye., dotsent

Effectiveness of roentgenotherapy and of teleradium therapy of laryngeal cancer following section of supplying vessels. Vest. oto-rin. 17 no.2:51-55 Mr-Ap '55. (MLRA 8:7)

1. Iz Ukrainskogo rentgeno-radiologicheskogo i onkologicheskogo instituta i kliniki bolezney ukha, gorla i nosa (zav. prof. A.M. Natanzon) Khar'kovskogo meditsinskogo instituta.

(LARYNX, neoplasms,
ther., x-ray & radium after arterial section)
(RADIOTHERAPY, in various diseases,
cancer of larynx, after arterial section)
(RADIUM, therapeutic use,
cancer of larynx, after arterial section)

LEVIN, Ya.F., dots; ROZENGAUZ, D.Ye., dots.

Precancerous state in otolaryngology. Vrach.delo supplement '57:58 (MIRA 11:7)

1. Khar'kovskiy institut meditsinskoy radiologii i klinika bolezney ukha, gorla i nosa (zav.-prof. A.M.Natanzon) Khar'kovskogo meditsinskogo instituta.
(CANCER)

ROZENGAUZ, D.Ye., dotsent; LEVIN, Ya.F., dotsent

Effectiveness of radiation treatment of laryngeal cancer in relation to the stage of the disease. Zhur. ush., nos. i gorl. bol. 21 no.3: 66-67 My-Je '61. (MIRA 14:6)

1. Iz Khar'kovskogo instituta meditsinskoy radiologii i otorinolaringicheskoy kliniki Khar'kovskogo meditsinskogo instituta.
(LARYNX—CANCER) (X RAYS—THERAPEUTIC USE)

LEVIN, Ya.F.; CHERNYAVSKAYA, A.P.

Use of telegamma therapy in malignant bone tumors. Med.rad. no.5: 41-46 '61. (MIRA 14:11)

1. Iz rentgenovskogo otdela Khar'kovskogo instituta meditsinskoy radiologii.
(BONES—CANCER) (GAMMA RAYS—THERAPEUTIC USE)

LEVIN, Ya.F.; TSYUKHNO, Z.I.

Method for the X-ray therapy of Itsenko-Cushing's disease and its late results. Trudy Ukr.nauch.-issl.inst.eksper.endok. 18:265-271 '61. (MIRA 16:1)
(CUSHING SYNDROME) (X RAYS--THERAPEUTIC USE)

ROZENGAUZ, D.Ye., dotsent; LEVIN, Ya.F., dotsent

Primary multiple malignant tumors with a lesion of the otorhinolaryngological organs. Zhur.ush.,nos.i gorl.bol. 22 no.4:65-67 Jl-Ag '62. (MIRA 16:2)

1. Iz kafedry bolezney ukha, gorla i nosa (zav. - dotsent D.Ye. Rozengauz) Khar'kovskogo meditsinskogo instituta i rentgenovskogo otdeleniya (zav. - dotsent Ya.F. Levin) Khar'kovskogo instituta meditsinskoy radiologii.

(CANCER) (OTORHINOLARYNGOLOGY)

LEVIN, Ya.F., dotsent; ROZENGAUZ, D.Ye., dotsent

Melanomas of the otorhinolaryngological organs. Zhur.ush., nos.i gorl.bol. 23 no.3:28-33 My-Je'63. (MIRA 16:7)

1. Iz rentgenologicheskogo otdeleniya (zav.-dotsent Ya.F.Levin) Khar'kovskogo instituta meditsinskoy radiologii i kliniki bolezney gorla, ukha i nosa (zav.-dotsent D.Ye.Rozengauz) Khar'kovskogo meditsinskogo instituta.
(MELANOMA) (OTORHINOLARYNGOLOGY)

ROZENGAUZ, D.Ye., dotsent; LEVIN, Ya.F., dotsent

Case of a primary mult ple tumor. Zhur. ush., nos. i gor. bol. 24 no.1:89 Ja-F '64. (MIRA 18:3)

1. Iz Khar'kovskogo instituta meditsinskoy radiologii (dir. dotsent V.I. Shantyr').

LEVIN, Ya.K., kand.tekhn.nauk (g.Novocherkassk)

Use of filtration waters in the zone of irrigation canals for water supply purposes. Gidr. i mel. 14 no.1:41-48 Ja '62. (MIRA 15:1)

(Irrigation canals and flumes) (Water supply)

LEVIN, Ya.K., kand. tekhn. nauk

Dynamics of freshwater under irrigation canals. Trudy VNIIGiM 42:5-19 '63. (MIRA 17:6)

LEVIN, Ya.K., kand. tekhn. nauk

Damming of flowing artesian wells. Gidr. i mel. 16 no.7:55-58 Jl '64. (MIRA 17:11)

1. Yuzhnyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii.

LEVIN, Ya.K.

Overlap of flowing artesian wells not equipped with gate valves.
Razved. i okh. nedr 30 no.10:55-57 O '64.
(MIRA 18:11)

1. Yuzhnyy nauchno-issledovatel'skiy institut gidrotekhniki
i melioratsii.

LEVIN, Ya.L.

Improving preparations for ship repairs. Rech.transp. 15 no.8: 7-9 Ag '56. (MLRA 9:11)

1. Zamestitel' nachal'nika Tekhupravleniya Ministerstva rechnogo flota.
(Ships--Maintenance and repair)

LEVIN, Ya.L.

Industries of the Ministry of the River Fleet during 40 years. Rech.transp. 16 no.11:38-39 N '57. (MIRA 10:12)

1. Zamestitel' nachal'nika Tekhnicheskogo upravleniya Ministerstva rechnogo flota.

(Ships--Maintenance and repair)

LEVIN, Ya.L.; ABDURAKHMANOV, T.R.

Effect of Lagochilus leaf infusions on the heart in frogs. Farm.i toks. 23 no.4:347-348 Jl-Ag '60. (MIRA 14:3)

1. Kafedra farmakologii (zav. - prof. I.E.Akopov) Kubanskogo meditsinskogo instituta imeni Krasnoy Armii.
(HEART) (LAGOCHILUS)

67381

9.2520

SOV/106-59-9-10/13

AUTHOR: Levin, Ya.M.

TITLE: Design Formulae for the Stabilisation-Circuit for the Output Stage of a Semiconductor Triode, Ultra-Low Frequency Amplifier. (Short Communication)

PERIODICAL: Elektrosvyaz', 1959, Nr 9, pp 75-77 (USSR)

ABSTRACT: The author develops formulae for calculating the values of the elements of a series-parallel circuit (Figs 1 and 2) for stabilising against temperature change; one element is a thermistor. The design procedure is described. The initial data is: A. The transistor stage circuit, developed and satisfactory at room temperature, with a simple divider in the base circuit. B. The temperature range (T_{min}- T_o - T_{max}; T_o being the mean temperature) over which the circuit is to be stabilised. C. The constants C = 2 mV/degree and B. B is a constant for the thermistor, the resistance of which is given by

$$R_m = A \exp \frac{B}{T} \qquad (2)$$

1. The points of complete compensation (T_0, T_1 and T_2) are first determined from Eq (8) and the values of

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Design Formulae for the Stabilisation-Circuit for the Output Stage of a Semiconductor Triode, Ultra-Low Frequency Amplifier

m and n (Eqs (13) and (14)) are found from exponential tables. (The formulae are based on the Chebyshev polynomial ($x^3 - 3/4x$) which gives the best approximation to zero over the interval ± 1).

2. By substitution of the above values in Eq (17), the value of $R_{\Sigma m0}$ can be calculated, ($R_{\Sigma m0}$ is the combined resistance at T_o of the thermistor and the resistance R_ω connected across it).

3. From Eq (16) can be found the value of R_{m0} (thermistor resistance at temperature T_o) and from Eq (15) the value of the shunt resistance R_ω.

4. Knowing that $U_g = U_{room} - C(T_o - T_{room})$, the series resistance value R_a can be found from Eq (18).

5. Since the value of the thermistor is given at temperature $T = 293\ ^oK$, so

$$R_{T\ 293} = R_{m0} \exp\left[\frac{B(T_o - 293)}{T_o\ 293}\right] \qquad (19)$$

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Fig 3 shows experimental results.

67391

SOV/106-59-9-10/13

Design Formulae for the Stabilisation-Circuit for the Output Stage of a Semiconductor Triode, Ultra-Low Frequency Amplifier

There are 3 figures and 5 references, of which 1 is English, 1 is German and 3 are Soviet.

SUBMITTED: February 7, 1959

Card 3/3

LEVIN, Ya.M.

Structural changes of the pulmonary vessels in experimental ductus arteriosus in dogs. Eksp. khir. i anest. 7 no.6:23-29 N-D '62. (MIRA 17:10)

1. Iz otdela eksperimental'noy biologii i patologii (zav. - prof. I.K. Yesipova) Instituta eksperimental'noy biologii i meditsiny (dir. - prof. Ye.N. Meshalkin).

LEVIN, Ya.M.

Concerning the temperature stability of transistor circuits.
Elektrosviaz' 15 no.10:70-71 O '61. (MIRA 14:10)
(Transistor circuits)

LEVIN, Ya.M.

Experimental reversible model of hypervolemia of the lesser circulation. Eksper. khir. 5 no. 5:17-22 '60. (MIRA 14:1)
(BLOOD VOLUME) (HYPERTENSION)

L 36719-65

ACCESSION NR: AP5004424 S/0108/65/020/001/0057/0062

10
B

AUTHOR: Levin, Ya. M.

TITLE: Generalized d-c supply circuit for a transistorized stage

SOURCE: Radiotekhnika, v. 20, no. 1, 1965, 57-62

TOPIC TAGS: amplifier, transistorized amplifier, dc supply

ABSTRACT: Shortcomings of the known methods for evaluating the transistorized-stage stability are listed; among these are: (a) no comparison of stabilizing circuits on the basis of their power consumption is possible and (b) the stability criteria K, S_0 which are derived from the stabilization factor S do not take into account the voltage U_{eb}. The classical generalized d-c circuit suggested by K. Lunze (Nachrichtentechnik, v. 6, no. 3, 1956) is based on equivalent resistances of emitter, base, and collector circuits, equivalent sources in the base and collector circuits, and also a loss resistance which permits comparing various

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L 36719-65

ACCESSION NR: AP5004424

supply circuits on the basis of their power consumption. Ten variants of the transist rized stage are tabulated, and formulas connecting them with the generalized circuit are written. Orig. art. has: 3 figures, 14 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 15Oct62 ENCL: 00 SUB CODE: EC

NO REF SOV: 005 OTHER: 003

Card 2/2

137-58-4-8593

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 4, p 324 (USSR)

AUTHORS: Zamoruyev, G.M., Levin, Ya.N.

TITLE: The Use of Radioactive Phosphorus in the Investigation of the Transfer of Metal in the Wear of Steel (Primeneniye radioaktivnogo fosfora dlya issledovaniya perekhoda veshchestva pri iznashivanii stali)

PERIODICAL: V sb.: Primeneniye radioaktivn. izotopov v chernoy metallurgii. Chelyabinsk, Knigoizdat, 1957, pp 202-213

ABSTRACT: The degree of transfer of metal (TM) from one steel body to another during wear is studied in relation to the type of wear. P^{32} was employed as the TM tracer. It was introduced into the steel under investigation during the casting of the specimens. Addition was in the amount of 0.001% of the metal. TM was studied on a MI-type friction machine in which one of the specimens in the rubbing couple was radioactive. The types of wear studied included those due to surface creep, pitting, abrasion, scratching, and oxidation. The TM from one rubbing body to the other differs with different forms of wear, and the intensity of the TM is not directly related to the intensity of the destruction of the surface due to wear. N.G.

Card 1/1

1. Steel--Abrasion--Test results 2. Phosphorus isotopes (Radioactive) --Applications

LEVIN, Ya.N.

Our experience in the organization of technical education.
Politekh. obuch. no.2:24-30 F '58. (MIRA 11:1)

1.Direktor sredney shkoly No. 61 g. Ufy.
(Technical education)

LEVIN, Ya.N.; IVANTSOV, G.I.

Determining the relation of interphase energies in the system copper - iron. Fiz. met. i metalloved. 16 no.4:535-539 O '63. (MIRA 16:12)

1. Magnitogorskiy gorno-metallurgicheskiy institut.

LEVIN, Ya. S.

USSR/Chemistry - Hydrocarbon oxidation

Card 1/1 : Pub. 147 - 4/21

Authors : Ioffe, I. I.; Levin, Ya. S.; Sokolova, E. V.; Kronich, I. G.; and Shirokova, N. I.

Title : Study of the kinetics and mechanism of vapor-phase incompleted oxidation of benzene with molecular oxygen

Periodical : Zhur. fiz. khim. 8, 1386-1394, Aug 1954

Abstract : The kinetics of benzene oxidation with molecular O, was investigated at high hydrocarbon concentrations and relatively low temperatures and pressures. It was found that the kinetics of oxidation reaction corresponds to the kinetics of a degenerated explosion. The relation between the rate of reaction, benzene:oxygen ratio and partial O-pressure, was established. The inhibiting effect of the quartz surface on the volumetric reaction of benzene oxidation, is discussed. Six references: 2-USSR and 4-English (1929-1950). Tables; graphs ; drawings.

Institution : The K. E. Voroshilov Scientific Research Institute of Organ. Semi-Products and Dyes

Submitted : July 3, 1953

LEVIN, Ya. S.

USSR/Chemistry - Hydrocarbon oxidation

Card 1/1 : Pub. 147 - 5/21

Authors : Ioffe, I. I.; Levin, Ya. S.; and Kronich, I. G.

Title : Induction of the reaction of benzene oxidation

Periodical : Zhur. fiz. khim. 8, 1395-1398, Aug 1954

Abstract : The inductive effect of hydrocarbons other than benzene on the oxidation of benzene, was investigated. The principle problems of induction and the circle of compounds found to be most suitable for such induction, are listed. The intensity of benzene oxidation was estimated by the amount of phenol formed as a product of oxidation. The effect of adding ozone to the reaction mixture, is described. Five references: 2-USSR; 1-USA and 1-English (1940-1954). Tables; drawing.

Institution : The K. E. Voroshilov Institute of Organic Semi-Products and Dyes, Moscow

Submitted : July 25, 1953

SOV/76-33-4-18/32

5(4)

AUTHORS: Ioffe, I. I., Levin, Ya. S., Kronich, I. G.

TITLE: Investigations in the Field of the Kinetics and the Mechanism of the Vapor Phase Oxidation of Aromatic Hydrocarbons (Issledovaniya v oblasti kinetiki i mekhanizma parofaznogo okisleniya aromaticheskikh uglevodorodov). VII. The Effect of Water Vapor on the Thermal Oxidation of Benzene by Molecular Oxygen (VII. Vliyaniye vodyanogo para na termicheskoye okisleniye benzola molekulyarnym kislorodom)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 4, pp 863-868 (USSR)

ABSTRACT: The investigations of benzene oxidation with an oxygen water vapor mixture were carried out in an apparatus and according to the method of the work reported in reference 2. The water vapor (WV) was introduced into the quartz reactor (volume of 50 or 100 ml) by an automatically operating portioner. In order to examine the specific influence exercised by (WV) par lel investigations were carried out with oxygen-nitrogen mixtures (Table 1). It was found that in the mixtures with (WV) (under the same conditions) a phenol (I) yield which is by 20% higher is obtained. With rising temperature the yield in (I) is reduced (with and without (WV), Table 2). An increase of the reactor volume gives the same yield of (I) at the same degree

Card 1/2

Investigations in the Field of the Kinetics and the Mechanism of the Vapor Phase Oxidation of Aromatic Hydrocarbons. VII. The Effect of Water Vapor on the Thermal Oxidation of Benzene by Molecular Oxygen

of conversion of benzene at a simultaneous temperature decrease and a prolonged reaction time (Table 3). The reduction of the ratio benzene/oxygen in the reaction mixture leads to an extension of the process of complete combustion (Table 4). An increase of the relative amount of the (WV) added leads to the general conversion of benzene and increases the yield in (I) (Table 5 for experiments at 725° in a 50 ml reactor). The positive influence exercised by (WV) on the yield in (I) is explained from a point of view already described by way of benzene oxidation (Ref 4). There are 1 figure, 5 tables, and 4 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskikh poluproduktov i krasiteley im. K. Ye. Voroshilova (Institute of Organic Semi-Products and Dyes imeni K. Ye. Voroshilov)

SUBMITTED: September 25, 1957

LEVIN, Ya.S.; IVANOV, I.S., red.; MOROZOVA, M.K., red.; SHEVCHENKO, G.A., tekhn.red.

[Grain harvesting combines in foreign countries] Zernouborochnye kombainy v zarubezhnykh stranakh. Moskva, Vses.in-t mekhm. i tekhn.informatsii, 1960. 112 p. (MIRA 15:5)
(Harvesting machinery)

Levin

PHASE I BOOK EXPLOITATION SOV/3921

Akademiya nauk SSSR. Institut fizicheskoy khimii

Problemy kinetiki i kataliza. [t] 10: Fizika i fiziko-khimiya kataliza (Problems of Kinetics and Catalysis. [vol.] 10: Physics and Physico-Chemistry of Catalysis) Moscow, Izd-vo AN SSSR, 1960. 461 p. Errata slip inserted. 2,600 copies printed.

Eds.: S.Z. Roginskiy, Corresponding Member of the Academy of Sciences USSR, and O.V. Krylov, Candidate of Chemistry; Ed. of Publishing House: A.L. Bankvitser; Tech. Ed.: G.A. Astaf'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.

COVERAGE: 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 catalysts." The Conference was held at the Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry of the AS USSR) in Moscow, March 20-23, 1958. Of the great volume of material presented at the conference, only papers not published elsewhere were included in this collection.

III. SOME GENERAL PROBLEMS OF CATALYSIS

IV. ACID - BASE CATALYSIS

IOFFE, I.I.; DOBROVOL'SKIY, S.[illegible]; LEVIN, Ya.S.; GRIZIK R.M.; KAMBULOVA, V.A.; KRONICH, I.G.; SOKOLOVA, Ye.V.

Similarity of reactions catalyzed by liquid and solid acids. Probl. kin. i kat. 10:294-297 '60. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.

(Acids) (Naphthylamine) (Naphthol)

IOFFE, I.I.; LEVIN, Ya.S.

Manufacturing phenols by the direct oxidation of benzene. Org. poluprod. i kras. no.2:88-117 '61. (MIRA 14:11)
(Phenols) (Benzene)

YAKOBSON, Ya.S.; LEVIN, Ya.V.; DEKOV, V.I.; POLYAN, Ye.A.

New method for determining the load on the foot. Ortop., travm. i protez. 21 no.1:67-69 Ja '60. (MIRA 13:12)
(FOOT)

LEVIN, Ya.V.; MUSSO, L.G.

Instruments for radiological clinics. Med.rad. no.1:73-82 '62.
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