

2/2 020

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0109172

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AN EXPERIENCE IN 100 RETROSTERNAL PREFASCIAL ESOPHAGOPLASTIES WITH THE SMALL INTESTINE, PERFORMED IN PATIENTS AGED FROM 7 TO 60 YEARS WITH CICATRICAL NARROWING OF THE ESOPHAGUS, IS PRESENTED. THREE PRINCIPAL STAGES OF SURGERY ARE DIFFERENTIATED, AND DETAILED CHARACTERISTICS OF EACH IS GIVEN, BASING ON THE ANALYSIS OF CLINICAL DATA. COMPLICATIONS AND CAUSES OF UNFINISHED ESOPHAGOPLASTIES (IN 4 PATIENTS), AS WELL AS CAUSES OF MORTALITY (5 CASES) ARE DESCRIBED. IT IS CONSIDERED THAT RETROSTERNAL PREFASCIAL ESOPHAGOPLASTY WITH THE SMALL INTESTINE COULD BE A METHOD OF CHOICE IN RECONSTRUCTIVE SURGERY ON THE ESOPHAGUS. FACILITY: GOSPITAL"NOY KHIRURGICHESKOY KLINIKI TOMSKOGO ORDENA TRUDOVOGO KRASNOGO ZNAMENI MEDITSINSKOGO INSTITUTA.

UNCLASSIFIED

USSR

UDC [537.226+537.311.33]:[537+535]

BAZAKUTSA, V. A., VOINOVA, L. G., ~~ROGACHEVA, YE. I.~~, and DEMBOVSKIY, S. A.

"Electrophysical Properties and Structures of Some Indium and Thallium Tellurides in Thin Layers"

V sb. Tonkiye plenki sovedineniy tellura s metallami podgrupp tsinka i galliya (Thin Films of Tellurium Compounds With Metals of Zinc and Gallium Subgroups -- Collection of Works), Vil'nyus, 1970, p 111 (from RZh-Fizika, No 10, Oct 71, Abstract No 10YE760 by authors)

Translation: Thin layers of $TlSeTe_2$ were obtained by thermal evaporation in vacuum. Amorphous layers of condensate were obtained by deposition on cold substrates. Heat treatment of amorphous films of $TlSbTe_2$ in vacuum at $T=350^\circ K$ resulted in their crystallization. The authors studied the following basic electrophysical parameters of amorphous and polycrystalline layers of $TlSbTe_2$: specific conductivity, Seebeck coefficient, concentration and sign of current carriers, thermal activation energy. Transmission and reflection of amorphous and polycrystalline layers of $TlSbTe_2$ in the spectral range from 0.7-15 microns were measured. The effective mass of current carriers was calculated according to IR reflection spectra. In_2Te_3 films were obtained by cathode sputtering of the initial semiconductor in an Ar atmosphere. The

1/2

USSR

BAZAKUTSA, V. A., et al., Tonkiye plenki soyedineniy tellura s metallami podgrupp tsinka i galliya, 1970, p 111

structure and following basic electrophysical parameters of films were studied: specific conductivity, Seebeck coefficient, concentration and sign of current carriers, energy gap.

2/2

- 64 -

AA0051770

ROBACHEVSKIY, B.M.

UR 0482

Soviet Inventions Illustrated, Section II Electrical, Derwent, 1/70

237022 MAGNETOMODULATION SENSOR, of increased sensitivity, the circuit for which is shown in the diagram; it consists of a generator (1) connected to the exciter (2), the core (3) being of moldly-magnetic material, with the measuring coil (4) having a measuring inductance L_1 , and also including the reactive components L_2 , C_1 , C_2 and C_3 which form, together with L_1 , a bridge arrangement. When excited by current from (1) the winding (2) generates a sinusoidal magnetic field of frequency ' ω ' and amplitude H_m which periodically changes the magnetic condition of the core (3). When a measured magnetic field H_0 is present in the measuring coil, an e.m.f. at the 4th harmonic of the excitation frequency is set up as well as a combinational frequency. This e.m.f. increases due to parametric amplification effects and is divided between the

4

1/2

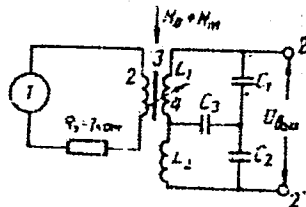
19820121

AA0051770

Institut Avtomatiki i Elektrometrii AN SSSR

remainder of the components of the bridge circuit in the described manner, resulting in a signal of increased strength. An algebraic equation for determining the strength of the e.m.f. is included, together with a graph which relates sensitivity of the sensor with excitation field.

2.9.66 as 1100773/18-24. B.M.ROGACHEVSKIY & E.V. SHERMET'YEV. INST. OF AUTOMATION & ELECTROMETRY WITHIN THE ACAD. OF SCIENCES OF THE USSR.(16.6.69) Bul 7/3.2.69. Class 74b. Int.Cl.G 08c.



2/2

EB

19820122

1/2 023 UNCLASSIFIED
TITLE--AN AUTOMATIC CONNECTION FINDER --U-

PROCESSING DATE--20NOV70

AUTHOR--ROGALEV, R.I. *R*

COUNTRY OF INFO--USSR

SOURCE--USSR NO 264002

REFERENCE--OTKRYTIYA, IZOBRETIENIYA, PROMYSHLENNYYE OBRAZTSY, TOVARNYYE
DATE PUBLISHED-----70

SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR.

TOPIC TAGS--PATENT, COMPUTER CIRCUIT, COMPUTER COMPONENT, COMPUTER INPUT
UNIT, COMPUTER MEMORY, COMPUTER OUTPUT UNIT, COMPUTER TECHNOLOGY,
COINCIDENCE CIRCUIT, PULSE COUNTER, COINCIDENT CURRENT MAGNETIC MEMORY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--3004/1177

STEP NO--UR/C482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0131632

UNCLASSIFIED

2/2 023

CIRC ACCESSION NO--AA0131682
ABSTRACT/EXTRACT--(U) CP-0-

UNCLASSIFIED

PROCESSING DATE--20NOV70

INTRODUCES: 1. AN AUTOMATIC CONNECTION FINDER WHICH CONTAINS A COMMUTATION UNIT, COUNTERS, COINCIDENCE CIRCUITS, A MAGNETIC MEMORY UNIT, ADDRESS DECODING UNIT, ADDER, AND PRINTOUT AND PUNCHING UNIT. AS A DISTINGUISHING FEATURE OF THE PATENT, CHECKING SPEED IS INCREASED BY SIMULTANEOUSLY CONNECTING EACH POINT OF THE CIRCUIT TO BE CHECKED TO A CONTACT OF THE COMMUTATION UNIT AND ONE INPUT OF THE COINCIDENCE CIRCUITS ARE CONNECTED THROUGH MATCHING ELEMENTS TO THE OUTPUTS OF THE COUNTER IN THE ANALYSIS UNIT. 2. A MODIFICATION OF THIS CONNECTION FINDER DISTINGUISHED BY INCREASED OPERATING SPEED AND A REDUCTION IN THE TIME FOR ANALYSIS OF THE RESULTS OF THE CHECK. THE OUTPUTS OF THE COUNTER IN THE ANALYSIS UNIT ARE CONNECTED TO THE INPUTS OF THE ADDRESS SECTION OF THE MAGNETIC MEMORY THROUGH MATCHING ELEMENTS, AND THE COUNTING INPUT OF THE COUNTER IN THE ANALYSIS UNIT IS CONNECTED TO THE CONTROL UNIT. THE CONTROL IS CONNECTED TO THE ADDRESS DECODER AND TO THE NUMBER SECTION AND TO THE INPUTS OF THE MAGNETIC MEMORY CONTROL UNIT, WHILE THE OUTPUTS OF THE DECODER COUNTER ARE CONNECTED THROUGH MATCHING ELEMENTS TO THE INPUTS OF THE PRINTOUT AND PUNCHING UNIT.

SCHEMATIC ANALYTICAL MACHINE. FACILITY: MOSKOVSKIY ZAVOD

UNCLASSIFIED

USSR

UDC 681.326.77

R
ROGALEV, R. I., Moscow Analog Computer Plant

"An Automatic Connection Finder"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 8, 1970, p 120, patent No 264002, filed 1 Dec 66

Abstract: This Author's Certificate introduces: 1. An automatic connection finder which contains a commutation unit, counters, coincidence circuits, a magnetic memory unit, address decoding unit, adder, and printout and punching unit. As a distinguishing feature of the patent, checking speed is increased by simultaneously connecting each point of the circuit to be checked to a contact of the commutation unit and one input of the coincidence circuit, while the other inputs of the coincidence circuits are connected through matching elements to the outputs of the counter in the analysis unit. 2.. A modification of this connection finder distinguished by increased operating speed and a reduction in the time for analysis of the results of the check. The outputs of the counter in the analysis unit are connected to the inputs of the address section of the magnetic memory through matching elements, and the counting input of the counter in
1/2

USSR

ROGALEV, R. I., et al., Moscow, Otkrytiya, Izobreteniya, Promyshlennyye
Obraztsy, Tovarnyye Znaki, No 8, 1970, p 120, patent No 264002,
filed 1 Dec 66

the analysis unit is connected to the counting input of the counter
in the address decoder and to the control unit. The control is con-
nected to the outputs and inputs of the number section and to the in-
puts of the magnetic memory control unit, while the outputs of the
decoder counter are connected through matching elements to the in-
puts of the printout and punching unit.

2/2

- 35 -

1/2 007

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--REDUCTION IN THE LOSSES OF FATTY ACIDS DURING THE THERMAL TREATMENT
OF SOAP SOLUTIONS OF SYNTHETIC FATTY ACIDS -U-

AUTHOR--ROGANIN, F.D.

R

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERARAB. NEFTEKHIM. (MOSCOW) 1970, (3), 32-4

DATE PUBLISHED--70

SUBJECT AREAS--MATERIALS, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--SOAP, FATTY ACID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1123

STEP NO--UR/0318/70/000/003/0032/0034

CIRC ACCESSION NO--AP0124778

UNCLASSIFIED

2/2 007

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124778

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SOLNS. CONTG. SOAP, UNSAPONIFIABLES, AND WATER ARE HEAT TREATED TO REMOVE UNSAPONIFIABLE MATTER. BY THIS THERMAL TREATMENT, 10-15PERCENT OF THE FATTY ACIDS ARE LOST, MOST OF THEM IRREVOCABLY, BECAUSE FATTY ACID ARE CONVERTED TO UNSAPONIFIABLE MATTER. THE YIELD AND COMPN. OF THE FATTY ACIDS DEPENDS ON EXCESS ALKALI, TEMP., AND TIME THE PRODUCT REMAINS AT A HIGH TEMP. RELATIONS BETWEEN THESE 3 FACTORS NECESSARY FOR REDN. OF LOSSES OF SYNTHETIC FATTY ACIDS ARE GIVEN. FACILITY: VOLGOGRAD. FILIAL SKB ANN, VOLGOGRAD, USSR.

UNCLASSIFIED

1/2 021

UNCLASSIFIED

PROCESSING DATE--09OCT70

TITLE--THERMODYNAMICS OF METHYLHEXANE ISOMERIZATION -U-

AUTHOR--(04)--ROGANOV, G.N., KOBO, G.YA., ANDREYEVSKIY, D.N., NIKULIN, K.V.

COUNTRY OF INFO--USSR

SOURCE--NEFTEKHIMIYA 1970, 10(1), 16-21

DATE PUBLISHED--70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--THERMODYNAMICS, HEXANE, ALKYL RADICAL, ISOMERIZATION, PHASE EQUILIBRIUM, ENTROPY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1992/1966

STEP NO--UR/0204/70/010/001/0016/0021

CIRC ACCESSION NO--AP0112930

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0112930

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EQUIL. WAS STUDIED IN THE SYSTEM
2-METHYLHEXANE (I), 3-METHYLHEXANE (II) IN THE LIQ. AND VAPOR PHASES AT
20-1700DEGREES BY USING $AlCl_3$ SUB3 AS A CATALYST. FROM THE EQUIL. DATA
 ΔH SUB368 AND ΔS SUB368 WERE MINUS 24 PLUS OR
MINUS 50 CAL-MOLE AND MINUS 0.47 PLUS OR MINUS 0.1 EU. DIFFERENCE IN
ENTROPY OF I AND II CALCD. FOR ONE STEREISOMER OF II (L OR D) WAS MINUS
1.85 EU BASED ON EQUIL. DATA. FACILITY: BELORUSS. GOS. UNIV.
IM. LENINA, MINSK, USSR.

UNCLASSIFIED

3

USSR

UDC 539.181.1

GOL'DANSKIY, V. I., Corresponding Member of the USSR Academy of Sciences,
DEZHURAYEV, A. A., YEVSEYEV, V. S., OBUKHOV, Yu. V., ROGANOV, V. S.,
FRONTAS'YEVA, M. V., KHOLODOV, N. I., Institute of Chemical Physics,
USSR Academy of Sciences

"Atomic Capture of Negative Mesons in Compounds Containing Hydrogen"

Moscow, Doklady Akademii Nauk SSSR, Vol 211, No 2, 11 Jul 73, pp 316-318

Abstract: An attempt is made to find possible underlying regularities in the distribution of negative muons between the individual groups $Z_m H_n$ and atoms Z' in substituted hydrogen-containing organic compounds and in hydrogen-containing compounds in general of the type $Z_m H_n Z'_k$ or $Z_m H_n Z'_k H'_l$. A table is given summarizing the relative probabilities of capture of μ^- -mesons by hydrocarbon and hydrogen-containing groups and by aromatic rings in compounds with ionic bonds, in alkyl chlorides, and in phenyl halides.

1/1

2 - 022

UNCLASSIFIED

PROCESSING DATE--23OCT70

TITLE--EFFECT OF THE CRYSTAL LATTICE OF SILICON ON THE HYPERFINE SPLITTING

ENERGY OF MUONIUM -U-

AUTHOR--(05)-ANDRIANOV, D.G., MINAYCHEV, YE.V., MYASISHCHEVA, G.G.,

BOUKHOV, YU.V., ROGANOV, V.S.

COUNTRY OF INFO--USSR

R

SOURCE--ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI, 1970, VOL 58,

NUMBER 6, PP 1896-1898

DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--CRYSTAL LATTICE, SILICON, SINGLE CRYSTAL, LONGITUDINAL
MAGNETIC FIELD

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/1728

STEP NO--UR/0056/70/058/006/1896/1898

ARC ACCESSION NO--AP0120440

UNCLASSIFIED

2/2 022

UNCLASSIFIED

PROCESSING DATE--23OCT70

IRC ACCESSION NO--AP0120440

BSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DEPENDENCE OF MU E DECAY POLARIZATION ON LONGITUDINAL MAGNETIC FIELD STRENGTH IS MEASURED IN SILICON SINGLE CRYSTALS. THE HYPERFINE SPLITTING ENERGY OF THE MUONIUM ATOM IN THE CRYSTAL LATTICE DIFFERS FROM THE VACUUM VALUE AND CORRESPONDS TO A MUONIUM SIZE R EQUALS (9,719 PLUS OR MINUS 9,016) ANGSTROM.

UNCLASSIFIED

172 018

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--PASCHEN BACK EFFECT FOR THE MUONIUM ATOM -U-

AUTHOR--(05)--MINAYCHEV, YE.V., MYASISHCHEVA, G.G., OBUKHOV, YU.V., ROGANOV,
V. See SAVELYEV, G.I.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKOY FIZIKI, 1970, VOL 58,
NR 5, PP 1586-1592

DATE PUBLISHED--70

R

SUBJECT AREAS--PHYSICS

TOPIC TAGS--LONGITUDINAL MAGNETIC FIELD, MAGNETIC FIELD INTENSITY,
MAGNETIC POLARIZATION, MUON, SINGLE CRYSTAL PROPERTY, QUARTZ, CORUNDUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--3001/2236

STEP NO--UR/0056/70/058/005/1586/1592

CIRC ACCESSION NO--AP0127598

UNCLASSIFIED

U18

CIRC ACCESSION NO--AP0127598
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--30OCT70

ABSTRACT. THE POLARIZATION OF MU PRIME POSITIVE MESONS AS A FUNCTION OF LONGITUDINAL MAGNETIC FIELD STRENGTH IS MEASURED BETWEEN 0 AND 3 KOE IN SINGLE CRYSTAL QUARTZ AND CORUNDUM. FOR QUARTZ THE EXPERIMENTAL DATA ARE FOUND TO BE IN GOOD AGREEMENT WITH THE THEORY OF MUONIUM DEPOLARIZATION. THE EXPERIMENTAL VALUE OF THE CRITICAL MAGNETIC FIELD STRENGTH FOR MUONIUM IN QUARTZ EQUALS WITHIN THE EXPERIMENTAL ERRORS THE VALUE OBTAINED IN VACUUM. THE POSSIBILITIES WHICH THE METHOD AFFORDS FOR MEASURING THE SIZE OF MUONIUM IN VARIOUS MEDIA ARE CONSIDERED.

UNCLASSIFIED

Acc. Nr:

AP0034226

Abstracting Service:

CHEMICAL ABST. 4-70

Ref. Code:

UR 0078

71299b Water-dioxane-perchloric acid, water-dioxane-potassium tetrachloropalladate(II), and water-dioxane-potassium tetrabromopalladate(II) systems. Golodov, V. A.; Zisman, A. B.; Roganov, V. V.; Enker, K. P. (Kaz. Gos. Univ., Alma-Ata, Kaz.). *Zh. Neorg. Khim.* 1970, 15(1), 236-9 (Russ.). Effect of HClO₄, K₂PdCl₄, or K₂PdBr₄ addn. was studied on elec. cond., viscosity (η), and d. of dioxane-water system at 25 and 45°. Addn. of HClO₄ or K₂PdX₄ (X = Cl or Br) did not affect the nature of d. and η isotherms. Elec. cond. decreased with increasing concn. of dioxane in the mixt. due to decreased dissoen. of the additives studied.

HMJR

REEL/FRAME
19710879

USSR

R

RCGASHKOVA, A.I.

UDC 621.385.632:513.9.12

"Interaction Of Modulated Electron Beam With Plasma"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronics Technology. Scientific-Technical Collection. Microwave Electronics), 1970, No 5, pp 143-147 (from RZh--Elektronika i yeye primeneniye, No 8, August 1970, Abstract No EA23)

Translation: The mechanism is discussed for amplification of a high-frequency signal in a plasma-beam system because of the interaction of the beam with the charges induced by it in the plasma. On the basis of equations of nonlinear one-dimensional traveling-wave tube theory, the process of bunching of the electron flow is considered as well as interaction with the field of the decelerating system in plasma devices. 3 ref. Summary.

USSR

ROGASHKOVA, A.I.

R

UDC 621.385.632

"Effect Of Inhomogeneity Of The Field Of The Cross Section Of A Beam On The Efficiency Of A Plasma TWT"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronics Technology. Scientific-Technical Collection. Microwave Electronics), 1970, No 6, pp 153-157 (from RZh--Elektronika i yeye primeneniye, No 10, October 1970, Abstract No 10A156)

Translation: The effect is considered of a radial change of the high-frequency field on the efficiency of a plasma TWT. The space charge is not considered. Computations by the equations of nonlinear TWT theory showed that with large radiuses of the beams, the efficiency is significantly diminished. Author's Summary.

USSR

UDC 624.073.012.35.04

ANTONOV, K. K., ROGATIN, YU. A., Moscow

"On Calculating Fastening Beams of Reinforced Concrete Plates Supported on an Elastic Contour"

Moscow, Stroitel'naya mekhanika i raschet sooruzheniy, No. 3, 1972, pp 26-29

Abstract: A method is presented for determining support reactions and forces in elastic fastening beams of reinforced concrete square plates supported over a contour loaded with a uniformly distributed statistical load. The studies showed that the nature and magnitude of support reactions and forces in elastic binding beams of reinforced concrete plates supported over a contour are functions of a computational parameter ϕ , the coefficient of relative rigidities of the system. This parameter is recommended for use in calculating beams under elastic operation of a plate-contour system and in cases of operating with a plate with cracks. The formulas are compared with experimental results and are illustrated by examples.

1/1

USSR

UDC 577.1:612.12-015

PODDUBNAYA, L. T., ~~ROGATINA, L. N.~~, KUSTOV, V. V., and MIKHAYLOV, V. I.

"Effect of Chemical Preservative Agent on Rate of Emission of Certain Gaseous Toxic Substances From Stored Units"

V sb. Probl. kosmich. biol. (Problems in Space Biology -- Collection of Works), Vol 16, Moscow, "Nauka" (Science), 1971, pp 170-173 (Russian) (from RZh-Biologicheskaya Khimiya, No 19, 10 Oct 71, Abstract No 19F1534 from summary)

Translation: A study was made of the effect of a chemical preservative of the phenol class on the rate of gas emissions from stored urine. It was established that addition of the preservative lessens the input into the air of substances of the ammonia, ketone, fatty-acid and nitrogen-oxide group. The emission of carbon monoxide and organic compounds, as determined cumulatively according to carbon, does not vary.

1/1

- 67 -

USSR

UDC 577.1:612.12.015

ROGATINA, L. N., KARAGODINA, A. M., and PANCHENKO, V. A.

"Urine Preservation in a System of Water Recovery From Urine"

V sb. Probl. kosmich. biol. (Problems in Space Biology -- Collection of Works),
Vol 16, Moscow, "Nauka" (Science), 1971, pp 173-178 Russian) (from RZh-
Biologicheskaya Khimiya, No 19, 10 Oct 71, Abstract No 19F1536 from summary)

Translation: A study was made of 32 substances and combinations thereof for preservation of urine when stored for two weeks at 18-20°. Five formulas were investigated using apparatus for water recovery from urine in order to ascertain the feasibility of their application for urine preservation in this system. When urine is treated with a preservative, the condensate shows a decline in the amount of ammonia and total content of organic substances as compared with the condensate obtained on the evaporation of urine untreated with a preservative agent. The condensate met the requirements of the All-Union State Standard for drinking water in respect to microorganism content, clarity and odor. Slight additional purification using ion-exchange resins is required in order to obtain water meeting the All-Union State Standard requirements for drinking water in respect to physicochemical indicators.

1/1

USSR

UDC: 669.295.053.4.094(088.8)

PETRUN'KO, A. N., MEYERSON, G. A., ROGATKIN, A. A., PAMPUSHKO, N. A., OLESOV, Yu. G.

"Method of Processing of Iron-Titanium Concentrates"

USSR Author's Certificate Number 353992, Filed 12/07/70, Published 10/11/72
(Translated from Referativnyy Zhurnal Metallurgiya, No 8, 1973, Abstract No 8G212P, by G. Svodtseva).

Translation: A method of processing of Fe-Ti concentrates, consisting in reduction of the concentrates by carbon in an atmosphere of N_2 at 1200-1400°, leaching with HCl and chlorination of the residue. In order to increase the productivity of the process and reduction of the concentrate to oxycarbonitride containing 5-7% O_2 , reduction is performed in a stream of rarefied N_2 with a residual gas pressure of 0.2-0.4 atm. abs. at 1200-1500°, while $FeCl_3$ is crystallized from the solution produced after leaching, then reduced by the hydrogen formed during leaching to Fe powder.

1/1

USSR

ROGATKIN, A. I.

"Programs for a Three-Stage Method of Least Squares"

Vopr. Postroeniya i Primeneniya Statist. Modeley Ekon. Pokazateley Predpriyatiy Ch. 2 [Problems of the Construction and Application of Statistical Models of the Economic Indicators of Enterprises, Part 2 -- Collection of Works], Novosibirsk, 1971, pp 213-224, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V541 by V. Mikheyev).

Translation: The following problem is solved. A system of M linear econometric equations is given for M endogenic variables. It is assumed that this system can be solved for all endogenic variables; that the perturbations in the structural equations have zero mean, are sequentially independent and homoscedastic, i.e., their dispersions are finite and constant with time. The parameters of the interdependent econometric equations must be calculated. A mathematical model is presented of this problem and a program is written in "Alpha" language for the BESM-6 computer, based on a three-step method of least squares.

1/1

USSR

025

UNCLASSIFIED

PROCESSING DATE--20NOV70
IN THE FLOW THROUGH PART

TITLE--DEPOSITION OF SALTS AND CORROSION PRODUCTS
OF TURBINES WITH SUPERCRITICAL PARAMETERS -U-
AUTHOR--(G2)--MARTYNOVA, G.I., ROGATSKIN, B.S.

COUNTRY OF INFO--USSR

SOURCE--TEPLCENERGETIKA 1970, 17(5), 50-4

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, ENERGY CONVERSION (NON-PROPULSIVE)

TOPIC TAGS--X RAY ANALYSIS, STEAM TURBINE, CHEMICAL COMPOSITION, INORGANIC
SALT, CLEANING TECHNIQUE, CORROSION TEST

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3004/1908

STEP NO--UR/0096/70/017/005/0050/0054

CIRC ACCESSION NO--AP0132170

UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--20NDV70

CIRC ACCESSION NO--AP0132170
ABSTRACT/EXTRACT--(U) GP-C-

ABSTRACT. THE RESULTS OF X RAY ANAL. OF THE DEPOSIT ON THE VANES ARE GIVEN. THE COMPN. DEPENDS ON THE LOCATION OF THE DEPOSIT AND CONSISTS OF SiO_2 , Fe_2O_3 , AND CaO . ON THE 1ST STEPS MORE CaO IS FOUND. THE Fe, Ca DEPOSIT IS VERY DANGEROUS FOR THE TURBINE AS IT IS FORMED IN THE ZONE OF THE SMALLEST FLOW, WHERE A VERY SMALL DEPOSIT CAN EFFECT THE CAPACITY OF THE TURBINE ON A LARGE SCALE. ONLY A NO. OF MEASURES CAN IMPROVE THE CAPACITY, FOR EXAMPLE REGULAR CHEM. CLEANING OF THE BOILERS OR PURIFICATION OF THE HEATED CONDENSATE BEFORE DEAERATION.

UNCLASSIFIED

UDC 620.17

TAVADZE, F. N., GRIKUROV, G. N., TRANTSEVICH, YA. V., SUKHOTIN, A. M.,
ANTROPOV, N. P., and ROGATSKIY, A. L.

"Estimating the Strength of Materials and Their Welded Joints at Cryogenic
Temperatures by the Method of Testing Contour-Supported Disks for Flexure"
Kiev, Problemy Prochnosti, No 1, Jan 72, pp 109-112

Abstract: A description is given of the design of an attachment for a tensile testing machine for determining the strength of contour-supported disks by bending tests. Results are presented for the testing of basic sheet material and welded seams in the form of disks of the austenite-martensite class (steel of the SK-2A type) at temperatures of -196 and -253°C. The strength values were determined, and a comparative analysis of the obtained results with data concerning the strength of the basic metal and the welded seams was conducted. Study of the disks led to the conclusion that breakdown takes place at their point of contact with the punch in the zone of thermal influence. One table, 3 figures, 4 references.

1/1

USSR

UDC 632.95

MIL'SHTEYN, I. M., ~~ROGATYKH N. G.~~ SHVETSOVA-SHILOVSKAYA, K. D., MEL'NIKOV, N. N.

"Procedure for Obtaining O-arylsulphonylcarbamoyloximes"

USSR Author's Certificate No 316688, filed 21 Oct 68, published 14 Dec 71 (from RZh-Khimiya, No 12, Jun 72, Abstract No 12N459)

Translation: Compounds with the general formula $RR'C = NOC(O)NHSO_2A$ (I) (R and R' = alkyl or aryl; A = aryl) with acaricid activity are obtained with inter-action of the corresponding oxime with arylsulphonylisocyanate. In the presence of Et_3N , 0.015 moles of $PhSO_2NCO$ are added to a solution of 0.015 moles of methyl isopropyl ketone oxime in 50 ml of benzene; it is mixed for 4-5 hours at 40-50°; the solvent is distilled off and I is obtained (R = Me, R' = iso-Pr, A = Ph); the yield is 95%, the melting point is 120° (benzene). The I (R = Me, A = Ph) is obtained analogously (R' is recalculated, the yield in %, melting point in °C): Et, 74, 126; Me 97, 124-5; sec-Bu, 95, 113.

1/1

USSR

R

UDC: 549.212

KOVALEVSKIY, K.N., ROGATYLIN, M.I., and FARBEROV, I.L., Institute of Mineral Fuels

"On the Theory of the Volumetric Compaction of Graphite With Pyrolytic Carbon"
Moscow, Khimiya Tverdogo Topliva, No 2, 1970, pp 141-148

Abstract: The "volumetric" method of compacting artificial graphite with pyrolytic carbon offers significant advantages as regards the physical, thermal, and electrical properties of the product, but it has not been generally adopted owing to the lack of information on the immediate physical processes involved and on the properties of the resultant graphite. The authors summarize recent theoretical and experimental studies relating to the method.

1/3

USSR

ROGAVA, S.V.E., Tbilisi

UDC 62-50

"Optimality of Classifying Stochastic Processes in a Recognition System with Predicting Prototypes"
Kiev, Avtomatika, No 3, 1971, pp 39-44

Abstract: A classification system for stochastic processes with predicting filters is described. The system continuously improves the accuracy of its solution as process data is received. The operation of this system is optimal in the sense that it does not differ from the operation of the system with respect to the probability maximum criterion determined by the information available at the end of the observation time.

Use of the mean square error of the prediction filters as the discriminating function insures proper classification for any form of the distribution laws. A complete mathematical analysis is presented for a sample classification system of stochastic processes in a recognition system with predicting prototypes and means of optimizing it.

1/1

USSR

UDC: 621.374.32

ROGAVA, S. Ye., MANUKYAN, Yu. S., DZHIKIYA, K. S., ROGAVA, Z. Ye., Tbilisi
~~Affiliate of the~~ All-Union Scientific Research Institute of Metrology imeni
D. I. Mendeleev

"A Binary Pulse Counter"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki,
No 10, Apr 71, Author's Certificate No 298073, Division H, filed 27 Sep 69,
published 11 Mar 71, p 193

Translation: This Author's Certificate introduces a binary pulse counter
which contains the binary flip-flop counter proper with a ripple-through
carry net based on AND elements, and also OR elements, delay elements and a
half-adder. As a distinguishing feature of the patent, the device is designed
for detection of malfunctions, simplification and increased counting speed.
The zero-output terminals of the flip-flops for all digital places are con-
nected to inputs of the corresponding AND elements, which are connected in
series and form an auxiliary ripple-through carry net whose input is connected
through a delay element to the counter input. The outputs of the AND cir-
cuits of the auxiliary ripple-through carry net are connected through an OR

1/2

USSR

ROGAVA, S. Ye., et al., Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 10, Apr 71, Author's Certificate No 298073

element to the input of the half-adder. The outputs of the AND elements of the main ripple-through carry net are connected through a delay element and OR element to the second input of the half-adder.

2/2

- 86 -

USSR

UDC: 621.374.32

ROGAVA, S. Ye., MANUKYAN, Yu. S., DZHIKIYA, K. S., ROGAVA, Z. Ye., Tbilisi
Affiliate of the All-Union Scientific Research Institute of Metrology imeni
D. I. Mendeleev

"A Binary Pulse Counter"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki,
No 10, Apr 71, Author's Certificate No 298073, Division II, filed 27 Sep 69,
published 11 Mar 71, p 193

Translation: This Author's Certificate introduces a binary pulse counter
which contains the binary flip-flop counter proper with a ripple-through
carry net based on AND elements, and also OR elements, delay elements and a
half-adder. As a distinguishing feature of the patent, the device is designed
for detection of malfunctions, simplification and increased counting speed.
The zero-output terminals of the flip-flops for all digital places are con-
nected to inputs of the corresponding AND elements, which are connected in
series and form an auxiliary ripple-through carry net whose input is connected
through a delay element to the counter input. The outputs of the AND cir-
cuits of the auxiliary ripple-through carry net are connected through an OR

1/2

USSR

ROGAVA, S. Ye., et al., Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 10, Apr 71, Author's Certificate No 298073

element to the input of the half-adder. The outputs of the AND elements of the main ripple-through carry net are connected through a delay element and OR element to the second input of the half-adder.

2/2

- 86 -

USSR

UDC 546.26+162

BUFYRIN, G. M., BOGAYLIN, M. I., and CHALYKH, YE. F., Moscow Chemico-Technological Institute imeni D. I. Mendeleev

"Porous Structure of Synthetic Graphite and Its Classification According of Specific Volume and Pore Dimensions"

Moscow, Khimiya Tverdogo Topliva, No. 1, Jan/Feb 71, pp 131-146

Abstract: One of the most important properties of artificially produced graphites is their porosity which determines the physicochemical, thermo-physical, and physicochemical properties of these materials. The porosity also determines some undesirable properties of graphitic materials; their high permeability and low mechanical - chemical stability. A number of methods have therefore been developed to reduce porosity. Mercury porometry is most widely used to study porosity. This method is sufficiently accurate and one can determine pore size and distribution over the entire range. A literature survey showed that most classifications of graphite materials are limited in their applicability for various reasons. A new classification of 'artificial graphite' based on pore size, as determined by mercury porometry of several industrial graphites, was developed and proposed. The classification is based on pore size and specific volume of the pores. Artificial graphites are divided into extremely dense, dense, porous, moderately,

1/2

USSR

BUTYRIN, G. M., et al., *Khimiya Tverziogo Topliva*, No 1, Jan/Feb 71, pp 131-146

porous, and extremely porous varieties. On the basis of the movement of gases in a real, porous graphite structure, they are conveniently subdivided into Folnerov, Knudsen, transition, and Poselle (the latter with the subgroup of macropores) pores. A relationship was found between the method of formation of a "green" intermediate product and the character of the specific volume distribution of the pores with respect to the dimensions. It was established that the existence of a significant volume of macropores is characteristic only for pierced graphites, whereas their absolute volume depends on the granulometry of the original batch, which is determined by the dimensions of the forming intermediate products. Impregnation or compacting will preserve the character of the porous structure of the original material. It was established that compacting prior to impregnation is preferred for these artificial graphites because it reduces the subsequent preparation time and improves the properties of the material.

2/2

- 27 -

020

UNCLASSIFIED

PROCESSING DATE--13NOV70

TITLE--THEORY OF THE VOLUMETRIC DENSIFICATION OF GRAPHITE WITH PYROLYTIC CARBON -U-

AUTHOR--(03)-KOVALEVSKIY, N.N., ROGAYLIN, M.I., EAKBEROV, I.L.

R

COUNTRY OF INFO--USSR

SOURCE--KHIM. TVERD. TOPL. 1970, (2), 141-8 (RUSS)

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--GRAPHITE, PYROLYTIC CARBON, SPECIFIC DENSITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/1660

STEP NO--UR/0467/70/000/002/0141/0148

CIRC ACCESSION NO--AP0125282

UNCLASSIFIED

020
 CTRC ACCESSION NO--AP0125282 UNCLASSIFIED PROCESSING DATE--13NOV70
 ABSTRACT/EXTRACT--(U) GP-C- ABSTRACT. THE DIFFUSION KINETICS OF THE
 VOLUMETRIC DENSIFICATION OF GRAPHITE WITH PYROLYTIC C WAS EXAMD. THE
 DATA LEADS TO SUFFICIENT ACCURACY IN CALCG. THE CONDITIONS OF
 DENSIFICATION OF C GRAPHITE MATERIALS AS A FUNCTION OF THE
 CHARACTERISTICS OF THE ORIGINAL MATERIAL DESIGNATED FOR DENSIFICATION
 AND THE PROPERTIES REQUIRED IN THE DENSIFIED MATERIAL.
 INST. GORYUCH. ISKOP., MUSCOW, USSR. FACILITY:

UNCLASSIFIED

Acc. Nr:

AP0049952

Abstracting Service:

CHEMICAL ABST. 5-70

R

Ref. Code:

21R0467

102239p Physicochemical characteristics of thermal carbon black from anthracene. Lisvutkina, L. N.; Rogalin, M. I.; Farberov, I. I. (Inst. Goryuch. Iskop., Moscow, USSR). *Khim. Tverd. Topl.* 1970, (1), 151-4 (Russ). The sp. surface area, the structure, the elemental and tech. compns., and the pycnometric d. of carbon black from anthracene were detd. Anthracene was pyrolyzed rapidly at 1500 and 2000°K in a specially designed lab. app. The time of pyrolysis was 1, 5, and 120 sec., resp. The obtained carbon blacks were thermally treated at 1470°K in the stream of Ar for 60 min. The compns. of the initial and thermal treated samples are tabulated, the C content being 95-97 wt.%. The H content and the yield of gas decreased with an increase of the pyrolysis temp. and the residence time of particles in reaction zone. Electron micrographs showed typical globular particles of the same diam. joined into chains. In order to evaluate the degree of polydispersion the curves of the size distribution of carbon black particles were constructed. For all samples the sp. surface area and dispersity decreased with increasing residence time of particles in reaction zone and with decreasing temp. of pyrolysis. For a comparison the phys.-chem. characteristics of carbon black obtained from epoxy-pitch are given. A. Simecek

REEL/FRAME

19801890

pc

7

USSR

UDC: 536.532

ROGEL'BERG, I. L.

"New Alloys for Thermocouples and Compensator Wires"

Sb. Sovrem. met. i splavy v priborostroyenii (Symposium on Modern Metals and Alloys for Instrument-Building) Moscow, 1972, pp 93-95 (from Referativnyy Zhurnal-Metrologiya i Izmeritel'naya Tekhnika, No 8, 1972, Abstract No 8.32.863 by V.S.K.)

Translation: This is a short review of newly developed alloys for electrodes of special purpose thermocouples, having high precision and sensitivity of temperature measurement, increased temperature range and increase of service life by 3-4 times. A number of alloys have been developed for compensator wires of thermocouples made of Chromel-Alumel, PR 30/6, VR 5/20 and other with compensation limit up to 500°C. The mean square error due to compensator wires does not exceed 2-3°C. The newly developed alloys for thermocouples and compensator wires made it possible to create considerably higher working parameters for the existing types of thermocouples and other thermoelectric devices (7 references).

1/1

- 96 -

Explosives and Explosions

USSR

UDC 541.427.6:126

DENISYUK, A. P., and ROGEL'ZANG, A. Ye., Moscow Chemical-Technological Institute Imeni D. ~~Ivanovskiy~~ Mendeleev

"Temperature Profiles During the Burning of Ballistic Powder With an Anomalous Burning-Pressure Relationship"

Ivanovo, IV 2, Khimiya i Khimicheskaya Tekhnologiya, Vol 14, No 6, 1971, pp 861-864

Abstract: Temperature distribution during the burning of a "N" type powder without a catalyst (control) and one containing lead-copper catalyst was studied in the 50-90 kg/cm² range, where they showed a positive dependence. The control sample showed an increased heat emission in k-phase with increased pressure, while the incoming heat from its smoke-gas zone showed a drop; the incoming heat component amounted to about 10-15% of the total. The sample with the catalyst behaved similarly in regard to the heat emission, but its incoming heat was lower - only about 4-5%. Analysis of the data in the pressure range 20-30 kg/cm² showed that even though the maximum flame temperature is about the same for both powders, the one with the catalyst shows a shorter period for the completion of gas reaction, so it

1/2

USSR

DENISYUK, A. P., and FOGEL'ZANG, A. Ye., Khimiya i Khimicheskaya Tekhnologiya, Vol 14, No 6, 1971, pp 861-864

is concluded that the catalyst accelerates the reactions in the smoke-gas and gas zones, especially the reactions occurring in the k-phase. In the 60-90 kg/cm² range the rate of the burning drops in the powder with catalyst probably due to the "poisoning" effect of the catalyst.

2/2

- 7 -

1/2 024

UNCLASSIFIED

PROCESSING DATE--30OCT70

TITLE--EFFECT OF A STOICHIOMETRIC DEVIATION ON THE CRYSTAL STRUCTURE OF

CADMIUM SELENIDE THIN FILMS -U-

AUTHOR--(04)--SHALIMOVA, K.V., DMITRIYEV, V.A., ROGGE, K., BOTNEV, A.F.

COUNTRY OF INFO--USSR

SOURCE--KRISTALLOGRAFIYA 1970, 15(2), 342-5

DATE PUBLISHED-----70

R

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--CADMIUM SELENIDE, METAL FILM, METAL VAPOR, SELENIUM, THERMAL EFFECT, CRYSTAL STRUCTURE

CENTRGL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--2000/1569

STEP NO--UR/0070/70/015/002/0342/0345

CIRC ACCESSION NO--AP0125195

UNCLASSIFIED

2/2 024

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125195

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF STOICHIOMETRY ON THE CRYSTAL STRUCTURE OF CDSE FILMS, 0.1-3 MU THICK, EVAPD. IN VACUO ONTO GLASS SUBSTRATES AT 90-455DEGREES WAS STUDIED. THE INFLUENCE OF THE HEAT TREATMENT IN CD OR SE VAPORS, AT 250-450DEGREES, AND THE SIMULTANEOUS EVAPN. OF CDSE PLUS SE OR CDSE PLUS CD ON THE FILM PROPERTIES WAS ALSO STUDIED; EXCESS CD AND SE CAUSES THE FORMATION OF THE HEXAGONAL AND CUBIC PHASE, RESP. OPERATING CONDITIONS ARE GIVEN FOR THE PRODUCTION OF THE SINGLE PHASE FILMS. ENERGY INST., MOSCOW, USSR. FACILITY: MOSK.

UNCLASSIFIED

USSR

UDC 621/355.8.035.2

SHEKHTMAN, M. I., KRASKOPEROVA, N. N., and ROGINA, V. I.

"Permeability and Breakdown Pressure of Ceramal Electrodes and Some Separation Materials"

V sb. Issled. v obl. khim. istochnikov toka (Research in the Field of Chemical Sources of current -- collection of works) vyp 2, Saratov, Saratov. un-t, 1971, pp 120-128 (from RZh-Khimiya, No 18, Sep 72, Abstract No 18L178)

Translation: The authors consider data found in determining the aero- and hydrodynamic permeability as well as the breakdown pressure of electrodes and separation materials used in hermetic sealing of alkaline energizers. The aerodynamic permeability of electrodes is of the order of 10^{-5} cm²; in cobalt electrodes permeability is the same along and across the electrode, while for nickel-oxide electrodes the longitudinal permeability is approximately 3 times the transverse value. The hydrodynamic permeability of electrodes is of the order of 10^{-11} cm², the value being approximately 4 times lower than the aerodynamic permeability in cadmium electrodes. Increasing the degree of dispersion of the filler increases the breakdown pressure, reduces the maximum pore radius and increases the average pore radius. Data are also obtained for FPP, propylene fiber, capron, miplast, cellophane and other separation materials. V. S. Levinson 1/1

USSR

UDC 621.039.524.034.3

KAZAZYAN, V. T., ROGINETS, L. P.

"Heat Transfer Coefficient for a Gas Flow in a Slot Chemonuclear Channel"

Dissotsiiruyushch. gazy kak teplonositeli i rab. tela energ. ustanovok -- V sb.
(Dissociating Gases as Heat Transfer Agents and the Working Medium of Power
Plants -- Collection of Works), Minsk, Nauka i tekhn. Press, 1970, pp 220-228
(from RZh-Elektrotehnika i Energetika, No 5, May 1971, Abstract No 5U154)

Translation: A study was made of the problem of the effect of physical-chemical processes occurring in a gas during irradiation of it by fission fragments on heat exchange. It is demonstrated that the primary factor affecting the variation of the heat transfer coefficient is the presence of a defined energy profile of the fission fragments in the width of a channel. This variation has a maximum value for small channel dimensions and for thinner uranium containing layers on its wall. The solution of the problem is presented for the case of laminar flow of gaseous ammonia in a flat slot channel. In this case, even with a relatively thick uranium containing layer (23 microns) and great thickness of the channel (4 mm), the heat exchange coefficient is approximately cut in half. There is 1 illustration, 1 table and a 4-entry bibliography.

1/1

USSR

UDC 632.95

BRIKMAN, L. I., TSETLIN, V. M., ROGINSKAYA, Ye. Ya., ZHUK, Ye. B., VOLKOVA, A. P., VORONKINA, T. M., KLIMENCHUK, V. I., POZHARSKAYA, Ye. B.

"Compound for Controlling Household Insects"

USSR Author's Certificate No 340384, filed 15 Feb 71, published 23 Jun 72
(from RZH-Khimiya, No 2 (II), Feb 73, Abstract No 2N486)

Translation: The compound for controlling cockroaches, clones and moths contains the following (in % by weight): γ -hexachlorocyclohexane 0.19%; DDT 1.71%; DDVF 0.6%; xylol 5%; a mixture of CF_2Cl_2 (freon-12) and $CFCl_3$ (freon-II) 55% and kerosene to 100%.

1/1

USSR

UDC: 678.5.06:[539.2+620.173]

KANOVICH, M. Z., KOLTUNOV, M. A., and ROGINSKIY, S. L., All-Union Scientific-Research Institute of Glass Reinforced Plastics and Fiberglass; Moscow Institute of Electronic Machine Building

"Conditions for Producing High-Strength Orthogonally Strengthened Glass Reinforced Plastics With Good Compressive Strength Characteristics"

Riga, Mekhanika Polimerov, No 4, Jul-Aug 73, pp 655-660

Abstract: The authors study the conditions associated with the production of high compressive strength, orthogonally strengthened, glass reinforced plastics. Relationships are determined which relate the physico-chemical and geometric parameters of the composites into a system of inequalities. The satisfaction of this system ensures the production of a high-strength material with an assigned utilization factor. It is shown experimentally that these inequalities can be used as the first approximation for the optimal design of high compressive strength, orthogonally strengthened, composite materials.

1/1

- 5 -

USSR

UDC 678.06-419.8:677.521.01:53

ASLANOVA, M. S., NATRUSOV, V. I., ROGINSKIY, S. L., and KHAZANOV, V. Ye.

"Study of the Effect of Some Factors on the Strength of Fiberglass During Compression by the Method of Mathematical Planning of the Experiment"

Moscow, Plasticheskiye Massy, No 2, 1973, pp 60-63

Abstract: The effect of some physico-mechanical properties of fiberglass and the binder on the strength during compression of fiberglass was studied by means of the mathematical planning of an experiment. Regression equations are reported for the maximum strength of the fiberglass during compression as functions of the fiber diameter, modulus of resilience of the binder and the fiber and adhesive strength of the binder in relationship to the glass fiber. On the basis of the analysis carried out it was possible to optimize the values of basic variables and to determine their qualitative and quantitative effects on the strength of fiberglass. It was established that it is possible to increase the strength of fiberglass during compression by using enlarged fibers with a diameter of 18 mc.

1/2 010 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--EFFECT OF DIFFUSION ON THE COURSE OF CATALYTIC REACTIONS IN A
CHROMATOGRAPHIC SYSTEM -U-
AUTHOR--(03)-BERMAN, A.D., YANOVSKIY, M.I., ROGINSKIY, S.Z. *R*
COUNTRY OF INFO--USSR
SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(4), 864-7 (PHYS CHEM)
DATE PUBLISHED-----70
SUBJECT AREAS--CHEMISTRY
TOPIC TAGS--CATALYSIS, CHROMATOGRAPHY, DIFFUSION COEFFICIENT
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1995/1579 STEP NO--UR/0020/70/190/004/0864/0867
CIRC ACCESSION NO--AT0116987
UNCLASSIFIED

2/2 010

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0116987

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF DIFFUSION ON CATALYTIC REACTIONS IN A CHROMATOGRAPHIC SYSTEM IS DISCUSSED CONSIDERING AN IRREVERSIBLE REACTION, 2A YIELDS B, AND A 2ND ORDER REVERSIBLE REACTION, A FORMS AND IS FORMED FROM 2B. GRAPHS FOR THE DEPENDENCE OF THE RATE CONSTS. ON THE DIFFUSION COEFF. ARE GIVEN. FACILITY: INST. KHIM. FIZ., MOSCOW, USSR.

UNCLASSIFIED

1/2 023 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--APPLICATION OF STATISTICAL KINETIC THEORY TO THE DESORPTION OF
SIMPLE GASES --U--
AUTHOR--(03)--ROGINSKIY, S.Z., BERKOVICH, M.A., SHUB, B.R.
COUNTRY OF INFO--USSR *R*
SOURCE--DOKL. AKAD. NAUK SSSR 1970, 190(5), 1143-6
DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS, CHEMISTRY
TOPIC TAGS--DESORPTION, GAS STATE, KINETIC THEORY

CCNTRCL MARKING--NC RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1998/0725 STEP NO--UR/0020/70/190/005/1143/1146
CIRC ACCESSION NO--AT0121384

UNCLASSIFIED

2/2 023

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AT0121384

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE STATISTICAL KINETIC THEORY WAS USED TO DET. THE RANGE OF COMPENSATION EFFECTS IN THE DESORPTION OF SIMPLE GASES. CALCNS. WERE MADE TAKING INTO ACCOUNT THE VOL. COORDINATION NO., AND THE RESULTS ARE TABULATED; THIS METHOD IS EITHER NOT APPLICABLE AT ALL FOR DESCRIBING THE SURFACE PROCESS OR REQUIRES GREATER REFINEMENT TO TAKE INTO ACCOUNT THE EFFECT OF THE SURFACE. THERE IS AN EFFECTIVE SURFACE COORDINATION NO., I.E. A NO. WHICH GIVES THE PROPER ORDER OF MAGNITUDE FOR THE COMPENSATION EFFECT.

UNCLASSIFIED

Luminescence

USSR

UDC: 541.183 + 535.37

R
ROGINSKIY, S.Z. (DECEASED) and RUFOV, YU.N., Institute of Chemical Physics,
Moscow, Academy of Sciences USSR

"Adsorption Luminescence and Other Forms of Luminescence Upon Contact of Gases
with Solids"

Moscow, Kinetika i Kataliz, Vol 11, No 2, Mar-Apr 70, pp 383-394

Abstract: Results obtained in the study of interactions of gas molecules with solid surfaces are reviewed and considered. Upon contact of gases with solid surfaces, two types of luminescence may be assumed to occur, luminescence associated with adsorption and unspecific luminescence of the solid produced by the impact of gases impinging on the solid with a certain momentum. Adsorption luminescence has been studied in detail in connection with the interaction of gas molecules (specifically those of O_2) with NiO, MgO, and NiO-MgO solid solutions. Adsorption luminescence associated with the catalytic reactions of oxidation of H_2 and MeOH and the decomposition of N_2O on these metal oxides was also investigated. Unspecific luminescence is not due to chemisorption, but charging of the surface by the gas flow and electric discharge phenomena at centers that form during the heat treatment of solids. The gas and surface charging and phenomena of this type taking place at excited centers under the effect of the gas must play a definite role in catalysis.

1/1

1/2 021

UNCLASSIFIED

PROCESSING DATE--04DEC70

TITLE--REACTIONS OF PHOTOEXCITED ALLYL TYPE RADICALS WITH HYDROCARBON
MOLECULES IN THE SOLID PHASE -U-

AUTHOR--(02)-ROGINSKIY, V.A., PSHEZHETSKIY, S.YA.

COUNTRY OF INFO--USSR

SOURCE--KHIM. VYS. ENERG. 1970, 4(3), 240-5

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, NUCLEAR SCIENCE AND TECHNOLOGY

TOPIC TAGS--EPR SPECTRM, GAS CHROMATOGRAPHY, FREE RADICAL, GAMMA
RADIATION, RADIOLYSIS, HEXENE, LIGHT EXCITATION, HEPTENE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605012/E05 STEP NO--UR/0456/70/004/003/0240/0245

CIRC ACCESSION NO--AP0140310

UNCLASSIFIED

2/2 021

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0140310

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EPR SPECTROSCOPY AND GAS CHROMATOG. WERE USED TO STUDY REVERSIBLE PHOTOCHEM. TRANSFORMATIONS OF ALLYLIC FREE RADICALS OBTAINED BY THE GAMMA RADIOLYSIS OF 1 HEXENE (I), 1 HEPTENE, AND 2 PENTENE, AS WELL AS OF THEIR SOLNS. IN 3 METHYLPENTANE (II) AT 77DEGREEK. THE EPR SPECTRA OF THE RADICALS OF HTE TYPE NEGATIVE CH SUB2 MINUS CH-CH-CH SUB2 (III) CONTAINED 5 OR 7 LINES. UPON EXCITATION WITH VISIBLE LIGHT (μ LESS THAN OR EQUAL TO 410 M μ) THESE RADICALS DISAPPEAR AND GIVE RISE TO AN EQUIV. AMT. OF ALKYL RADICALS OF THE MATRIX FORMED BY THE REACTION III SEXTILE PLUS RH YIELDS NEGATIVE CH SUB2 CH SUB2 CH:CH SUB2 (IV) PLUS R. REVERSE REACTIONS TAKE PLACE IN THE DARK (IV PLUS R YIELDS III PLUS RH). THE KINETICS OF THE FORWARD AND REVERSE REACTIONS IN GAMMA IRRADIATED SOLNS. OF I IN II WAS STUDIED AND THE MECHANISM WAS DISCUSSED. FACILITY: FIZ.-KHIM. INST. IM. KARPOVA, MOSCOW, USSR.

UNCLASSIFIED

USSR

UDC 541.14

CHERVONENKO, V. S., ~~ROGINSKIY, V. A.~~, PSHEZHETSKIY, S. YA.
Physicochemical Institute imeni L. Ya. Karpov, Moscow, State
Committee for Chemistry

"Photochemistry of Free Radicals. Alcohol and Ether Radicals"

Moscow, Khimiya Vysokikh Energiy, Vol 4, No 5, Sep-Oct 70,
pp 450-451

Abstract: The methods of EPR, low-temperature spectroscopy, and chromatography were used to study photoreactions of the radicals which form in the gamma irradiation of methanol, ethanol, n-propanol, iso-propanol, and n-butanol frozen at 77°K, as well as diethyl, di-n-propyl and diisopropyl ethers.

1/1

USSR

ROGINSKIY, VADIM NIKOLAYEVICH, Dr., Professor

"Automatic Telephone Communication And Persons"

Avtomsticheskaya telefonnaya svyaz' i chelovek (cf English above), Moscow,
Izd. "Znaniye," 1972, 32 pp

Abstract: In the brochure the possibilities and problems are discussed of automatic telephone communication as well as the services it renders to persons in control of production and to the interchange of information with other people. The possible directions for further development of automatic telephony are contemplated. The brochure is intended for a wide circle of readers.

CONTENTS

You call...you are called	5
How automatic telephone communications works	6
From selector to crossbar connector and hermetic contact	11
Automation of intercity communication	15
How are you services?	20
Services which a telephone network can render	24
Automatic telephone communication, electronic computers and persons	29
Conclusion	31

ROGINSKIY, V. Yu.

ELECTRONICS AND PRECISION EQUIPMENT

CAROL

So: JPRS 5926
30 Aug 73

(2)

TELEVISION
PRODUCTION
FORTY YEARS OF TV SET PRODUCTION REVIEWED
Article by V. Yu. Roginskiy and V. A. Uvalov, Moscow, Tekhnika Kino i
Televizniya, Russian, No 6, June 1973, pp 64-68

Television broadcasting, combining the functions of radio and movies, has become a powerful means of ideological and aesthetic influence over the life of the people in the USSR.

The pool of televisions, which is numbered in the millions, the developing network of transmitting stations and radio relay lines, the development of a television system, and the Molniya-1 relay transmitter satellites allow for an assured reception of television programs over the vast area of our country where the predominant part of the populace lives.

There are approximately 50 million televisions in the USSR and 5 to 7 million are produced and sold annually. Television has especially grown in the last 20 years. Up until 1950 the number of televisions was relatively small (photo 1) (not reproduced), and their quality in comparison with the contemporary standard was low; the screen dimensions were small and there was a limited number of frequency channels and an unassuming exterior appearance.

The history of modern television operating on the basis of electronic methods formally began on 22 May 1911 when an instructor of the Petersburg Technological Institute, B. I. Rozing, succeeded in effecting the transmission and reception of the most simple images with the aid of an electronic telescope he had invented. Rozing's invention, which had been patented in a number of countries as early as 1907, utilized the cathode ray tube. In prototype of the modern television [1]. However up until the 1920's electronic television had not spread throughout the world. Men were satisfied with the systems of mechanical television broadcasting.

In the USSR television broadcasting by mechanical scanning at a resolution of 30 lines was begun in 1931 in Moscow, and later in Leningrad, Tomsk, Odessa and Novosibirsk. These were long-wave transmissions which allowed for reception at great distances from the transmitter.

USSR

UDC: 621.37/39(075)

ROGINSKIY, V. Yu.

"Electric Power Supply for Radio Equipment. Textbook for Radio Engineering Colleges and Departments. Second Revised Edition"

Elektropitaniye radioustroystv. Uchebnik dlya radiotekhn. vuzov i fak. Izd. 2-ye, pererabot. (cf. English above), Leningrad, "Energiya", 1970, 319 pp, ill. 87 k. (from RZh-Radiotekhnika, No 11, Nov 70, Abstract No 11A14 K)

Translation: The author elucidates the theory and discusses methods of calculating electric power supply sources for radio engineering devices. Information is given on electric rectifiers and their properties, unregulated rectifiers with resistive and reactive loads, regulated rectifiers, rectifiers with intermediate current conversion, smoothing filters, energy converters, and devices for regulating and stabilizing current and voltage. The book is a text for a program of the same title in electrical engineering and radio engineering institutions, and can be used by students, but may also be useful for engineers and technicians engaged in research and development in the area of electric power supply sources for radio equipment. A. K.

1/1

- END -

5915
CSO: 1860-W

- 124 -

USSR

ROGOV, G. A., SHCHERS, A. L.

"Operative Control of Reserves of Products at Distributing Refrigeration Centers"

Teoriya i Praktika Sbora Peredachi i Obrabotki Ekon. Inform. [Theory and Practice of Collection, Transmission and Processing of Economic Information -- Collection of Works], Moscow, 1971, pp 93-103, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V476).

NO ABSTRACT.

1/1

USSR

UDC: 51:330.115

OREL, T. Ya., ROGOV, G. A.

"On the Problem of Setting up Optimum Routes for Shipments on Refrigerated Trucks"

V sb. Teoriya i praktika mashin. obrab. ekon. inform. (Theory and Practice in Computer Processing of Economic Information--collection of works), Moscow, 1971, pp 96-103 (from RZh-Kibernetika, No 9, Sep 71, Abstract No 9V534)

[No abstract]

1/1

USSR

UDC 51:621.391

ROGOVA, G. V., TARASENKO, F. P.

"One Approach to Estimation of Optimal Redundancy in Transmission of Binary Signals Through Channels with Noise"

Tr. Sib. Fiz.-tekh. In-ta pri Tomsk. Un-te [Works of Siberian Physics and Technology Institute at Tomsk University], No 51, 1970, pp 287-290, (Translated from Referativnyy Zhurnal, Kibernetika, No 10, 1971, Abstract No 10 V645 by Yu. Pyatoshin).

Translation: Tables are presented for the transmission rate of information through a binary channel with additive Gaussian noise and amplitude and phase modulation of the signal with various signal/noise ratios.

1/1

- 17 -

USSR

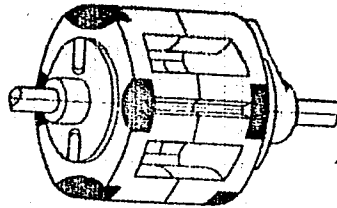
UDC: 621.372.837.1

YUR'YEV, F. N., KISELEV, R. I., ROGOV, L. S., FIRER, V. I.

"A Waveguide Switch"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 31, Nov 71, Author's Certificate No 318102, Division H, filed 24 Mar 69, published 19 Oct 71, pp 198-199

Translation: This Author's Certificate introduces a waveguide switch containing a stator and rotor with waveguide channels, radial grooves and absorbing elements. As a distinguishing feature of the patent, decoupling between channels is increased by locating the absorbing elements at the ends of $\frac{1}{4}$ -wave grooves from the level of the narrow walls of the waveguide channels to the end faces of the rotor.



1/1

- 129 -

USSR

UDC: 621.372.837(088.8)

KISELEV, R. I., ROGOV, L. S.

"A Waveguide Switch"

USSR Author's Certificate No 263883, filed 19 Apr 68, published 26 Jun 70
(from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1B209 P)

Translation: The proposed switch consists of a housing, a waveguide channel rotor and matching elements. To improve decoupling between channels, the matching elements are made in the form of quarter-wavelength grooves in the rotor inserts and quarter-wavelength clearance segments between the inserts and the housing. Two illustrations.

1/1

- 135 -

USSR

UDC: 621.373.4(088.8)

BERCHEKAC, K. H., SERIPKA, L. M., ANTONOV, Ye. V., KAULIN, Ye. F.,
ROGOV, P. V., and NAUMOV, A. M.

"Test Signal Formation Device for Tuning Electronic Equipment"

Avt. sv. SSSR (Author's Certificate USSR) Class 21a⁴, 8/01, (H 03
5 23/00), No. 270825, Application 27.01.69, Publication 1.09.70
(from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3A406P)

Translation: A device is proposed for forming a test signal for tuning electronic equipment, containing a frequency wobulator, a modulator, fixed stable frequency oscillators, an automatic gain control circuit, a marker generator, and a control device. The device is distinguished in that, for the purpose of simplifying the equipment for formation of powerful undistorted signals consisting of pulses of FM oscillations at low resistance loads, the fixed frequency oscillators mentioned above are connected through a summing circuit to the frequency wobulator. V. L.

1/1

USSR

UDC: 518.9

ROGOV, S. F.

"On a Problem of Distributing Resources for Attack and Defense"

V sb. Issled. operatsiy. Vyp. 2 (Operations Research--collection of works. No 2), Moscow, 1971, pp 69-81 (from RZh-Kibernetika, No 12, Dec 71, Abstract No 12V772)

Translation: For the problem of distributing offensive and defensive forces along some line S with limitations on the concentration of offensive forces, the quantities $\max_x W(x, y)$, $\min_y W(x, y)$, $\min_y \max_x W(x, y)$, $\max_x \min_y W(x, y)$ are found, as well as the functions $x(\xi)$ and $y(\xi)$ which realize these quantities. Here $W(x, y) = \int_S \max(x - py, 0) d\xi$ is the gain in attack when both sides use pure strategies $x(\xi)$ and $y(\xi)$. The problem of finding optimum mixed strategies is considered. I. Fokin.

1/1

+ 2.

USSR

UDC 665.534

OSIPOV, L. N., KHAVKIN, V. A., AGAPONOV, A. V., ROGOV, S. P., RYSAKOV, M. V.,
and PEREZHIGINA, I. Ya., All Union Scientific Research Institute of the
Petroleum Industry

"Hydrofining of Sulfur-Containing Secondary Gasolines to Obtain Stock for
Catalytic Reforming"

Moscow, Khimiya i Tekhnologiya Topliv i Masel, No 2, 1971, pp 1-3

Abstract: The article describes results of experiments on the hydrofining of thermal-cracked and TCC gasolines, as well as mixtures of these gasolines with straight-run gasoline for the purpose of obtaining stock for catalytic reforming. The experiments were carried out on an apparatus with alumina-cobalt-molybdenum catalyst loading of 0.5 l, a total pressure of 35 at; a temperature of 350-425°C, space velocity 0.5-5.0 hr⁻¹, gas circulation 300 l/l stock. The object of the experiments was to obtain a product containing not more than 0.003 percent sulfur by weight or 0.0002 percent nitrogen by weight, with an iodine number no greater than 1 g I₂/100 g. The results indicate that these gasolines can be successfully improved on existing blocks or units for the preliminary hydrofining of straight-run gasoline L-24-300 following a slight
1/2

USSR

OSIPOV, L. N., et al, Khimiya i Tekhnologiya Topliv i Masel, No 2, 1971, pp
1-3

modification of the design requiring merely a 50-100 percent increase in the
loading volume of the alumina-cobalt-molybdenum catalyst.

2/2

I/2 013 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--PRODUCTION OF OILS BY HYDROCRACKING A VACUUM DISTILLATE OF
ARLANSKII PETROLEUM -U-
AUTHOR--(05)-LIPOVSKAYA, K.S., GOLDSHTEYN, D.L., ROGOV, S.P., PEREZHIGINA,
I.YA., AGAFONOV, A.V.
COUNTRY OF INFO--USSR
SOURCE--NEFTEPEKERAB. NEFTEKHIM. (MOSCOW) 1970, (5), 45
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS, EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--LUBRICATING OIL, PETROLEUM HYDROCRACKING, PETROLEUM DEPOSIT,
CHEMICAL COMPOSITION, PETROLEUM DEWAXING, VACUUM DISTILLATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/1961

STEP NO--UR/0318/70/000/005/0045/0045

CIRC ACCESSION NO--AP0133805

UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0133805

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE DISTILLATE, HIGH IN S AND BITUMINOUS ASPHALTIC COMPS., WAS HYDROCRACKED IN 1 STEP AT 100 ATM, 425DEGREES, AND 1 L. STOCK-L. CATALYST-HR, YIELDING A HEAVY FRACTION 8. LARGER THAN 350DEGREES, WITH S 0.06, N 0.03, AND COKE 0.1PERCENT, WHICH WAS VACUUM DISTD. TO OBTAIN FRACTIONS WHICH WERE DEWAXED AND HYDROFINED TO YIELD LOW VISCOSITY AND AUTOMOBILE OILS. THE LATTER HAD VISCOSITY INDEX:100 AND 0.03PERCENT S.

UNCLASSIFIED

1/2 012 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--HYDROFINING OF OIL FRACTIONS, MEANS FOR IMPROVING THE QUALITY OF
LUBRICATING OILS -U-
AUTHOR-(04)-BEKAYEV, R.B., ROGOV, S.P., CHERNOZHUKOV, N.I., AGAFONOV, A.V.
COUNTRY OF INFO--USSR *R*
SOURCE--NEFTEPERERAB. NEFTEKHIM. (MOSCOW) 1970, (4), 24-6
DATE PUBLISHED-----70
SUBJECT AREAS--MATERIALS
TOPIC TAGS--ZEDLITE, LUBRICATING OIL, PETROLEUM REFINING PROCESS,
HYDROREFINING
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRACTION--3005/1939 STEP NO--UR/0318/70/000/004/0024/0026
CIRC ACCESSION NO--AP0133783
UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0133783

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HYDROFINED DISTILLATES, AFTER
PHENGL REFINING, GAVE OILS WITH LOWER S CONTENT AND HIGHER VISCOSITY
INDEX (94-7), YIELDING 1.1-4.4PERCENT ADDNL. REFINED OILS WITH HIGHER
CONTENTS OF PARAFFINIC NAPHTHENIC HYDROCARBONS AND LESS HEAVY AROMATICS
AND RESINS THAN THOSE OBTAINED WITHOUT HYDROFINING. DISTILLATES
HYDROFINED ON NI-MO-ZEOLITE YIELDED REFINED OILS WITH HIGHER VISCOSITY
INDEXES THAN THOSE HYDROFINED ON NI-MO-AL SUB2 O SUB3. FACILITY:
MOSK. INST. NEFTEKHIM. GAZOV. PROM. IM. GUBKINA, MOSCOW, USSR.

UNCLASSIFIED

1/2 042 UNCLASSIFIED PROCESSING DATE--11SEP70
 TITLE--EFFECT OF SILICON DIOXIDE CONTENT ON THE PHYSICOMECHANICAL AND
 CATALYTIC PROPERTIES OF HYDROCRACKING CATALYSTS -U-
 AUTHOR--ROGOV, S.P., PEREZHIGINA, I.YA., AGAFONOV, A.V., SEMENOVA, YE.S.,
 LIKOVA, Z.V.
 COUNTRY OF INFO--USSR *R*
 SOURCE--KHIM. TEKHNOL. TOPL. MASEL 1970, 15(3), 8-11
 DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--OXIDE CATALYST, ALUMINUM OXIDE, COBALT, MOLYBDENUM, SILICON
DIOXIDE, MECHANICAL STRENGTH, PETROLEUM DESULFURIZATION, ISOMERIZATION,
PETROLEUM HYDROCRACKING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1990/2040

STEP NO--UR/0065/70/015/003/0003/0011

CIRC ACCESSION NO--AP0109972

ZZZZZZZZZZZZ

UNCLASSIFIED

2/2 042

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0109972

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SIO SUB2 ADDED TO A COMBO SUB4-AL
SUB2 O SUB3 CATALYST INCREASED ITS CRACKING AND ISOMERIZATION ABILITY,
PRODUCING AN INCREASE IN THE CONVERSION AND IN THE RATIO OF ISO TO N
HYDROCARBONS IN THE GASEOUS AND LIQ. PRODUCTS. THE MECH. STRENGTH OF
THE CATALYST WITH ADDED SIO SUB2 INCREASED BY 50PERCENT; ITS PORE VOL.
AND AV. PORE RADIUS ALSO INCREASED. THE DIESEL FRACTION OBTAINED WITH
SUCH A CATALYST HAD A LOWER POUR POINT. THE CATALYST CONTG. 20PERCENT
SIO SUB2 LOST ITS HYDRODESULFURIZATION ACTIVITY MORE RAPIDLY THAN THAT
CONTG. 10PERCENT SIO SUB2.

ZZZZZZZZZZZZ

UNCLASSIFIED

USSR

UDC 513.78

ROGOV, V.-B. K.

R

"Eigenfunctions of the Beltrami-Laplace Operator on a Single-Sheet Hyperboloid"

Moscow, Matematicheskiye Zametki, Vol 7, No 2, 1970, pp 255-263

Abstract: The differential operator permutable with all operators T_g , where $T_g f(x) = f(g^{-1}x)$, is the Laplace operator. In this discussion, the author limits himself to consideration of the operator of the second order, the Beltrami-Laplace operator, which is determined by the pseudo-Riemannian metric on space X including x . He considers a set of functions bounded outside of a neighborhood of two isotropic straight lines which intersect at infinity. The necessary and sufficient condition that the function of this set be an eigenfunction of the Beltrami-Laplace operator is derived. In concluding, the author expresses his gratitude to F. I. Karpelevich for his assistance in solving the problem.

1/1

USSR

ROGOV, Ye. I.

UDC: 51

"Theory and Methods of Mathematical Modeling of Production Processes in Mining"

Alma-Ata, Teoriya i metody matematicheskogo modelirovaniya proizvodstvennykh protsessov v gornom dele (cf. English above), "Nauka", 1973, 142 pp, ill. 97 k. (from RZh-Kibernetika, No 5, May 73, abstract No 5V729 K)

Translation: Chapter I. Theoretical Principles of Constructing Mathematical Models in Design and Planning in the Mining Industry. Chapter II. Hierarchical Principle of Organizing Systems. Chapter III. Isolating Important Variables in Constructing Mathematical Models. Chapter IV. Breaking Down Systems into Subsystems in Mathematical Modeling of Technological Processes in Mining. Chapter V. Mathematical Models for Design of Ventilation, Electrical and Other Networks of Shafts. Chapter VI. Mathematical Models for Control in Shaft Ventilation Networks. Chapter VII. Mathematical Models of

1/2

USSR

ROGOV, Ye. I., Teoriya i metody matematicheskogo modelirovaniya proizvodstvennykh protsessov v gornom dele, "Nauka", 1973, Alma-Ata

Systems With a Certain Criterion, Classes of Models and Their Field of Application in Mining.

2/2

- 83 -

USSR

ROGOV, Yu. M. and SHAMINA, G. P.

UDC: 621.376.5

"Operating Characteristics of Several High-Powered Thyatron Modulators on the Total Load"

Elektron. tekhnika. Nauchno-tekhn. sb. Gazorazryadn. pribory (Electronic Engineering, Scientific-Technical Collection, Gas Discharge Devices) 1970, No. 3(19), pp 54-60 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3D424)

Translation: The circuit of a high-powered thyatron modulator for obtaining groups of pulses of varying duration with lessening time intervals between them is examined. An analysis is made of the effect of the modulator thyatrons on each other; the processes in the thyatron grid and plate circuits are considered. A grid circuit design is recommended. Six illustrations, bibliography of three.

1/1

Acc. Nr:

AA0033603

Abstracting Service:
CHEMICAL ABST. 4-70

Ref. Code:
UK0000

R

74070f Separator/electrolyte carrier for primary wet cells.
Naumenko, V. A.; Tolstopyanov, T. N.; Pen'kova, L. F.;
Vyselkov, A. A.; Rogova, G. I. Brit. 1,175,955 (Cl. H 01m), 61
Jan 1970, Appl. 23 Jan 1968; 2 pp. The properties of more
rapid H₂O absorption, increased H₂O retention, shorter activa-
tion time and increased elec. cond. can be conferred on alignine
separators, for use in H₂O-activated primary cells. This is ac-
complished by impregnating or spraying with an aq. soln. contg.
KCl 10, starch 2, and glycerol or urea 5 wt. %, followed by dry-
ing at 35° to 60° H₂O content. These materials should be
present as KCl 2-8, starch 0.2-0.8, and glycerol or urea 0.2-
3.5 wt. % based on the wt. of dry alignine.

Norman W. Fletcher J

REEL/FRAME

19710168

4 di

USSR

UDC 621.387.233

AVLAKHORA, R. G., LARSHINA, S. I., POLYAKOVA, A. A., ROGOVA, G. N.

"Study of Oxide Cathode Sputtering in Hydrogen Thyatron With Current Commu-
tation of Short Duration"

Elektron. tekhnika. Nauchno-tekhn. sb. Gazorazryadn. pribory (Electronic
Technology. Scientific-Technical Collection. Gas-Discharge Devices),
1970, Issue 4(20), pp 49-53 (from RZh--Elektronika i yeye primeneniye, No
5, May 1971, Abstract No 5A165)

Translation: It is demonstrated by the method of radioisotopes that in
hydrogen thyratrons with commutation of pulses of 100 nsec duration, in-
tense ion bombardment of the cathode takes place. Summary.

1/1

ROGOVIN, V.V.

ELECTRON MICROSCOPIC INVESTIGATION OF THE HARDING-PASSY MELANOMA TUMOR
THE EFFECT OF LASER RADIATION

(Article by V. A. PIRUZYAN, V. V. ROGOVIN, G. V. KONANOVA, L. V. METELNOVA and V. A. DRECHT KOVI, Moscow, IZVESTIYA AKADEMII NAUK SSSR, Seriya Biologicheskaya, Russian, No 3, 1970, pp 400-406)

UDC 616.001

The article examines the effect of laser radiation on the ultrastructure of the Harding-Passy melanoma. It has been established that irreversible changes occurred in the zones not directly irradiated. The most damaged organelles of a Harding-Passy melanoma cell were the mitochondria, whereas the myelin sheath, the nucleus and the nucleoli, as well as the virus-like formations, revealed no morphological changes. Strong vacuolization was noted in the cell plasma. A diagram of temperature changes in the melanoma tissue according to the distance from the emitter of the laser lesion is presented. The disorders which occurred in the melanoma cell under the effect of the laser are explained as the effect of the thermomechanical factor.

The creation of lasers has permitted biophysicists to begin investigations connected with the effect of powerful luminous fluxes on biological objects. The literature contains information about the histological changes of malignant tumors (melanomas) after irradiation by a laser [Piruzyan et al, 1967] and also on the free-radical content in an irradiated melanoma (Piruzyan et al, 1968). Therefore it is of interest to explain afflictions in a tumor on the ultrastructural level.

In the present work a Harding-Passy melanoma was subjected to laser irradiation in order to investigate the electron

JRS 579 28
8 Jan 73

ROGOVIN, V.V.



DEPARTMENT OF THE NAVY
NAVAL INTELLIGENCE SUPPORT CENTER
TRANSLATION DIVISION
4301 SUTLAND ROAD
WASHINGTON, D.C. 20390

CLASSIFICATION:

UNCLASSIFIED

APPROVED FOR PUBLIC RELEASE, DISTRIBUTION UNLIMITED

TITLE:

Effect of laser beams on biological objects
Vozdeystviye luchey krasnogo generatsiya (lazer)
na biologicheskiye ob'ekty

AUTHOR(S):

Ruzhyn, L. A.; Demont'ev, V. P.; Burdakov, A. M.;
Savchenko, G. S.; Rogovin, V. V.; Mertsalova, L. V.;
Romanov, G. V.

PAGES:

20

Paper delivered at 42nd ASVA, Houston Tex.,
27 April 1971

ORIGINAL LANGUAGE:

Russian

TRANSLATOR:

DMF

MISC TRANSLATION NO. 1167

APPROVED ATK

DATE 16 November 1972

1/2 039

UNCLASSIFIED

PROCESSING DATE--30OCT70
GARDING PASSY MELANOME

TITLE--ELECTRONMICROSCOPICAL INVESTIGATION OF THE
UNDER THE INFLUENCE OF A QUANTUM GENERATOR --U-

AUTHOR--(05)--PIRUZYAN, L.A., ROGUVIN, V.V., ROMANOV, G.V., MERTSALOVA,
L.V., DEKENTYEV, V.A.
COUNTRY OF INFO--USSR

R

SOURCE--IZVESTIYA AKADEMII NAUK SSSR, SERIYA BIOLOGICHESKAYA, 1970, NR 3,
PP 463-467
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES, PHYSICS
TOPIC TAGS--LASER RADIATION, ELECTRON MICROSCOPE, TUMOR

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/1176

STEP NO--UR/0216/70/000/003/0463/0467

CIRC ACCESSION NO--AP0126778

UNCLASSIFIED

2/2 039

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0126778

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF LASER IRRADIATION ON THE GARDING PASSY MELANOMA ULTRASTRUCTURE IS DISCUSSED. IT WAS FOUND THAT THE ZONES WHICH HAD NOT BEEN DIRECTLY ILLUMINATED CONTAINED IRREVERSIBLE CHANGES. AMONG THE ORGANELLES OF A GARDING PASSY MELANOMA CELL THE MITOCHONDRIA APPEARED TO BE MOST DAMAGED WHEREAS THE MYELIN STRUCTURES THE NUCLEUS AND THE NUCLEOLI AS WELL AS VIRUS LIKE FORMATIONS REVEALED NO MORPHOLOGICAL CHANGES. STRONG VACUOLIZATION OF THE CELL CYTOPLASM WAS STATED. A DIAGRAM OF THE TEMPERATURE CHANGES IN THE MELANOME TISSUE RELATIVE TO THE DISTANCE OF THE EPICENTER OF THE LASER LESION IS SHOWN. THE LESIONS CAUSED IN THE MELANOME CELL UNDER LASER ACTION ARE EXPLAINED ON THE BASIS OF THE EFFECT OF THE THERMOMECHANICAL FACTOR.

FACILITY: INSTITUTE OF CHEMICAL PHYSICS, ACADEMY OF SCIENCES, USSR.

UNCLASSIFIED

USSR

R
UDC: 616.006

PIRUZYAN, L.A., ROGOVIN, V.V., ROMANOV, G.V., MERTSALOVA, L.V., and DEMENT'YEV, V.A., Institute of Chemical Physics, Academy of Sciences, USSR

"Electron Microscope Study of Harding-Passy Melanoma Under the Influence of Lasers"

Moscow, Izvestiya Akademii Nauk SSSR, Seriya Biologicheskaya, No 3, May/Jun 70, pp 463-467

Abstract: The effect of laser irradiation on the ultrastructure of Harding-Passy melanoma was studied. It was found that the zones which had not been irradiated directly contained irreversible changes. Mitochondria were most damaged, and their organization disrupted, whereas the myelin structures, nucleus and nucleoli, and virus-like formations showed no morphological changes. A strong vacuolization in the cytoplasm of the cells was noted. Temperature changes in melanoma tissue are proportional to the distance from the center of laser action. All changes in melanoma tissues under the action of lasers are explained on the basis of the thermomechanical effect.

1/1

USSR

UDC 51:330.115

~~ROGOV, Ye. I.~~

"Separation of Hierarchical Levels in the Control of Large Artificial Systems"

Optimiz. I Upr. Bol'shimi Sistemami V Energ., [Optimization and Control of Large Systems in Power Engineering--Collection of Works], Irkutsk, 1970, pp 106-122, (Translated from Referativnyy Zhurnal Kibernetika, No 5, 1971, Abstract No. 5V583).

No Abstract.

1/1

- 40 -

USSR

UDC 621.382.002

ROGOV, YU.P., PREOBRAZHENSKIY, A.I., KRIVONENKO, N.K., KULENETSOV, A.G.

"Some Distinctive Features Of The Construction Of Multiposition Mechanical Systems Of Inspection-Classification Complexes"

Elektron. tekhnika. Nauchno-tekhn.sb. Upr.kachestvom i standartiz. (Electronic Technology. Scientific-Technical Collection. Quality Control And Standardization), 1970, Issue 2, pp 94-108 (from RZh--Elektronika i yeye primeneniye, No 4, April 1971, Abstract No 4B415)

Translation: On the basis of an analysis of the technology for inspection of semiconductor devices, recommendations are given on the use of single- and multiposition inspection-classification equipment. The distinctive features are considered of the construction of multiposition mechanical systems of an automatic inspection-classification complex. The possibility and the advantages of the aggregation principle of construction of mechanical systems on the basis of a single structural scheme are shown. Recommendations are given on the choice of devices for a particular purpose. 6 ref. Summary.

1/1

- 72 -

USSR

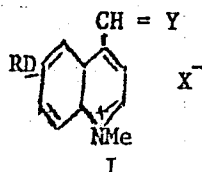
UDC 632.95

BUTNITSKIY, I. N., ROGOVIK, M. K., GUTSULYAK, B. M.

"Derivatives of Lepidinium as Plant Growth and Development Regulators. IV. Synthesis and Physiological Activity of Some Derivatives of 1-methyl-6-oxy-lepidinium Chloride"

Fiziol. aktivn. veshchestva. Resp. mezhved. sb. (Physiologically Active Materials. Republic Interdepartmental Collection), 1972, No 4, pp 101-105 (from RZh-Khimiya, No 5 (II), 1973, Abstract No 5N641)

Translation: A method was developed for obtaining compounds with the formula (I): 137.6 grams of p-MeNHC₆H₄OH, 240 ml of acetone, 4.9 ml of concentrated HCl (acid) and 100 ml of water were heated at 80°, and a mixture of 12 grams of paraform, 40 ml of BuOH, 1 ml of concentrated HCl (acid) and 60 ml of acetone was added with mixing. The reaction mass was heated for 4 hours and left to stand for 24 hours. The acetone was driven off, 120 ml of alcohol



1/2

USSR

BUTNITSKIY, I. N., et al., Fiziol. aktivn. veshchestva. Resp. mezhved. sb., 1972, No 4, pp 101-105

was added, the mass was cooled and the I (R = H, Y = H₂, X = Cl) (Ia) was isolated with a melting point of 185° and a 50% yield. On replacing the HCl (acid) with 57% HClO₄, I (R = H, Y = H₂, X = ClO₄) was obtained with a melting point of 195-197°. The reaction of Ia with the corresponding aromatic aldehydes in the presence of pyridine yields I (R, Y, X are presented, melting point in °C): H, CHPh, Cl 233-235; H, CHC₆H₄NO₂-π, Cl, 217; H, CHC₆H₄NO₂-m Cl, 223-224; H, CHC₆H₄OH-π, Cl, 223-225; H, CHC₆H₃OH-π-OMe-m, Cl (Ib), 228-229; H, CHC₆H₄NMe₂-π, Cl (Ic), 207-209. On solution in an acetic anhydride medium, I (R = Ac, Y = CHC₆H₄NMe₂-p, X = Cl) is obtained with a melting point of 74-5°. Also 1-methyl-6-oxyquinoline-4-(1'-ethylquinoline-4')-monomethinecyaniniodide is obtained with a melting point of 205-207°. The growth stimulating activity of Ib and Ic in the initial growth phase of Belotserkovskaya 23 wheat and Nadezhnyy oats with a 0.0001 M concentration of the solutions is equal to the activity of K heteroauxinate. For Part III see RZh-Khimiya, 1971, Abstract No 18N683.

2/2

- 52 -

UDC 531.01

USSR

RVALOV, R.V., and ROGOVOY, V. M., Moscow

"On Rotations of a Body With a Hollow Containing Liquid"

Moscow, Izvestiya Akademii Nauk, Mekhanika Tverdogo Tela, No 3, May-Jun 72,
pp 15-20

Abstract: The Cauchy problem is investigated for the motion of a solid body disturbed with regard to a uniform rotation. The body has a hollow wholly filled up with an ideal incompressible liquid. Contrary to studies of other authors of harmonic oscillations for particular forms of hollows or for constrained motion of the liquid, assuming its proper motions in the hollow of the rotation body being attenuated, no restrictions are posed on the shape of the hollow and the character of the disturbed motion. The problem of the combined solution of equations of hydromechanics and mechanics is reduced to the solving of eigenvalues of a certain problem the solution of which depends only on the geometry of the hollow, and to the subsequent integration of a system of ordinary differential equations. A hollow bounded by conformal ellipsoids of revolution is discussed as an example. It is demonstrated that the motion of a body with a hollow of similar type is affected only by a partial motion of the liquid. For the particular case of an ellipsoidal hollow, the results coincide with data obtained by other

1/2

USSR:

UDC: 518.5:681.3.06

SHEHERBAKOVA, V. M., ROGOVOY, V. M.

"An Algorithm for Rapid Fourier Transformation"

Sb. tr. Mosk. tekhnol. in-t (Collected Works of Moscow Technological
Institute), 1971, No 21, pp 183-194 (from RZh-Kibernetika, No 9, Sep
71, Abstract No 9V610)

[No abstract]

1/1.

ROGOVOY; Yu. I.

TECHNOLOGY OF PRODUCING NEW MATERIALS

Translation of Russian-language collection: Tekhnologiya
Polucheniya Novykh Materialov, 1972, Kiev.

JPRS 59873
23 August 1973

23

CONTENTS

PAGE

Emissivity of zirconium and niobium carbides in the
Region of Homogeneity
(L.N. Okhranchuk, G. Sh. Upadkhnaya)..... 1

Work Function of Silicon Carbide
(L.N. Okhranchuk)..... 4

Electrical Resistance of Composite Materials
(Ye. M. Petrova)..... 8

Heat Capacity Measurement in Some Ceramic Materials
(D.M. Karpinov, V.S. Klimentov)..... 14

Thermal Conductivity of Reinforced Plastics
(D.M. Karpinov, V.S. Klimentov)..... 18

One Optimum Case of a Method of Axial Thermal Flow for
Determining the Coefficient of Thermal Conductivity
(V.S. Klimentov, et al.)..... 21

Study of Sintering Kinetics by Hot Extrusion of Zirconium
and Titanium Carbides in the Regions of Their Homogeneity
(V. Ya. Nannenko, N. Ya. Petrykina)..... 25

Hot Pressing Features of Molybdenum Carbide
(Yu. I. Rogovoy, M.S. Koval'chenko)..... 32

[1 - USSR - 1]

Nuclear Science and Technology

USSR

KOVAL'CHENKO, M. S., ROGOVOY, Yu. I., KELIM, V. D. UDC 669.018.4:539.2:669.01

"Change in Structure in Properties of Titanium Carbide Under Neutron Bombardment"

Atomnaya Energiya, Vol 32, No 4, Apr 72, pp 321-323.

Abstract: An experimental study was performed of the change in micro-structure, lattice parameter, electrical resistance and microhardness of titanium carbide under the influence of neutron bombardment with integral doses of $1.0 \cdot 10^{19}$, $3.7 \cdot 10^{19}$, $7.5 \cdot 10^{19}$ and $1.5 \cdot 10^{20}$ thermal neutrons per square centimeter (flux ratio of thermal neutrons to fast neutrons 8:1) at about 50°C and with subsequent annealing in a vacuum of 10^{-4} mm h.g. at 100 - $1,000^\circ\text{C}$ at intervals of 100°C for 1 hour. Metallographic studies showed no change in mean grain size. Bombardment with the largest dose caused an increase in specimen volume of 0.3-0.5%. Bombardment caused a significant increase in resistance and lattice parameter. A regular shift in diffraction peaks toward lower angles with simultaneous decreases in intensity was observed, as well as improvement in the degree of resolution of the α doublet on the (333) line. Annealing at 100°C increased the lattice parameter, while annealing at 200 - 800°C decreased the lattice parameter. The experimental data indicated that there are two stages of recovery in annealing, at 350 and 600°C . The similarity of the mechanisms

1/2

USSR

ROGOVSKIY, Ye. A.

"Multistage, Multiproduct Stochastic Model of Prospective Planning"

Issled. po mat. Ekon. i Smezh. Vopr. [Studies in Mathematical Economics and Related Problems -- Collection of Works], Moscow University Press, 1971, pp 99-119, (Translated from Referativnyy Zhurnal, Kibernetika, No 3, 1972, Abstract No 3 V441).

NO ABSTRACT.

1/1

USSR

UDC: 51:330.115

ROGOVSKIY, Ye. A.

"An Adaptive Model of Stock Control"

Tr. 3 Zimm. shkoly po mat. programmir. i smezhn. vopr., 1970, vyp. 3
(Works of the Third Winter School on Mathematical Programming and Re-
lated Problems, 1970, No 3), Moscow, 1970, pp 479-489 (from RZh-Kiber-
netika, No 9, Sep 71, Abstract No 9V521)

[No abstract]

1/1