"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UDC 539.4

USSR

TAVER, Ye. I., RYSKIN, A. N., KOPYLOV, A. K., SIDOROV, N. G., KRICHEVSKIY, Ye. Yu., SUKHOTIN, A. M., ANTROPOV, N. P., ANTONOVSKAYA, E. I., Leningrad

"Strength of Welded Joints in High-Strength Stainless Steels at Cryogenic Temperatures"

Kiev, Problemy Prochnosti, No 6, 1972, pp 93-96.

Abstract: The influence of the geometry of welded seam made by austenitic wire on the strength of welded joints of martensitic stainless steels at cryogenic temperatures is studied. The influence of technological defects (such as under- and overheating) on strength of welded joints of two types of steels at low temperatures is studied. It is established that designers must consider both reduced strength of seam metal under normal conditions and impermissibility of any stress concentrators in the seam zone.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UDC 532.593 + 662.215.2

USSR

RODIYONOV, V. N., SUKHOTIN, A. P., Moscow

"Parameters of Elastic Waves Radiated with a Spherical Explosion in Metals with Various Strengths"

Fizika Goreniya i Vzryva, No 1, Mar 71, pp 142-146.

ABSTRACT: The influence of the yield point of a metal on the parameters of the elastic compression wave radiated upon an explosion is studied. The work was performed with three metals: Type A-00 aluminum, Type D-16 annealed duralumin and Type D-16 hardened duralumin. These metals were selected due to the similarity of their mechanical properties except for strength. The results of the work and the equations of the theory of elasticity allow the entire picture of motion and state of the metal in the elastic area to be reconstructed.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UDC 669.183.4:538.22

USSR

REZNIK, I. G., SUKHOTIN, B. N., and TUNKOV, V. P., "Serp i Molot" Metallurgical Plant

"Effect of the Technology of Smelting Low-Carbon Electric Steel on the Magnitude of the Coercive Force"

Moscow, Metallurg, No 12, Dec 70, pp 15-17

Abstract: An investigation was made of the effect of the technology of smelting type E low-carbon electric steel in 50- and 70-ton open-hearth furnaces on the magnitude of the coercive force. The effects of C and S content, oxidation rate, duration of bath boiling, and the inactive bath condition on the coercive force were determined by the correlation method. It was found that for producing steel with low coercivity, the C content of the metal at the moment bath smelting is completed must be 0.8-0.9% and that the period of active boiling should be 60-70 min with an average oxidation rate of 0.012-0.014% of C/min. The desulfurization process and the heating of the metal up to 1630°C must be completed before the beginning of the inactive bath (before a bath content of 0.12-0.10% of C) and the addition of ore during the final melting period.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

Acc. Nr: AP0034762 Ref. Code: UR 0241

PRIMARY SOURCE: Meditsinskaya Radiologiya, 1970, Vol 15, Nr 1, pp 36-39

ON THE DIAGNOSTIC VALUE OF RADIOISOTOPE INVESTIGATION OF IN VIVO THYROXINE METABOLISM IN THYROTOXICOSIS

Kotlyarov, E. V.; Nechayenko, M. A.; Sukhotskiy, S. S.

Summary

The authors conducted an investigation of radioiodine-thyroxine metabolism in 9 cases of euthyrosis and 11 cases of thyrotoxicosis of mild and moderate severity with the aid of a monomonitor system for whole-body radiometry. There were found no significant differences in the value of the biological semiexcretion of radioiodine-thyroxine from the organism of both groups of patients. The diagnostic value of studying the thyroxine metabolism may be evaluated only upon condition of parallel qualitative determination of the volume and concentration of stable thyroxine in the body and the rate of discharge from the organism.

2 x.

1/1

REEL/FRAME 02

19711472

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR UDC 533.6.011.72

BAZHENOVA, T. V., GVOZDEVA, L. G., KOMAROV, V. S., and SUKHOV, B. G.

"Investigation of the Diffraction of Strong Shock Waves at Convex Angles"

Moscow, Izvestiya Akademii Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 4, 1973, pp 122-134

Abstract: Results are presented of an investigation of the diffraction of strong shock waves at two-dimensional convex angles (M_0 = 2—10) in gases with change of the adiabatic exponent from 1.66 to 1.05.

New features of the diffraction pattern are disclosed, that are linked by interaction of the retardation wave with the free jet boundary layer. It is established that the shape of the diffracting shock wave depends upon the Mach number M_0 of the shock wave and the diffraction angle α_0. The Mach number of the wall portion of the shock wave does not depend upon the adiabatic exponent of the gas ν if the adiabatic exponent varies within the range of 1.4--1.15. With an increase of the diffraction angle and the Mach number of the incident shock wave in the wall portion of the diffracting shock wave, there consecutively originate a point of inflection, a Mach refection, and a nearly regular reflection.
1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

BAZHENOVA, T. V., et al., Izvestiya Akademii Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 4, 1973, pp 122-134

Experimental values of the stall angles are obtained. It is shown that the stall takes place at a pressure greater than p_0, but less than 2 p_0. The pressure on the wall surface during diffraction of the shock wave changes from the value at the front of the diffracted part of the shock wave to the value at the end of the rarefication wave. An approximation formula is presented, which gives the relationship of the value of the pressure on the front of the diffracted shock wave to the Mach number of the incident wave and to the wedge angle. Values of the pressure at the end of the expansion wave are obtained on the basis of experimentally measured values of the stall angle. 15 references.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 541.15

SUKHOV, F. F., SLOVOKHOTOVA, N. A., KARGIN (deceased), V. A., Institute of Physical Chemistry imeni L. Ya. Karpov

"The Mechanism of Radiation-Induced Dehydrochlorination of Polyvinylchloride"

Moscow, Khimiya Vysokikh Energiy, Vol 5, No 4, Jul-Aug 71, pp 364-365

Abstract: A very broad band in the infrared spectrum, previously observed during vacuum irradiation of PVC is caused partly by the formation of HCl complexes with oxygen-bearing impurities in the starting polymer. The fact that the 2300 cm^{-1} band does not reach maximum intensity until very high dosages indicates that the polymer is continuing to accumulate some light-quenching particles near this band regardless of the presence of oxygen in them. The fact that part of the absorption in the 2300 cm^{-1} band disappears when the irradiated polymer is heated to 200°K suggests that the particles disappearing at 200°K must have a structure similar to HCl complexes with ethers and carbonyl groups, and further that this disappearance is caused by CH valence oscillations in the carbonium ion $\sim CH_2-\overset{+}{C}H-CH_2 \sim$. Spectral studies confirmed the proposal that the 2300 cm^{-1} band is related to the ion pair

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

SUKHOV, F. F., et al., Khimiya Vysokikh Energiy, Vol 5, No 4, Jul-Aug 71, pp 364-365

$\sim CH_2\text{-}\overset{+}{C}H\text{-}CH_2 \sim \ldots \bar{Cl}$; PVC and IPC alone (of isopropyl chloride, propyl chloride, tert-butyl chloride and polyvinylidenchloride and PVC) exhibited a broad, intensive band at 2300 cm^{-1}.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UNCLASSIFIED PROCESSING DATE--20NOV70

1/2 073

TITLE--IONIZATION BEHIND A SHOCK WAVE FRONT IN ARGON --U-

AUTHOR-(04)-KOCHMANOVA, L.V., BREIDO, TS.G., GORYACHEV, V.L., SUKHOV, G.S.

COUNTRY OF INFO--USSR

SOURCE--ZH. TEKH. FIZ. 1970, 40(3), 600-4

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--IONIZATION, SHOCK WAVE, SHOCK WAVE PHYSICS, ARGON, MACH NUMBER, GAS PRESSURE, ELECTRIC CONDUCTIVITY, PLASMA CONDUCTIVITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

STEP NO--UR/0057/70/040/003/0600/0604

PROXY REEL/FRAME--1992/1443

CIRC ACCESSION NO--AP0112437

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UNCLASSIFIED PROCESSING DATE--20NOV70

2/2 073
CIRC ACCESSION NO--AP0112437
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY WAS MADE OF THE IONIZATION EQUIL. BEHIND A SHOCK WAVE FRONT IN AR FOR PRESSURES OF 1-10 MM AND MACH NOS. OF 8.8-11. THE SHOCK WAVE WAS SET UP IN THE DIAPHRAGM TUBE DESCRIBED PREVIOUSLY (G., AND S., 1967). AN INCREASE IN THE MACH NO. AND TEMP. BEHIND THE WAVE OWING TO THE DECREASE IN THE INITIAL GAS PRESSURE IN THE LOW PRESSURE CHANNEL RESULTS IN AN INCREASE IN THE ELEC. COND. OF THE PLASMA ONLY UP TO A CERTAIN PRESSURE. BELOW THIS PRESSURE, THE DECAY OF THE PLASMA SETS IN EARLIER THAN THE EQUIL. VALUE OF THE ELECTRON CONCN. IS REACHED AND THEREFORE THE COND. DECREASES. THE OPTIMUM STARTING PRESSURE FOR THE AR (FOR THE MAX. COND.) IS 5 MM HG.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 025 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--DIFFUSION OF INDIUM AND ANTIMONY IN GERMANIUM IRRADIATED BY LOW ENERGY ELECTRONS -U-

AUTHOR-(04)-DUDKO, G.V., MARUNINA, N.I., SUKHOV, G.V., CHEREDNICHENKO, D.I.

COUNTRY OF INFO--USSR

SOURCE--FIZ. TVERD. TELA 1970, 12(4), 1292-4

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, PHYSICS

TOPIC TAGS--METAL DIFFUSION, ANTIMONY ALLOY, GERMANIUM ALLOY, INDIUM ALLOY, CRYSTAL DISLOCATION, RADIOACTIVE ISOTOPE, ELECTRON, LOW ENERGY NEUTRON

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0476 STEP NO--UR/0181/70/012/004/1292/1294

CIRC ACCESSION NO--AP0126228

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 025 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0126228

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DIFFUSION OF IN AND SB IN GE ORIENTED IN THE (111) PLANE AND TREATED OVER THE ENTIRE SURFACE WITH LOW ENERGY ELECTRONS (SMALLER THAN 30 KEV) WAS STUDIED AT 650-850DEGREES USING RADIOACTIVE ISOTOPES. THE DIFFUSION PARAMETERS ARE D SUB0 EQUALS 5.8 TIMES 10 PRIME3 CM PRIME2-SEC, Q EQUALS 57 KCAL-MOLE FOR IN AND D SUB0 EQUALS 21 CM PRIME2-SEC AND Q EQUALS 48 KCAL-MOLE FOR SB. ACCELERATED DIFFUSION IS RELATED APPARENTLY TO THE FORMATION OF A NETWORK OF DISLOCATIONS BY IRRADN. FACILITY: TAGANROG. RADIOTEKH. INST., TAGANROG, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 681.325.54.042

SUKHOV, I. N., SHLYAKHTIN, V. T., KRYLOV, Yu. D., PANOV, V. P., and PARAMONOV, K. G.

"A Reversible Binary Counter"

USSR Author's Certificate No 280542, Filed 12 Dec 68, Published 9 Dec 70 (from Referativnyy Zhurnal — Avtomatika, Telemekhanika, i Vychislitel'naya Tekhnika, No 8, 1971, Abstract No 8B188 P)

Translation: The purpose of this invention is to ensure stable operation of a counter, given a significant level of noise. This is achieved by having each digit position of the counter consist of two "memory" cells connected in series via an AND cell, while a NOT inverter is connected to the input of the first position. The binary reversible counter includes an inverter, which is meant to control the counter according to the change in potential; delay lines consisting of logical "memory" elements; logic circuits consisting of AND cells; and memory elements consisting of logical "memory" elements.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 022 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--EFFECT OF INORGANIC PHOSPHATE ADDED TO THE PRESERVATIVE ON THE ATP CONTENT OF THE BLOOD STORED FOR PROLONGED PERIODS OF TIME -U-

AUTHOR-(02)-SUKHOVA, A.G., GLUSHOVA, S.V.

COUNTRY OF INFO--USSR

SOURCE--PROBL. GEMATOL. PERELIV. KROVI 1970, 15(3), 20-4

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--STORED BLOOD, PHOSPHATE, BLOOD PRESERVATION, ADENOSINE TRIPHOSPHATE, ERYTHROCYTE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3007/0114 STEP NO--UR/9080/70/015/003/0020/0024

CIRC ACCESSION NO--AP0135411

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 022 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0135011

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. INORG. PHOSPHATE (I) WAS ADDED TO A FINAL CONCN. OF 12 MG PERCENT TO WHOLE BLOOD, BLOOD PLASMA, AND ERYTHROCYTES STORED IN A DEXTROSE PHOSPHATE SOLN. WITH CITRIC ACID. INORG. P AND ATP WERE DETD. DURING 28 DAYS AFTER THE ADDN. OF I. DURING THE STORAGE OF THE BLOOD OR ERYTHROCYTES AT 4-6DEGREES, THE INORG. P LEVEL IN THE PLASMA DECREASED AND THAT IN ERYTHROCYTES INCREASED. MIAX. VALUES IN ERYTHROCYTES WERE FOUND IN THE 9TH TO THE 14 DAY. INCREASED ATP CONTENTS WERE FOUND IN ERYTHROCYTES IN THE 1ST HR AFTER THE ADDN. OF I AND PERSISTED UNTIL THE 7TH DAY. IT WAS CONCLUDED THAT EVEN AT LOW TEMP. I PENETRATES INTO ERYTHROCYTES AND TAKES PART IN THE PHOSPHORYLATION. FACILITY: LAB. KONSERV. KROVI, TSENT. INST. GEMATOL. PERELIV., KROVI, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

SUKHOV P.A.

Acc. Nr.: AN0104123 Ref. Code: UR9003

49

TITLE-- ANNOUNCEMENT OF THE COMMITTEE ON LENIN AND STATE PRIZES, U.S.S.R.

NEWSPAPER-- IZVESTIYA, MAY 28, 1970, P 4, COLS 1-5

ABSTRACT-- NINETY ONE BASIC AND APPLIED RESEARCH WORKS HAVE BEEN NOMINATED FOR THE STATE PRIZES. TWO OF THESE, "THE MULTI-PURPOSE INDUSTRIAL HELICOPTER KA-26", BY N. I. KAMOV, V. B. AL,PEROVICH, V. B. BARSHEVSKIY, A. A. DMITRIYEV, G. I. IOFFE, M. A. KUPFER, L. A. POTASHNIK, N. N. PRIOROV, A. G. SATAROV, I. M. VEDENEYEV, S. B. BREN, AND V. A. NAZAROV, AND "THE DEVELOPMENT OF TURBOFAN JET ENGINES NK-8 AND NK-8-4, AND THE DEVELOPMENT AND REDUCTION TO SERIAL PRODUCTION A SYSTEM OF TECHNOLOGICAL PROCESSES WHICH ASSURED WIDE USES FOR TITANIUM ALLOYS", BY N. D. KUZNETSOV, M. T. VASILISHIN, V. A. KURGANOV, P. M. MARKIN, V. D. RADCHENKO, P. A. SUKHOV, A. A. MUKHIN, V. G. SHITOV, G. I. MUSHENKO, L. A. SHKODO, AND G. P. DOLGOLENKO, HAVE BEEN SUBMITTED BY THE MINISTRY OF THE AVIATION INDUSTRY.

1/2

Reel/Frame
19870555

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

Acc. Nr.: AN0104123

"A SERIES OF INVESTIGATIONS INTO THE DYNAMICS OF A BODY WITH FLUID-FILLED CAVITIES", /65-68/, BY N. N. MOISEYEV, A. A. PETROV, V. V. RUMYANTSEV AND F. L. CHERNOUS,KO AND "ULTRA HIGH PRECISION JIG BORING MILLS WITH 1,000 X 1,600 AND 1,400 X 2,240 MM PLATENS", BY A. I. KIR,YANOV, V. G. ABRAMOVICH, I. V. GUTKIN, A. S. ALIMPIYEV, G. B. PAUKOV, AND A. S. YEGUDKIN, HAVE BEEN SUBMITTED BY THE COMPUTATION CENTER OF THE ACADEMY OF SCIENCES AND THE MINISTRY OF THE MACHINE TOOL CONSTRUCTION AND TOOL INDUSTRY, RESPECTIVELY.

"THE RADICALLY IMPROVED MELTING TECHNOLOGY OF CRITICAL-PURPOSE HIGH-ALLOY STEELS AND ALLOYS OF IMPROVED QUALITY ACHIEVED BY THE INERT GAS TREATMENT OUTSIDE THE FURNACE", BY YU. V. GERASIMOV, O. M. CHEKHOMOV, N. V. SIDOROV, S. K. FILATOV, B. A. CHEREMNYKH, R. M. KHAYRUTDINOV, I. P. BARMOTIN, L. K. KOSYREV, K. P. BAKANOV, N. N. VLASOV, P. I. MELIKHOV, AND N. A. TULIN, HAS BEEN SUBMITTED BY THE ZLATOUST METALLURGICAL PLANT.

2/2

Reel/Frame
19870556

KZ

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

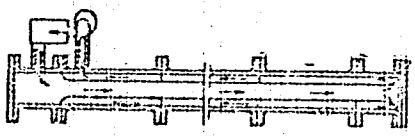
UDC 621.372.822

BRUTYAN, V. G., KIRDYASHOV, V. A., SUKHOV, Yu. I.

"A Device for Drying a Waveguide"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, No 21, Jul 71, Author's Certificate No 308471, Division H, filed 23 Jan 70, published 1 Jul 71, p 196

Translation: This Author's Certificate introduces a device for drying a waveguide. The installation contains hermetic sealing devices and pipe fittings. As a distinguishing feature of the patent, the weight and overall dimensions are reduced by placing a thin dielectric cylinder inside the waveguide sections with ends in the form of expanding sleeves held in connectors between the waveguide sections. The input and output fittings are in direct proximity with each other.



1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

C. Application of Theoretical Probability and Statistical Methods

USSR

SUKHOV, Yu. M.

"Regularity of Limiting Matrices of Density for One-Dimensional Continuous Quantum Systems"

Tr. Mosk. Mat. O-va [Works of Moscow Mathematics Society], 1973, No 26, pp 151-179 (Translated from Referativnyy Zhurnal Kibernetika, No 6, 1973, Abstract No 6V205, from the Introduction).

Translation: This article is dedicated to the study of limiting density matrices for one-dimensional continuous systems of quantum statistical mechanics, constructed in an earlier work by the author (RZhMat, 1971, 5B973). The properties of regularity of limiting density matrices are established, meaning the absence of phased transitions in one-dimensional continuous quantum systems. Results of this type were produced in another situation by Zhinior. The results produced in the present work (existence and regularity of limiting density matrices) are extended to certain classes of potentials broader than those in (RZhMat, 1971, 6B973). The concept of the limiting Gibbs state is introduced, extending the limiting Gibbs distribution or Gibbs random field to the quantum case, and the regularity of this state is proven. The basic method of the present work is a modification of the matrix method.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 669.231.5'893:[669.294 + 669.28

SUKHOV, Yu. V.

"Reaction of Platinum-Barium Alloy With Refractory Metals"

Elektron. tekhnika. Nauchno-tekhn. sb. Elektron. SVCh (Electronic Engineering: Collection of Scientific and Technical Works on Electronic Superhigh Frequencies), 1970, vyp. 8, pp 139-140 (from RZh-Metallurgiya, No 12, Dec 70, Abstract No 12 I871 by the author)

Translation: The article considers the reaction of a Pt-Ba alloy with the refractory metals Ta and Mo. Metallographic analysis shows that the reaction rate of the alloy with Ta is less than with Mo.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 615.385.1

VINOGRAD-FINKEL', F. R., Prof, TERENT'YEVA, E. I., Prof, SUKHOVA, A. G., VOROB'YEVA, G. S., TAL'SKAYA, I. N., LIFLYANDSKIY, D. B., DOROFEYEVA, T. N., and SAMSONOVA, N. N., Central Institute of Hematology and Blood Transfusion (Prof A. Ye. Kiselev, Director), Ministry of Health USSR and Institute of Cardiovascular Surgery (Prof V. I. Burakovskiy, Director), Academy of Medical Sciences USSR (Moscow)

"Morphological and Biochemical Characteristics and Viability of Washed Erythrocytes Intended for Surgical Procedures With Extracorporeal Circulation"

Moscow, Problemy Gematologii i Perelivaniya Krovi, Vol 16, No 8, 1971, pp 3-7

Abstract: Erythrocytes were obtained after separation of plasma from donor blood which had been kept in storage for 24 hours, washed with physiological solution, and examined by the electron microscope method; unwashed erythrocytes from the same blood served as controls. After two washings the submicroscopic organization of cells in the washed erythrocytes did not differ essentially from that in the unwashed erythrocytes. The conclusion 1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

VINOGRAD-FINKEL', F. R., et al., Problemy Gematologii i Perelivaniya Krovi, Vol 16, No 8, 1971, pp 3-7

was that washing the erythrocytes from blood prepared with a glucose-citrate preservative and stored for one day has no significant effect on the ultrastructure of almost the entire mass. Investigation of phosphorus fractions demonstrated the metabolic integrity of the washed erythrocytes through one or two washings. Thus, washing with physiological saline solution does not alter the structural completeness, metabolic activity, or biological value of erythrocytes. None of their indexes differ from those of erythrocytes of whole blood stored for 1 day and used for extra-corporeal circulation in cardiac surgery; they should therefore be recommended as the basic component in perfusates for extracorporeal circulation.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR UDC 615.384.014.41

SUKHOVA, A. G., and OLDUROVA, S. V., Laboratory of Blood Preservation, Central Institute of Hematology and Blood Transfusion, Ministry of Health USSR, Moscow

"The Effect of Inorganic Phosphorus Added to the Preservative on the ATP Content in Preserved Blood Stored for Long Periods"

Moscow, Problemy Gematologii i Perelivaniya Krovi, No 3, 1970, pp 20-24

Abstract: A study was made to determine the effect of inorganic phosphorus added to the preservative on the adenosine triphosphate (ATP) content in preserved blood stored for long periods. Blood prepared with a glucose-phosphate preservative containing citric acid was studied. The test objects were plasma, whole blood and erythrocytes obtained by blood centrifugation. Analogous investigations of blood samples preserved with glucose-citrate solution, but not containing phosphate, served as control. Results of the investigations are presented in two figures which show the dynamics of inorganic phosphorus and of ATP in plasma, in erythrocytes and in whole blood. Studies showed that during prolonged preservation of blood, with addition of inorganic phosphate, and storage at 4-6°C, inorganic phosphorus penetrates the erythrocytes, and participates in the carbohydrate-phosphorus metabolism of these cells. Inorganic phosphorus is used in the process of phosphorylation for formation of ATP, as a result of which the glycolysis period in erythrocytes is increased.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 547.435 + 577.153.4

KUNDRYUTSKOVA, L. A., MIKHAYLOVA, N. A., SUKHOVA, I. YE., BOGATKOV, S. V., and CHERKASOVA, YE. M., Moscow Institute of Fine Chemical Technology imeni M. V. Lomonosov

"Cholinesterase Inhibition by Some Amino Alcohol Esters"

Moscow, Doklady Akademii Nauk SSSR, Vol 196, No 2, 1971, pp 352-355

Abstract: The authors reported for the first time the study of the interaction of amino alcohol benzoates $C_6H_5COOC(Ar)(R)(CH_2)_nNR_2'$ and a number of their analogs with butyryl cholinesterase (I.U.B. 3.1.1.8) (ChE). It was found as a result of preliminary experiments, that the character of the interaction of these substances with ChE depends on the structure of the amino alcohol group on Ar and R. Thus, esters of primary alcohols (Ar=R=H) are hydrolyzed by cholinesterase and display inhibitor properties only in concentrations of 10^{-4} -10^{-3} mol/l, while esters of secondary and tertiary alcohols (Ar=C_6H_5, R = H, C_2H_5) are not hydrolyzed at all by ChE and manifest inhibitor properties in concentrations of $\sim 10^{-6}$ mol/l. In a number of cases, it was found that the 1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

KUNDRYUTSKOVA, L. A., et al., Doklady Akademii Nauk SSSR, Vol 196, No 2, 1971, pp 352-355

hydrolysis rate of butyrylcholine (BuCh) in the presence of inhibitors does not depend on the time of their pre-incubation with ChE (1-20 min.), which confirmed the reversible inhibition character. A study was then made of the dependence of the reaction rate on the substrate (BuCh) and inhibitor concentration. It was found that the quantity V_o/V_I within the limits of experimental accuracy does not depend on the substrate concentration, which is characteristic of noncompetitive inhibition. It is suggested that effective inhibition requires a combination of reaction centers in one molecule, i.e. the inhibitor must be bifunctional in order to simultaneously be connected with the anion center and suppress deacylation.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 632.95

GVOZDEVA, I. V., LURIK, B. B., STARKOV, A. V., KAMENNOV, N. A., POGODINA, L. N., and SUKHOVA, M. N.

"Search for Synergists of Pyrethrins in the Methylene Dioxy Phenyl Series"

Tr. VNII dezinfektsii i sterliz. (Works of the All-Union Scientific Research Institute of Dininfection and Sterilization), 1971, vyp. 21, t. 2, pp 101-106 (from RZh-Khimiya, No 18, Sep 72, Abstract No 18N431)

Translation: For purposes of studying synergtic activity, a series of piperonylic acid esters and amides, and piperonal acetals, were synthesized. The synergtic activity of the synthesized compounds was tested in a micture with pyrethrins in a 10:1 ratio by the topical method. In tests on houseflies, the greatest synergtic activity was shown by butyl, nonyl and cyclohexyl esters and N,N,-dipropyl amide. N,N-disubstituted amides are more active than N-substituted amides. Among the amides synthesized on the basis of heterocyclic amines, morpholide showed the greatest activity. The most toxic for red cockroaches were mixtures of pyrethrins with N-isopropyl amide and piperidide. Among the acetals, the most active compounds for houseflies were ethyl carbitolic and butyl carbitolic acetals of piperonal, and butyl and heptyl acetals. The acetals are weak synergists for red cockroaches. An investigation was made of the synergtic activity of the synthesized compounds on strains of houseflies highly resistant to DDT. T. A. Belyayeva.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 547.785.1.07

ROZIN, YU. A., BLOKHIN, V. YE., PUSHKAREVA, Z. V., and SUKHOVA, M. YE., The Ural Polytechnical Institute imeni S. M. Kirov, Sverdlovsk

"Heterylimidazoles. I. The Synthesis of 2-Heteryl-4,5-Diarylimidazoles"

Riga, Khimiya Geterotsiklicheskikh Soyedineniy, No 5, 1972, pp 681-682

Abstract: It is recognized that the biimidazoles possess photochromic and thermochromic properties. However, as yet no data are available on the photo- and thermochromic properties of heterosubstituted biimidazoles. In order to make such studies possible, fifteen 2-heteryl-4,5-diarylimidazoles -- which have not been previously described -- were synthesized by condensation of benzyl or p-tolyl solutions with heterocyclic aldehydes in acetic acid in the presence of ammonium acetate. The reactions were carried out as follows: to 20 ml of boiling glacial acetic acid containing 5 g of ammonium acetate was added 30 ml of a warm solution of acetic acid containing 0.01 mole of benzyl (or p-tolyl) and 0.01 mole of the appropriate aldehyde in a dropwise manner over a period of 2 hr. The reaction mixture was boiled for an additional 3 hr., following which it was cooled and poured on 250 g of ice with an excess of NH_4OH. The resultant precipitate was removed by filtration, washed with water, dried, and recrystallized. These preparations were then subjected to IR spectroscopic analyses.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

Stress Analysis and Stability Studies

UDC 620.10

USSR

BIDERMAN, V. L., Doctor of Technical Sciences, Professor, GOMAN, A. M., Aspirant, SUKHOVA, N. A., Candidate of Technical Sciences, Docent, Moscow Higher Technical School imeni N. E. Bauman)

"Determination of the Stresses and Dislocations in a Ring of Incompressible Material With Mixed Boundary Conditions"

Moscow, Izvestiya Vysshykh Uchebnykh Zavedeniy, Mashinostroyeniye, No 12, 1970, pp 5-8

Abstract: The article deals with the solution of a problem of two-dimensional deformation for a ring of incompressible material, loaded along the external contour by a radial compressive load $p(\theta)$ on the sector $-\theta_0 \leq \Theta \leq \theta_0$ and rigidly fastened along the internal contour. The solution to the problem is sought in functions of the complex variable $\varphi(z)$ and $\psi(z)$. For the case of /page 5 a/ the obtained relationships of stresses and dislocations were computed on a digital electronic computer. The

1/2

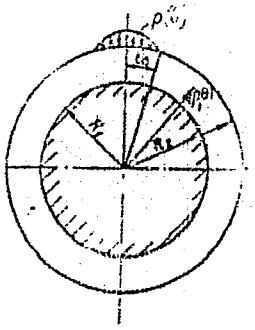
APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

BIDERMAN, V. L., et al, Izvestiya Vysshykh Uchebnykh Zavedeniy, Mashinostroyeniye, No 12, 1970, pp 5-8

calculation results for R = 0.5 and θ_0 = 0.2 are represented graphically. 3 figures, 2 bibliographic entries.



2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--TEMPERATURE DEPENDENCE OF DEFORMATION RESISTANCE IN NICKEL MOLYBDENUM AND NICKEL TUNGSTEN ALLOYS -U-

AUTHOR-(03)-SUKHOVAROV, V.F., KARAVAYEVA, V.V., KHARLOVA, R.P.

COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., FIZ. 1970, 13(1), 89-93

DATE PUBLISHED-------70

SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR, MATERIALS

TOPIC TAGS--NICKEL ALLOY, TUNGSTEN ALLOY, MOLYBDENUM ALLOY, REFRACTORY METAL, METAL DEFORMATION, DEFORMATION RESISTANCE, TEMPERING, METAL AGING, METAL COMPRESSIBILITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1997/1367 STEP NO--UR/0139/70/013/001/0089/0093

CIRC ACCESSION NO--AT0120162

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0120162

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ALLOYS DIFFERING IN THE LEVEL OF K STATE EFFECT WERE STUDIED TO DET. WHAT PROCESSES ARE RESPONSIBLE FOR THE CREATION OF THE ANOMALOUS DEPENDENCE OF DEFORMATION RESISTANCE ON TEMP. AND RATE. ALLOYS OF NI WITH 5 AND 10PERCENT MO AND 5PERCENT W WERE HOMOGENIZED 50 HR AT 1200DEGREES AND FORGED INTO RODS, FROM WHICH WIRE AND COMPRESSION SPECIMENS WERE PREPD. THE FOLLOWING EFFECTS WERE STUDIED: (A) THE DEPENDENCE OF ELEC. RESISTANCE ON THE TIME OF TEMPERING AT 400DEGREES, (B) THE DEPENDENCE OF RESISTANCE TO COMPRESSION ON TEMP. AND RATE AT 20-600DEGREES, AND (C) DEFORMATION CHARACTERISTICS DURING TENSION AT 20-600DEGREES. TWO COMPRESSION DEFORMATION RATES WERE USED: 20 AND 2400PERCENT-HR, WHILE THE TENSION RATE WAS ONLY 48PERCENT-HR. BEFORE TESTING, THE SPECIMENS WERE HELD 3 HR IN VACUO AT 950DEGREES AND THEN HARDENED IN WATER. DURING TEMPERING THE NI MO 10PERCENT ALLOY SHOWED THE HIGHEST INCREASE OF ELEC. RESISTANCE OF ALL THE ALLOYS, THE ALLOY NI MO 5PERCENT SHOWED ONLY A SLIGHT INCREASE, AND THE ALLOY NI 5PERCENT W HAD A DECREASE OF ELEC. RESISTANCE; ONLY THE NI MO 10PERCNET UNDERWENT I STATE TRANSFORMATION TO A SIGNIFICANT DEGREE. FROM THE DEPENDENCE OF RESISTANCE TO COMPRESSION DEFORMATION ON TEMP. ALL THE ALLOYS UNDER WENT DEFORMATION AGING AT GREATER THAN 150DEGREES. THIS IS CONFIRMED BY THE OCCURRENCE OF AN ANOMALOUSLY HIGH RESISTANCE TO COMPRESSIONDEFORMATION FOR NI MO 10PERCENT AT HIGH DEFORMATION RATES (2400PERCENT-HR). DEFORMATION AGING WAS REDUCED CONSIDERABLY BY DECREASING THE CONC. (BY HEATING THE SPECIMEN 25 HR AT 1150DEGREES IN ATM. OF H).

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

3/3 027 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AT0120162

ABSTRACT/EXTRACT--THE PREFERENTIAL FORMATION OF K STATE IN TH ALLOY NI PLUS MO 10PERCENT TO A LARGER EXTENT THAN IN OTHER ALLOYS WAS CONFIRMED BY THE LARGER DEGREE OF STEP WISE CHARACTERISTIC OF DEFORMATION THAN WITH ALLOYS CONTG. 5PERCENT MO OR W.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 012 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--DOUBLE FRAGMENTATION OF AN ADAMANTANE RING -U-

AUTHOR-(04)-STEPANOV, F.N., SUKHOVERKHOV, V.D., BAKLAN, V.F., YURCHENKO, A.G.

COUNTRY OF INFO--USSR

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 884-5

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--ADAMANTANE, AROMATIC CARBOXYLIC ACID, CATALYST, ZINC, THERMAL DECOMPOSITION, BROMINATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/2161 STEP NO--UR/0366/70/006/004/0884/0885

CIRC ACCESSION NO--AP0125744

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 012 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0125744

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEATING 1,3,BIS(BROMOMETHYL),5,7,DIBROMOADAMANTANE (I) WITH POWD. ZN GAVE 1,3,5,7,TETRAMETHYLENECYCLOOCTANE (II). BROMINATION OF II IN CCL SUB4 GAVE I. THE REACTION OF II WITH HBR GAVE 1,3,DIBROMO,5,7,DIMETHYLADAMANTANE. THE REACTION OF II WITH HCO SUB2 H IN 1PERCENT OLEUM GAVE 1,3,DIMETHYLADAMANTANE,5,7,DICARBOXYLIC ACID. CATALYTIC ALLENE TETRAMERIZATION GIVES 1,3,4,6,TETRAMETHYLENECYCLOOCTENE, NOT II, AS REPORTED BY I. WILLIAMS, ET AL., (1962). FACILITY: KIEV. POLITEKH. INST., KIEV, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 546.161

ALENCHIKOVA, I. F., NEPOREZOV, V. S., and SUKHOVERKHOV, V. F., Academy of Sciences USSR, Institute of General and Inorganic Chemistry imeni N. S. Kurnakov

"Kinetics of the Interaction of Fluorine with Iron-Nickel Alloys"

Moscow, Zashchita Metallov, Vol 9, No 2, Mar-Apr 73, pp 190-191

Abstract: The kinetics of the interaction of fluorine with 50N iron-nickel alloy (in %: 50 Fe, 0.3 Si, 0.5 Mn, 0.05 Mo, 49 Ni, 0.15 Al) and 79NM iron-nickel alloy (in %: 80 Ni, 0.5 Si, 0.6 Mn, 3.9 Mo, 15 Fe) were investigated. The interaction of F with 50N alloy at 350-500°, described by a linear dependence in time, results in development of loose fluorine films easily separating into layers. The interaction of F with 79NM alloy proceeds linearly at 700-850°, with development of porous films separating into layers, it proceeds parabolically at 500-650°. The apparent activation energy of the interaction processes is 4580 cal/mol for 550-650° (fluorine diffusion through the fluoride layer) and 16,660 cal/mol for 700-850° (chemical interaction of reagents). Two figures, two tables, twelve bibliographic references.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

SUKNENKO, V. V., CHIKIN, L. A.

"One System for Automation of Programming of Classes of Problems"

Matematika, Nekotor. Eye Pril. i Metodika Prepodav. [Mathematics, Some of its Applications and Methods of Teaching -- Collection of Works], Rostov-na-Donu, 1972, pp 19-25 (Translated from Referativnyy Zhurnal Kibernetika, No 4, 1973, Abstract No 4V659, by V. Mikheyev).

Translation: A description is presented of a system for automation of programming of individual classes of programs, based on a simplified algorithmic language. Each such class is defined by a certain system of standard procedures, and the solution of any specific problem is achieved by a certain sequence of procedures from this system. The system of procedures is realized by the subroutines of a specific computer, allowing successful utilization of the capabilities of the computer itself as well as the accumulated experience in automation of programming, through the library of standard subroutines. Information on the problem is fixed in the form of a matrix, the rows of which correspond to individual procedures and contain the actual parameters of the procedures. The suggested input language contains a small number of structures. All preparation of the problem for computer solution is

1/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

Suknenko, V. V., Chikin, L. A., Matematika, Nekotor. Eye Pril. i Metodika Prepodav., Rostov-na-Donu, 1972, pp 19-25.

performed by the consumer and consists in writing its algorithm in the input language and fixation of the initial information. The algorithms are written in the input language of a specific computer by means of an interpreter program. The basic structures of the language are variables and operators. Variables may be of two types -- matrix and supplementary. Matrix variables refer to quantities which are elements of the matrix of information and are identified by row and column numbers. Supplementary variables refer to individual values included in the output parameters of the procedures and are represented by individual letters. The initial data of the problem and constants are considered particular cases of matrix variables, and are included in the program as such. The values of these variables are determined in the initial inscription into the information matrix. The operators in the language are designed for performance of the following operations: access of subroutines in machine code; transmission of information from one row of a matrix to another and entry of output parameters of subroutines in the matrix; branching of computational processes; organization of external loops; printing

2/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

Suknenko, V. V., Chikin, L. A., Matematika, Nekotor. Sye Pril. i Metodika Prepodav., Rostov-na-Donu, 1972, pp 19-25.

of intermediate and final results; stopping of the machine. The operators are equipped with numerical labels. At the beginning of each program is a description of the matrix, containing information on its dimensionality. Algorithms, written in input language, are produced in two successive stages using the interpreter, which consists of two main parts -- the analyzing program (AP) and the interpreting program (IP). A specific realization of the interpreter is presented for the Ural-11 computer. The IP is constructed according to the principles of organization of the IS-2 interpreting system for the M-20 computer. It is noted that the system suggested has been tested in calculation of curved surfaces for shipbuilding, problems of generation of dimensions for drawings in machine building and statistical processing of data. 4 biblio. refs.

3/3

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

- USSR

UDC 549.746

INDOLEV, L. N., ZHDANOV, YU. YA., KASHIRTSEVA, K. I., SUKNEV, V. S., and DEL'YANIDI, K. I., Institute of Geology, Yakutsk Branch, Siberian Department of the Academy of Sciences USSR

"Magnesium and Aluminum Hydrocarbonates -- the New Mineral Indifirite"

Zapiski Vsesoyuznogo Mineralogicheskogo Obshchestva, 2nd Series, No 2, 1971, pp 178-183

Abstract: A new mineral has been found along the Indifirka river in Northeast Yakutia (near the Artic Circle). Called "indifirite," the mineral is a rosette-like divergent, randomly arranged aggregate. In the center of the rosette there are occasionally fine "seed" hips. In the fine crakes, fan-shaped deposits are cleabed by a mass of very fine fibers, needles, or lamina about 1 mm in length. Indifirite is snow-white, and has a glossy luster with a silky cast. The hardness is about 2. The lamina and fibers are elastic. The specific weight is 1.6 $\pm$ 0.1.

Indigirite is not radioactive and is optically anisotropic. It is insoluble in water, alcohol, and ammonia. In acids and KOH it dissolves instantly, with the formation of orderless gas bubbles. Chemical analysis gave the following composition, (in wt.%): MgO, 12.08%; Al_2O_3, 14.58%; CaO

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

INDOLEV, L. N., et al., Zapiski Vsesoyusnogo Mineralogicheskogo Obshchestva, 2nd Series, No 2, 1971, pp 178-183

0.4% Fe_2O_3, 0.64% CO_2, 24.18%; H_2O, 44.36%; SO_3, 0.45%.

Electron microscopic pictures revealed elongated tabular forms with uneven edges. Fine material was noted in the crystalline spaces and dehydration of the mineral under vacuum was observed. The parameters of the dehydrated crystals were found to be for c_o, 6.23 ± 0.02Å lengthwise and 3.16± 0.02Å crosswise, which was close to that of artinite. Debye powder patterns for the untreated mineral did not match any known mineral or synthetic compound. Heat treatment at 100°C also gave an original Debye pattern, but material heat treated at 900°C showed a spinel-type pattern which is natural for a magnesium-aluminum hydrocarbonate. Heat loss curves showed endothermic minima at 120°, 160°, and 215°C. Very little change in weight was noted above 200°C. A very slight endothermic effect was noted at 550°C for two of three samples. The peaks suggested loss of water of crystallization, hydroxyl water, anddissociation of complex carbonates. Infra-red spectra confirmed the proposed structure of the new mineral. Comparisons were also made with other water-containing magnesium or magnesium-aluminum carbonates.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 052 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--INFRARED SPECTRA OF HIGH TEMPERATURE BORATES CONTAINING COMPLEX ANIONS -U-

AUTHOR--SUKNEV, V.S.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. SPECKTROSK. 1970, 12(3), 491-6

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, PHYSICS

TOPIC TAGS--BORATE, MAGNESIUM COMPOUND, IRON COMPOUND, BORON COMPOUND, HIGH TEMPERATURE MATERIAL, IR SPECTRUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1997/0316 STEP NO--UR/0368/70/012/003/0491/0496

CIRC ACCESSION NO--AP0119303

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 052 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0119303

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF MG AND FE BORATES WERE MEASURED AT 400-3640 CM PRIME NEGATIVE1. FOR MGB SUB6 O SUB10.4.5-H SUB2 O, A STRUCTURAL FORMULA MG (B SUB6 O SUB9 (OH) SUB2). (1 PLUS N) H SUB2 O IS SUGGESTED. SPECTRA OF FE BORATES SHOW THAT THEY ARE ISOSTRUCTURAL WITH THEIR MG ANALOGS.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 026 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--INFRARED SPECTRA OF ASCHARITES -U-

AUTHOR-(02)-SUKNEV, V.S., BROVKIN, A.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. SPEKTROSK. 1970, 12(2), 248-54

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, EARTH SCIENCES AND OCEANOGRAPHY, PHYSICS

TOPIC TAGS--IR SPECTRUM, IRON COMPOUND, MANGANESE COMPOUND, MAGNESIUM COMPOUND, BORATE, MINERAL, DEUTERIUM COMPOUND

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1995/1243 STEP NO--UR/0368/70/012/002/0248/0254

CIRC ACCESSION NO--AP0116705

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 026 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0116705

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IR SPECTRA OF NATURAL, SYNTHETIC AND DEUTERATED ASCHARITES AS WELL AS HYDROXYL AND HYDROASCHARITES WERE RECORDED. THE BAND FREQUENCIES FOR MG SUB2 (B SUB2 O SUB4 (OH)) (OH), MG SUB2 NEGATIVE (B SUB2 O SUB4 (OD))(OD), MN SUB2 (B SUB2 O SUB4 (OH))(OH), FE SUB2 (B SUB2 O SUB4 (OH))(OH), MG SUB2 (B SUB2 NEGATIVEX H SUB3X O SUB4 (OH))(OH) AND MG SUB2(B SUB2 O SUB4 (OH))(OH)NH SUB2 O ARE GIVEN AND DISCUSSED IN DETAIL. THE STRUCTURAL FORMULA FOR ASCHARITE WAS DETD. AS MG SUB2 (B SUB2 O SUB3 (OH) SUB2) O. THE FE AND MN ANALOGUES OF ASCHARITES (THE LATTER ALSO CALLED SUSSEXITE) WERE ALSO INVESTIGATED AND POSITIONS OF BANDS NEAR 570 AND 927 CM PRIME NEGATIVE1 ARE GIVEN AS FUNCITONS OF FE AND MN CONTENT. FORMULAS ARE DERIVED FOR SPECTRAL DETN. OF FE AND MN.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 025 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--EFFECT OF PARTIAL REMOVAL OF THE CEREBELLUM ON DELAYED VISUAL AND AUDITORY REACTIONS -U-

AUTHOR--SUKNIDZE, TS.G.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK GRUZINSKOI SSR, SOOBSHCHENIIA, VOL. 57, FEB. 1970, P. 449-451

DATE PUBLISHED----FEB70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--BRAIN, SURGERY, VISUAL PERCEPTION, AUDITION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3001/0836

STEP NO--UR/0251/70/057/000/0449/0451

CIRC ACCESSION NO--AP0126513

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UNCLASSIFIED

2/2 025 PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0126513

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF THE VISUAL AND AUDITORY REACTIONS TO ALIMENTARY STIMULI IN A GROUP OF 5 DOGS PRIOR TO AND AFTER THE EXTIRPATION OF LOB, SIMPLEX, FOLIA, TUBER VERMIS AND PYRAMIS FROM THEIR CEREBELLUM. THE EFFECT OF THIS OPERATION ON THE MEMORY OF THE DOGS IS DISCUSSED, INDICATING COMPLETE RECOVERY OF THEIR REFLEXES WITHIN A MONTH. FACILITY: AKADEMIIA NAUK BRUZINSKOI SSR, INSTITUT FIZIOLOGII, TIFLIS, GEORGIAN SSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC: 612.827-019

SUKNIDZE, Ts. G., Institute of Physiology, Academy of Sciences Georgian SSR

"The Effect of Partial Extirpation of the Cerebellum on Delayed Visual and Auditory Reflexes"

Tbilisi, Soobshcheniya Akademii Nauk Gruzinskoy SSR, Vol 57, No 2, 1970, pp 449-451

Abstract: Experiments on dogs showed that after partial extirpation of the cerebellum (lobulus simplex, folia, tuber vermis, pyramid), previously formed visual and auditory conditioned reflexes remained intact, but short-term visual and auditory memory was impaired. Whereas prior to surgery the maximum delay in visible perception was 10-20 minutes, after surgery it decreased to 5 min. The maximum delay in auditory perception was 7-10 and 2 min, respectively. There was no change after the operation in labyrinthine-kinesthetic memory. However, a month after the operation the delayed visual and auditory reflexes were completely restored and the duration of the delay returned to the preoperative level. The temporary impairment of short-term memory caused by surgery is ascribed to a decrease in the activating influence of the cerebellum on the cortex mediated through the reticular formation, on the visual and auditory regions of the cerebral cortex, and on the sensory and associative neurons.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR UDC 615.471:615.844

SUKONKINA, Ye. A., TSIKHON, V. N., and KIRICHENKO, V. G., All Union Scientific Research Institute of Medical Instrument Building, Moscow

"Apparatus for Treatment With Diadynamic Currents "Tonus-1"

Moscow, Meditsinskaya Tekhnika, No 5, Sep/Oct 73, pp 59-62

Abstract: A new model for treatment with diadynamic currents has been developed -- Tonus-1 -- with the goal of producing a simple, utilitarian and safe unit. Tonus-1 produces 9 types of diadynamic currents. Maximum protection of the patient is one of the strong points of Tonus-1.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--THE FAGOCYTARIC ACTIVITY OF BLOOD LEUCOCYTES IN CHILDREN WITH BRONCHIAL ASTHMA AND CHRONIC PNEUMONIA -U-

AUTHOR-(02)-SUKOVATYKH, T.N., RUBINSHTEYN, YE.V.

COUNTRY OF INFO--USSR

SOURCE--ZDRAVOOKHRANENIYE BELORUSSII, 1970, NR 6, PP 56-57

DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--RESPIRATORY SYSTEM DISEASE, PNEUMONIA, LEUKOCYTE, PHAGOCYTOSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/0914 STEP NO--UR/0477/70/000/006/0056/0057

CIRC ACCESSION NO--AP0126573
UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 015 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0126573

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE FAGOCYTARIC ACITIVITY OF LEUCOCYTES HAS BEEN STUDIED IN CASES OF BRONCHIAL ASTHMA AND CHRONIC PNEUMONIA. 64 CHILDREN SICK WITH BRONCHIAL ASTHMA AND 59 ONES, WITH CHRONIC PNEUMONIA OF THE I-II GROUPS. HIGHER SHOWINGS OF THE FAGOCYTARIC INDEX HAVE BEEN DETECTED IN MORE THAN HALF OF THE PATIENTS. IN SOME CHILDREN WITH A SEVERE DEVELOPMENT OF BRONCHIAL ASTHMA THE FAGOCYTARIC INDEX HAS BEEN LOWERED. THE FAGOCYTARIC NUMBER AND FAGOCYTOSIS INTENSIVENESS IN COMPARISON WITH THE FAGOCYTARIC INDEX HAVE BEEN LOWER IN A MAJORITY OF SICK CHILDREN. FACILITY: KAFEDRA PEDIATRII BELORUSSKOGO INSTITUTA. FACILITY: USOVERSHENSTVOVANIYA VRACHEY I BAKTERIOLOGICHESKAYA. FACILITY: LABORATORIYA 5-Y KLINICHESKOY BOL'NITSY.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

Heat, Combustion, Detonation

USSR

S

UDC 662.813.2+536.46

BELYAYEV, A. F., SUKOYAN, M. K., KOROTKOV, A. I., SULIMOV, A. A.

"Concerning the Consequences of the Penetration of Combustion Into a Single Pore"

Novosibirsk, Fizika Goreniya i Vzryva, No 2, June 1970, pp 166-171

Abstract: It has been shown in other references that the penetration of combustion into a two-dimensional unit pore (crack) of powder or high explosive brings about, under certain conditions, excess pressure in it. The initial effect exerted by the excess pressure upon the sides of the crack can, under certain conditions, bring about enlargement of the crack, which condition is manifested in a depth increase. In the article are set forth results of measurement and calculation of the value of excess pressure; in addition, consideration is given to special features of the growth of burning cracks. The value of the excess pressure in an undeformed two-dimensional pore is obtained. The pressure increase in a burning pore undergoing deformation is calculated. The growth of burning cracks acted upon by excess pressure is examined.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 621.039.3

KOLOKOL'TSOV, N. A., MINENKO, V. P., NIKOLAYEV, B. I., SULABERIDZE, G. A., and TRET'YAK, S. A.

"Constructing Cascades for Separating Multicomponent Isotope Mixtures"

Moscow, Atomnaya energiya, Vol 29, No 6, Dec 70, pp 425-429

Abstract: At present, there is a great deal of interest in separation of isotope mixtures and consequently in the theory of building separating multicomponent cascades, with the requirement that isotopes of intermediate mass as well as those of extreme mass be separated. Nothing that the difficulty in designing these cascades is that the concentration of intermediate-mass isotopes tends to be a maximum inside the cascade, the authors discuss systems of continuous profile cascades for separating isotopes of intermediate mass, and the simulation of these cascades by actual flows consisting of constant-flow sections. The five steps required for this simulation process are outlined, and the modeling of a continuous profile cascade for the separation of tungsten isotopes, in the form of the gaseous compound WF_6, is given as an example.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

SULADZE, K. V.

JPRS 60651

29 November 1973

UDC 533.9.07

ACCELERATION OF IONS BY A RELATIVISTIC ELECTRON BEAM

/Article by A. A. Plyutto, K. V. Sukhadze, S. M. Temshin, G. P. Mkheidze, Ye. D. Kocop, B. A. Tskhadaya and I. V. Golovin: Moscow, Zhurnal Tekhnicheskoy Fiziki, Russian, Vol. 43, No. 8, 1973, signed to press 22 June 1972, pp. 1627 - 1631/

Abstract

The effect of ion acceleration by a relativistic electron beam was investigated. Protons were accelerated to 6 - 7 million electron volts for an energy of an electron beam of approximately one million electron volts. The beam composition and its energy distribution were studied. It was demonstrated that the energy of protons accelerated by electrons rises more rapidly than linearly with an increase in the accelerating voltage in the 0.1 - 1 million electron volts range.

The effect of ion acceleration in an electron beam was observed initially when obtaining nonrelativistic electron beams from a plasma emitter /1/. Protons and ions of carbon with maximum energies of 4 - 5 and 10 - 20 Mev were recorded in the following experiments for an average of 200 - 300 kev electron energy /2/. A linear rise in the energy of ions with an increase in the energy of electrons was observed in the range of 10 - 200 kilovolt accelerating voltages under optimal conditions for ion acceleration. This opened up the possibility for creating an electron for ion accelerator at 10 - 100 Mev using 1 - 2 Mev relativistic electron beams. Some investigations in this direction were conducted using high current electron resonator accelerators.

Arrangement of Experiment

Ion acceleration by means of electrons was done by using a variable accelerating voltage oscillating with a frequency of 6.3 megahs and an initial amplitude of 0.2 - 1 megavolts applied to the accelerating gap. The high

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

SULAIDZE, K. V.; TSKHADAYA, B. A.; PLYUTTO, A. A. (Sukhumi Physicotechnical Institute)

"Peculiarities of Intensive Electron Beam Formation in a Bounded Plasma"

Kiev, Ukrainskiy Fizicheskiy Zhurnal; June, 1971; pp 992-4

ABSTRACT: Peculiarities of the formation of strong-current, pulsed electron beams were studied by a method of the preliminary filling of an accelerating gap with plasma. A distinctive feature of the method is that the plasma-filled gap has a high conductivity which allows currents of 10^4 - 10^5 amps with a duration of 10^{-7} - 10^{-8} sec to be attained in the gap. After a certain critical value of the current has been attained in the gap, the ohmic resistance of the gap rises, resulting in a sharp decrease in the current and a sharp increase in the potential difference across the gap. In this case the plasma is broken into anodic and cathodic with corresponding potentials.

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

SULADZE, K. V., et al., Ukrainskiy Fizicheskiy Zhurnal, Jun 71, pp 992-994

Probe measurements show that all of the drop in voltage at the stage at which the current sharply decreases is concentrated in the plasma gap. It is at this stage that the electron beam is formed. The critical current value depends on the plasma concentration, and at a concentration of 10^{13} cm^{-3} it reached $5 \cdot 10^{4}$ amps. At the same time, the beam current reached $2 \cdot 10^{4}$ amps, the accelerating voltage was 45 kv, and the current pulse duration was $3 \cdot 10^{-7}$ sec.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 621.774.35.001.4

PLYATSKOVSKIY, O. A., Doctor of Technical Sciences, POROKHNIKOV, YU. Z., SULADZE, O. N., STATNIKOV, V. M., UBIRIYA, A. YE., Candidate of Technical Sciences, and TSERETELI, P. A.

Principal Parameters of the Deformation Process by High-Temperature Thermomechanical Treatment of Pipes"

Dnepropetrovsk Metallurgicheskaya i Gornorudnaya Promyshlennost', No 4, (70), Jul-Aug 71, pp 34-37

Abstract: At many active pipe rolling plants, reduction mills can be utilized for high-temperature thermomechanical treatment (HTMT) of pipes. Workers of the All-Union Scientific Research Institute of Pipes and specialists of the Rustavsk Metallurgical Plant have developed the technology of HTMT of hot-rolled compressor pump pipes (73 x 5.5 mm) of carbon steels (brands 20 and 35) and low-alloyed steel (36G2S) by rolling on a 20-cage reduction mill with rolls 350-400 mm in diameter. The HTMT technology is discussed by reference to diagrams showing the general arrangement and the change of the metal pressure on rolls under different rolling conditions. In HTMT the metal pressure on the rolls of pipes with precooling in deforming cases is approximately twice as high as in the standard process of hot reduction. Investigation data were used for planning an industrial experimental produc-

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

PLYATSKOVSKIY, O. A., et al., Metallurgicheskaya i Gornorudnaya Promyshlennost', No 4 (70), Jul-Aug 71, pp 34-37

tion sector of high-quality compressor pump pipes. Two illustrations, one table, three bibliographic references.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 518.5:681.3.06

KALINICHENKO, L. G., BAKLANOVA, L. V., SULAKSHIN, S. S.

"Determination of Correlation Characteristics Using the Minsk-1 Computer"

Izv. Tomsk. Politekhn. In-ta [News of Tomsk Polytechnical Institute], Vol 217, 1971, pp 32-38, (Translated from Referativnyy Zhurnal, Kibernetika, No 10, 1971, Abstract No 10 V816).

NO ABSTRACT.

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UDC: 621.327.534.2.032.927

USSR

SULATSKOV, V. G., BORICHEV, M. A.

"A Method of Assembling the Electrodes for Gas-Discharge Tubes of High and Superhigh Pressure"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 7, Mar 72, Author's Certificate No 329593, Division G, filed 22 Jul 70, published 9 Feb 72, p 208

Translation: This Author's Certificate introduces a method of assembling electrodes for high-pressure and superhigh-pressure gas-discharge tubes. The electrodes consist of a core wound with a helix. As a distinguishing feature of the patent, the assembly operation is simplified by placing the helix loosely over the core in such a way that a gap remains between the core and the inner surface of the helix, and the helix is fastened to the core by welding its first turn to the end face of the core in a shielding gas atmosphere.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC: 621.327.4.032.25

SULATSKOV, V. G., VASIL'YEV, B. D., KOKINOV, A. M.

"A Gas-Discharge Tube"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 7, Mar 72, Author's Certificate No 329598, Division G, filed 22 Jul 70, published 9 Feb 72, p 209

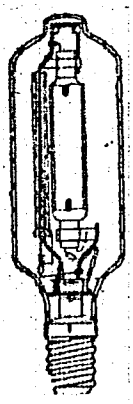
Translation: This Author's Certificate introduces a gas-discharge tube with alkali metal iodide additives. The tube contains an outer envelope, a gas-discharge burner and a current-conducting crossbar enclosed in a tube of insulating material such as quartz. As a distinguishing feature of the patent, migration of alkali metal ions through the burner envelope is reduced by applying a layer of metal such as aluminum to the outer surface of the tube. The metal layer is connected to an electric circuit consisting of a resistor and diode in parallel with the burner.

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR
SULATSKOV, V. G. et al., USSR Author's Certificate No 329598



2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR UDC 542.91+661.718.1

DZHUNDUBAYEV, K. D., BEYSHEKEYEV, Zh., ALDASHEVA, A., KOZHAKHMETOVA, R. I., SULAYMANOV, A., TOKTOBEKOVA, T., Institute of Organic Chemistry, Academy of Sciences of the Kirgiz SSR

"Synthesis of Mixed Phosphites Based on 10-[β-Hydroxypropyl(ethyl)]phenothiazine"

Leningrad, Zhurnal Obshchey Khimii, Vol 42(103), No 2, Feb 72, pp 337-340

Abstract: The authors studied the reaction of 10-(β-hydroxypropyl)phenothiazine and 10-(β-hydroxyethyl)phenothiazine with alkyl(aryl)phosphorous acid dichlorides, phosphorus trichloride and dimethylamidophosphorous acid dichlorides:

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UDC 547.341

USSR

PETROV, K. A., KHORKHOYANU, L. V., DZHUNDUBAYEV, K., SULAYMANOV, A.

"Synthesis and Properties of β-Alkoxyvinyl Phosphonic Anhydrides"

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, pp 1971-1973

Abstract: A new method for the synthesis of anhydrides of β-alkoxyvinylphosphonic acid (I) is described, consisting of the reaction of equimolar quantities of the dichloroanhydride with the complete ester of β-alkoxyvinylphosphonic acid. The product is a monomer. To obtain β-propoxy-α-methylvinylphosphonic anhydride, (I) in an absolute benzene pyridine mixture is reacted with absolute methanol. The reaction mixture is refluxed for 5 hrs, precipitate separated, filtrate washed with benzene, solvent evaporated, and residual mass kept for 1-1.5 hrs at 80-100/10-15 mm. These anhydrides react with epoxides to yield five membered cyclic esters. The epoxides are added in ice followed by heating the reaction mixture for 6-7 hrs to 70-100°.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR UDC 547.341

PETROV, K. A., KHORKHOYANU, L. V., DZHUNDUBAYEV, E., SULAYMANOV, A.

"Synthesis and Properties of β-Alkoxyvinylphosphonic Anhydrides I."

Leningrad, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, pp 1968-1970

Abstract: To the dichloroanhydride of β-ethoxyvinylphosphonic acid in anhydrous toluene, water was added dropwise at 20° followed by heating the reaction mixture for 2 hrs at 110° under a stream of nitrogen. The solvent was evaporated and the residue kept 2-3 hrs at 2-3 mm vacuum and 100-110° to yield the anhydride of β-ethoxyvinylphosphonic acid (I), m.p. 75-76°, a thermally stable hydroscopic, brittle material. Another way of obtaining (I) was by adding water to the starting dichloroanhydride kept in anhydrous benzene-pyridine mixture; absolute methanol could be substituted for water. To obtain a monoalkyl ester, (I) dissolved in anhydrous benzene or toluene was refluxed 6-10 hrs with anhydrous alcohol in a dry atmosphere. After removing the solvent, the residue was kept at 90-110°/7-8mm for 2-3 hrs, yielding the product -- dark syrupy

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

PETROV, K. A., et al, Zhurnal Obshchey Khimii, Vol 40, No 9, Sep 70, pp 1968-1970

liquids. The anhydrides were characterized by conversion to ammonium and calcium salts.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 547.26'118

PETROV, K. A., TRESHCHALINA, L. V., and SULAYMANOV, A.

"Synthesis of the Derivatives of β-Alkoxyvinylphosphonic Acids"

Leningrad, Zhurnal Obshchey Khimii, Vol 43 (105), No 4, Apr 73, pp 753-758

Abstract: Reaction of the anhydride of β-ethoxyvinylphosphonic acid with hexylamine and p-toluidine yields amide salts of β-ethoxyvinylphosphonic acids; in case of aromatic amines the phosphorylation occurs through the stage of the formation of amide salt of β-ethoxyvinylpyrophosphonic acid. A synthetic method has been developed for the synthesis of acid phenyl esters of β-alkoxyvinylphosphonic acid by reacting phenol with the anhydrides of these acids. It has been established that during the reaction of anhydrides with substituted phenols occasionally monoesters of β-alkoxyvinylpyrophosphonic acid are formed instead of monoarylphosphonates. Phenolysis of β-ethoxyvinylphosphonic acid dichlorides with the reagent ratio 1:1 leads to the formation of aryl ether chloroanhydrides which upon reacting with amines yield ether amides.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC: 621.391:519.2

SUL'DIN, M. D.

"Distortions of the Indeterminacy Function in Normal Frequency-Time Shifts"

V sb. Radioelektron. v nar. kh-ve SSSR, Ch. 2 (Radioelectronics in the National Economy of the USSR, Part 2--collection of works) Kuybyshev, 1970, pp 313-320 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3A64)

Translation: Approximate expressions are obtained for computing the mathematical expectation and dispersion of the indeterminacy function for Gaussian pulses and other processes. Two illustrations, bibliography of seven. M. S.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC: 621.396.677

SUL'DINA, S. S.

"Geometrical Shadowing of a Rough Surface in Determining its Effect on a Vibrator Directional Diagram"

V sb. Radioelektron. v nar. kh-ve SSSR, Ch. 2 (Radioelectronics in the National Economy of the USSR, Part 2--collection of works) Kuybyshev, 1970, pp 209-215 (from RZh-Radiotekhnika, No. 3, March 71, Abstract No. 3B33)

Translation: The effect of reflection from a surface with large-scale coarseness on the directional diagram of a vibrator when the directions of arrival and scattering of the waves do not coincide is considered. An expression is obtained for computing the shadowing function at low observation angles. Four illustrations, bibliography of nine. N. S.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 009 UNCLASSIFIED PROCESSING DATE--23OCT70
TITLE--DEWATERING OF PETROLEUMS FROM THE SANGACHALY DUVANNYI SEA DEPOSIT -U-
AUTHOR-(04)-SULEIMANOV, A.B., MAMEDOV, KH.M., MAMEDOV, G.Z., GUMBATOV, G.G.
COUNTRY OF INFO--USSR

SOURCE--AZERB. NEFT. KHOZ. 1970, (1), 32-4

DATE PUBLISHED-------70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY, MATERIALS

TOPIC TAGS--PETROLEUM DEPOSIT, PETROLEUM DEHYDRATION, CRUDE OIL, GEOGRAPHIC LOCATION, MOLECULAR WEIGHT, PETROLEUM DEMULSIFICATION/(U)NCHK PETROLEUM DEMULSIFIER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/2071 STEP NO--UR/0487/70/000/001/0032/0034

CIRC ACCESSION NO--AP0127444

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 009 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0127444

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SANGACHALY DUVANNYI SEA PETROLEUM, D PRIME20 0.8834, MOL. WT. 254, VISCOSITY AT 20DEGREES 67.8 CST, CONTG. 6.5PERCENT SILICA GEL TARS, 20PERCENT H SUB2 SO SUB4 TARS, 14PERCENT ASPHALTENES, 8-10PERCENT PARAFFIN M. 51DEGREES, 0.32PERCENT NAPHTHENIC ACIDS, 46PERCENT PARAFFINIC NAPHTHENIC HYDROCARBONS IN THE 62-85DEGREES FRACTION, 1PERCENT OF FRACTIONS B. IS SMALLER THAN OR EQUAL TO 80DEGREES, AND ALK. WATER WITH SO SUB4 PRIME2 NEGATIVE HARDNESS WAS DEWATERED TO A H SUB2 O CONTENT OF 1-1.5PERCENT BY PUMPING IT THROUGH A TUBE FURNACE, ADDING 1.5PERCENT OF CA TYPE NCHK DEMULSIFIER AT 75-80DEGREES, AND PUMPING IT INTO A SETTLING TANK WHERE A BOTTOM HEATING COIL PROLONGED THE SETTLING PERIOD AT TEMPS. IS GREATER THAN 51DEGREES. RECYCLING OF THE SEPD. WATER CONTG. DEMULSIFIER REDUCED THE OUTLAY OF NCHK.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 535.376:621.382

GORBAN', I.S., SULEYMANOV, YU.M., SHVAYDAK, YU.M., PAVLICHENKO, V.I., RYZHIKOV, I.V.

"Infrared Electroluminescence Of Epitaxial P-N Junctions Based On Silicon Carbide"

V sb. Elektrolyuminestsentsiya tverd. tel (Electroluminescence Of Solid Bodies--Collection Of Works), Kiev, "Nauk.dumka," 1971, pp 19-21 (from RZh--Elektronika i yeye primeneniye, No 11, Nov 1971, Abstract No 11B356)

Translation: The paper reports on the infrared electroluminescence spectra of epitaxial p-n junctions based on α-SiC (6H). Of particular interest is the electroluminescence spectrum (IR-II-EL) which consists of three narrow lines 1.184, 1.175, and 1.151 ev (halfwidth on the order of 1/10 kT at 293° K) which is observed at both room temperature and at the temperature of liquid nitrogen. In addition to the structure IR-II-EL, on other light diodes the infrared bands IR-I and IR-III were observed with energy maxima at 1.35 and 1.07 ev, respectively. A scheme of electron transitions responsible for forming IK-II is proposed. 3 ref. 2 ill. Summary.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR UDC 621.315.593:535.376

VORONIN, V.G., GLUKHAREV, A.A., PAVLICHENKO, V.I., PRONIN, B.V., RYZHIKOV, I.V., SULEYMANOV, YU.M.

"Effect Of Adhesion Centers On Electroluminescence In α-SiC(6H)"

Elektron. tekhnika. Nauchno-tekhn. sb. Poluprovdn. pribory (Electronic Technology. Scientific-Technical Collection. Semiconductor Devices), 1970, No 3(53), pp 24-30 (from RZh--Elektronika i yeye primeneniye, No 12, December 1970, Abstract No 12B282)

Translation: The relaxation was investigated of electroluminescence in silicon carbide p-n junctions constructed on silicon carbide (6H) crystals of a modified version of different resistivity. On the basis of the energy levels of the traps obtained (0.06-0.08; 0.13-0.14;0.18-0.20;0.22-0.23 e.v.) it is assumed that three levels of nitrogen emerge as adhesion centers in silicon carbide α-SiC(6H), and also one level of unknown donor, which under stable conditions in material of high resistivity is not filled by electrons. 6 ill. 26 ref. Summary.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 025 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--OIL ADDITIVES -U-

AUTHOR-(05)-KULIYEV, A.M., ZEYNALOVA, K.A., SADYKHOV, K.I., SULEYMANOVA, F.G., DRUDZHEVA, I.M.

COUNTRY OF INFO--USSR

SOURCE--BAKINSKIY RABOCHIY, SEPTEMBER 18, 1970, P 3, COL 3

DATE PUBLISHED--18SEP70

SUBJECT AREAS--MATERIALS, BEHAVIORAL AND SOCIAL SCIENCES

TOPIC TAGS--LUBRICATING OIL, LUBRICANT ADDITIVE, CHEMICAL SYNTHESIS, PETROLEUM REFINING, HONORARY TITLE AWARD, CHEMICAL PERSONNEL/(U)BFK LUBRICATING OIL ADDITIVE, (U)SB3 LUBRICATING OIL ADDITIVE, (U)SK3 LUBRICATING OIL ADDITIVE, (U)AZNIIBU LUBRICATING OIL ADDITIVE, (U)INKHP21 LUBRICATING OIL ADDITIVE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605011/B09 STEP NO--UR/9000/70/000/000/0003/0003

CIRC ACCESSION NO--AN0140180

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 025 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AN0140180

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. "THE DEVELOPMENT OF THE SYNTHESIS TECHNOLOGY FOR THE EFFICIENT ADDITIVES TO MOTOR OILS REFINED FROM THE BAKU PETROLEUMS, BFK, SB 3, SK 3, AZNII 8U, AND INKHP 21, AND REDUCING IT TO INDUSTRIAL APPLICATIONS", THE WORK DONE BY A. M. KULIYEV, K. A. ZEYNALOVA, K. I. SADYKHOV, F. G. SULEYMANOVA, I. M. DRUDZHEVA, I. I. NAMAZOV, AND V. YE. BASHAYEV HAS BEEN NOMINATED BY THE INSTITUTE OF CHEMISTRY OF ADDITIVES OF THE AZERBAYDZHAN ACADEMY OF SCIENCES FOR THE STATE PRIZE OF THE AZERBAYDZHAN S.S.R.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 547.298.3

PINCHUK, A. M., SULEYMANOVA, M. G., and FILONENKO, L. P., Institute of Organic Chemistry, Academy of Sciences UkrSSR

"Reaction of N-Chlorohexamethyldisilazane With Trivalent Phosphorus Compounds"

Leningrad, Zhurnal Obshchey Khimii, Vol 42 (104), No 9, Sep 72, pp 2115-2116

Abstract: N-chlorohexamethyldisilazane reacts with triaryl- and trialkylphosphines, trialkyl phosphites and chlorodialkylphosphites at 0-10° in ether, forming trimethylchlorosilanes and phosphazotrimethylsilanes. Following compounds have been synthesized: triphenylphosphazotrimethylsilane, b.p. 90-92°/0.04 mm n_D^{25} 1.4665; triethoxyphosphazotrimethylsilane, b.p. 86-87°/15 mm, n_D^{25} 1.4180; tripropoxyphosphazotributylphosphazotrimethylsilane, b.p. 62-63°/0.05 mm, n_D^{25} 1.4210; tributoxyphosphazotrimethylsilane, b.p. 77-78°/1 mm, n_D^{25} 1.4285; diethoxychlorophosphazotrimethylsilane, b. p. 83-85°/25 mm, n_D^{25} 1.4275.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 547.241

ZHURAVLEVA, L. P., SULEYMANOVA, M. G., KOVALYUKH, N. N., and KIRSANOV, A. V., Institute of Organic Chemistry, Academy of Sciences Ukrainian SSR

"Dibenzylphosphinic Acid Derivatives"

Leningrad, Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 1950-1953

Abstract: A discussion is presented of a method suitable for obtaining oxides of tribenzylphosphines which, in turn, may be used to obtain a series of dibenzylphosphinic acids in good yields. When treated with phosphorus pentachloride or thionyl chloride, dibenzylphosphinic acids form acid chlorides which, when treated with ammonia and amines, form amides; when these acid chlorides are treated with alcohols and phenols (phenoxides), they form appropriate esters. The reaction of dibenzylphosphinic acid chloride with Grignard's reagents produces alkyldibenzylphosphine oxides or aryldibenzylphosphines. The fusion of alkyldibenzylphosphine oxides with alkalies yields alkylbenzylphosphinic acids -- crystalline compounds which may be titrated with phenolphthalein for monobasic acids. Tables are provided citing radicals, yields, melting points, formulas and other indicators for dibenzylphosphinic acid chlorides $(RC_6H_4CH_2)_2P(O)Cl$, dibenzylphosphinic acid amides $(RC_6H_4CH_2)_2P(O)NHR'$ and oxides of alkyldibenzylphosphines and aryldibenzylphosphines $(C_6H_5CH_2)_2P(O)R^a$.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 547.241

ZHURAVLEVA, L. P., SULEYMANOVA, M. G., MARCHENKO, A. P., Z'OLA, M. I., KOVALYUKH, N. N., and KIRSANOV, A. V., Institute of Organic Chemistry, Academy of Sciences Ukrainian SSR

"Hydrogenation of Organophosphorus Compounds. Part V"

Leningrad, Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 1944-1950

Abstract: This paper is one of a series of investigations on the hydrogenation of organophosphorus compounds containing aromatic radicals. It is shown that mixed oxides of tertiary phosphines, phosphinic and phosphonic acids as well as phosphoric acid amides with phenyl and benzyl radicals will be hydrogenated in the presence of a platinum catalyst to form corresponding compounds with cyclohexyl and cyclohexylmethyl radicals; the phosphoric acid amides will be hydrogenated at a higher rate (at room temperature) than oxides and acids. Unlike the initial compounds, all hydrogenated products featured lower melting points and higher solubilities in ordinary organic solvents. When treated with phosphorus pentachloride, bis(cyclohexylmethyl) phosphinic acids form their acid chlorides -- readily mobile liquids, distillable under vacuum. When treated with propylmagnesium iodide, bis(cyclohexylmethyl)phosphinic acids form an oxide of propylbis(cyclohexylmethyl)phosphine which is identical to the hydrogenation product of

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

ZHURAVLEVA, L. P., et al., Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 1944-1950

propyldibenzylphosphine oxide. The experimental section of this paper is presented in great detail and includes tables citing yields, melting points, solvents for crystallization, formulas, solubilities and other indicators for phosphoric acid trialylamides $(RNH)_3PO$, phosphoric acid tris(cyclohexyl)amides $(RNH)_3PO^a$ and other related compounds.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 022 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--RADIATION STIMULATION OF PLANTS -U-

AUTHOR-(02)-RIZAZADE, R.R., SULEYMANOVA, N.L.

COUNTRY OF INFO--USSR

SOURCE--RADIOBIOLOGIYA 1970, 10(1), 98-102

DATE PUBLISHED-------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--AGRICULTURE CROP SEED, CESIUM ISOTOPE, RADIATION DOSAGE, PLANT PHYSIOLOGY, RADIATION PLANT EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1998/0457 STEP NO--UR/0205/70/010/001/0098/0102

CIRC ACCESSION NO--AP0121131

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 022 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0121131

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RADIATION STIMULATION WAS STUDIED IN SUNFLOWER SEEDS. THE SEEDS WERE IRRADIATED WITH PRIME137 CS GAMMA RAYS IN DOSES OF 0.25-20 KR. INDIVIDUAL PHASES OF GROWING PLANTS FROM THESE SEEDS WERE OBSERVED AND BIOMETRIC MEASUREMENTS WERE MADE. FOR THE DOSE OF 2 KR A CONTINUOUS STIMULATING EFFECT WAS OBSD., WHICH WAS MANIFESTED BY THE RATE OF THE GROWTH RATHER THAN BY THE FINAL RESULT. THE GROWTH OF PLANTS FROM IRRADIATED SEEDS WAS PARTICULARLY ACCELERATED AT THE EARLY STAGES. FACILITY: NAUCH.-ISSLED. INST. ZEMLED., BAKU, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 037 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--DEFORMATION OF CORDS MADE FROM POLYAMIDE FIBERS -U-

AUTHOR--SULEYMANOVA, Z.I.

COUNTRY OF INFO--USSR

SOURCE--KAUCH. REZINA 1970, 29(3), 27-9

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CORDAGE, NYLON, POLYAMIDE RESIN, MATERIAL DEFORMATION, STRESS RELAXATION, HIGH TEMPERATURE EFFECT, LOW TEMPERATURE EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/0837 STEP NO--UR/0138/70/029/003/0027/0029

CIRC ACCESSION NO--AP0124504

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

UNCLASSIFIED

CIRC ACCESSION NO--AP0124504 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A STUDY OF THE DEFORMATION OF NYLON 6 (I) AND NYLON 66 (II) CORDS UNDER STATIC AND DYNAMIC CONDITIONS AT 20-160DEGREES INDICATED THAT THE DEGREE OF DEFORMATION WAS A FUNCTION OF THE EXPTL. TEMP. THE TEMP. AT WHICH MAX. DEFORMATION OF I OCCURRED WAS INVERSELY PROPORTIONAL TO THE STRESS APPLIED AND LOADING TIME. MAX. DEGREE OF DEFORMATION IN I WAS OBSD. AT HIGH TEMPS. AND SMALL LOADS OR LOW TEMPS. AND HEAVY LOADS. RELAXATION DATA SUGGESTED THAT I AND II CORDS WOULD BEST OPERATE AT HIGH TEMPS.

FACILITY: NAUCH.-ISSLED. INST. SHINNOI PROM., MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

SULIK, I. S.

UDC 669.017:539.67

"Problem of Measuring the Energy Dissipation in Metals in the Presence of High Amplitudes of High-Frequency Mechanical Vibrations"

Rasseyaniye energii pri kolebaniyakh mekh. sistem -- V sb. (Energy Dissipation During Vibrations of Mechanical Systems -- collection of works), Kiev, Naukova Dumka Press, 1970, pp 272-279)(from RZh-Metallurgiya, No 4, Apr 71, Abstract No 4I933)

Translation: Equipment for determining the energy dissipation coefficient by the method of damping oscillations has been developed and is described; the frequency-amplitude dependence of the energy dissipation is estimated with respect to the variation in resonance frequency of the sample vibrations. The equipment permits measurement of the energy dissipation factor of the mechanical vibration system in the frequency range of 500-20,000 hertz. The range of measureable vibration decrements is 0.1-10%, and the accuracy is ±6%. Experiments were performed to study the amplitude dependence of the energy dissipation in steel 45 and GKh13 and brass at a frequency of 10 kilohertz.

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

SULIK, I. S., Rasseyaniye energii pri kolebaniyakh mekh. sistem, Kiev, Naukova Dumka Press, 1970, pp 272-279

Comparison of the experimental results with the data obtained by the resonance method shows that at low and medium stress levels (up to 200 meganewtons/m^2 for steel and up to 120 meganewtons/m^2 for brass), comparison is observed within the limits of accuracy of the measurements. The bibliography has 3 entries. [Kiev].

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 531.36

SULIKASHVILI, R. S.

"Stability of Stable Motion of a Satellite with a Gyroscope in a Central Newtonian Field"

Mekhanika Tverdogo Tela, No 6, 1971, pp 3-6.

ABSTRACT: An earlier work has presented the study of the stability of stable motions of a satellite carrying a gyroscope on a Gimbal suspension assuming that the center of mass C of the system moves in a circular orbit, while the angular velocity of natural rotation of the gyroscope rotor is constant and the centers of mass of the body of the satellite, rotor and cover and external ring correspond. The case was studied when the axis of rotation of the external ring of the gyroscope is directed perpendicularly to the plane of the orbit. This article studies the stability of stationary motions of the same system when the axis of rotation of the external ring of the gyroscope is directed along a radius vector of the center of mass of the system relative to the center of gravity and on a tangent to the orbit.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC: 621.396.621.55:621.374.33(088.8)

TAYBERG, N. O., SULIM, V. A., FEYNBERG, S. Ya.

"A Transistorized Time Discriminator"

USSR Author's Certificate No 270796, filed 12 May 68, published 11 Aug 70 (from RZh-Radiotekhnika, No 2, Feb 71, Abstract No 2D53 P)

Translation: This Author's Certificate introduces a transistorized time discriminator of a periodic pulse signal. The unit contains two identical conversion channels with detector stages, diode-regenerative comparators and flip-flops connected in each of them. To increase the slope and improve the linearity of the discrimination characteristic, a selecting stage is included in each discriminator channel, and a pulse-duration converter is connected to the output of this selecting stage. The outputs of the channels are connected to an output mixer — a device which shapes pulses of normalized amplitude; the polarity of these pulses determines the sign, and their duration determines the magnitude of the time mismatch.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR UDC: 621.373.42(088.8)

TAYBERG, N. O., SULIM, V. A., FEYNBERG, S. Ya.

"A Self-Excited Harmonic Signal Oscillator"

USSR Author's Certificate No 282439, filed 12 May 68, published 11 Dec 70 (from RZh-Radiotekhnika, No 6, Jun 71, Abstract No 6D341 P)

Translation: This Author's Certificate introduces a self-excited harmonic signal oscillator in a three-point circuit based on a vacuum tube or semiconductor device. The oscillator contains a tank circuit with electronic frequency tuning by connecting a varicap in the tank. The varicap is connected in turn to a source of controlling voltage. To reduce the nonlinearity of frequency response with tuning over a wide range, the oscillator is equipped with an additional varicap which is connected through a threshold semiconductor diode to the source of controlling voltage, and through a resistive voltage divider to a source of DC voltage which blocks the threshold diode in the controlling voltage circuit. Two illustrations. V. P.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 539.4

SULIMA, A. M., YEVSTIGNEYEV, M. I., SEREBRENNIKOV, G. Z., Moscow

"Study of Influence of Loading Frequency on Fatigue of Heat Resistant Steels and Alloys at Usage Temperatures"

Kiev, Problemy Prochnosti, No 5, May, 1971, pp 107-110.

Abstract: The influence of loading frequency on the fatigue strength of the alloys EI961, EI617, EI826, EI929, EI437B and titanium alloy VT9 was studied. The test data were statistically processed, constructing correlation equations and correlation dependences between σ and N and σ and T. These dependences were used to determine the mean probable values of fatigue resistance and cyclical durability at various loading frequencies. The results showed that as the loading frequency increases to a certain critical value, the fatigue resistance and cyclical durability of the steels and alloys studied increase, then further increases in loading frequency cause the fatigue strength of all steels and alloys studied to drop. The critical frequency depends on the test conditions, chemical composition and physical and mechanical properties of the steel or alloy. The results of testing thus showed that the repetition frequency of loading is an important parameter of cyclical loading, significantly influencing fatigue characteristics.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 031 UNCLASSIFIED PROCESSING DATE--09OCT70

TITLE--INDOLE DERIVATIVES. LXI. SYNTHESIS OF 4(5),(3,INDOLYL)IMIDAZOLE -U-

AUTHOR-(04)-SURVOROV, N.N., SMUSHKEVICH, YU.I., MARVANOYSKAYA, N.N., SULIMA, A.V.

COUNTRY OF INFO--USSR

SOURCE--KHIM. FARM. ZH. 1970, 4(2), 10-12

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--CHEMICAL SYNTHESIS, IMIDAZOLE, INDOLE DERIVATIVE, NUCLEAR MAGNETIC RESONANCE, UV SPECTRUM, IR SPECTRUM, MASS SPECTROSCOPY, MOLECULAR STRUCTURE, MERCAPTAN, BENZENE DERIVATIVE, AROMATIC KETONE, BACTERICIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1993/0530 STEP NO--UR/0450/70/004/002/0010/0012

CIRC ACCESSION NO--AP0113421

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 031 UNCLASSIFIED PROCESSING DATE--09OCT70

CIRC ACCESSION NO--AP0113421

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A MIXT. OF 8 G I AND 180 ML HCONH SUB2 IS HEATED 1 HR AT 186DEGREES (BATH TEMP.) TO GIVE 50PERCENT II.H SUB2 O, M. 74-6DEGREES (H SUB2 O); ANHYD. II, M. 158-9DEGREES, IS OBATINED BY DRYING OVER P SUB2 O SU85 SEVERAL DAYS IN VACUO; II PICRATE M. 241-2DEGREES (ETOH); II ADIPATE M. 159-60DEGREES (ETOH). THE II STRUCTURE IS CONFIRMED BY ELEMENTARY ANAL., NMR, IR, AND MASS SPECTRA, AND ALSO BY THE FOLLOWING SYNTHESIS. A SOLN. OF 0.5 G III IN ETOH WITH 1 G SKELETAL NI IS REFLUXED 1 HR WITH STIRRING TO GIVE 81PERCENT II.H SUB2 O. IV.HCL (5 G) AND 22 G KSCN IS HEATED AT 210DEGREES (BATH TEMP.) 1 HR WITH STIRRING TO GIVE 16PERCENT III, M. 241-3DEGREES (AQ. ME SUB2 CO). THE UV SPECTRA OF II AND III ARE MEASURED IN 95PERCENT ETOH. THE BIOL. ACTIVITY OF II IS TESTED. FACILITY: MOSK. KHIM. TEKHNOL. INST. IM. MENDELEEVA, MOSCOW, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC: 615.31:547.753.012.1:542.9

SUVOROV, N.N., SMUSHKEVICH, YU.I., MAR'YANOVSKAYA, N.N., SULIMA, A.V., Moscow Institute of Chemical Technology imeni D.I. Mendeleyev, Moscow, Ministry of Higher and Secondary Specialized Education RSFSR

"Derivatives of Indole. LXI. Synthesis of 4(5)-(Indolyl-3)-Imidazole"

Moscow, Khimiko-Farmatsevticheskiy Zhurnal, Vol 6, No 2, Feb 70, pp 10-12

Abstract: Continuing studies on the synthesis of indolylazoles, the authors prepared 4(5)-(indolyl-3)-imidazole (II) and studied its biological activity. The formamide method, consisting of the reaction of alpha-substituted ketones or alpha-diketones with formamide, was used to prepare (II) from 3-chloroacetylindole. The structure of (II) was confirmed by elemental analysis and special methods (paramagnetic resonance and infrared and mass spectra) and also by reverse synthesis. In the infrared spectrum of (II) absorption bands were observed at 3400 cm^{-1} (NH of indole ring) and at 3200-3100 cm^{-1} (NH of imidazole ring). 2-Mercapto-4(5)-(indolyl-3)-imidazole was also prepared by the reaction of the chloroanhydrate of 3-aminoacetylindole with potassium thiocyanate. The biological activity of (II) was studied at the All Union Scientific Research Chemico Pharmaceutical Institute imeni S. Ordzhonikidze. Under laboratory biocontrol during investigation of antiinflammatory action by Doctor of Biological Sciences S.S. LIBERMAN, it was established that (II) decreases the weight of granuloma; however, in activity it

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

SUVOROV, N.N., et al, Khimiko-Farmatsevticheskiy Zhurnal, Vol 6, No 2, Feb 70, pp 10-12

is inferior to phenylbutazone. Results of tests conducted in the chemico-therapy branch by Senior S ientific Worker T.N. ZYKOVA under the direction of Corresponding Member of the Academy of Medical Sciences USSR G.N. PERSHIN showed that the product also possesses bacteriological activity in relation to mycobacteria of tuberculosis (strain H37Rv). However, it inhibited the growth of tubercular bacillus only in a concentration of 250 mgm/ml.

2/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 012 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--CATALYTIC PROPERTIES OF TIN ANTIMONY TELLURIUM OXIDE CATALYSTS FOR ISOBUTYLENE OXIDATION -U-

AUTHOR-(02)-FEDEVICH, YE.V., SULIMA, I.M.

COUNTRY OF INFO--USSR

SOURCE--NEFTEPERERAB. NEFTKHIM. (MOSCOW) 1970, (4), 41-4

DATE PUBLISHED-------70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--CATALYST ACTIVITY, TIN OXIDE, ANTIMONY COMPOUND, TELLURIUM COMPOUND, ISOBUTENE, CATALYTIC OXIDATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

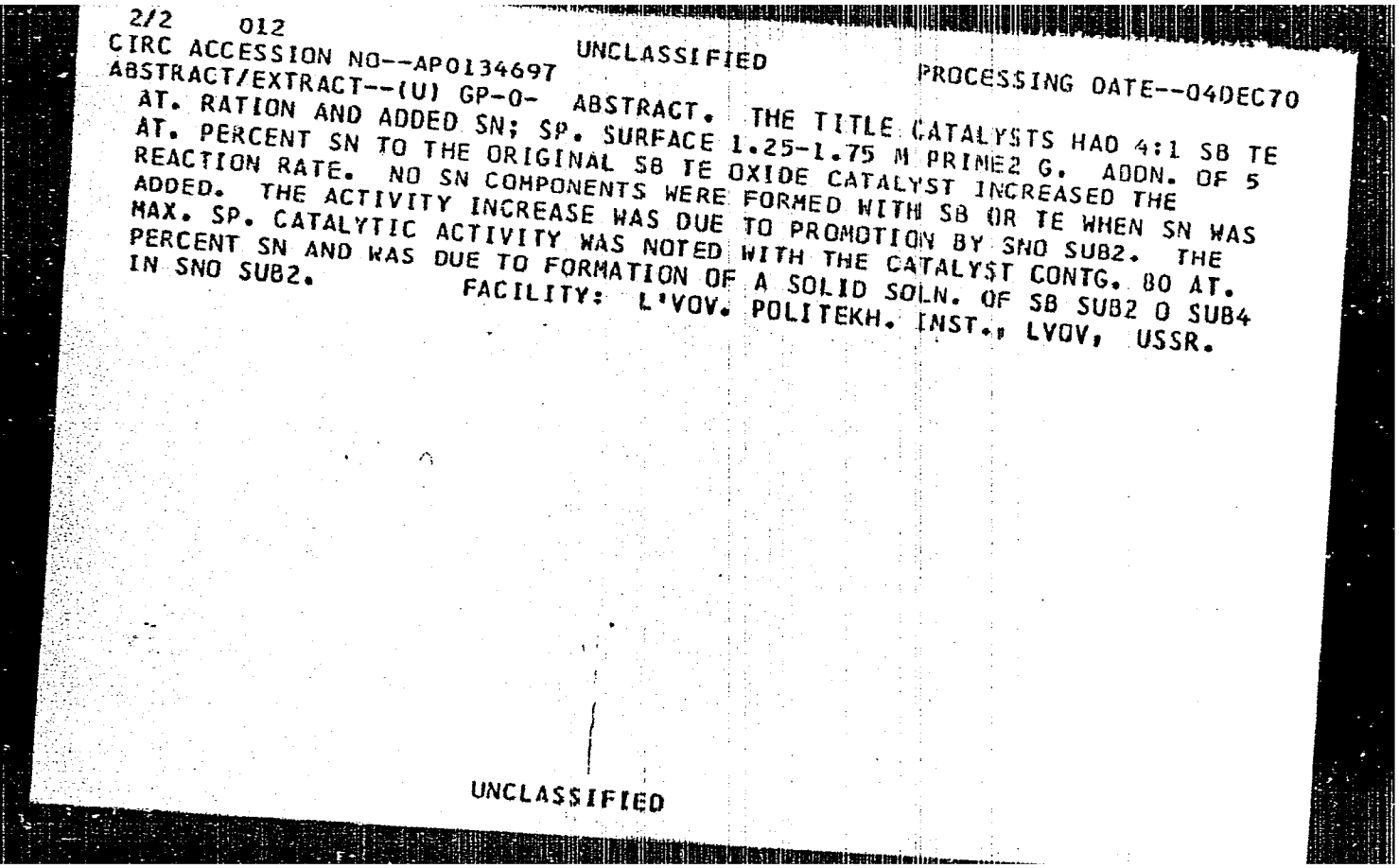
PROXY REEL/FRAME--3006/0979 STEP NO--UR/0318/70/000/004/0041/0044

CIRC ACCESSION NO--AP0134697

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9



2/2 012 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0134697

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE CATALYSTS HAD 4:1 SB TE AT. RATION AND ADDED SN; SP. SURFACE 1.25-1.75 M PRIME2 G. ADDN. OF 5 AT. PERCENT SN TO THE ORIGINAL SB TE OXIDE CATALYST INCREASED THE REACTION RATE. NO SN COMPONENTS WERE FORMED WITH SB OR TE WHEN SN WAS ADDED. THE ACTIVITY INCREASE WAS DUE TO PROMOTION BY SNO SUB2. THE MAX. SP. CATALYTIC ACTIVITY WAS NOTED WITH THE CATALYST CONTG. 80 AT. PERCENT SN AND WAS DUE TO FORMATION OF A SOLID SOLN. OF SB SUB2 O SUB4 IN SNO SUB2.

FACILITY: L'VOV. POLITEKH. INST., LVOV, USSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

1/2 036 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--STABILITY OF THE STEADY COMBUSTION REGIME OF A SOLID FUEL -U-

AUTHOR-(02)-KOMISSAROVA, G.I., SULIMA, I.M.

COUNTRY OF INFO--USSR

SOURCE--PMTF ZHURNAL PRIKLADNOI MEKHANIKI I TEKHNICHESKOI FIZIKI, JAN.-FEB. 1970, P. 163-167

DATE PUBLISHED--------70

SUBJECT AREAS--PROPULSION AND FUELS

TOPIC TAGS--SOLID PROPELLANT COMBUSTION, COMBUSTION STABILITY, COMBUSTION ANALYSIS

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1542 STEP NO--UR/0207/70/000/000/0163/0167

CIRC ACCESSION NO--AP0118525

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

2/2 036 UNCLASSIFIED

CIRC ACCESSION NO--AP0118525 PROCESSING DATE--30OCT70

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. STUDY OF THE EFFECT OF HEAT GENERATION IN THE REACTION ZONES AND OF AN INHOMOGENEITY IN THE TEMPERATURE AND VELOCITY FIELDS ON THE STABILITY OF THE STEADY COMBUSTION REGIME OF A SOLID FUEL. USING THE METHOD OF SMALL PERTURBATIONS, A NEW CRITERION OF STABILITY OF THE STEADY COMBUSTION REGIME OF A SOLID FUEL IS OBTAINED, AND THE PARAMETERS ESSENTIALLY AFFECTING THE STABILITY ARE DETERMINED. THE PROBLEM IS SOLVED IN A ONE DIMENSIONAL FORMULATION, ASSUMING THAT THE COORDINATE SYSTEM IS INVARIABLY CONNECTED TO THE BOUNDARY SEPARATING THE DOLID FUEL FROM ITS DECOMPOSITION PRODUCTS.

UNCLASSIFIED

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC: 681.333

SULIMA, L. A., BONDAREV, V. B., MIROLYUBSKIY, V. M., REDCHENKO, V. I., KAYETKIN, R. A.

"A Device for Modeling a Neuron"

Moscow, Otkrytiya, Izobretneiya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 48, Dec 73, Author's Certificate No 409245, Division G, filed 24 Apr 72, published 30 Nov 73, p 121

Translation: This Author's Certificate introduces a device for modeling a neuron. The device contains a power supply and integrators. As a distinguishing feature of the patent, the device is simplified by adding a balanced differential amplifier covered by negative and positive feedback loops. Connected to the first input of the amplifier are integrators and a scaling resistor unit and also switching elements whose controlling inputs are connected to the power supply. The first output of the balanced differential amplifier is connected to the output of the first switching element, while the second output of the balanced differential amplifier is connected to the output of the second switching element, which is connected in turn to the first switching element, to the zero potential line, and to the second input of the balanced differential amplifier.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

Acc. Nr: AP0047361 Ref. Code: UR0589

PRIMARY SOURCE: Vestnik Khirurgii imeni I. I. Grekova, 1970, Vol 104, Nr/ , pp87-92

THE INFUSION OF MEDICAL AGENTS VIA THE UMBILICAL VEIN IN TREATMENT OF ACUTE DIFFUSE PERITONITIS

By S. Ya. Sultina

During surgery in 68 patients with acute diffuse peritonitis of various origin catheterization of the umbilical vein and postoperatively transumbilical infusion of medical substances were performed, antibiotics, vitamins, electrolyte solutions, proteins, glucose, corticosteroids being infused in the circulatory bed of the liver. Using this method in a number of patients more smooth course of acute peritonitis was noted and hepatic insufficiency occurred more rarely. Therapeutic value of transumbilical infusion in acute peritonitis is, probably, accounted for the immediate adsorption of medical agents by hepatic cells and normalization of their metabolism impaired by bacterial toxines.

1/1

REEL/FRAME
19790887

2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

Steels

USSR

UDC 669.187.5

CHERNYAVSKAYA, S. G., KALININA, N. YE., SULIMENKO, A. V., and DOMORATSKIY, V.A.

"Cold Brittleness of 1Kh16N4B Steel"

Dnepropetrovsk, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 1(79), Jan/Feb 73, pp 38-39

Abstract: The critical brittleness temperature for 1Kh16N4B steel produced by electroslag melting was -100°C and -80°C in the longitudinal and transverse directions, respectively (rods 150 mm in diameter were studied). The critical brittleness temperature for the same type of steel produced by electric arc smelting was -80 and -60°C in the longitudinal and transverse directions, respectively. A decrease of the critical temperature in the first case by 20°C is attributed to a higher steel purity with respect to sulfur, phosphorus, and gases.

1/1

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"

"APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9

USSR

UDC 669.14.018.8:620.186.1

CHERNYAVSKAYA, S. G., KRASNIKOVA, S. I., and SULIMENKO, A. V., Dnepropetrovsk University

"Change of Delta-Ferrite in 1Kh16N4B Steel During Homogenization"

Moscow, Metallovedeniye, No 9, Sep 72, pp 66-67

Abstract: The effect of isothermal homogenization at 900-1300°C was studied to determine the amount and shape of the delta-ferrite formed in 1Kh16N4B cast steel (0.05% C, 0.28% Mn, 0.35% Si, 15.2% Cr, 3.6% Ni, 0.007% S, 0.028% P and 0.1% Nb). The investigation was conducted using blanks cut from a 780-kg commercial ingot produced at the Dneprospetsstal' Plant by vacuum arc remelting. It was found that between 900 and 1150°C the amount of delta-ferrite formed decreases with time. For instance, at 900°C, 14% delta-ferrite in the steel to start with ends up with only 12.5% after 30 hours at that temperature. The same process, decrease in amount of delta-ferrite with time at temperature, holds true up to 1150°C where 14% delta-ferrite is reduced to 6% after 30 hours. At 1200°C the decrease in amount of the delta-ferrite begins the same as for the other temperatures except that after 10 hours the quantity of delta-ferrite begins to increase from a low of about 7% up to 13.5% after 18 hours. The decrease in delta-ferrite followed by an increase after a few hours at

1/2

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R002203210020-9"