

USSR

UDC 615.849.19.015.4:612.35

OGNEV, B. V., VISHNEVSKIY, A. A., TROITSKIY, R. A., KECUM, E. V., RAZYGRIN, B. A., and FEDOTKIN, G. F., Institute of Surgery imeni A. V. Vishnevskiy, Academy of Medical Sciences, Chair of Operative Surgery and Topographical Anatomy, USSR, and Central Institute of Advanced Training of Physicians, Ministry of Health USSR, Moscow

"Effect of Laser Radiation on Rabbit Liver"

Moscow, Byulleten' Eksperimental'noy Biologii i Meditsiny, No 6, 1972, pp 20-23

Abstract: Following laparotomy, the right lobes of the livers of rabbits were exposed to either pulsed or continuous laser waves. The pulsed waves produced a local burn and coagulation necrosis of the tissue together with hemorrhages and thrombosis of the blood vessels. Continuous laser irradiation resulted in bloodless incision of liver parenchyma and formation of a scar at the site of entry 5 days later. Vascularization was restored within 15 to 30 days with the formation of blood vessels possessing an atypical structure (narrowed, enlarged, amputated, bent, etc.).

1/1

- 77 -

USSR

UDC: 681.327

SHAMAYEV, Yu. M., OGNEV, I. V.

"Analysis of the Operating Capacity of Immediate-Access Core Stores"

Tr. Mosk. energ. in-ta (Works of Moscow Power Engineering Institute), 1972, vyp. 121, pp 101-105 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 1, Jan 73, abstract No 1B386 by K. Yu.)

Translation: A method is considered for calculating the region of operational stability of an immediate-access memory. This region is a generalized characteristic of the parametric reliability of an immediate-access core store and can be used to predict the behavior of an immediate-access memory under various operating conditions. Examples are given of calculation of the region of operational stability and calculation of the optimum value of the exciting currents. The temperature state of the immediate-access memory is analyzed. Three illustrations.

1/1

USSR

UDC: 681.327

SHAMAYEV, Yu. M., OGNEV, I. V.

"Requirements for the Parameters of Memory Cores"

Moscow, Magnit. elementy avtomatiki i vychisl. tekhn. XIV Vses. soveshch., 1972, Ref. dokl. (Magnetic Elements in Automation and Computer Technology. Fourteenth All-Union Conference, 1972. Abstracts of Papers), 1972, pp 93-94 (from RZh-Avtomatika, Telemekhanika i Vychislitel'naya Tekhnika, No 1, Jan 73, abstract No 1B385 by B. K.)

Translation: The authors analyze the causes of unstable operation of ferrite core memory matrices inspected and sorted in accordance with primary magnetic parameters. Relations are found for evaluating the stability of conditions of storing and recording information in memory matrices of a 2.5D system with a change in temperature and with regard to the geometry and magnetic parameters of cores. It is shown that the stability of matrix conditions falls with an increase in the limits of the spread in coercive force of the cores. On this basis it is concluded that additional inspection is required for this parameter in classifying cores.

1/1

1/2 016 UNCLASSIFIED PROCESSING DATE--02OCT70  
TITLE--MYSTERIES OF EARTHQUAKES -U-  
AUTHOR--EGNEV, O.  
COUNTRY OF INFO--USSR  
SOURCE--IZVESTIYA, JUNE 25, 1970, P 6, COL 1  
DATE PUBLISHED-----70  
SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR, EARTH SCIENCES AND  
OCEANOGRAPHY  
TOPIC TAGS--EARTHQUAKE, GEODESY, CIVIL ENGINEERING  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1989/1607 STEP NO--UR/9003/70/000/000/0006/0006  
CIRC ACCESSION NO--AN0108027  
UNCLASSIFIED

2/2 016

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AN0108027

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A GEODETIC TESTING RANGE HAS BEEN ESTABLISHED ON THE TERRITORY OF THE KAZAKHSTAN CAPITAL AND ITS SUBURBS. IT PLAYS AN IMPORTANT PART IN ENGINEERING GEODESY WORK AND DEVELOPMENT OF EARTHQUAKE PROOF BUILDINGS. THE WORK IN THIS FIELD IS CARRIED BY THE INSTITUTE OF GEOLOGICAL SCIENCES OF THE KAZAKH ACADEMY OF SCIENCES IN COLLABORATION WITH THE MAIN ADMINISTRATION OF GEODESY AND CARTOGRAPHY OF THE COUNCIL OF MINISTERS, U.S.S.R.

89

UNCLASSIFIED

TITLE--AT THE FRONTIER OF SCIENCE -U- UNCLASSIFIED

PROCESSING DATE--17 JUL 70

AUTHOR--OGNEV, C.



COUNTRY OF INFO--USSR

18  
5  
23

SOURCE--IZVESTIYA, APRIL 15, 1970, P 2, CCLS 2-3

DATE PUBLISHED--15 APR 70

SUBJECT AREAS--PHYSICS, BEHAVIORAL AND SOCIAL SCIENCES

TOPIC TAGS--ELEMENTARY PARTICLE, COSMIC RAY, PHYSICS PERSONNEL, PHYSICS INSTITUTE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--1974/1805

STEP NO--LR/5003/70/000/000/0002/0002

CIRC ACCESSION NO--AN0040366

UNCLASSIFIED

Acc. Nr.: AN0040366

Ref. Code: UR 9003

AUTHOR-- OGNEV, O., CORRESPONDENT

TITLE-- AT THE FRONTIER OF SCIENCE

NEWSPAPER-- IZVESTIYA, APRIL 15, 1970, P. 2, COLS 2-3.

ABSTRACT-- A NEW HIGH ENERGY PHYSICS INSTITUTE HAS BEEN ESTABLISHED BY THE KAZAKH ACADEMY OF SCIENCES. THE SCHOOL OF KAZAKH SCIENTISTS WHO ARE CONDUCTING RESEARCH INTO ELEMENTARY PARTICLE PHYSICS IS HEADED BY ZH. TAKIBAYEV, VICE-PRESIDENT OF THE ACADEMY. THE NEW INSTITUTE IS ESTABLISHING A COSMIC RAY STATION NEAR ALMA-ATA AT AN ALTITUDE OF 3,340 METERS. THE RESEARCH CONDUCTED BY THE INSTITUTE IS COORDINATED WITH THE TYAN-SHAN STATION OF THE PHYSICAL INSTITUTE IMENI LEBEDEV OF THE SOVIET ACADEMY OF SCIENCES. SCIENTISTS FROM POLAND AND CZECHOSLOVAKIA WILL PARTICIPATE IN NEW EXPERIMENTS.

1/7

19

Reel/Frame  
19741805

USSR

UDC 669.295.015.3:543.42

2

GRIKIT, I. A., GALUSHKO, Ye. G., POLONIK, V. V., OGNEV, P. K., KOLOMOYETS, G. G., and PEREVYAZKO, A. I.

"Spectral Determination of Oxygen in Hydrided Titanium Powders"

Moscow, Metallurgiya i Khimiya Titana (Institut Titana, Metallurgiya Publishing House, Vol 6, 1970, pp 155-159

Translation: A description is given of the method, based on the principle of full dehydrogenation of briquetted suspended matter, which is analyzed, in an anode state of the direct current arc and exciting the hydrogen from the mixture of gases in an argon environment by the same discharge. Recording of the analytic lines H 6,562.85 Å/Ar 6,965.43 Å was done on an ISP-51 spectrograph with a chamber with a focusing distance of 270 mm on Infra-760 photoplates. Graduated charts for determining hydrogen were constructed on coordinates ( $\Delta S$ ; lg G). The reproducibility of results from spectral determination of hydrogen in hydrogenated titanium powders is characterized by a variation coefficient of 5-6% with a hydrogen concentration interval between 1.5 and 4%. Three illustrations, two tables, and one bibliographic entry.

1/1



USSR

UDC 621.762.001:669.295

OGNEV, R. K., BRYNDIN, V. G., TER-POGOSYAN, E. D., KOLOMOYETS, G. G., and PEREVYAZKO, A. I.

"Study of the Process of Oxidation of Cermet Titanium Specimens"

Sb. tr. Vses. n.-i. i proyekt. in-t titana (Collection of works of the All-Union Scientific Research and Design Institute of Titanium), 1970, 5, pp 81-85 (from RZh-Metallurgiya, No 11, Nov 70, Abstract No 11G307)

Translation: Together with oxidation, compaction of specimens takes place. The rate of oxidation of porous Ti specimens at temperatures higher than  $\alpha \rightarrow \beta$ -transformation of Ti is inhibited and the intensity of compaction increases. 3 ill.

Author's abstract

1/1

USSR

UDC 621.762

FEDORCHENKO, I. M., OGNEV, B. K., KOLOMOYETS, G. G., ANOKHIN, V. M.,  
REYTSSES, V. B., KAZANISEVA, N. A., and RUTBERG, V. P.

"The Effect of Aluminum and Molybdenum on the Properties of Sintered  
Titanium at Room and Elevated Temperatures"

Moscow, Metallurgiya i Khimiya Titana (Institut Titana), Metallurgiya  
Publishing House, Vol 6, 1970, pp 111-116

Translation: Results are given from research on the mechanical properties  
of the alloys titanium-aluminum, titanium-molybdenum, and triple alloys  
titanium-aluminum-molybdenum at room temperature and at temperatures raised  
to 300°C. The alloys were obtained by mechanical blending of powders. After  
compacting and sintering one time, the alloys studied had a tensile strength  
up to 80 gigacalories/mm<sup>2</sup> and elongation per unit length of 5-16%. Alloy-  
ing aluminum and molybdenum increases the heat resistance of sintered  
titanium alloys; the short-term strength at 300°C increases by more than  
two times. The stress-rupture strength increases significantly during  
alloying. Four illustrations, one table, and four bibliographic entries.

1/1

USSR

UDC 621.762

~~OGNEV, R. K.~~, TER-POGOSYAN, E. D., KOLOMOYETS, G. G. PEREVYAZKO, A. I.,  
ESTRAKH, L. M., and ANOKHIN, V. M.

"Powder Metallurgy Filters Made of Titanium Scraps"

Moscow, Metallurgiya i Khimiya Titana (Institut Titana), Metallurgiya  
Publishing House, Vol 6, 1970, pp 97-99

Translation: The effect of the technological parameters of manufacture and properties of the initial titanium powder on filter productivity are studied. It is discovered that it is expedient to compact filters at pressures up to two tons/cm<sup>2</sup> and to sinter them at temperatures not exceeding 1,100°C. Filter productivity is determined during filtration of liquids, and the dependence of productivity on a drop in pressure to one atmosphere and on the size and shape of grains of the initial powder is established. It is determined that the water carrying capacity of filters manufactured from hydride powder is 3-5 times greater than similar ones made of electrolytic powder. Two illustrations and two bibliographic entries.

1/1

USSR

UDC 621.762

BRYNZA, A. P., OCNEV, R. K., RYNSKAYA, Ye. S., PATRUSHEVA, A. G., KOLOMOYETS, G. G., SOROKINA, Z. Ye., and TER-POGOSYAN, E. D.

"Corrosion of Powder Metallurgy Titanium in a Damp Atmosphere Containing Hydrogen Chloride and in Solutions of Hydrochloric Acid"

Moscow, Metallurgiya i Khimiya Titana (Institut Titana), Metallurgiya Publishing House, Vol 6, 1970, pp 105-111

Translation: The corrosion behavior of powder metallurgy titanium in gases and solutions of hydrochloric acid within the temperature interval 20-80°C is investigated. It is established that at a temperature of 20°C, atmospheric corrosion of powder metallurgy titanium above 3 and 7% solutions of hydrochloric acid is not observed, and in a solution of hydrochloric acid with a concentration up to 10%, slight corrosion is observed after a certain induction period. At 80°C, powder metallurgy titanium corrodes with all concentrations of hydrochloric acid that were studied. The effective energy for activating the process of dissolving titanium specimens is 62.8-71.2 kilojoules per mole. Seven illustrations, one table, and 11 bibliographic entries.

1/1

JDC 621.762

USSR

OGNEV, R. K., KOLOMOYETS, G. G., TER-POGOSYAN, E. D., ESTRAKH, L. M.,  
ANOKHIN, V. M., and PEREVYAZKO, A. I.

"The Effect of Technological Parameters on the Qualities of Construction  
Articles Obtained by the Method of Compacting Titanium Powders"

Moscow, Metallurgiya i Khimiya Titana (Institut Titana), Metallurgiya  
Publishing House, Vol 6, 1970, pp 94-97

Translation: The effect of the features of initial powders and the technological parameters in manufacturing construction articles on their mechanical properties is considered. When identical compacting pressures, the density of articles made of electrolytic powder is greater by 4-7% than for similar articles made of hydride powder, and this gap decreases during the process of heat treatment. Increasing the sintering temperature of the powder metallurgy titanium leads to an increase in tensile strength and elongation per unit length. Where heat treatment is at a temperature of 1,300°C, the tensile strength is equal to 55-65 gigacalories/cm<sup>2</sup> and the elongation per unit length reaches 11%. Two illustrations, one table, and three bibliographic entries.

1/1

UDC 621:762

USSR

MUSIKHIN, A. M., VINOGRADOV, G. A., OGNEV, R. K., KOLOMOYETS, G. G., and  
TER-POGOSYAN, E. D.

"High-Speed Rolling of Iron and Titanium Powders"

Moscow, Metallurgiya i Khimiya Titana (Institut Titana), Metallurgiya  
Publishing House, Vol 6, 1970, pp 100-105

Translation: Results are given for research on conditions of rolling with forced feeding of metal powders. An empirical dependency is established between the thickness of the strip and the productivity of the mill as a function of the value of the roll solution and pressure of the powder support. It is demonstrated that the use of forced powder feeding makes it possible to increase the rolling speed to 3.2 meters per second and more, and to regulate the density of the strip within a wide range. Four illustrations, one table, and two bibliographic entries.

1/1

- 64 -

UDC 621.762:669-496.295

USSR

OGNEV, R. K., TER-POGOSYAN, E. D., KOLOMOYETS, G. G., PEREVYAZKO, A. I.,  
ESTRAKH, L. M. and ANCKHIN, V. M.

"Metal Ceramic Filters of Titanium Wastes"

Sb. tr. Vses. n.-i. i proyekt. in-t titana. [Collected works of All-Union  
Scientific-Research and Planning Institute for Titanium], 6, 1970,  
pp. 97-99, (Translated from Referativnyy Zhurnal-Metallurgiya, No. 1,  
1971, Abstract No. 1 G475 by the authors).

Translation: The influence of technological parameters of the manufacture and properties of initial Ti powder on productivity of filters is studied. Pressing of filters should be performed at pressures up to 2 t/cm<sup>2</sup>, sintering at temperatures of less than 1100°. The productivity of filters is determined for filtration of fluids. The dependence of productivity on pressure drop of up to 1 atmosphere and on size and shape of initial powder particles is determined. The throughput capacity for water of filters made of hydride powder is three times higher than the throughput capacity for filters made of electrolytic powder. 2 figures.

1/1

- 50 -

USSR

UDC 621.762.01:669.295

OGNEV, R. K., KOLOMOYETS, G. G., TER-POGOSYAN, E. D., ESTRAKH, L. M.,  
ANOKHIN, V. M., and PEREVYAZKO, A. I.

"Influence of Technological Parameters on Properties of Structural  
Products Produced by Pressing Titanium Powders"

Sb. tr. Vses. n.-i. i proyekt. in-t titana [Collected Works of All-Union  
Scientific-Research and Planning Institute for Titanium], 6, 1970, pp.  
94-97, (Translated from Referativnyy Zhurnal-Metallurgiya, No. 1, 1971,  
Abstract No.1 G453 by the authors).

Translation: The authors studied the influence of the properties of the  
initial powders and technological parameters in the manufacture of  
structural products on their mechanical properties. With identical  
pressing pressures, the density of products of electrolytic powders is  
higher than that of similar products of hydride powders by 4-7%, although  
this difference is reduced during heat treatment. Increasing the  
sintering temperature of metal ceramic Ti causes an increase in  $\sigma_b$  and  $\delta$ .  
With a heat treatment temperature of 1300°,  $\sigma_b$  is 55-65 kg/mm<sup>2</sup>,  $\delta$  reaches  
11%. 2 figures; 1 table.

1/1



UDC 621.762:669.462.295

USSR

MUSIKHIN, A. M., VINOGRADOV, G. A., OGNEV, R. K., KOLOMOYETS, G. G., and  
TER-POGOSYAN, E. D.

"High-Speed Rolling of Iron and Titanium Powders"

Sb. tr. Vses. n.-i. i proyekt. in-t titana [Collected Works of All-Union  
Scientific-Research and Planning Institute for Titanium], 6, 1970,  
pp. 100-105, (Translated from Referativnyy Zhurnal-Metallurgiya, No. 1,  
1971, Abstract No.1 6474 by the authors).

Translation: The use of forced powder feed allows the rolling speed to be  
increased to 3.2 m/sec and higher, i.e., to speeds higher than those  
ordinarily used by several orders of magnitude. The density of the raw  
rolled product with forced feed can be adjusted over broad limits by changing  
the powder feed force. Increasing the height of the powder column in the  
hopper over the mill with gravity powder feed cannot be used to replace  
forced powder feed, since it does not allow an increase in rolling speed  
and has no influence on the thickness and density of the raw rolled product.  
4 figures.

1/1

1/2 025  
TITLE—THE SPACE RAYS MONITOR —U— UNCLASSIFIED PROCESSING DATE—13NOV70  
AUTHOR—OGNEV, O.  
COUNTRY OF INFO—USSR  
SOURCE—IZVESTIYA, JUNE 30, 1970, P COL 5  
DATE PUBLISHED—70  
SUBJECT AREAS—ATMOSPHERIC SCIENCES, ASTRONOMY, ASTROPHYSICS, NUCLEAR SCIENCE AND TECHNOLOGY  
TOPIC TAGS—TELESCOPE, COSMIC RAY, SPACE RADIATION  
CONTROL MARKING—NO RESTRICTIONS  
DOCUMENT CLASS—UNCLASSIFIED  
PROXY REEL/FRAE—1989/0987 STEP NO—UR/9003/70/000/000/0003/0003  
CIRC ACCESSION NO—AN0107508  
UNCLASSIFIED

2/2 025

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AN0107508

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. A "SUPERTELESCOPE", DEVELOPED BY THE LABORATORY OF SPACE RAYS VARIATIONS AT THE KAZAKH STATE UNIVERSITY UNDER THE DIRECTION OF CANDIDATE OF PHYSICAL MATHEMATICAL SCIENCES, HAS BECOME OPERATIONAL AT ALMA ATA. IT IS USED FOR THE INVESTIGATION OF SPACE RAYS

UNCLASSIFIED

1/2 009

UNCLASSIFIED

PROCESSING DATE--02OCT70

TITLE--TECTONICS AND METAMORPHISM -U-

AUTHOR--(02)-BELKOVA, L.N., OGNEV, V.N.

COUNTRY OF INFO--USSR

SOURCE--VESTNIK Leningradskogo Universiteta, No 6, GEOLOGIYA, GEOGRAFIYA,  
1970, NR 1, PP 56-63

DATE PUBLISHED-----70

SUBJECT AREAS--EARTH SCIENCES AND OCEANOGRAPHY

TOPIC TAGS--TECTONICS, METAMORPHIC ROCK, EARTH CRUST, PRECAMBRIAN TIME

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1991/0867

STEP NO--UR/0307/70/000/001/0056/0063

CIRC ACCESSION NO--AP0110586

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--020CY70

2/2 009

CIRC ACCESSION NO--AP0110588

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. STRUCTURAL FORMATIONAL ANALYSIS OF CENTRAL ASIA PRE CAMBRIANS CONFIRMS THE FOLLOWING IDEAS: 1) TECTONIC PROCESS CANNOT BE CONSIDERED AS THE CAUSE OF REGIONAL METAMORPHISM; 2) THE UNEVENNESS OF HEAT REGIME IN THE EARTH'S CRUST DURING THE PROCESS OF GENERAL DECREASE OF HEAT IN TIME GAVE RISE TO THREE EPOCHS OF REGIONAL METAMORPHISM AND THREE EPOCHS OF FOLDING ASSOCIATED WITH THEM, ARCHAEN, EARLY PROTEROZOIC AND RIFEAN. HENCE EACH OF THE PRECAMBRIAN COMPLEXES IS CHARACTERISED BY THE GRADE OF REGIONAL METAMORPHISM AND TECTONIC FEATURES, WHICH ARE SPECIFIC ONLY FOR THAT PARTICULAR COMPLEX; 3) THE FORMATION OF GNEISSIC DOMES IS CONFINED TO THE ARCHAEN EPOCH OF DIASTROPHISM AND THEY NEVER AGAIN APPEARED IN THE EARTH'S GEOLOGICAL HISTORY.

UNCLASSIFIED

USSR

UDC 632.95

OGNEVA, N. YE., SMIRNOV, O. P., Moscow Institute of Chemical Technology imeni D. I. Mendalev, Moscow, Ministry of Higher and Secondary Specialized Education RSFSR

"Method of Preparing 2,4,6-Trimethyleneacrylamide-Syn-1,3,5-Triazine"

USSR Author's Certificate No 250912, filed 8 Jul 68, published 16 Feb 70 (from RZh-Khimiya, No 18, 25 Sep 70, Abstract No 18N711 P, by N. B. Vsevolozhskaya)

Translation: The compound in the article title (I) was prepared by the reaction of methylolacrylamide (II) with melamine at 90-96°. For example, 1 mole melamine and 215 ml water are heated on a boiling-water bath for 10 min, the temperature is reduced to 90-91°, and 3.1 mole II is added to the mixture with agitation, the temperature is raised to 95-96°, and condensation is carried out for 10-15 min; the solution is cooled rapidly to 20°, and then down to 2-5°. The settling precipitate is filtered off and reprecipitated from water with cooling. I is obtained, yield 80%, and m. p. 153.

1/1

UNCLASSIFIED

PROCESSING DATE--30OCT70

1/2 011  
TITLE--COGRANULATION OF RUBBERS -U-

AUTHOR--(04)--KALINICHENKO, V.N., BЛИKH, G.A., SAPRONGV, V.A., OGNEVSKIY,

L.A.  
COUNTRY OF INFO--USSR

SOURCE--IZV. VYSSH. UCHEB. ZAVED., KHIM. KHIM. TEKHNOL. 1970, 13(1),

113-15  
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--GRANULE FORMATION, RUBBER PROCESSING PLANT, SYNTHETIC  
RUBBER/(U)SKD RUBBER, (U)BSK RUBBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--2000/0782

STEP NO--UR/0153/70/013/001/0113/0115

CIRC ACCESSION NO--AP0124451

UNCLASSIFIED

2/2 011

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0124451

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. COGRANULATION OF SKD RUBBER BSK RUBBER (IN A 1:1 RATIO) LED TO IMPROVED EXTRUDABILITY AND DRYING CONDITIONS OF RUBBER GRANULES. COGRANULATION WAS PRESUMABLY ACCOMPANED BY A CHEM. REACTION WHICH IMPROVED THE PHYSICO MECH. PROPERTIES OF THE RUBBERS. FACILITY: DNEPROPETROVSK. KHIM. TEKHNOL. INST. IM. DZERZHINSKOGO, DNEPROPETROVSK, USSR.

UNCLASSIFIED



1/2 026 UNCLASSIFIED PROCESSING DATE--02OCT70  
TITLE--LIPIDS METABOLISM DURING THE TREATMENT OF EXPERIMENTAL  
HYPERCHOLESTEROLAEMIA BY NYAMIDE -U-  
AUTHOR-(02)-OGNIVENKO, V.M., YAKUBOVSKAYA, V.I.  
COUNTRY OF INFO--USSR  
SOURCE--VOPROSY MEDITSINSKOY KHIMII, 1970, VOL 16, NR 2, PP 184-189  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--ATHEROSCLEROSIS, LIPID METABOLISM, CHOLESTEROL, CATABOLISM,  
BLOOD SERUM, BILE ACID  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1986/0901 STEP NO--UR/0301/70/016/002/0184/0189  
CIRC ACCESSION NO--AP0102764  
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--02OCT70

2/2 026

CIRC ACCESSION NO--AP0102764

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. HYPERCHOLESTEROLAEMIA WAS INDUCED IN MALE ALBINO RATS BY KEEPING ON ATHEROGENIC DIET DURING 16 DAYS. AFTER THAT THE RATS WERE KEPT ON ORDINARY RATION, AND EFFECT OF 7-21 FOLD NYAMIDE INJECTIONS ON NORMALIZATION IN LIPIDS METABOLISM WAS STUDIED. NYAMIDE STRONGLY DECREASES THE TOTAL LIPIDS CONTENT, CHOLESTEROL, TRIGLYCERIDES, BETA-LIPOPROTEINS LEVELS IN BLOOD SERUM. THE RATIOS TOTAL LIPIDS-PHOSPHOLIPIDS, CHOLESTEROL-PHOSPHOLIPIDS, TRIGLYCERIDES-PHOSPHOLIPIDS WERE ALSO DECREASED. PROCESSES OF CHOLESTEROL CATABOLISM ARE ACTIVATED: BILE ACIDS CONTENT IN BILE, AND THE EXCRETION OF LATTER AND TOTAL STERINES WITH EXCREMENTS IS ELEVATED.

UNCLASSIFIED

1/2 028 UNCLASSIFIED PROCESSING DATE--11SEP70  
TITLE--NIAMIDE (NICOTINAMIDE) ACTION ON CHOLESTEROL METABOLISM AGAINST THE  
BACKGROUND OF AN ATHEROGENIC DIET -U-  
AUTHOR--OGNIVENKO, V.M., YAKUBOVSKAYA, V.I. O

COUNTRY OF INFO--USSR

SOURCE--FARMAKOL. TOKSIKOL. (MOSCOW) 1970, 33(1), 31-4

DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--METABOLISM, CHOLESTEROL, RAT, DIET, LIVER, HEART, LUNG,  
SPLEEN, KIDNEY, BRAIN, BILE, ANTIDIABETIC, ADRENAL GLAND, SPINAL CORD,  
MYOCARDIUM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROY REEL/FRAME--1986/1695

STEP NO--UR/0390/70/033/001/0031/0034

CIRC ACCESSION NO--AP0103461

UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--11SEP70

CIRC ACCESSION NO--AP0103461

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. NIAMIDE (20 MG-KG, I.M.) ADMINISTERED FOR 7 OR 21 DAYS TO RATS ON AN ATHEROGENIC DIET DECREASED HYPERCHOLESTEROLEMIA BY HALF AND REDUCED THE AMT. OF CHOLESTEROL IN THE LIVER, AORTA, LUNGS, SPLEEN, KIDNEYS, AND BRAIN, BUT DID NOT EFFECT THE CONC. IN THE ADRENAL GLANDS, SPINAL CORD, MYOCARDIUM, AND FEMORAL MUSCLES. NIAMIDE INCREASED THE CONTENT OF BILE ACIDS, THE RATIO OF CHOLATE TO CHOLESTEROL IN THE BILE, AND EXCRETION OF BILE ACIDS AND STEROLS WITH THE FECES.

UNCLASSIFIED

PROCESSING DATE--20NOV70

UNCLASSIFIED

1/2 OCS

TITLE--TREATMENT OF CEMENT MORTARS --U-

AUTHOR--(051)-OGOLIKHIN, E.A., TIMOKHIN, I.M., TOKUNOVA, V.V., MALININA,  
A.I., MUKHIN, L.K.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 266,674

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,

DATE PUBLISHED--01APR70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CEMENT, CONSTRUCTION MATERIAL, PATENT, CELLULOSE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--3002/1470

STEP NO--UR/0482/V0/000/000/0000/0000

CIRC ACCESSION NO--AA0128869

UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AA0128869

ABSTRACT/EXTRACT--(U) CP-O- ABSTRACT. CEMENT MORTARS WERE TREATED WITH ADDITIVES. TO REDUCE THE WATER LOSS FROM CEMENT MORTARS AT 20-TO DEGREES AND TO RETARD HARDENING TIME AT LESS THAN 200 DEGREES, 0.25-1.0 WT. PERCENT CARBOXYMETHYL SULFATE CELLULOSE WAS USED AS AN ADDITIVE.

UNCLASSIFIED

1/2 009 UNCLASSIFIED PROCESSING DATE--30OCT70  
TITLE--PHOTOCHEMICAL DESULFURIZATION OF AROMATIC SULFONIC ACIDS -U-  
AUTHOR--(05)-YELTSOV, A.V., STUJZINSKIY, O.P., KULBITSKAYA, O.V.,  
OGOLTSOVA, N.V., EFROS, L.S.  
COUNTRY OF INFO--USSR  
SOURCE--ZH. ORG. KHIM. 1970, 6(3), 638-9  
DATE PUBLISHED-----70  
SUBJECT AREAS--CHEMISTRY  
TOPIC TAGS--NAPHTHALENE, AMINE DERIVATIVE, QUINONE, SULFONIC ACID, ORGANIC  
SULFUR COMPOUND, DESULFURIZATION  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1992/1657 STEP NO--UR/0366/70/006/003/0638/0639  
CIRC ACCESSION NO--AP0112651  
UNCLASSIFIED

2/2 009

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0112651

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE IRRADN. OF NA  
 1,NAPHTHALENESULFONATE IN AQ. SOLN. AT PH 1-13 GAVE NAPHTHALENE.  
 SIMILARLY, ALPHA AMINO NAPHTHALENE WAS OBTAINED BY THE PHOTOLYTIC  
 DESULFONATION OF NA 4,AMINO,1,NAPHTHALENESULFONATE IN THE 7-13 PH RANGE.  
 THE DESULFONATION OF ALPHA ANTHAQUINONESULFONIC ACID IN WATER GAVE  
 ANTHRAQUINONE, BUT IN DIL. AMMONIA SOLN. ALPHA AMINONANTHRAQUINONE WAS  
 FORMED. THE DESULFONATION OF O, P, OR M, H SUB2 NG SUB6 H SUB4 SO SUB3 H  
 GAVE, RESP., TRACES, 7, AND 40-50PERCENT PHNH SUB2. FACILITY:  
 LENINGRAD. TEKHNOL. INST. IM. LENSOVETA, LENINGRAD, USSR.

UNCLASSIFIED



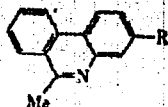
AP053750

INDEXING SERVICE:  
CHEMICAL ABST.

3/20

Ref. Code:  
UR0366

111266x Photochemical dehydrocyclization of acetophenone  
anils. El'tsov, A. V.; Studzinskii, O. P.; Ogol'tsova, N. M.  
(Leningrad, Tekhnol. Inst. im. Lensoyeta, Leningrad, USSR).  
Zh. Org. Khim. 1970, 6(2), 405-8 (Russ). The irradi. with Hg  
light of PhCMe:NC<sub>6</sub>H<sub>4</sub>R-3 (R is H or Me) soln. in concd. H<sub>2</sub>SO<sub>4</sub>



gave 10.8% or 8.2% of the corresponding substituted 6-methyl-  
phenanthridines (I), resp. CPJR.

REEL/FRA  
19830812

7

1/2 017 UNCLASSIFIED PROCESSING DATE--20NOV70  
TITLE--WALL PANELS MADE FROM FOAMED PLASTIC -U-  
AUTHOR--(02)-ZILGV, A.G., OGONYANTS, V.A.  
COUNTRY OF INFO--USSR  
SOURCE--STRCIT MATER. 1970, (2), 17  
DATE PUBLISHED-----70  
SUBJECT AREAS--MATERIALS, MECH., IND., CIVIL AND MARINE ENGR  
TOPIC TAGS--CONSTRUCTION MATERIAL, FOAM PLASTIC, ASBESTOS, CEMENT,  
POLYSTYRENE RESIN, EPOXY ADHESIVE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--3002/1244 STEP NO--UR/0228/70/000/002/0017/0017  
CIRC ACCESSION NO--AP0128660  
UNCLASSIFIED

2/2 017

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0128660

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. PANELS WERE CONSTRUCTED CONSISTING OF ASBESTOS CEMENT EXTERNAL PLATES. THE SPACE BETWEEN THESE PLATES WAS FILLED WITH POLYSTYRENE FOAM. EPOXY RESINS WERE USED AS THE ADHESIVE.

UNCLASSIFIED

USSR

UDC: 51

OGORODNEYCHUK, I. F., KUNIK, Ye. G., KUZEMIN, A. Ya., OSIYEVSKIY, A. G.,  
GOLOVKO, L. A.

"Methods of Multiple-Criterion Optimization"

Pribory i sistemy avtomatiki. Resp. mezhved. temat. nauch.-tekhn. sb. (Auto-  
mation Systems and Devices. Republic Interdepartmental Thematic Scientific  
and Technical Collection), 1973, vyp. 27, pp 43-54 (from RZh-Matematika,  
No 9, Sep 73, abstract No 9V589 from the authors' abstract)

Translation: A survey is done on a series of methods of solving optimi-  
zation problems having several quality criteria. As an object of optimi-  
zation, the authors examine the yearly program of an enterprise with three  
goal functions (quality criteria). A method is described for solving  
problems of optimizing an object with many criteria with application of  
a random search algorithm. Bibliography of 14 titles.

1/1

- 53 -

USSR

UDC: 681.32.004

OGORODNEYCHUK, I. F., SHCHORS, M. D.

"Sinusoidal Magnetization of Cylindrical Ferrite Cores with Rectangular Cross Section"

Pribory i sistemy avtomatiki. Resp. mezhved. nauchno-tekhn. sb. (Automation Devices and Systems. Republic Interdepartmental Scientific and Technical Collection), 1970, vyp. 11, pp 170-173 (from RZh-Avtomatika, Telemekhanika i vychislitel'naya tekhnika, No 9, Sep 70, Abstract No 9B217)

Translation: This article contains a description of a method of determining the magnetic field intensity in a toroidal core and the coil inductance. A number of proposals for deriving simple calculational formulas are made. From the expressions presented it follows that the magnitude of the complex permeability fairly completely characterizes the core only at low operating frequencies and for small geometric dimensions of the core: that is, for small arguments of cylindrical functions.

1/1

USSR

UDC 621.357.035.224:669.4(088.8)

OGORODNICHUK, V. I., and VOYTSEKHOVICH, R. I.

"Preparation of Lead Anodes"

USSR Author's Certificate No 328198, Filed 30 May 69, Published 23 Mar 72  
(from Referativnyy Zhurnal -- Khimiya, Svodnyy Tom, No 23(II), 1972, Abstract  
No 23L223P)

Translation: The manufacturing of Pb anodes is patented. The  $PbO_2$  layer is deposited on anode surface from an aqueous solution of  $H_2SO_4$  and K. The plating solution contains  $KMnO_4$  30-60,  $H_2SO_4$  10-20 g/liter and the process is carried out at 80-100°C with a constant mixing by compressed air.

1/1

USSR

UDC 621.313.333:538.4

BARANOV, G. A., KIRILLOV, I. R., and OGORODNIKOV, A. P.

"Hydraulic Characteristics of an Experimental Active-Type, Molten Metal MHD Generator Channel"

Riga, Magnitnaya Gidrodinamika, No 4, Oct-Dec 72, pp 112-114

Abstract: The hydraulic characteristics of a slotted channel of a molten metal MHD generator of the active type with an expansion angle of  $12^{\circ} 30'$  are presented as well as the distribution of static pressures along the length of the channel without a magnetic field and during interaction of the flux with the traveling magnetic field. Channel tests showed that the hydraulic properties of the flow tract were fully satisfactory and disruption of flow from the walls of the channel does not occur for a large change in the Reynolds' number. 2 figures, 3 bibliographic references.

1/1

- 30 -

USSR

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

KOVALYUK, Z. D. and OGORODNIK, A. D.

"Piezoresistance in p-In<sub>2</sub>Se"

Fiz. elektronika, Resn. mizhvid. nauk.-tekhn. zb. (Physical Electronics, Interdepartmental Scientific-Technical Collection, Ukrainian Republic--collection of works) No. 2, 1970, pp 28-29 (from RZh-Fizika, No. 11, 1971, Abstract No. 11E959)

Translation: An investigation is made of diagonal components of piezoresistance (P) in p-In<sub>2</sub>Se at room temperature. These diagonal components vary in sign and their values differ sharply. The results of the research agree closely with the equivalent valley model and permit the establishment of the basic characteristics of the In<sub>2</sub>Se valence zone.

1/1

- 56 -



USSR

UDC 543.275.2.082

OGORODNIKOV, B. I., SITALO, Ye. A., SKITOVICH, V. I., KONSTANTINOV, I. Ye.,

"Development of Method of Determination of Dispersed Composition of Radioactive Aerosols Using FP Filter Material"

Tr. In-t Eksperim. Meteorol. Gl. upr. Gidrometeorol. Sluzhby pri Sov. Min. SSSR [Works of Institute of Experimental Meteorology, Main Administration of Hydrometeorological Service, Counsel of Ministers, USSR], 1972, No 25, pp 76-80, (Translated from Referativnyy Zhurnal, Metrologiya i Izmeritel'naya Tekhnika, No 7, 1972, Abstract No 7.32.902, by V.S.K.).

Translation: A review of the influence of filtration rate, aerosol particle and filter fiber diameter and filter layer thickness on effectiveness of trapping of aerosols. It has been found that the preferential holding of aerosols of a given range of dimensions is possible in successive layers of a filter material if the parameters of the filtering process are changed. The results of experimental determination of the filter characteristics of FPP-3, FPP-70 and FPA-100 materials involving studies of the dispersed composition of artificial radioactive aerosols are presented. 2 Figures; 2 Tables; 5 Biblio. Refs.

1/1

Construction

USSR

UDC 624.07:534.1

GORODNIKOV, G. N.

"Determining the Critical Load and the Eigenfrequencies of Oscillations of a Prestressed Ring"

Tr. Mosk. Vyssh. tekhn. uch-shcha im. N. E. Baumana (Works of Moscow Higher Engineering School imeni N. E. Bauman), 1972, No. 152, pp 5-10 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V329)

Translation: The structure obtained from a thin straight beam preliminarily twisted by a moment and then bent by a moment and forces to the shape of a plane ring is discussed. The uniform compressing load is determined under which there occurs a stability loss "in the small" in the plane of the ring. The frequencies of the natural vibrations in the plane of the ring are also determined. A. G. Teregulov.

1/1

USSR

UDC:629.78.015:533.1

MERKULOV, A. P., OGORODNIKOV, N. N., TOLSTONOGOV, A. P.

"Filling of High-Pressure Containers with Chilled Gas"

Tr. Kuybyshev. Aviats. In-t [Works of Kuybyshev Aviation Institute], 1973, No 56, pp 24-35 (Translated from Referativny Zhurnal Raketostroyeniye, No 10, 1973, Abstract No 10.41.81 from the resume)

Translation: Conditions are defined, providing relative isothermicity of the process of filling of a high-pressure container with gas. Based on the energy balance equation for a body of variable mass considering external heat exchange of the system and the influence of the temperature choke effect in the feed line, analytic expressions are produced for the change in temperature of the gas entering the container. The nature of change of the temperature of the working fluid in the container being filled during the initial period of filling is established. The temperature of the incoming gas for which its temperature in the container remains practically unchanged is calculated. A method is presented for calculation of the thermal load on the refrigeration unit in which the feed gas is preliminarily chilled. Graphs of the change in temperature of the working fluid in

1/2

USSR

MERKULOV, A. P., OGORODNIKOV, N. N., TOLSTONOGOV, A. P., Tr. Kuybyshev.  
Aviats. In-t, 1973, No 56, pp 24-35

the container as a function of velocity of entering gas and its temperature  
are shown. Calculations and experimental curves of the change in tempera-  
ture of the gas with rapid filling of the high-pressure container with  
chilled gas are presented. 6 Figures; 1 Table; 7 Biblio. Refs.

2/2

**"APPROVED FOR RELEASE: 08/09/2001**

**CIA-RDP86-00513R002202310002-9**

**APPROVED FOR RELEASE: 08/09/2001**

**CIA-RDP86-00513R002202310002-9"**

USSR

UDC 621.357.035.224:669.4(038.8)

OGORODNICHUK, V. I., and VOYTSEKHOVICH, R. I.

"Preparation of Lead Anodes"

USSR Author's Certificate No 328198, Filed 30 May 69, Published 23 Mar 72  
(from Referativnyy Zhurnal -- Khimiya, Svoyny Tom, No 23(II), 1972, Abstract  
No 231223P)

deposited on anode surface from an aqueous solution of lead and the reacting  
solution contains  $\text{NaOH}$  30-60,  $\text{H}_2\text{SO}_4$  10-20 g/liter and the process is carried  
out at 80-100°C with a constant mixing by compressed air.

1/1

USSR

UDC: 681.32.004

OGORODNEYCHUK, I. F., SICHORS, M. D.

"Sinusoidal Magnetization of Cylindrical Ferrite Cores with Rectangular Cross  
Section"

Pribory i sistemy avtomatiki. Resp. nauchno-tekhn. sh. (Automation  
Devices and Systems. Republic Interdepartmental Scientific and Technical  
Collection), 1970, v. 11, pp 170-173 (From *Elektronika, Tekhnicheskaya  
Kollektsiya*, No 9, Sep 70, Abstract No 98217)

USSR

UDC 621.313.333:538.4

BARANOV, G. A., KIRILLOV, I. R., and OGORODNIKOV, A. P.

"Hydraulic Characteristics of an Experimental Active-Type, Molten Metal MHD Generator Channel"

Riga, Magnitnaya Gidrodinamika, No 4, Oct-Dec 72, pp 112-114

*Abstract: The hydraulic characteristics of a slotted channel of a molten metal MHD generator of the active type with an expansion angle of  $12^{\circ} 30'$  are presented as well as the distribution of static pressures along the length of the channel without a magnetic field and during interaction of the flux with the traveling magnetic field. Channel tests showed that the hydraulic properties of the flow tract were fully satisfactory and disruption of flow from the walls of the channel does not occur for a large change in the Reynolds' number. 2 figures, 3 bibliographic references.*

1/1

- 30 -

USSR

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

KOVALYUK, Z. D. and OGORODNIK, A. D.

"Piezoresistance in p-In<sub>2</sub>Se"

Fiz. elektronika, Resp. mizhvid. nauk.-tekhn. zb. (Physical Electronics, Interdepartmental Scientific-Technical Collection, Ukrainian Republic--collection of works) No. 2, 1970, pp 28-29 (from RZh-Fizika, No. 11, 1971, Abstract No. 11E959)

Translation: An investigation is made of diagonal components of piezoresistance (P) in p-In<sub>2</sub>Se at room temperature. These diagonal components vary in sign and their values differ sharply. The results of the research agree closely with the equivalent valley model and permit the establishment of the basic characteristics of the In<sub>2</sub>Se valence zone.

1/1

- 56 -



USSR

UDC 543.275.2.082

OGORODNIKOV, B. I., SITAIG, Ye. A., SKITOVICH, V. I., KONSTANTINOV, I. Ye.,

"Development of Method of Determination of Dispersed Composition of Radioactive Aerosols Using FP Filter Material"

Tr. In-t Eksperim. Meteorol. Gl. upr. Gidrometeorol. Sluzhby pri Sov. Min. SSSR [Works of Institute of Experimental Meteorology, Main Administration of Hydrometeorological Service, Counsel of Ministers, USSR], 1972, No 25, pp 76-80, (Translated from Referativnyy Zhurnal, Metrologiya i Izmeritel' naya Tekhnika, No 7, 1972, Abstract No 7.32.902, by V.S.K.).

Translation: A review of the influence of filtration rate, aerosol particle and filter fiber diameter and filter layer thickness on effectiveness of trapping of aerosols. It has been found that the preferential holding of aerosols of a given range of dimensions is possible in successive layers of a filter material if the parameters of the filtering process are changed. The results of experimental determination of the filter characteristics of FPP-3, FPP-70 and FPA-100 materials involving studies of the dispersed composition of artificial radioactive aerosols are presented. 2 Figures; 2 Tables; 5 Biblio. Refs.

1/1

Construction

USSR

UDC 624.07:534.1

OGORODNIKOV, G. N.

"Determining the Critical Load and the Eigenfrequencies of Oscillations of a Prestressed Ring"

Tr. Mosk. Vyssh. tekhn. uch-shcha im. N. E. Baumana (Works of Moscow Higher Engineering School imeni N. E. Bauman), 1972, No. 152, pp 5-10 (from RZh-Mekhanika, No 3, Mar 73, Abstract No 3V329)

Translation: The structure obtained from a thin straight beam preliminarily twisted by a moment and then bent by a moment and forces to the shape of a plane ring is discussed. The uniform compressing load is determined under which there occurs a stability loss "in the small" in the plane of the ring. The frequencies of the natural vibrations in the plane of the ring are also determined. A. G. Teregulov.

1/1

USSR

UDC:629.78.015:533.1

MERKULOV, A. P., OGORODNIKOV, N. N., TOLSTONOGOV, A. P.

"Filling of High-Pressure Containers with Chilled Gas"

Tr. Kuybyshev. Aviats. In-t [Works of Kuybyshev Aviation Institute], 1973, No 56, pp 24-35 (Translated from Referativny Zhurnal Raketostroyeniye, No 10, 1973, Abstract No 10.41.81 from the resume)

Translation: Conditions are defined, providing relative isothermicity of the process of filling of a high-pressure container with gas. Based on the energy balance equation for a body of variable mass considering external heat exchange of the system and the influence of the temperature choke effect in the feed line, analytic expressions are produced for the change in temperature of the gas entering the container. The nature of change of the temperature of the working fluid in the container being filled during the initial period of filling is established. The temperature of the incoming gas for which its temperature in the container remains practically unchanged is calculated. A method is presented for calculation of the thermal load on the refrigeration unit in which the feed gas is preliminarily chilled. Graphs of the change in temperature of the working fluid in

1/2

- 17 -

USSR

MERKULOV, A. P., OGORODNIKOV, N. N., TOLSTONOGOV, A. P., Tr. Kuybyshev.  
Aviats. In-t, 1973, No 56, pp 24-35

the container as a function of velocity of entering gas and its temperature are shown. Calculations and experimental curves of the change in temperature of the gas with rapid filling of the high-pressure container with chilled gas are presented. 6 Figures; 1 Table; 7 Biblio. Refs.

2/2

1/2 012 UNCLASSIFIED PROCESSING DATE--27NOV70  
TITLE--DIMETHYLVINYL CARBINOL FROM DILUTE AQUEOUS SOLUTIONS -U-

AUTHOR--(04)-OGORODNIKOV, S.K., NEMTSOV, M.S., TRENKE, K.H., MOROZOVA, A.I.

COUNTRY OF INFO--USSR

SOURCE--U.S.S.R. 263,593

REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRAZTSY, TOVARNYE ZNAKI 1970,  
DATE PUBLISHED--10FEB70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--AQUEOUS SOLUTION, CHEMICAL SEPARATION, AZEOTROPE,  
DISTILLATION, VINYL COMPOUND, METHANOL, ALKYL RADICAL, CHEMICAL PATENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--3006/1594

STEP NO--UR/0482/70/000/000/0000/0000

CIRC ACCESSION NO--AA0135235

UNCLASSIFIED

2/2 012

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AA0135235

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TITLE COMPO. IS SEPD. BY  
HETEROAZEOTROPIC RECTIFICATION. DIPROPYL ETHER OR N,PENTANE, IS USED AS  
THE SEPG. AGENT.

Acc. Nr:  
AP0049171

Abstracting Service:  
CHEMICAL ABST. 5/70

Ref. Code:  
480080



104465h Physicochemical properties of isomeric alkyldioxanes. IV. Lesteva, T. M.; Ogrodnikov, S. K.; Nebylova, E. M.; Morozova, A. I. (USSR). Zh. Prikl. Khim. (Leningrad) 1970, 43(1), 150-4 (Russ). Phase equil. data were tabulated for systems of 4,4-dimethyl-1,3-dioxane, the 4-Et analog, and the 4,5-di-Me analog. The equil. of liq.-vapor in these followed Raoult's Law. Mixts. of these formed ideal systems. With H<sub>2</sub>O, azeotropes were formed with the following b.p. and wt. % content of the nonaq. component shown: 4,4-Me, 92.85°, 64.8; 4-Et, 92.6°, 70.9; and 4,5-Me, 91.9°, 62.2%.  
G. M. Kosolapoff

1/2

REEL/FRA  
19800978

7nt

USSR

UDC 539.374

OGRODNIKOV, V. A., DEL', V. D.

"Deformed State Under the Sagging of Hollow Cylinders"

Izv. Tomsk. politekhn. in-ta (News of Tomsk Polytechnical Institute), 1972,  
Vol. 225, pp 48-52 (from RZh-Mekhanika, No 8, Aug 72, Abstract No 8V391)

Translation: The results of an experimental study of the deformed state arising under the sagging of hollow cylinders are presented. The stress intensity and the deformation intensity distributions were measured when studying the axisymmetric deformed state by measuring the hardness of the sample using experimental calibration graphs for hardness vs. stress intensity. The values of the deformation components were determined by using differential equations for the axisymmetric deformation process and the values of the deformations on the inner surface of the hollow cylinder were used as a boundary condition. The values of deformations in a sagged sample were determined by applying numerical methods on the "Minsk-1" computer. Tables are given showing the dimensions of the deformed samples, the degree of their sag, and the values of their circumferential deformations obtained by computation and by measurements in the sample. Graphs



USSR

OGORODNIKOV, V. A., DEL', V. D., Izv. Tomsk. politekhn. in-ta, 1972,  
Vol. 225, pp 48-52

of the distribution of radial and circumferential deformations are constructed for different degrees of sag and the dimensions of the sagged hollow cylinders. It is pointed out that the Haar-Karman hypothesis on the equality of circumferential stress to one of the major stresses in the meridional plane is contradicted by the experimental data of the article. Ye. M. Tret'yakov.

2/2

1/2 028 UNCLASSIFIED PROCESSING DATE--27NOV70  
TITLE--MOBILITY OF ELECTRONS IN INTRINSIC MERCURY TELLURIDE AND IN N TYPE  
MERCURY TELLURIDE -U-  
AUTHOR--(04)-IVANOVOMSKIY, V.I., KOLOMIYETS, B.T., OGRODNIKOV, V.K.,  
SMEKALOVA, K.P.  
COUNTRY OF INFO--USSR  
SOURCE--FIZ. TEKH. POLUPROV. 1970, 4(2), 264-9  
DATE PUBLISHED-----70  
SUBJECT AREAS--PHYSICS  
TOPIC TAGS--MERCURY, TELLURIDE, ELECTRON MOBILITY, ELECTRON SCATTERING,  
CRYSTAL IMPURITY, PHONON  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1996/1865 STEP NO--U/0449/70/004/002/0264/0269  
CIRC ACCESSION NO--AP0115829  
UNCLASSIFIED

2/2 028

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO---AP0118829

ABSTRACT/EXTRACT--(U) GP-D- ABSTRACT. THE TEMP. DEPENDENCES OF COND. R AND THE HALL MOBILITY, R SIGMA, OF N HGTE ARE DETD. IN A WIDE RANGE OF TEMPS. AND IMPURITY CONCNS. THE R SIGMA IS MEASURED IN WEAK MAGNETIC FIELDS (SIMILAR TO 03) AND R IS WEAK ELEC. FIELDS SIMILAR TO 10 MV-CM. WITH THE AID OF THE 2 BAND THEORY OF COND. IT IS SHOWN THAT AT THE EXISTING HIGH RATIO OF ELECTRON TO HOLE MOBILITY (50-100) THE VALUES OF R AND R SIGMA CORRESPOND TO THE CONC. AND HALL MOBILITY OF THE ELECTRONS, RESP. THE INCREASE OF N SUB3 TO SIMILAR TO 10 PRIME19-CM PRIME3 LEADS TO A DROP IN MOBILITY BY 2 DECADES. THERE IS NO VARIATION OF R SIGMA WITH TEMP. FOR STRONGLY DOPED CRYSTALS UP TO 77DEGREEK ABOVE WHICH IT DECREASES SLIGHTLY. IN PURE SAMPLES R SIGMA DECREASES IRREGULARLY WITH TEMP. FROM 10 PRIME6 CM PRIME2-V SEC AT 20DEGREEK TO SIMILAR TO 3 TIMES 10 PRIME4 CM PRIME2-V SEC AT 130DEGREEK. THE THEORETICAL R SIGMA-N SUB3, DEPENDENCE LIES ABOVE THE EXPTL. WHICH IS DOPED SAMPLES AND ON HOLES FOR THE PURE ONES. ACCOUNTING FOR THE SCREENING EFFECT BY VALENCE ELECTRONS THE ELECTRON MOBILITY IN HGTE AT 4.2DEGREEK IS ESTD. AS (1-3) TIMES 10 PRIME6 CM PRIME2-V SEC. ELECTRON SCATTERING ON OPTICAL PHONONS IS ALSO SIGNIFICANT AT 100-300DEGREEK, WHILE ACOUSTIC PHONONS HAVE NO EFFECT IN THE SCATTERING PROCESS. FACILITY: FIZ.-TEKH. INST. IM. IOFFE, LENINGRAD, USSR.

UNCLASSIFIED

USSR

IVANOV-OMSKIY, V. I., KOLOMIYETS, B. T., MEL'NIK, V. M. and OGORODNIKOV, V. K.,  
Physicotechnical Institute imeni A. F. Ioffe, Academy of Sciences USSR, Lenin-  
grad

"Magnetic Susceptibility of HgTe"

Abstract: Measurements of magnetic susceptibility in fields above critical ( $H_{cr} = 3$  koe) when anomalous susceptibility disappears are analyzed. The Faraday method was used to measure the magnetic susceptibility of n-HgTe single crystals over a wide range of temperatures (2-300°K) and concentrations ( $1.6 \cdot 10^{15} - 4 \cdot 10^{18} \text{ cm}^{-3}$ ). The lattice susceptibility was determined from measurements on pure samples at liquid helium temperatures and was found to be diamagnetic and equal to  $(-0.34 \pm 0.003) \cdot 10^{-6}$  cgs electrostatic units. The electron gas was paramagnetic over the entire range of concentration and temperatures. The results were analyzed on the basis of the theory taking into account the inverse order of zones, as in  $\alpha$  Sn. The agreement between experiment and theory is given as an argument for using the inverse zone structure in HgTe.

1/1

USSR

UDC 669.017.539.16.04

KOVAL'CHENKO, M. S., and OGORODNIKOV, V. V., Kiev

"Change in the Structure and Properties of Metallides Under the Action of Nuclear Radiation"

Moscow, Fizika i Khimiya Obrabotki Materialov, No 4, Jul-Aug 71, pp 14-22

Abstract: This article consists of a survey of work on the effect of reactor radiation on the properties of metallides. The work was presented at the Symposium on Metallurgy and Metals Science which was devoted to the 100th anniversary of the discovery of iron polymorphism by D. K. Chernovyy. Materials studied were carbides of Ti and Cr and borides of Ti, Zr, Cr, and La. Basic conclusions made from studies of boride and carbide radiation tests were that under the action of penetrating radiation in metallides there is damage to the crystal (atomic) structure which leads to changes in their physical properties. Formation of dumbbell-like configurations is the most probable type of interstitial atoms. For a radiation dose of approximately  $10^{20}$  neutron/cm<sup>2</sup> the concentration of dumbbells is on the order of fractions of a percent. Radiation defects were stable at low temperatures. During radiation of metallides containing elements which undergo nuclear transformations, disturbances in the crystal structure are deeper. This

1/2

USSR

KOVAL'CHENKO, K. S., and OGORODNIKOV, V. V., Fizika i Khimiya Obrabotki Materialov, No 4, Jul-Aug 71, pp 14-22

leads to an intense and nonuniform change in the volumetric properties of the materials. Formation of new elements during radiation can lead to the formation of new compounds. Five tables, 24 bibliographic references.

2/2

- 52 -

1/2 014  
UNCLASSIFIED  
TITLE--THEORY OF DIFFUSION IN INHOMOGENEOUS SOLIDS -U- PROCESSING DATE--18SEP70  
AUTHOR--OGORODNIKOV, V.V.  
COUNTRY OF INFO--USSR  
SOURCE--POROSHKOVAIA METALLURGIIA, VOL. 10, FEB. 1970, P. 19-26  
DATE PUBLISHED----FEB70  
SUBJECT AREAS--PHYSICS  
TOPIC TAGS--STATISTICAL ANALYSIS, ALLOY, PHYSICAL DIFFUSION  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1989/0593 STEP NO--UR/0226/70/010/000/0019/0026  
CIRC ACCESSION NO--AP0107190  
UNCLASSIFIED

2/2 014

CIRC ACCESSION NO--AP0107190  
ABSTRACT/EXTRACT--(U) GP-0-

UNCLASSIFIED

PROCESSING DATE--18SEP70

ABSTRACT. DERIVATION OF ANALYTIC EXPRESSIONS FOR FUNCTIONS OF THE CONCENTRATION DISTRIBUTION IN AN INHOMOGENEOUS ALLOY WITHIN THE INTERMEDIATE STAGES OF THE HOMOGENEIZATION PROCESS, USING A METHOD GIVEN BY RAICHENKO AND FEDORCHENKO (1958). IN CONTRAST TO FORMULAS OBTAINED BY THESE AUTHORS, THE EXPRESSIONS DERIVED ARE MORE SUITABLE TO STATISTICAL MIXTURES WITH A MEAN CONCENTRATION OF 50PERCENT.

UNCLASSIFIED



USSR

UDC: 621.317.373.023

OGORODNIYCHUK, L. D."A Method of Measuring the Phase Difference of SHF Signals"

Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. izmereniyam. T. 2 (Re-  
ports of the All-Union Scientific and Technical Conference on Radio Engineer-  
ing Measurements. Vol. 2), Novosibirsk, 1970, pp 102-104 (from RZh-Radiotekh-  
nika, No 12, Dec 70, Abstract No 12A338)

Translation: It is noted that one of the causes for an appreciable increase in errors in present SHF phase meters with amplitude modulation is the effect of parasitic phase modulation of the amplitude modulators. This flaw is eliminated in the phase meter proposed by the author in which the method of amplitude commutation is realized. A circuit is given for an SHF phase meter with two-channel amplitude commutation. New elements of the circuit are commutation devices which operate in the keying mode. The operation of the circuit is described. In order to reduce errors, a high level of SHF signal suppression by the commutators is required. Investigations of various types of commutators and a laboratory stand showed that an SHF meter with excellent dynamic and accuracy properties can be produced on the basis of the proposed method. Two illustrations. E. L.

1/1

- 88 -

USSR

UDC: 621.317.37

OGORODNIYCHUK, L. D., OGORODNIYCHUK, N. D.

"Effect of Noises on the Accuracy of Microwave Phase Meters"

Kiev, Radioelektronika, Vol 15, No 7, Jul 72, pp 915-920

Abstract: The influence of noises on the operation of four-probe microwave phase meters is investigated. Formulas are derived on the basis of statistical analysis which can be used to account for errors due to the effect of predetector, detector and post-detector noises as well as the sensitivity and the dynamic range of four-detector microwave phase meters of interference type. The results are generalized to cover other types of two-channel phase meters.

1/1

USSR

UDC 546.824'131+546.821+536.666

SAVIN, V. D. and ~~OGORODNOVA-ZAKHAROVA~~, N. V., State Scientific Research and Planning Institute of Rare Metals

"Interaction of  $TiCl_4$  with Metallic Titanium in a Medium of NaCl"

IVUZ, Tsvetnaya Metallurgiya, No 2, 1971, pp 67-71.

Abstract: This article presents a study of the thermochemical regularities of the process of interaction of  $TiCl_4$  with metallic titanium in a medium of NaCl. The study was performed thermographically at 660-900°. The nature of the interaction is complex. At the beginning of the experiment, their interaction forms primarily  $TiCl_2$ , then later --  $TiCl_3$ ; the reaction products during the middle of the reaction are lower chlorides of titanium of variable composition. The interaction of  $TiCl_4$  with titanium in NaCl occurs with an excess thermal effect, which is a result of the interaction of  $TiCl_2$  and NaCl at the beginning of the experiments. The heat is constant below 810° and amounts to 3.2 kcal/mol  $TiCl_2$ , although as the temperature increases to 850°, the heat decreases to 3.0 kcal/mol.

1/1

77

USSR

UDC 546.824'131+546.821+536.666

SAVIN, V. D. and OGORODNOVA-ZAKHAROVA, N. V., State Scientific  
Research and Planning Institute of Rare Metals

"Interaction of  $TiCl_4$  with Metallic Titanium in a Medium of NaCl"

IVUZ, Tsvetnaya Metallurgiya, No 2, 1971, pp 67-71.

Abstract: This article presents a study of the thermochemical regularities of the process of interaction of  $TiCl_4$  with metallic titanium in a medium of NaCl. The study was performed thermographically at 660-900°. The nature of the interaction is complex. At the beginning of the experiment, their interaction forms primarily  $TiCl_2$ , then later --  $TiCl_3$ ; the reaction products during the middle of the reaction are lower chlorides of titanium of variable composition. The interaction of  $TiCl_4$  with titanium in NaCl occurs with an excess thermal effect, which is a result of the interaction of  $TiCl_2$  and NaCl at the beginning of the experiments. The heat is constant below 810° and amounts to 3.2 kcal/mol  $TiCl_2$ , although as the temperature increases to 850°, the heat decreases to 3.0 kcal/mol.

1/1

1/2 063 UNCLASSIFIED PROCESSING DATE--11DEC70  
 TITLE--ELECTROMECHANICAL METHOD FOR PHASE MODULATION OF LIGHT -U-  
 AUTHOR--(02)--UGRIN, YU.F., KOVALEV, V.I.  
 COUNTRY OF INFO--USSR  
 SOURCE--MESLEN, RADIOTEKHNIKA I ELEKTRONIKA, NO. 4, 1970, P 851  
 DATE PUBLISHED-----70  
 SUBJECT AREAS--PHYSICS  
 TOPIC TAGS--PHASE MODULATION, ELECTROMECHANIC CONVERTER, LIGHT MODULATION,  
 LIGHT MODULATOR, ELECTROOPTIC EFFECT, COULOMB INTERACTION, QUARTZ, AIR,  
 CAPACITOR, NICKEL, TANTALUM, STEEL, ELECTRODE, LASER EMISSION  
 CONTROL MARKING--NO RESTRICTIONS  
 DOCUMENT CLASS--UNCLASSIFIED  
 PROXY FICHE NO----FD70/605041/D12 STEP NO--UR/0109/70/000/004/0851/0851  
 CIRC ACCESSION NO--AP0142745  
 UNCLASSIFIED

2/2 063

UNCLASSIFIED

PROCESSING DATE--11DEC70

CIRC ACCESSION NO--AP0142745  
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THIS BRIEF COMMUNICATION DESCRIBES A METHOD OF LIGHT PHASE MODULATION WHICH, AT LOW FREQUENCIES, IS MORE EFFECTIVE THAN THE CUSTOMARY METHOD USING ELECTROOPTICAL EFFECTS. THIS NEW METHOD USES THE ELECTRICAL COULOMB ATTRACTION BETWEEN THE PLATES OF AN AIR CAPACITOR. IN THEIR EXPERIMENTS, THE AUTHORS USED SUCH MATERIALS AS A QUARTZ PLATE OF 70 MICRONS THICK WITH ONE SIDE SILVERED, AS WELL AS SIMILAR PLATES OF NICKEL, TANTALUM, AND STEEL, AS ONE OF THE CAPACITOR ELECTRODES. A DIAGRAM OF THE EXPERIMENTAL SETUP WHICH, BESIDES THE CAPACITOR, USES A LASER LIGHT SOURCE, A PHOTORECEIVER, TWO MIRRORS, ONE OF THEM HALF SILVERED, AND AN OSCILLATOR, IS PROVIDED. THE PHASE MODULATION WAS ACHIEVED AT A LOW VOLTAGE, ABOUT 50, AND THE FREQUENCY LIMITS WERE FROM 1 TO 10 MHZ. THE AUTHORS EXPRESS THEIR GRATITUDE TO YE. F. KUSHCHENKO FOR HIS ASSISTANCE IN CONSTRUCTING AND PREPARING THE INTERFEROMETER.

UNCLASSIFIED

172 024 UNCLASSIFIED PROCESSING DATE--20NOV70  
TITLE--FERROELECTRIC - J-  
AUTHOR--(02)-UGRYUMOVA, M.A., ANANYEVA, A.A.  
COUNTRY OF INFO--USSR  
SOURCE--U.S.S.R. 263,709  
REFERENCE--OTKRYTIYA, IZOBRET., PROM. OBRATZYSY TOVARNYE ZNAKI 1970, 47(8),  
DATE PUBLISHED--10FEB70  
SUBJECT AREAS--CHEMISTRY, MATERIALS  
TOPIC TAGS--CHEMICAL PATENT, CHEMICAL COMPOSITION, FERROELECTRIC MATERIAL,  
ZIRCONATE, BARIUM COMPOUND, LEAD COMPOUND, NIOBIUM OXIDE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--3004/1619 STEP NO--UR/0482/70/000/000/0000/0000  
CIRC ACCESSION NO--AA0132084  
UNCLASSIFIED

2/2 024

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AA0132084

ABSTRACT/EXTRACT--(U) CP-0- ABSTRACT. A FERROELEC. CONTAINS BA,PB  
ZIRCONATE AND HAS THE FOLLOWING COMPN.: PB OXIDE 26-32, BACO SUB3  
14-21.3, Nb PENTOXIDE 48.2-54, AND ZRO SUB2 0.5-5 WT. PERCENT.

UNCLASSIFIED



1/2 013

TITLE--STANDARDIZATION, QUALITY, AND LAW -U-

UNCLASSIFIED

PROCESSING DATE--23OCT70

AUTHOR--OGRYZKOV, K.M.

COUNTRY OF INFO--USSR

SOURCE--STANDARTY I KACHESTVO, 1970, NR 5, PP 35-37

DATE PUBLISHED-----70

SUBJECT AREAS--BEHAVIORAL AND SOCIAL SCIENCES, MECH., IND., CIVIL AND  
MARINE ENGR  
TOPIC TAGS--QUALITY CONTROL, ACCURACY STANDARD, GOVERNMENT ECONOMIC  
CONTROL, INDUSTRIAL MANAGEMENT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1999/0111

STEP NO--UR/0422/70/000/005/0035/0037

CIRC ACCESSION NO--AP0122377

UNCLASSIFIED

2/2 013

UNCLASSIFIED

PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0122377

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHOR REGARDS THE JURIDICAL ASPECTS OF STANDARIZATION, THE LATTER BEING CONSIDERED AS A COMPLEX SYSTEM. THE STATE MAKES THE STANDARDS COMPULSORY, THUS IMPARTING THEM THE CHARACTER OF LAW. IN THIS CONNECTION THE FOLLOWING QUESTIONS ARE DISCUSSED: STANDARIZATION AND BRANCHES OF LAW (ADMINISTRATIVE, CIVIL, LABOUR, AND CRIMINAL LAW); JURIDICAL NATURE OF A STANDARD; COMPULSORY ORDER OF STANDARD APPLICATION; SPHERE OF ACTION OF A STANDARD; INTRODUCTION OF AND OBEYANCE TO STANDARDS.

UNCLASSIFIED

USSR

ELECTRONICS  
Antennas

OGURSKIY, G. A., KERPELEV, S. M.

UDC:621.396.677:621.396.965(088.8)

"A Hinge Mechanism"

USSR Author's Certificate No 268806, filed 25 Jul 68, published 30 Jul 70  
(from RZh-Radiotekhnika, No 2, Feb 71, Abstract No 2B53 P)

Translation: This Author's Certificate introduces a hinge mechanism with three degrees of freedom for adjusting radar antennas. The device contains an enclosure housing a spherical hinge which is coupled in turn to a cylinder supporting the antenna, and three feed screws with nuts, the first being equipped with an axle which passes through the spherical hinge, while the second has a half-axle movably connected to the above-mentioned axle, the axle and half-axle being coupled to the spherical hinge so that it can be rotated with respect to two mutually perpendicular coordinate axes. The third lead screw is connected to the above-mentioned cylinder so that it can be rotated with respect to the third coordinate axis. In order to reduce overall dimensions and mass, simplify the design and improve operational reliability, the third lead screw is hinged by a bracket to the axle of the first lead screw, and the spherical hinge is equipped with a cylindrical cantilever which houses the cylinder. The third lead screw for ro-

1/2

OGURSKIY, G. A., KERPELEV, S. M., USSR Author's Certificate No 268806

tating the cylinder is coupled to it by a bracket accommodated in matched apertures made in the housing and in the spherical hinge.

2/2

USSR

OGURSKIY, G. A.

UDC 621.396.67:624.97(088.8)

"Device for Attaching an Antenna"

USSR Author's Certificate No 251027, Filed 21 Mar 68, Published 2 Feb 70 (from RZh-Radiotekhnika, No 8, Aug 70, Abstract No 8B95 P)

Translation: The proposed device for attaching an antenna contains a hollow rod connected to a supporting bracket by a hinge used to attach the antenna. In order to simplify the adjustment of the position of the antenna azimuthally and with respect to angle of elevation, the end of the rod is installed by means of an auxiliary ball hinge in the socket of a sliding nut located in the guides of the coordinate loop and connected to the sliding nut the ends of which are supported on bearings in the hollows of the coordinate loop connected directly by means of a second sliding screw to an auxiliary support bracket. There is one illustration.

1/1

UDC 669.71.472

USSR

AMEL'KOVICH, D. I., VEDERNIKOV, G. F., DROBNIS, V. F., KLETSKO, N. L., OGURTSOV,  
G. M., SHIFMAN, G. A.

"Selection and Testing of Carbon Mass for Fastening of Nipples in Roasted Anodes"

Tr. Vses. N-i. i Proyechn. In-ta. Alyumin., Magn. i Elektrodn. Prom-sti [Works of All-Union Scientific Research and Planning Institute of the Aluminum, Magnesium and Electrode Industry], 1970, No. 71, pp. 111-117. (Translated from Referativnyy Zhurnal Metallurgiya, No. 5, 1971, Abstract No. 5 G156 by the authors).

Translation: Results are presented from laboratory and industrial testing of roasted anodes with nipples fastened in their carbon masses. The mass was packed into anodes with one square or cylindrical nipple receiver. The thickness of the layer of packed mass was 10-15 mm. The method of fastening of the nipples into the roasted anodes using the carbon mass allowed reliable suspension of the anodes, significantly decreased the voltage drop at the nipple-anode contact, and also simplified the process of pressing of anodes due to the elimination of the screw thread in the nipple receptacle. 4 figs; 2 tables.

1/1

1/2 029 UNCLASSIFIED PROCESSING DATE--13NOV70  
 TITLE--ENERGY DISTRIBUTION OF ELECTRONS FREED DURING COLLISIONS OF NE  
 PRIME3 POSITIVE WITH ARGON ATOMS -U-  
 AUTHOR--(03)-OGURTSOV, G.N., FLAKS, I.P., AVAKYAN, S.V.  
 COUNTRY OF INFO--USSR  
 SOURCE--ZH. TEKH. FIZ. 1970, 40(5), 1133-5  
 DATE PUBLISHED-----70  
 SUBJECT AREAS--PHYSICS  
 TOPIC TAGS--ELECTRON SPECTRUM, ION BOMBARDMENT, NEON, ARGON, ELECTRON  
 TRANSITION, EXCITATION CROSS SECTION  
 CONTROL MARKING--NO RESTRICTIONS  
 DOCUMENT CLASS--UNCLASSIFIED  
 PROXY REEL/FRAME--3004/0934 STEP NO--UR/0057/70/040/005/1133/0035  
 CIRC ACCESSION NO--AP0131520  
 UNCLASSIFIED

2/2 029

UNCLASSIFIED

PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0131520

ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. EXPTL. INVESTIGATIONS WERE CARRIED OUT ON THE ENERGY SPECTRUM OF ELECTRONS FREED DURING COLLISIONS OF NE PRIME3 POSITIVE WITH AR ATOMS. THE ENERGIES OF NE PRIME3 POSITIVE WERE 21 AND 45 KEV AND THE ELECTRON ENERGY WAS 5-16 EV. THE ANGLE BETWEEN THE ELECTRON PATH AND THE INCIDENT BEAM WAS 54.5DEGREES. THE ELECTRON FORMATION CROSS SECTION CORRESPONDING TO THE CONTINUOUS PART OF THE SPECTRUM DEPENDS LITTLE ON THE RELATIVE VELOCITY OF MOTION. THE DISCRETE LINES OF THE OBSO. SPECTRUM CORRESPOND TO THE LINES DUE TO AUTOIONIZATION TRANSITIONS IN AR ATOMS AND IONS. CROSS SECTIONS CORRESPONDING TO THE CONTINUOUS PART OF THE SPECTRUM FOR COLLISIONS OF AR ATOMS WITH NE PRIME POSITIVE AND NE PRIME3 POSITIVE WERE COMPARED. IN THE LATTER CASE, THERE IS A SHARP RISE OF CROSS SECTION WITH DECREASE OF ELECTRON ENERGY. THE PROCESSES OF EXOTHERMIC CAPTURE WITH INFLUENCE THE MAGNITUDE AND CHARACTER OF THE DEPENDENCES OF THE CROSS SECTION ON THE ENERGY,  $\epsilon$  SUBE, OF THE ELECTRONS. ALSO, THE ENERGY DISTRIBUTION OF ELECTRONS FREED IN THE PROCESS IS CONTINUOUS TO VERY SMALL VALUES OF  $\epsilon$  SUBE.

FACILITY: F17.-TEKH. INST. IM. IOFFE, Leningrad, USSR.

UNCLASSIFIED



USSR

KLIMOVA, D. N., OGURTSOV, K. I., Leningrad

"On the Conditions of Applicability of Quasistatic Solutions in the Case of Dynamic Effects on the Boundary of an Elastic Half-Space"

Moscow, Mekhanika Tverdogo Tela, No 6, Nov/Dec 70, pp 84-89

Abstract: Formulas are derived for making calculations and accounting for the difference between the values of the dynamic and quasistatic field in the center of a source for dynamic effects of various types of distribution. This gives a basis for determining the permissible error in cases where approximate quasistatic solutions (static solutions with parametric dependence on time) of dynamic problems are used instead of exact solutions for studying the elastic field close to a source when the surface of a body is subjected to dynamic effects of the shock or explosion type. Estimates of errors outside the source, at the boundary, and in the half-space are also discussed.

1/1

1/2 014 UNCLASSIFIED PROCESSING DATE-- 090CT70  
TITLE--A CATHODE WITH SLITS FOR THE ELECTROCHEMICAL POLISHING OF GEARS -U-  
AUTHOR--(04)-GOROBETS, G.K., KUZAMIN, N.F., KORNEV, A.D., OGURTSOV, N.I.  
COUNTRY OF INFO--USSR  
SOURCE--MOSCOW, STANKI I INSTRUMENT, NO 2, 1970, PP 27-28  
DATE PUBLISHED-----70  
SUBJECT AREAS--MECH., IND., CIVIL AND MARINE ENGR  
TOPIC TAGS--METAL POLISHING, ELECTROCHEMICAL MACHINING, GEAR CUTTING MACHINE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAME--1993/1777 STEP NO--UR/0121/70/000/002/0027/0028  
CIRC ACCESSION NO--AP0114276  
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--09OCT70

2/2 014

CIRC ACCESSION NO--AP0114276

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE BENEFITS ACCORDING FROM THE ELECTROCHEMICAL POLISHING OF GEARS ARE NULLIFIED WHEN A CONVENTIONAL FLAT OR ANNULAR CATHODE IS USED, DUE TO APPROXIMATE DOUBLING OF THE TOOTH PROFILE ERROR AS A RESULT OF THE FORMATION OF AN EXCESSIVELY LARGE FLANK. A CATHODE WITH SLITS IS PROPOSED, WHICH PROVIDES FOR INVARIABILITY OF THE TOOTH PROFILE IN POLISHING. A DESCRIPTION OF THE CATHODE IS PRESENTED, AND ITS OPERATION IS DESCRIBED. WHEN GEARS WERE ELECTROCHEMICALLY POLISHED WITH THE USE OF SUCH A CATHODE, WITH A CURRENT DENSITY OF 160 A-DM PRIME<sup>2</sup> AND A TEMPERATURE OF 55DEGREES C, A PROFILE WAS OBTAINED, THE ERROR OF WHICH CORRESPONDS ESSENTIALLY TO THE INITIAL GRINDING ERROR OF THE TOOTH PROFILE.

UNCLASSIFIED

USSR

UDC: 621.317.335.3.029.64

YEPIFANTSEV, Yu. F., ZHUKOV, O. K., KLEMENT'YEV, F. M., KULIKOV, V. M.,  
LIBERMAN, Z. A., OGURTSOV, S. I.

"Measurement of the Permittivity of  $(\text{Ba}, \text{Zn})\text{TiO}_3$  Ceramic in the 3-cm Micro-  
wave Band, and Evaluation of the Effect Which Destabilizing Factors Have  
on Measurement Accuracy"

Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. izmereniyam. T. 1 (Re-  
ports of the All-Union Scientific and Technical Conference on Radio Engineer-  
ing Measurements. Vol. 1), Novosibirsk, 1970, pp 92-94 (from RZh-Radiotekh-  
nika, No 1, Jan 71, Abstract No 1A357)

Translation: The authors investigate the dispersion of permittivity of  
type  $(\text{Ba}_{1-x}\text{Zn}_x)\text{TiO}_3$  ferroelectric crystals in the 3-cm frequency band using  
a measurement installation whose block diagram is given. Permittivity is  
calculated from the results of measurement of the microwave signal amplitude  
and phase determined when specimens of various thicknesses are introduced  
into the feedback circuit. The results of measurements made on three fre-  
quencies (8,900, 10,000 and 10,800 MHz) are presented for four types with

1/2

USSR

YEPIFANISEV, Yu. F., et al., Dokl. Vses. nauchno-tekhn. konferentsii po radiotekhn. izmereniyam. T. 1, 1970, pp 92-94

various values of  $x$ . The results show that barium titanate ceramic with 4 percent zinc has the least dispersion. The effect which destabilizing factors have on measurement precision is examined. Three illustrations. E. L.

2/2

USSR

UDC: 8.74

OGURTSOV, V. I.

"Using Computers to Solve Ordinary Differential Equations"

[Nauch. tr.] Tashkent. politekh. in-t ([Scientific Works] Tashkent Poly-technical Institute), 1971, vyp. 78, pp 292-296 (from EZh-Kibernetika, No 1, Jan 72, Abstract No 1V1006)

Translation: Recommendations are given for selecting a numerical method for computer solution of ordinary differential equations. It is proposed that the following considerations be taken into account: a) the method should ensure a predetermined accuracy in solution of the problem; b) the method should ensure solution of the problem with least possible expenditures of material and in the shortest possible time; c) the method should permit separation of programs into parts which have as little connection as possible with one another; d) the method should ensure solutions of a cyclic nature. A description is given of a standard program for numerical integration of a system of n ordinary differential equations by Runge-Kutta formulas of the fourth order of accuracy. Provision is made in a

1/2

- 40 -

USSR

OGURTSOV, V. I., Nauch. tr. Tashkent. politekhn. in-t, 1971, vyp. 78, pp 292-296

computer of the "Mir-1" type for several different numerical methods of solving Cauchy problems for ordinary differential equations; the Euler-Cauchy method with automatic selection of step can be used to solve a system of ordinary differential equations of up to order 25, while the Runge-Kutta method gives solutions for up to order 16. It is proposed that the methods be compared with respect to the following parameters: number of conditional arithmetic operations per integration step, number of steps, maximum volume of the problem, count characteristic for one of the modifications (accuracy, number of places, time, length of interval, order of the system). In solving ordinary differential equations on analog computers of the MEI-7 and EMU-10 types, it is proposed that a step-down algorithm be used which is based on lowering the order of the derivative. V. Alekperov.

2/2

Acc. Nr: **102946** Abstracting Service:  
**CHEMICAL ABST. 6-70**

Ref. Code:

**0 4176139**

116390t Effect of thermal treatment of the film on the intensity of the vibrational band for silicon-oxygen bonds in passivating films. Ivanova, E. N.; Latyshev, A. N.; Synorov, V. F.; Erokhina, L. E.; Ogurtsova, M. P. (Voronezh. Gosuniv., Voronezh, USSR). *Izv. Vyssh. Ucheb. Zaved., Fiz.* 1979, 13(1), 154-5 (Russ). The effect of heating on the intensity of absorption band of the Si-O bonds of SiO<sub>2</sub> film is investigated. The monoxide films were obtained by thermal dusting SiO and quartz oxide in vacuo ( $5 \times 10^{-3}$  torr) on polished Si plates. Thermal treatment was carried out at 300 and 500° for 5-30 min. A shift of absorption band from 10 to 9.3  $\mu$  together with a gradual increase of its intensity was obsd. in dependence on the heating degree. The layers of 1-1.3  $\mu$ , for which no interference effect was to be taken into account, were used to obtain the abs. absorptivity value. The spectrum of a 1- $\mu$  thick film before and after the 20- and 30-min heating in Ar at 510° was studied. The transmissivity changes of the film, caused by the effect of its thermal treatment, are 2%. An increase of the absorption band intensity in the spectrum of the film is due to a gradual transition of Si monoxide to dioxide at a const. no. of O atoms. This effect must be taken into consideration for the detn. of stoichiometric compn. of passivating films by ir spectroscopy.

Vaclav Sara

REEL/FRAME  
**19861012**



UDC 632.954:633.11

USSR

PAK, K. I., OGURTSOVA, N. I., Chimkent Experimental Station

"Effectiveness of Applying Herbicides to Cotton"

Moscow, Khimiya v Sel'skom Khozyaystve, No 9, 1971, pp 50-51

Abstract: In 1966-1969, at the Chimkent Experimental Station the following herbicides were tested in the weed control program for cotton fields: isopropyl N-(3-chlorophenyl)carbamate, kotoran, diurone, dactal, herbane and gesagard. Data are presented on the effectiveness of these herbicides. Application of the first three herbicides mentioned resulted in killing 72.7-77.4 percent of the weeds on the average. Out of the last three mentioned, herbane killed the largest number of weeds (75-78 percent). The effectiveness of gesagard depended on the weather after injection. On the average higher cotton yields resulted from injection of gesagard in doses of 3 and 4 kg/hectare simultaneously with planting the cotton. All the insecticides with the exception of diurone were considered effective in the cotton fields of Chimkent Oblast. The herbicides were most dangerous to the cotton in the case of presprout application.

1/1

- 66 -

USSR

UDC 535.231.4.07:535.89

BAYUNOV, V. I., DEMIDOV, M. I., OGURTSOVA, N. N., Candidate of Technical Sciences, PODMOSHENSKIY, I. V., Candidate of Technical Sciences, SMIRNOV, V. L., SHELEMINA, V. M.

"An Installation for the Measurement of High Brightness Temperatures"

Leningrad, Optiko-Mekhanicheskaya Promyshlennost', No 12, Dec 70, pp 24-27

Abstract: An installation for the measurement of brightness temperatures in the range of 6,000-100,000 ° K, with a time resolution of up to  $3 \times 10^{-8}$  seconds, is described. This is the IF-88 installation, designed and constructed by I. V. Bolotnikov and I. V. Peysakhson. Determination of the temperature is based upon successive comparison of the brightness of the source under investigation and that of Standard EV-45, the measurement being conducted simultaneously in two wavelength intervals, isolated by interference filters from a spectral range of 220-400 nanometers. 3 figures, 3 bibliographic entries.

1/1

- 97 -

UDC: 535.89

USSR

GOLUBEV, Ye. M., OGURTSOVA, N. N., PODMOSHENSKIY, I. V., ROGOVISEV, I. N.,  
Leningrad

"Experimental Investigation of the Instability of a High-Current Discharge in an Open Tube"

Moscow, Teplofizika Vysokikh Temperatur, Vol 10, No 4, Jul/Aug 72, pp  
724-727

Abstract: The authors study the instability of a high-current discharge with vaporizable wall in tubes 50 mm in diameter and 100-400 mm long open to the atmosphere at both ends. A capacitor bank was used to produce a current pulse of 100-250 kA with a duration of 200  $\mu$ s. High-speed motion picture photography was used to investigate the space-time development of the discharge. The voltage gradient of the electric field in the plasma column was oscillographically measured by means of E-probes, and the diameter of the current channel was estimated from the erosion spot. The effect of tube length and current amplitude on discharge stability was also determined. The results of the measurements show satisfactory mutual agreement, indicating hydromagnetic instability of a high-current discharge in open tubes.

1/1

1/3 023 UNCLASSIFIED PROCESSING DATE--09OCT70  
TITLE--CHOLESTEROL ESTERASE AND LIPOPROTEIN LIPASE IN THE BLOOD OF RABBITS  
DURING THE DEVELOPMENT OF DITHIZONE DIABETES -U-  
AUTHOR--OGURTSOVA, R.YE.  
COUNTRY OF INFO--USSR  
SOURCE--PROB. ENDOCRINOL. 1970, 16(1), 82-5  
DATE PUBLISHED--70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--CHOLESTEROL, ESTERASE, LIPOPROTEIN, RABBIT, BLOOD CHEMISTRY,  
DIABETES MELLITUS, GLUCOSE, ACETYLCHOLINESTERASE, CARBOHYDRATE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY REEL/FRAE--1986/1915 STEP NO--UR/0502/70/016/001/0082/0085  
CIRC ACCESSION NO--AP0103643  
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--09OCT70

2/3 023

CIRC ACCESSION NO--AP0103643

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. EXPTS. WERE PERFORMED ON YOUNG RABBITS WITH DITHIZONE (1) (80 MG-KG) ADMINISTRATION. AFTER 1 ADMINISTRATION BLOOD SAMPLES WERE WITHDRAWN WITHIN 28 DAYS AND BLOOD GLUCOSE, KETONE BODIES, ACETYLCHOLINESTERASE ACTIVITY, LIPOPROTEIN LIPASE ACTIVITY, CHOLESTEROL AND ESTERS OF CHOLESTEROL, AND ALPHA AND BETA LIPOPROTEIN LEVELS WERE DETD. ACCORDING TO THE RESULTS OBTAINED THE ANIMALS COULD BE DIVIDED INTO 2 GROUPS: (A) THOSE WITH DISORDERS OF CARBOHYDRATE AND LIPID METABOLISM AND (B) THOSE WITH DISORDERS OF CARBOHYDRATE METABOLISM ONLY. WITHIN 7 DAYS IN THE FIRST GROUP A 16 FOLD INCREASE OF CHOLESTEROL, 7 FOLD INCREASE OF ESTERS OF CHOLESTEROL, AND A REDN. OF AN ESTERIFICATION COEFF. FROM 0.61 TO 0.48 WAS OBSERVED. SIMILAR RESULTS WERE FOUND IN 14 DAYS (ESTERIFICATION COEFF. 0.48). THE INCREASED VALUES DECREASED GRADUALLY AND ON THE 28TH DAY NORMAL VALUES WERE REACHED. CHOLESTEROL ESTERASE ACTIVITY INCREASED BY 160PERCENT WITHIN 7 DAYS AND BY 240PERCENT WITHIN 14. BY THE END OF THE EXPT. NORMAL ACTIVITY WAS FOUND. BEFORE 1 ADMINISTRATION THE ALPHA LIPOPROTEIN VALUE WAS 45.7PERCENT AND THAT OF BETA LIPOPROTEIN 54.3PERCENT. WITHIN 7 DAYS ALPHA LIPOPROTEIN VALUES WERE 92.6PERCENT AND 91.3PERCENT, RESP. BY THE END OF EXPT. THEIR VALUES WERE NORMAL. THE LIPOPROTEIN LIPASE ACTIVITY DECREASED WITHIN 7 DAYS BY 5 TIMES AND WITHIN 14 DAYS BY 3 TIMES; BY THE END OF THE EXPTL. PERIOD IT INCREASED TO NORMAL VALUES. IN THE SECOND GROUP ONLY SLIGHT CHANGES IN CHOLINESTERASE AND LIPOPROTEIN LIPASE ACTIVITIES COULD BE OBSERVED.

UNCLASSIFIED

3/3 023 UNCLASSIFIED PROCESSING DATE--09OCT70  
CIRC ACCESSION NO--AP0103643  
ABSTRACT/EXTRACT--FACILITY: LENINGRAD. SAINT. GIG. MED. INST., LENINGRAD,  
USSR.

UNCLASSIFIED

89

UNCLASSIFIED PROCESSING DATE--16OCT70

2 -017

TITLE--SEARCH FOR THE DIRAC MONOPOLE AT THE 70 GEV I.P.H.E. PROTON

SYNCHROTRON -U-

THOR-(05)-GUREVICH, I.I., KHAKIMOV, S.KH., MARTEMIANOV, V.P., MISHAKOVA,

A.P., GGURTZOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--PHYS. LETTERS (NETHERLANDS) VOL. 31B; NO. 6, P. 394-6 (16 MARCH

1970)  
DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--PROTON ACCELERATOR, SYNCHROTRON, MAGNETIC POLE, PARTICLE CROSS SECTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED  
INDEX REEL/FRAHE--1992/0532

STEP NO--NE/0000/70/003/006/0394/0396

ARC ACCESSION NO--AP0111725

UNCLASSIFIED

272 017 UNCLASSIFIED PROCESSING DATE--16OCT70  
RC ACCESSION NO--AP0111725  
STRACT/EXTRACT--(U) GP-0- ABSTRACT. THE ARTICLE DESCRIBES A SEARCH FOR  
THE DIRAC MONOPOLE AT THE 70 GEV I.P.H.E. PROTON SYNCHROTRON. IT WAS  
FOUND THAT THE UPPER LIMIT OF THE MONOPOLE PRODUCTION CROSS SECTION WAS  
SIGMA (90PRIME0 SUB0) SMALLER THAN OR EQUAL TO 1.5 TIMES 10 PRIME  
NEGATIVE 41 CM PRIME2 FOR M SUB0 SMALLER THAN OR EQUAL TO 5 M.  
FACILITY: I. V. KURCHATOV INST. ATOMIC ENERGY, MOSCOW, USSR.

UNCLASSIFIED



Explosives and Explosions

USSR

BORISOV, A. A., SKACHKOV, G. I., and OGURYAYEV, A. A., Institute of Chemical Physics, Acad. Sc. USSR, Moscow

"Ignition of  $N_2O + NO$  Mixtures at High Temperature"

Moscow, Kinetika i Kataliz, Vol 14, No 2, Mar-Apr 73, pp 294-300

Abstract: Ignition delays  $t_{i\dots}$  were determined for  $N_2O + NO$  mixtures in temperature range 1050-2500°K from the reflected shock waves, in a static bypass system. It has been shown that addition of NO lowers  $t_{i\dots}$ . Analytical expressions for the determination of  $t_{i\dots}$  as a function of the constants of elementary stages and of the thermophysical parameters of the reaction were developed by solving a system of kinetic equations together with the equation of heat balance under adiabatic conditions and within the constraints of the theory of thermal explosion. From the comparison of  $t_i$  determined in  $N_2O$  with and without added NO, the reaction rate constant for the reaction  $N_2O + NO = NO_2 + N_2$  was found to be  $k_3 = 10^{14.44 \pm 0.2} \exp [-(50 \pm 3)/RT] \text{ cm}^3/\text{mole}\cdot\text{sec}$ .

1/1

Acc. Nr: **A70102945** - Abstracting Service: **CHEMICAL ABST. 6-70**

Ref. Code: **URD148**

114174b Thermodynamic bases for controlling the deoxidizing capacity of carbon during in vacuo alloying of steel. Fedoseev, V. V.; Zyryanov, Yu. E.; Ansheles, I. I.; Oika, G. N. (Mosk. Inst. Stali Splavov, Moscow, USSR). *Izv. Vyssh. Ucheb. Zaved., Chern. Met.* 1970, 13(1), 43-7 (Russ). It was shown exptl. that electromagnetic mixing provided thorough homogenization of the added metals, which increased the time of the vacuum treatment of the steel, utilized more completely the deoxidizing capacity of C, and shortened the time the steel was under vacuum. The thermodynamic anal. of the overall reaction for the oxidn. of C and Cr during the melting of the steel in vacuo is given for various alloys (1%C, 1, 5%Cr-steel ShKh15; 0.3%C, 1%Cr-steel 30KhGSA and other Fe-C-O and Fe-C-O-Cr systems). The equil. capacity of the O in dependence upon the temp. and CO partial pressure is given. It follows from the results that it is better to change the present technol. of steel alloying.

J. Stejskal J VXC

REEL/FRAME  
19861011

18

USSR

UDC 621.791.019:669.245

OKADA, M., Osaka University, Japan

"Effect of Alloy Elements on Crack Formations in Welding Nickel-Based Refractory Alloys"

Kiev, Avtomaticheskaya Svarka, No 6, Jun 70, pp 7-13

Abstract: Such recently developed refractory alloys as IN100, Inconel 7135, and MAR-246 often develop crack formations when welded. This article investigates the nature of these cracks in 7135 Inconel. In particular, the effect of aluminum content on the resistance of the alloy to crack formation was investigated. A table gives the chemical composition of the alloys studied. All alloys were prepared in a high-frequency furnace under vacuum and were then poured in 4-Kg ingots in an argon atmosphere, with the mold heated to about 800°C before the pouring. A sketch is given of the equipment used for crack detection, and micro-photographs are included. The effect of niobium and carbon on white-component formation was also investigated. It is concluded that the principal cause of crack formations is the white component which forms at the boundary of the grains and dendrites and has a lower melting point than the alloy matrix.

1/1

1/2 009 UNCLASSIFIED PROCESSING DATE--04DEC70  
TITLE--ESTIMATION OF ERRORS IN MEASURING PHOTOSYNTHESIS INTENSITY BY GAS  
ANALYSIS -U-  
AUTHOR--(03)-GULYAYEV, B.I., MANUILSKIY, V.D., OKANENKO, A.S.  
COUNTRY OF INFO--USSR  
SOURCE--FIZIOL. BIOKHM. KUL'T. 1970, 2(1), 34-40  
DATE PUBLISHED-----70  
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES  
TOPIC TAGS--PHOTOSYNTHESIS, GAS ANALYZER, CARBON DIOXIDE  
CONTROL MARKING--NO RESTRICTIONS  
DOCUMENT CLASS--UNCLASSIFIED  
PROXY FICHE NO----FD70/605004/C08 STEP NO--UR/0654/70/002/001/0034/0040  
C.I.R.C. ACCESSION NO--AP0139623  
UNCLASSIFIED