

USSR

KOROBAYNICHEV, O. P., et al., Fizika gorenija i vzryva, Vol 8, No 4, 1972, pp 511-517

area is 50-100 microns, it can be considered that the catalyst operates efficiently near the c-phase. If the flame area is 10-20 microns from the fuel surface, the c-phase (which can include the skeleton of catalyst particles) is in the flame area.

2/2

1/2 019

UNCLASSIFIED

PROCESSING DATE--13NOV70

TITLE--REACTION OF OMEGA BROMOACETOPHENONE AND OMEGA
BROMOPENTAFLUOROACETOPHENONE WITH SOME NUCLEOPHILIC REAGENTS --J-
AUTHOR--(05)-ANDREYEVSKAYA, S.I., BARKHASH, V.A., KORSHENYICHEVA, I.K.,
KRIVOUSOVA, YE.G., SOKOLENKO, V.A.

COUNTRY OF INFO--USSR

K

SOURCE--ZH. ORG. KHIM. 1970, 6(4), 711-17

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--BROMINATED ORGANIC COMPOUND, ACETOPHENONE, FLUORINATED ORGANIC
COMPOUND, ORGANIC OXIDE, CHEMICAL REACTION MECHANISM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1961

STEP NO--UK/0366/70/008/004/0711/0717

CIRC ACCESSION NO--AP0125550

UNCLASSIFIED

2/2 019

CIRC ACCESSION NO--AP0125550

UNCLASSIFIED

PROCESSING DATE--13NOV70

ABSTRACT. THE REACTION OF BZCH SUB2 BR (I) WITH NEONA IN MECH AT 35DEGREES GAVE ONLY BZCH SUB2 OME (II) AND BZCH SUB2 OH (III) (CONSIDERED FORMED THROUGH THE INTERMEDIATE 1, METHOXY, 1, PHENYLETHYLENE OXIDE, WHICH WAS NOT ISOLATED). AT 0-5DEGREES THIS REACTION GAVE THE ABOVE PRODUCTS AND ALSO 2 ISOMERS OF 1, BENZOYL, 2, BROMOMETHYL, 2, PHENYLETHYLENE OXIDE (IV). THE REACTION OF I WITH KF IN REFLUXING MECH GAVE II, III, BZCH SUB2 F, AND 2 ISOMERS OF IV. THE REACTIONS OF C SUB6 F SUB5 COCH SUB2 BR (V) WITH NEONA IN MECH GAVE COMPLEX MIXTS. CONTG. IN SOME CASES C SUB6 F SUB5 H, 1, BROMOMETHYL, 1, 2, BIS(PENTAFLUOROPHENYL)ETHYLENE OXIDE (VI), AND 1, BROMOMETHYL, 1, PENTAFLUOROPHENYL, 2, (P-METHOXYTETRAFLUOROBENZYL)ETHYLENE OXIDE. THE REACTION OF V WITH KF-MECH GAVE ALSO VI, C SUB6 F SUB5 H, AND TRANS, 1, 2, 3, TRIS(PENTAFLUOROPHENYL) CYCLOPROPANE (VII). HEATING VII WITH HI-ACOH ISOMERIZED IT TO 2, 5, BIS(PENTAFLUOROPHENYL), 3, PENTAFLUOROBENZOYL METHYLURNA. THE MECHANISMS OF THE ABOVE REACTIONS ARE DISCUSSED. FACILITY: NOVOSEBIRSK. INST. ORG. KHIM., NOVOSEBIRSK, USSR.

UNCLASSIFIED

Functional Analysis

USSR

UDC: 517.9

KOROBAYNIK, Yu. F., Rostov State University

"Concerning the Existence of Solutions of an Equation of Infinite Order
With Predetermined Pattern of Increase"

Moscow, Matematicheskkiye Zametki, Vol 13, No 5, May 73, pp 677-686

Abstract: The author proves the existence of a particular solution
of an equation of infinite order with constant coefficients in certain
classes of functions which are infinitely differentiable on the real axis,
or entire analytic functions.

USSR

UDC 517.9

KOROBAYNIK, YU. F. and KUBRAK, V. K.

"The Existence of Partial Solutions to a Differential Equation of Infinite Order With an Assigned Increase"

Kazan', Izvestiya VUZ, Matematika, No 9, September 1973, pp 36-45

Abstract: This article shows that a differential equation of an infinite order with constant coefficients can, under certain conditions, be reduced to an infinite system of linear differential equations of the first order of magnitude equivalent to it. The basic equation here is:

$$\sum_{n=0}^{\infty} a_n y^{(n)}(z) = f(z). \quad (1)$$

1/2

USSR

KOROBAYNIK, YU. F., and KUBRAK, V. K., *Izvestiya VUZ, Matematika*, No 9, Sep 73, pp 36-45

It is assumed here that $f(z)$ in this equation belongs to the class $B_{\varphi, \psi}$ of integral functions $g(z)$ such that $|g(x+iy)| \leq c(g) \exp[\varphi(x) + \psi(y)]$, $-\infty < x, y < \infty$. A partial solution is found to equation (1) in such a class if the right-hand side of the equation also belongs to this class. The authors first find the integral solutions to equation (1) and then the solutions which are analytical in the star-shaped regions. In both instances they give the theorems and proofs to them. The article contains 1 bibliographic reference.

2/2

USSR

UDC: 517.93

KOROBAYNIK, Yu. F. and YEPIFANOV, O. V., Rostov-on-Don

"Normal Solvability of One Class of Infinite-Order Differential Equations"

Moscow, Matematicheskii Sbornik, vol. 84(126), No. 3, March 1971, pp 378-405

Abstract: This article is, in part, dependent on two earlier articles written by the first of the authors named above on the same subject. In these papers, an infinite-order differential equation with the polynomial coefficients

$$Ly(x) = \sum_{k=0}^{\infty} P_k(x)y^{(k)}(x) = f(x), \quad P_k(x) = \sum_{s=0}^{n_k} a_{ks}x^s,$$

where the degrees of the polynomials $P_k(x)$ are obtained by the condition

$$P_0(x) \equiv a_0 \neq 0, \quad \sup_{k \geq 1} \frac{n_k}{k} = \alpha < 1,$$

are investigated.

1/2

KOROBAYNIK, U. F., et al, Matematicheskiy zhurnal, vol. 84(126),
No. 3, March 1971, pp 378-405

In the present paper, the condition just above is replaced by

$$\alpha_0 = \overline{\lim}_{k \rightarrow \infty} (n_k/k) < 1.$$

The article deals primarily with two specific and distinct local-convex spaces, obtained by topologizing two classes. In particular, the important case of

$$\alpha_0 = \lim_{k \rightarrow \infty} (n_k/k) = 0$$

is considered, along with several other particular cases.

2/2

- 3 -

1/2 020

UNCLASSIFIED

PROCESSING DATE--02OCT70

TITLE--SATURATED VAPOR PRESSURE AND ENTHALPIES OF VAPORIZATION OF
INDIVIDUAL SODIUM AND POTASSIUM CHLORIDES -U-

AUTHOR--(03)-LUKASHENKO, E.YE., KORDBEYNIXOV, A.P., KHOMAYKO, I.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(2), 341-3

R

DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS, CHEMISTRY

TOPIC TAGS--SODIUM CHLORIDE, POTASSIUM CHLORATE, VAPOR PRESSURE,
THERMODYNAMIC CALCULATION, HEAT OF VAPORIZATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1987/0860

STEP NO--UR/0076/70/044/002/0341/0343

CIRC ACCESSION NO--AP0104296

UNCLASSIFIED

2/2 020

UNCLASSIFIED

PROCESSING DATE--02OCT70

CIRC ACCESSION NO--AP0104296

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SATD. VAPOR PRESSURES OF NA₂CO₃(S),
NA₂CO₃(L), K₂CO₃(S), AND K₂CO₃(L) WERE MEASURED AT 923-1123DEGREEK BY USING
THE METHOD OF KNUDSEN AND LANGMUIR. THE CORRESPONDING EQUATIONS, LOG P
SUBSAT. EQUALS F(T), WERE DERIVED AND THE AV. VALUES OF DELTA H
SUBEVAPN. CALCD. THE RESULTS OBTAINED BY THE LANGMUIR METHOD AT
923DEGREEK WERE LOWER THAN DATA IN THE LITERATURE.

UNCLASSIFIED

USSR

UDC 576.895.4

MULYARSKAYA, L. V., ~~KOROBENNIKOV, A. S.~~, DZHEBRILLOV, D. D., BABAYEV, A. G.,
SHASHNIKOVA, N. V., and NOVUMOV, M. A.

"Trombiculid Mites (Acariformes, Trombiculidae) of Western Azerbaydzhian"

Baku, Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Biologicheskikh
Nauk, No 3, 1971, pp 77-82

Abstract: The Institute of Zoology, Academy of Sciences Azerbaydzhian SSR, conducted a study of the distribution of trombiculid mites in Western Azerbaydzhian in 1967-68 jointly with the Azerbaydzhian Antiplague Station. The principal host of these blood-sucking parasites in Western Azerbaydzhian was found to be the red-tailed gerbil (*Meriones erythrorus*) because of the large number of animals of this species. Some significance as hosts of trombiculid mites can also be ascribed to the Asia Minor gerbil (*Meriones tristrami*), house mouse, common and social voles, and the weasel. The number of mites varied with the season and with climatic conditions at various elevations of this mountainous area. The largest number of Trombiculidae species (nine species) infested *Meriones erythrorus*. Weasels were infested exclusively with *Miyatrombicula caucasica*. The bird mite *Neoschoengastia thomasi* was found on forest dormice and the

1/2

USSR

MULYARSKAYA, L. V., et al., *Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Biologicheskikh Nauk*, No 3, 1971, pp 77-82

mite *Trombicula callosa*, which usually infests lizards, was found to occur on hedgehogs. The most numerous species of trombiculid mites was *Microtrombicula azerbaijanica*, which was followed by *Leewenhoeckia major*.

2/2

KOROBAYPIKOV, M.P.

Col.

Military psychology

1. Biographical Data JPRS 57726 MODERN COMBAT AND PROBLEMS OF PSYCHOLOGY	2. Report No. JPRS 57726	3. Report's Accession No. 11 December 1972
4. Author's Name and Address M. P. Korobaynikov Soviet Publications Research Service 1500 North Glebe Road Arlington, Virginia 22201	5. Report Title MODERN COMBAT AND PROBLEMS OF PSYCHOLOGY	6. Reporting Organization Ref. No.
7. Reporting Organization Name and Address As above	8. Date of Report 1972	9. Report's Tech/Spec Unit No. 11. Contract/Grant No.
10. Title of Report & Period Covered PROBLEMY BOY I PSYKHEVY PSYKHOLOGII, 1972, Moscow	11. Type of Report & Period Covered	12.
13. Synopsis The report contains an extensive discussion concerning the principal psychological problems of preparing military personnel to perform successful combat actions in a war where missiles and nuclear weapons are being employed.		
14. Indexing and Summary Numbers - If Available L58R Behavioral and social sciences Military psychology Political indoctrination		
15. Distribution Statement Classified Availability CIC BY BRIS Arlington, Virginia 22201		
16. Security Classification Page 1 of 1 193 Page 1 of 1		

THIS FORM MAY BE REPRODUCED

KOROBAYNIKOV, P.V.

Microelectronics

MICROELECTRONICS

JPRS 57313
25 October 1972

Excerpt from Russian-language book edited by P. V. Lukin:
MICROELECTRONICS, No. 5, 1972, Sovetskoye Radio Publishing House,
Moscow, USSR. 2113581421. 185. 2-181. 5.

CONTENTS

	PAGE
Annotation.....	1
Obituary of Fedor Viktorovich Lukin.....	2
Foreword.....	3
Abstracts.....	5

- 2 -

[I - USSR - F]

USSR

D'YACHKOV, V. I., et al., Izvestiya VUZ -- Radioelektronika, No 5, 1970,
pp 596-600

account beginning with frequencies of the order of 60 MHz. It is found also that the optimal inside diameter of wire spiral inductances and cores in such circuits for tuning in the 10-150 MHz range varies from 4 to 6 mm. Curves are presented for the variations of capacitance and inductance as functions of different variables, and tables of the parameters of various metals used as conductors in the microcircuits are given. Formulas for the inductance of film conductors are also developed.

2/2

1/2 048 UNCLASSIFIED PROCESSING DATE--3006170
 TITLE--UNSTEADY ONE DIMENSIONAL MOTIONS OF INFLAMMABLE GAS MIXTURES WITH
 THE FORMATION OF DETONATION TYPE WAVES -U-
 AUTHOR--(04)-KURUBEYNIKOV, V., LEVIN, A., MEDVEDEV, S.A., CHERNYI, G.G.
 COUNTRY OF INFO--USSR
 SOURCE--MOSKOVSKIY UNIVERSITET, VESTNIK, SERIYA L MATEMATIKA, MEKHANIKA,
 VOL. 25, PAR. -- APRIL 1970, P. 125-134.
 DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS, PROPULSION AND FUELS

TOPIC TAGS--GAS, DETONATION, DETONATION SHOCK WAVE, SHOCK WAVE ANALYSIS,
REYNOLDS NUMBER

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1999/1491

STEP NO--06/0055/70/025/000/0123/0134

CIRC ACCESSION NO--AP0123394

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--300CT70

2/2 048

CIRC ACCESSION NO--AP0123394

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

ABSTRACT. THEORETICAL STUDY OF A GROUP OF PROBLEMS CONCERNING THE UNSTEADY ONE DIMENSIONAL MOTION OF REACTING GAS MIXTURES IN THE PRESENCE OF DETONATION WAVES. IT IS SHOWN THAT SUPERCOMPRESSED DETONATION WAVES, SUCH AS THOSE PRODUCED BY THE MOTION OF A PISTON OR DUE TO THE INFLUX OF EXTERNAL ENERGY, ARE TRANSFORMED INTO CHAPMAN-JOUQUET SELF SUSTAINING WAVES WHEN THE HEAT DISCHARGE ZONE IS INFINITELY THIN. A CONDITION IS FOUND UNDER WHICH A PLANE DETONATION WAVE FRONT WEAKENED BY A TRAILING REFRACTION WAVE CAN BE TRANSFORMED INTO A CHAPMAN-JOUQUET WAVE BY AN ELECTROMAGNETIC FIELD AT SMALL MAGNETIC REYNOLDS NUMBERS. A MATHEMATICAL CRITERION FOR THE ASYMPTOTIC CONVERSION OF A DETONATION WAVE WITH A DOUBLE FRONT STRUCTURE INTO A CHAPMAN JOUQUET WAVE IS DISCUSSED.

UNCLASSIFIED

UDC 681.327.2

USSR

MALINOVSKIY, B. N., Corresponding Member of the Academy of Sciences Ukrainian SSR, and KOROBEYNIKOV, V. N.

"Graphics Display Device"

Kiev, Mekhanizatsiya i Avtomatizatsiya Upravleniya, No 2, Mar-Apr 72, pp 35-37

Abstract: The article describes a graphics display device developed at the Institute of Cybernetics, Academy of Sciences Ukrainian SSR, for the reproduction of two-dimensional curves and three-dimensional surfaces. Linear interpolation and transformation of coordinates are in analog form. The device is intended for use in standard systems for the automation of scientific research. A block diagram is given showing the device connected to a Dnepr general-purpose computer.

1/1

RAN / 1 R-760 / S-NAV-13
Nov 1972

I. SHOCK WAVES AND EXPLOSIONS IN GASES

Bayer, V. K., E. N. Kondrikov, V. P. Korobeynikov, V. V. Mitrofanov, R. I. Solovkin, and M. Ye. Topchiyan.
Research on explosion gas dynamics and
reacting systems. FGIV, no. 2, 1971,
312-317.

The Third International Colloquium on explosion gas dynamic and reacting systems took place at ~~the~~ the ~~12-17, 1971 in~~ the ~~Marzelles, France.~~ Marzelles, France. Basic topics of theoretical and experimental research reported on were in the field of unsteady dynamic gas flow, accompanied by physicochemical transformations of the medium; gas-dynamic aspects of detonation; and problems of the physics and chemistry of rocket-fuel combustion and working processes in engines. The colloquium also dealt with the gas dynamics of explosions in space. The conference was divided into seven sections: a) space phenomena, b) vortex flow, c) explosion gas dynamics, d) detonation, e) shock waves, f) gas-liquid systems, and g) reacting systems. V. P. Korobeynikov gave a gas-dynamic description of the motion and capture of meteorites on the basis of the supposed explosion pattern of the Tunguska meteorite.

A session on twisted flows included a joint report by four U.S. delegates and V. P. Korobeynikov on the influence of heat conduction and viscosity on wave propagation from a powerful explosion. A. A. Vasil'yev, T. P. Gavrilenko, and M. Ye. Topchiyan described planned experimental research on the position of the Chapman-Jouguet plane in a multidimensional detonation wave in gas. V. P. Korobeynikov, G. G. Chernyy, et al. presented a theoretical analysis and an example of a numerical

KOROBAYNIKOV, V. P.

Heat, Combustion, Detonation

USSR

UDC 534.222.2

KOROBAYNIKOV, V. P., LEVIN, V. A., MARKOV, V. V.

"Explosion in A Combustible Gas Mixture"

Nauch. Tr In-t. Mekh Mosh. Un-ta, [Scientific Works of the Institute of Mechanics], Moscow University, 1971, No 11, pp 83-89. (Translated from Referativnyy Zhurnal Mekhanika, No 1, 1972, Abstract No 18211 by G. A. Adadurov).

Translation: The problem of the explosion of a quiet, combustible mixture of gases is studied when energy is instantly liberated at a point along a plane or straight line. The gas is considered ideally nonviscous and non-heat-conducting. The process of combustion is calculated using a model which considers the delay time of ignition and subsequent simultaneous occurrence of the forward and reverse reactions. The equations are taken as Arrhenius dependences.

The analysis performed shows that the motion of the gas, in which exothermic reactions may occur, can be developed in two stages. The initial stage is when the quantity of energy liberated in the area limited by the flame front is small in comparison to the explosive energy. The course of the process in this stage is described by formulas providing the solution of the problem of a strong point explosion. The chemical reactions occur against the background of this flow. The strongly overcompressed detonation wave which develops with the explosion breaks down to an ordinary compression jump

1/2

UDC 669.295

USSR

BOGACHEV, I. N., DAVYDOV, V. N. and KOROBENNIKOV, V. P.

"Removal of Scale From the Surface of Titanium Alloys Using Cavitation Treatment"

Moscow, Tsvetnyye metally, No 1, Jan 72, pp 77-78

Abstract: Described is a feasibility study on the use of ultrasonic cavitation treatment of the surface of titanium alloy sheets for either partial or complete removal of scale exclusive of the shortcomings of other methods. It is shown that preliminary loosening-up of the difficult-to-remove scale from titanium alloys by ultrasonic cavitation treatment in water reduces the subsequent pickling time 30 to 40 times, which significantly reduces the degree of hydrogenation of alloys in the process of pickling and thus improves the surface quality of the sheet material, without affecting its basic mechanical properties. The experimental materials were VT6a and VT14 hot-rolled titanium stock. A diagram of the experimental ultrasonic unit for the cavitation treatment of the surface of sheet metal specimens is shown. The subsequent chemical pickling was performed in an aqueous solution of 15% H_2SO_4 and 2% NH_4F at 20°C. The specimens were rinsed in running water for 15-20 sec. (1 illustration; 3 bibliographic references).

1/1

- 63 -

USSR

UDC 534.29;532.528

BOGACHEV, I. N., and KOROBEYNIKOV, V. P., Ural Polytechnic Institute imeni S. M. Kirov, Sverdlovsk

"Intensity Dependence of Cavitation Erosion in Liquid Oxygen on Static Pressure"

Moscow, Akusticheskiy Zhurnal, Vol 17, No 4, 1971, pp 533-539

Abstract : A method and the installation for experimental investigation of the cavitation erosion of materials in liquid oxygen are described. The dependence of the erosion activity of acoustic cavitation in liquid oxygen (at 77.2 °K = boiling temperature of nitrogen used in the capacity of a cooling agent at atmospheric pressure) on static pressure and ultrasound frequency (15 and 35 kHz) were investigated. The investigation results are discussed by reference to diagrams showing the cavitation erosion, the maximum erosion depth of aluminum specimens, and the average diameter of the erosion zone as functions of static pressure and photographs of aluminum specimens eroded in oxygen. The results demonstrate that the erosion activity of acoustic cavitation in liquefied gases by constant electric power fed into the transducer can be increased by many times by increase of static pressure. The erosion activity of cavitation decreases with increasing ultrasound frequency. Five illustr., 14 biblio. refs.

1/1

UDC 576-895.4

USSR:

MULYARSKAYA, L. V., KOROBAYNIKOVA, A. S., and BARAGAMOVA, E. S.,

"Small Mammals as Hosts of Trombiculid (Acariformes, Trombiculidae) in the Lesser Caucasus"

Baku, Izvestiya Akademii Nauk Azerbaydzhanskoy SSR, Seriya Biologicheskikh Nauk, No 1, 1971, pp 95-101

Abstract: During 1963-66 the Institute of Zoology, Academy of Sciences Azerbaydzhan SSR, and the Azerbaydzhan Antiplague Station carried out a study of the species composition of small mammals harboring Trombiculid mites in the Lesser Caucasus, the species composition of the mites infesting small mammals there, the degree of infestation of the mammals of different species with the mites, and seasonal variations in the degree of infestation. The results are summarized in the form of tables. Trombiculid mites are of importance as vectors of rickettsioses. The principal hosts of the mites were rodents of several species (gerbils, voles, and the house mouse). The considerable degree of infestation of the house mouse with Trombiculid mites is of interest, because house mice were found to be infested to only a slight degree or not at all in other regions of the Caucasus.

1/1

USSR

UDC: 632.937.11

KOROBAYNIKOVA, A. V., Candidate of Biological Sciences, Reader at the Sverdlovsk Pedagogical Institute, and PETROVA, T. N., Teacher of Biology, Sverdlovsk School No 23

"Treatment of Seeds with Trochotecin"

Moscow, Zashchita Rasteniy, No 2, 1970, p 24

Abstract: In connection with damp weather in the Central Urals during the ripening and harvesting seasons, antibiotics have been used in recent years to counteract the effects of microorganisms and fungi. In 1967 - 1968 the authors tested trichothecin for this purpose, treating seeds for 30 minutes in trichothecin solutions of various concentrations before planting (winter wheat was used in the tests). It was found that this treatment resulted in more than a 50 percent reduction of the diameter of fungus colonies, with better than 40 percent increase in yield. The authors' results are similar to those obtained by other Soviet experiments in 1963 and 1964.

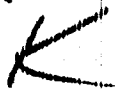
1/1

- 56 -

1/2 016
 TITLE--RAPID METHOD FOR DETERMINING THE COLOR INDEX OF GRANULATED SUGAR
 -U-
 AUTHOR--(02)-ZAGGRUKO, A.YA., KOROBAYNIKOVA, L.A.
 COUNTRY OF INFO--USSR
 SOURCE--SAKH. PROM. 1970, 44(2), 37-41
 DATE PUBLISHED-----70

UNCLASSIFIED

PROCESSING DATE--0900T70



SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
 TOPIC TAGS--FOOD ANALYSIS, LIGHT REFLECTION, COLORIMETRY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
 PROXY REEL/FRAME--1990/0945

STEP NO--UR/0339/70/044/002/0037/0041

CIRC ACCESSION NO--AP0109102

UNCLASSIFIED

2/2 016
CIRC ACCESSION NO--AP0109102
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A METHOD BASED ON REFLECTANCE
MEASUREMENTS AT 758 AND 368 M MU IS DESCRIBED. THE MAX. RELATIVE ERROR
IS PLUS OR MINUS 10PERCENT.

PROCESSING DATE--09OCT70

UNCLASSIFIED

UNCLASSIFIED

1/2 017 UNCLASSIFIED PROCESSING DATE--0200170
 TITLE--INTENSITY VARIATIONS AND DYNAMICAL CHARACTERISTICS OF THE SPATIAL
 PATCHES OF THE EMISSION LAMBDA 5577 ANGSTROM -U-
 AUTHOR--(03)-KOROBAYNIKOVA, M.P., NASYROV, G.A., KHANIDULINA, V.G.

COUNTRY OF INFO--USSR
 SOURCE--RAZDEL IV, POLYARNYYE SIYANIYA, I SVECHENIYE NOCHNOGO NEBA, 1970,
 NR 18, PP 5-14
 DATE PUBLISHED-----70

SUBJECT AREAS--ASTRONOMY, ASTROPHYSICS, ATMOSPHERIC SCIENCES
 TOPIC TAGS--DIURNAL VARIATION, OXYGEN, LINE INTENSITY, SEASONAL VARIATION,
 MOON

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
 PROXY REEL/FRAME--1994/0115

STEP NO--UR/3307/70/000/018/0005/0014

CINC ACCESSION NO--AP0114911
 UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--020CT70

2/2 017

CIRC ACCESSION NO--AP0114511
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. ACCORDING TO THE OBSERVATIONS CARRIED OUT IN ASHKHABAD IT IS CHARACTERISTIC OF THE DAILY VARIATIONS IN THE INTENSITY OF GREEN OXYGEN LINE THAT THE MAXIMUM INTENSITY OCCURS AT 2 OR 3 A.M. FOLLOWED BY AN APPRECIABLE DROP BY 5 A.M. THE FREQUENCIES OF APPEARANCE OF LOGARITHM OF INTENSITY LAMBDA 5577 ANGSTROM AND THE CUBE ROOT OF THE INTENSITY ARE DISTRIBUTED IN A NORMAL WAY. THE INTENSITY IS SUBJECT TO SEASONAL VARIATIONS WITH TWO MAXIMUM VALUES IN JUNE AND OCTOBER, AND WITH A MINIMUM VALUE IN JANUARY. THE VARIATIONS IN INTENSITY LAMBDA 5577 ANGSTROM HAVE BEEN FOUND TO BE AFFECTED BY THE MOON. THE TIME OF THE MAXIMUM VALUE AFTER THE LUNAR MIDNIGHT CORRESPONDS TO 4 PRIMEK 10 PRIMEK, THE AMPLITUDE BEING 05 RAYLEIGHS. AN AVERAGE SIZE OF HETEROGENEITIES LAMBDA 5577 ANGSTROM WHICH ARE WITHIN THE PHOTOMETRE FIELD OF VISION, IS 100 KM. THE MAXIMUM SIZE BEING 500 KM, AND THE MINIMUM ONE 30 KM. AN AVERAGE SIZE OF HETEROGENEITY BEYOND THE PHOTOMETRE FIELD OF VISION IS 1000 KM.

UNCLASSIFIED

1/2 023 UNCLASSIFIED PROCESSING DATE--02 OCT 70
 TITLE--SEARCH OF THE RAPID SPATIAL VARIATIONS OF THE INTENSITY OF THE
 OXYGEN GREEN LINE -U-
 AUTHOR-(U4)-KALCHAYEV, K.K., KOROBCEVNIKOVA, M.P., HASYRDV, G.A.,
 KHANIGULINA, V.G.
 COUNTRY OF INFO--USSR
 SOURCE--FAZDEL IV. POLYARNYYE SIYANIYA I SVECHENIYE NUCHNOBU NERA, 1970,
 NR 18, PP 15-17
 DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS, ATMOSPHERIC SCIENCES
 TOPIC TAGS--OXYGEN, SPECTRAL LINE, EMISSION SPECTRUM, RADIATION SPECTRUM,
 RADIATION INTENSITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
 PROXY REEL/FKAME--1994/0055

STEP NO--UR/3307/70/000/013/0015/0017

CIFC ACCESSION NO--AP0114451
 UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--02JCT70

2/2 023

CIRC ACCESSION NO--AP0114451

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. ACCORDING TO THE OBSERVATIONS CARRIED OUT IN ASHKHABAD THE ENTIRE SKY WAS SCANNED IN EMISSION AT 5577 ANGSTROM WITHIN TWO OR THREE MINUTES. THE ANALYSIS OF ISOPHOTES TAKEN AS A FILM REVEALS THE EXISTENCE OF SPOTS WHOSE SIZE VARIES IN A RAPID PULSATING MANNER.

UNCLASSIFIED

UDC 621.375.181.4.002.2(024)

USSR

KOROBAYNIKOVA, P.V., editor

"Construction Of Aperiodic Film Amplifiers"

Konstruirovaniye aperiodicheskikh plenochykh usiliteley (cf. English above),
Moscow, "Sov.radio," 1972. 144 pp. 8 tab. 61 fig. 44 ref. 36 kop.

Abstract: In the brochure problems are presented of the construction of film hybrid microcircuits of aperiodic amplifiers of sinusoidal-formed high-frequency signals. Constructive designs of elements and microcircuits as a whole are presented as well as the working out of the topological drawings of microcircuits with the stray couplings and the proposed technology taken into account. Problems are considered of layout, methods of creating assembly connections in microcircuits, and problems of sealing of the amplifiers. Examples are presented in the appendices of topological drawings of the microcircuit of the amplifiers and drawings of the layers. The brochure can be useful to radio engineers, workers in the field of miniaturization of radio engineering apparatus, and also to students of higher educational institutions for specialists in construction of radio apparatus.

TABLE OF CONTENTS

3

Preface

1/4

USSR

KOROBAYNIKOVA, P. V., editor, Konstruirovaniye aperiodicheskikh plenochykh usiliteley, Moscow, "Sov.radio," 1972. 144 pp. 8 tab. 61 fig. 44 ref. 36 kop.

CHAPTER ONE

Analysis And Planning Of Aperiodic Film Hybrid Amplifiers

1.1 Special features of the development of aperiodic film amplifiers	5
1.2 Principal relations necessary for planning designs of film hybrid amplifiers	9
1.3 Special features of operation of amplifiers stages of aperiodic film hybrid amplifiers	15
1) Stage with common emitter	16
2) Stage with common base	26
3) Stage with common collector	30
4) Stage of common emitter--common base	32
5) Stage of common collector--common base	33
1.4 Design of transient circuits and load elements	34
1.5 Stability of aperiodic film amplifiers	37
1.6 Method of planning design of aperiodic film amplifiers	40
1.7 Check computation of film hybrid amplifiers	42

2/4

- 149 -

USSR

KORBEYNIKOVA, P. V., editor, Konstruirovaniye aperiodicheskikh plenochykh usiliteley, Moscow, "Sov.radio," 1972. 144 pp. 8 tab. 61 fig. 44 ref. 36 kop

1.8 Example of computation of preliminary aperiodic film amplifier using non-cased transistors which possesses selective properties 43

CHAPTER TWO

Construction Of Film Resistors

2.1 Construction of film resistors of rectangular form 48
2.2 Construction of film resistors of meander type 59
2.3 Construction of film resistors of increased precision 68
2.4 Construction of film contact junctions 74

CHAPTER THREE

Construction Of Film Capacitors

3.1 Materials used for making film capacitors 82
3.2 Principal design relationships necessary for construction of film capacitors 85
3.3 Construction of film capacitors in accordance with a specified nominal value and tolerance of capacitance 89
93

3/4

USSR

KOROBAYNIKOVA, P. V., editor, Konstruirovaniye aperiodicheskikh plenochykh usiliteley, Moscow, "Sov.radio," 1972. 144 pp. 8 tab. 6il fig. 44 ref. 36 kop.

- 3.4 Determination of the Q of film capacitors
- 3.5 Construction of film capacitors with increased precision of capacitance and capacitors with matching capacitance 97

CHAPTER FOUR

Construction Of Film Hybrid Amplifiers

- 4.1 Planning of the topology of thin-film hybrid microcircuits 107
- 4.2 Concerning an analysis of the topology of microcircuits with the use of an electronic computer 113
- 4.3 Construction layout and protection of hybrid microcircuits 120
- 4.4 Principal requirements on drawings of hybrid film microcircuits 127

Appendix 132

Bibliography 139

4/4

- 150 -

1/2 017 UNCLASSIFIED PROCESSING DATE--09OCT70
TITLE--LOW TEMPERATURE DECARBURIZATION OF TRANSFORMER STEEL -U-

AUTHOR--(OS)--NEKRASOVA, M.I., TIPIKINA, L.N., SOKOLOV, B.K., KOROBKA, B.A.,
ZYKOV, G.A.
COUNTRY OF INFO--USSR

SOURCE--IZV. AKAD. NAUK SSSR, SER. FIZ. 1970, 34(2), 317-21

DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--TRANSFORMER STEEL, METAL DECARBURIZATION, SILICON STEEL,
NITROGEN, OXYGEN

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1995/0193

STEP NO--UR/00437/0/034/002/0317/0321

CIRC ACCESSION NO--AP0115897

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--09OCT70

2/2 017

CIRC ACCESSION NO--AP0115897
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. DECARBURIZATION OF TRANSFORMER STEEL CONTG. 3.4PERCENT SI AND A MIXT. OF N, H, AND WATER VAPOR IN VARIOUS PROPORTIONS WAS INVESTIGATED. THE GAS WAS D PURIFIED TO 0.001PERCENT, AND DRIED TO A DEW POINT OF MINUS 40 TO MINUS 50DEGREES. DECARBURIZATION WAS STUDIED AT 650-1050DEGREES, AND AT RATIOS (H SUB2 O)-(H SUB2) EQUALS 0.2, 0.4, 0.6. THE DRY GAS CONTAINED 20PERCENT H SUB2. THE INITIAL C CONTENT IN THE METAL WAS 0.020-0.025PERCENT, AND THE HOLDING TIME IN THE ATM. WAS 5 MIN. THE BEST DECARBURIZATION RESULTS WERE OBTAINED AT 800-50DEGREES, AND AT (H SUB2 O)-(H SUB2) VALUES OF 0.4 AND 0.6. THE RATE OF DECARBURIZATION WAS DETD. AT 850DEGREES AND AT (H SUB2 O)-(H SUB2) EQUALS 0.5. THE METAL, 0.35 MM THICK, AND WITH 0.020-0.025PERCENT OF ITS INITIAL C CONTENT, WAS DECARBURIZED DURING 5 MIN TO A VALUE LESS THAN 0.005PERCENT, AND WITH 0.045-0.055PERCENT OF THE INITIAL C CONTENT TO THE SAME VALUE, BUT DURING 7 MIN.

FACILITY: VERKH-ISETSKII MET. ZAVOD, USSR.

UNCLASSIFIED

USSR

UDC 666.764.23:543.062

KOROBKA, L. A., TRET'YAK, Z. A., and KONIK, L. P., Ukrainian
Scientific Research Institute of Refractories

"Photometric Determination of Aluminum in Zirconium-Containing
Refractories"

Moscow, Ogneupory, No 8, 70, pp 49-51

Abstract: A photometric method of alkaline separation of aluminum from zirconium-containing materials using chromasural S is described. Use was made of salt solutions and artificial mixtures of refractory oxides to study the techniques of preparing solutions of the real materials to be analyzed, as well as of methods of quantitative separation of aluminum and zirconium and specifications for photometric determination. The study indicates the possibility of determining aluminum in zirconium-containing refractories without having to remove the fusing agent used for the alkaline separation of aluminum from zirconium, hafnium, titanium, and iron. The statistical method of processing the analytical data on Al_2O_3 in zirconium refractories by photometry using chromasural S is presented in a table in the original article. The photometric method provides high accuracy and reproducibility of results.

1/1

UNCLASSIFIED

PROCESSING DATE--27NOV70

1/2 013
TITLE--LI SUB2 CL SUB2 NA SUB2 CL SUB2 K SUB2 CL SUB2 LI SUB2 SO SUB4

QUATERNARY SYSTEM -U-
AUTHOR--(03)-AKOPOV, YE.K., KOROBKA, YE.I., BERGMAN, A.G.

COUNTRY OF INFO--USSR

SOURCE--ZH. NEORG. KHIM. 1970, 15(5), 1351-3

DATE PUBLISHED-----70

K

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHASE DIAGRAM, LITHIUM CHLORIDE, SODIUM CHLORIDE, POTASSIUM
CHLORIDE, SULFATE, CRYSTALLIZATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--3006/1402

STEP NO--UR/0078/70/019/005/1351/1353

CIRC ACCESSION NO--AP0135076

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--27NOV70

2/2 013

CIRC ACCESSION NO--AP0135076

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE CRYST. FIELD OF THE
INCONGRUENTLY MELTING $LiCl_2NaCl$ WAS DETD. AND PRESENTED ON A 3
DIMENSIONAL PHASE DIAGRAM OF THE TITLE SYSTEM. CRYSTN. DIAGRAMS OF THE
SURFACES OF Li SUB2 Cl SUB2 Li SUB2 SO SUB4 (0.7 NA SUB2 Cl SUB2 PLUS
0.3K SUB2 Cl SUB2) AND Li SUB2 Cl SUB2, Li SUB2 SO SUB4 (0.5B NA SUB2 Cl
SUB2 PLUS 0.42 K SUB2 Cl SUB2) WERE DETD. AND THEIR DIAGRAMS ARE GIVEN.
FACILITY: KRASNODAR. POLITEKH. INST., KRASNODAR, USSR.

UNCLASSIFIED

USSR

UDC: 621.372.852.4

KOROBKIN, V. A., PYATAK, N. I., MEKHED'KIN, A. A., Khar'kov "Order of the Red Banner of Labor" State University imeni A. M. Gor'kiy

"An Electrically Controlled Waveguide Polarizer"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obrabotsy, Tovarnyye Znaki, No 12, Apr 72, Author's Certificate No 310601, Division II, filed 5 Jan 70, published 30 Mar 72, p 241

Translation: This Author's Certificate introduces an electrically controlled waveguide polarizer consisting of a section of circular waveguide with a ferrite insert installed on its axis in a controlling external longitudinal magnetic field. As a distinguishing feature of the patent, the polarizer is designed for converting a linearly polarized wave to right- or left-hand circularly polarized waves in a wide frequency band, and for reducing the external magnetic field strength. The above-mentioned insert is made in the form of coaxial ferrite cylinders separated by an air space.

1/1

USSR

UDC: 621.372.852.15

KOROBKIN, V. A., PYATAK, N. I., Khar'kov "Order of the Red Banner of Labor"
State University imeni A. M. Gor'kiy

"An Electrically Controllable Microwave Filter"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki,
No 12, Apr 72, Author's Certificate No 310602, Division H, filed 25 Dec 69,
published 30 Mar 72, p 241

Translation: This Author's Certificate introduces an electrically con-
trollable microwave filter which contains a rectangular waveguide, a ferrite
insert and a magnetic system. As a distinguishing feature of the patent,
the controlling magnetic field strength is reduced by making the ferrite
insert in the form of identical ferrite elements located along the axis of
the waveguide with equal spacing to form a periodic structure partially
filling the cross section of the waveguide.

1/1

221

USSR

UDC 533.95:539.4

PYATNITSKIY, L. N., KHAUSTOVICH, G. P., and ~~KOROBKIN, V. A.~~

"Calculation of Plasma Parameters on the Basis of the Characteristics of the Spectra of Scattered Light"

V sb. Teplofiz. svoystva nizektemperaturn. plazmy (Physical Properties of a Low-Temperature Plasma -- Collection of Works), Moscow, "Nauka", 1970, pp 34-37 (from RZh-Fizika, No 4, Apr 71, Abstract No 4G51)

Translation: A method for determining the parameters of a plasma on the basis of the characteristics of the electron component of the scattering spectrum without requiring knowledge of the absolute values of the intensities of the scattered radiation is discussed. Used as characteristics of the spectrum are the half-width of the satellites of the scattered light and the position of their maxima. The computational method is given for the first approximation of the theory and for the exact solution. Authors abstract.

1/1

Waveguides

USSR

UDC: 621.372.852.1

PYATAK, M. I., KOROBKIN, V. O.

"Experimental Study of Electrically Tuned Microwave Filters Based on a Periodic Ferrite Structure"

Visnyk Kharkiv. un-tu (Khar'kov University Herald), 1972, No 40, Radio Physics and Electronics, vyp. 1, pp 54-58 (from RZh-Radiotekhnika, No 8, Aug 72, Abstract No 8B179)

Translation: An investigation was made of the properties and parameters of filters based on periodic ferrite structures controlled by an external magnetic field for the purpose of optimizing the parameters of the structure (thickness of the ferrite elements, the ratio between the lengths of the empty and ferrite-filled parts of the period, the parameters of the material). The advantages of filters of this type over others are noted: the low intensity of the controlling field (less than 1000 oersteds), and the broad tuning range. They have significant possibilities for use in the millimeter band. Three illustrations, bibliography of seven titles. N. S.

1/1

Therapy

UDC 612.014.481

USSR

KOROBKINA, A. G., KOTSYUBINSKIY, N. N., and ZIMINA, E. P.

"Effect of Sigma-Aminocaproic Acid on Combined Radiation Lesions"

Moscow, Voenno-Meditsinskiy Zhurnal, No 2, 1971, pp 42-46

Abstract: Sigma-aminocaproic acid, a synthetic inhibitor of fibrinolysis, inhibits the conversion of plasminogen into plasmin, suppresses fibrinolysis, promotes better and more rapid consolidation of blood clots, and mitigates hemorrhagic phenomena. It was administered to dogs by itself or with blood transfusions and antibiotics at different times following irradiation (500r) and fracture of the femur. One group received the acid (5% solution intravenously at the rate of 0.3 g/kg), transfusion, and antibiotics during the latent period (day 1 to day 3). Another received the same treatment at the height of radiation sickness (from day 6 to day 20). A third group was given only the acid from day 1 to day 30. The results showed that the survival rate of the animals that received sigma-aminocaproic acid during the latent period was significantly higher than in the control, while the survival rate of the other two groups of animals was the same as in the control. When the acid was administered at the height of the disease, either by itself or as part of complex therapy, it aggravated the course of the combined lesions and


1/2

USSR

KOROBKINA, A. G., et al., Voenno-Meditsinskiy Zhurnal, No 2, 1971, pp
42-46

most of the animals died with pronounced hemorrhagic symptoms.

2/2

1/2 010 UNCLASSIFIED PROCESSING DATE--300670
TITLE--VITAMIN LEVELS IN DRIED PEACHES -U-
AUTHOR--(02)-KOROBKINA, Z.V., KURTOV, I.A. 
COUNTRY OF INFO--USSR
SOURCE--KONSERV. OVOSHCHESUSH. PROM. 1970, 25(1), 29-33
DATE PUBLISHED-----70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--VITAMIN, FOOD ANALYSIS, FOOD STORAGE

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1998/0593 STEP NO--UR/9084/70/025/001/0029/0033
CIRC ACCESSION NO--AP0121262
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--30OCT70

2/2 010

CIRC ACCESSION NO--AP0121262

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

ABSTRACT. THE CONTENT OF VITAMIN C AND CAROTENE IN 7 KINDS OF DRIED PEACHES WAS INVESTIGATED. CHANGES IN VITAMIN CONTENT DURING DRYING VARIED WITH TYPE. STORAGE OF DRIED PEACHES IN SEALED PACKAGES CONSIDERABLE REDUCED THE VITAMIN LOSSES. BLANCHING DECREASED THE CONTENT OF VITAMINS IN THE DRIED FRUITS. FACILITY: SAMARKAND, KOOP. INST. IM. KUIBYSHEVA, SHARKAND, USSR.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--AN AUTOMATIC CONTROL BLOCK FOR TRANSFORMER VOLTAGE REGULATION -U-

AUTHOR--KOROBKO, E.A.

COUNTRY OF INFO--USSR

SOURCE--ELEKT. STANTSII (USSR), NO. 6, P. 78-9, JUNE 1969

DATE PUBLISHED----JUN70

SUBJECT AREAS--ELECTRONICS AND ELECTRICAL ENGR., MECH., IND., CIVIL AND
MARINE ENGR

TOPIC TAGS--VOLTAGE REGULATOR, ELECTRIC TRANSFORMER, AUTOMATIC CONTROL
SYSTEM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--199B/1818

STEP NO--UR/0104/69/000/006/0078/0079

CIRC ACCESSION NO--AP0122148

UNCLASSIFIED

2/2 008

UNCLASSIFIED

PROCESSING DATE--300070

CIRC ACCESSION NO--AP0122148

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. GIVES TECHNICAL DATA, A SHORT DESCRIPTION, FLOW DIAGRAM AND SCHEMATIC DIAGRAM OF AN AUTOMATIC CONTROL UNIT FOR TRANSFORMER ON LOAD VOLTAGE REGULATION EQUIPMENT.

UNCLASSIFIED

1/2 027 UNCLASSIFIED PROCESSING DATE--3006170
TITLE--ANGULAR AND TEMPERATURE DEPENDENCES OF THE WIDTHS OF EPR LINES -U-
AUTHOR--(03)--DEYGEN, M.F., GLINCHUK, M.D., KOROBKO, G.V.
COUNTRY OF INFO--USSR
SOURCE--FIZ. TVERD. TELA 1970, 12(2), 507-15
DATE PUBLISHED-----70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--LINE WIDTH, EPR SPECTRUM, ANGULAR DISTRIBUTION, TEMPERATURE
DEPENDENCE, SPIN LATTICE RELAXATION, CRYSTAL DEFECT, CRYSTAL LATTICE
VIBRATION, ZINC COMPOUND, TUNGSTATE, CHROMIUM
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1983/1612 STEP NO--UR/0181/70/012/002/0507/0515
CIRC ACCESSION NO--AP0054462
UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--30OCT70

2/2 027
CIRC ACCESSION NO--A0054462
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. THE ANGULAR AND TEMP. DEPENDENCES OF THE WIDTH OF EPR LINES WERE INVESTIGATED. IT IS ASSUMED THAT THE MAIN CONTRIBUTIONS TO THE WIDTH OF THE EPR LINE ARE MADE BY THE ELEC. FIELDS OF DEFECTS, DIPOLE DIPOLE INTERACTIONS, AND SPIN LATTICE RELAXATION. TEMP. VARIATION OF THE WIDTH OF THE LINE IS RELATED MAINLY TO MODULATION OF THE CRYSTAL FIELD CONSTS. BY LATTICE VIBRATIONS. ANGULAR DEPENDENCE OF THE WIDTH OF THE LINE IS DETD. BY ALL 3 EFFECTS. EVALUATION WAS MADE OF THE CONTRIBUTION TO TEMP. VARIATION OF THE LINEWIDTH OF THE DEFECT MECHANISM, WHICH IS RELATED TO MODULATION BY LATTICE VIBRATIONS OF ELEC. FIELD OF THE DEFECT AS WELL AS TO THE THERMAL EXPANSION OF THE CRYSTAL. THEORY WAS COMPARED WITH EXPT. DATA FOR THESE ANGULAR AND TEMP. DEPENDENCES OF THE WIDTH WERE DETD. FOR CR PRIME3 POSITIVE IN ZNWO SUB4. FACILITY: INST. POLUPROV., KIEV, USSR.

UNCLASSIFIED

1/2 008 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--SHAPES OF EPR LINES IN THE PRESENCE OF SOME BROADENING MECHANISMS
-U-
AUTHOR--(03)-DEYGEN, M.F., GLINCHUK, M.D., KOROBKO, G.V.
COUNTRY OF INFO--USSR
SOURCE--UKR. FIZ. ZH. (RUSS. ED.) 1970, 15(2), 290-6
DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY, PHYSICS
TOPIC TAGS--EPR SPECTRUM, GAUSSIAN DISTRIBUTION

CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--1996/1942 STEP NO--UR/0185/70/015/002/0290/0296
CIRC ACCESSION NO--AP0118904
UNCLASSIFIED

2/2 008

UNCLASSIFIED

PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0118904

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

ABSTRACT. THE SHAPE AND WIDTH OF ESR LINES WERE CALCD. TAKING INTO CONSIDERATION SEVERAL STATISTICALLY INDEPENDENT BROADENING MECHANISMS GIVING LORENTZIAN OR GAUSSIAN SHAPES OR MIXT. OF LORENTZIAN AND GAUSSIAN SHAPES OF CURVES. CALCD. PARAMETERS ENABLED ONE TO DET. CONTRIBUTIONS OF EACH MECHANISM TO AN EXPTL. LINE. THE METHOD WAS APPLIED FOR ANAL. OF THE SHAPE OF THE ESR SPECTRUM OF CR PRIME3 POSITIVE IN ZNWO SUB4.

FACILITY: INST. POLUPROV., KIEV, USSR.

UNCLASSIFIED

Foundry

USSR

UDC 669.187.25

KOCHO, V. S., IVANCHENKO, Yu. I., KOROBOKO, I. M., SHKHOUVTOV, O. A., MALIKOV, G. P., and ANTIPENKO, G. I., Kiev Polytechnical Institute; Zaporozhye Electro-Metallurgical Works (Dneprospetsstal')

"Determination of the Instant of the End of the Power Melting Period in a Steel-Melting Arc Furnace"

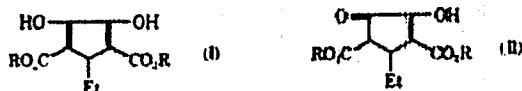
Moscow, Izvestiya Vysshikh Uchebnykh Zavedeniy --- Chernaya Metallurgiya, No 11, 1970, pp 70-72

Abstract: The possibility of determining the instant at which the steel melting period ends is discussed. A computation method is presented which is based on solution of a derived function from experimental data on melting ball-bearing steel in an arc furnace of the Dneprospetsstal' plant. A schematic of the computer is included.

1/1

Acc. Nr: **AP0053766** — Abstracting Service: **CHEMICAL ABST.** **5-70** Ref. Code: **UR0366**

110861a 2-Hydroxy-4-ethyl-2-cyclopenten-1-one. Gurevich, A. I.; Kolosov, M. N.; Korobko, V. G. (Inst. Khim. Fiz. Soedin., Moscow, USSR). *Zh. Org. Khim.* 1970, 6(2), 311-13 (Russ). The condensation of RO_2CCO_2R ($R = Et$ or $PhCH_2$) with $RO_2CCH_2CH(Et)CH_2CO_2R$ in the presence of $MeONa$ or NaH gave disubstituted 1,2-dihydroxy-4-ethyl-2,5-cyclopentadiene (I). NMR spectrum of I ($R = CH_2Ph$) showed the presence of some of its tautomer: disubstituted 2-hydroxy-4-ethyl-2-cyclopenten-1-one (II) ($R = PhCH_2$). The hydro-



genolysis of I-II mixt. and decarboxylation of the products under mild conditions gave 2-hydroxy-4-ethyl-2-cyclopenten-1-one-3-carboxylic acid, which on heating at 130° gave the title compd. required in the synthesis of Abikoviromycin degradation products (A. I. Gurevich, *et al.*, 1968). CPJR

REEL/FRAME
19830829

USSR

KOROBKO, V. I., BRYUKHANOV, O. N.

"Integral Method of Calculating Twisted Streams Developed Along a Cylinder"

Prikl. Vopr. Teorii Goreniya [Applied Problems from the Theory of Combustion -- Collection of Works], Kaliningrad, 1971, pp 265-284, (Translated from Referativnyy Zhurnal, Mekhanika, No 4, 1972, Abstract No. 4 B302 by Yu. F. Dityakin).

Translation: A method is presented for calculating the characteristics of turbulent twisted streams developing along the surface of a cylinder in a flooded space and in wakes. It is demonstrated that calculation of the propagation of a twisted turbulent stream can be reduced to solution of equations for the laminar case with the corresponding boundary conditions with subsequent replacement of the viscosity factor by the turbulent viscosity factor. The method of integral relationships is used in the solution. Formulas are produced for the calculation of parameters of the axial thickness of loss of momentum in forward and rotating motion and the average static pressure for streams developing along the surface of a cylinder. These formulas are concluded using the results of measurement of profiles of axial and tangential velocities. Similar formulas are produced for the case of a twisted stream developing along the surface of a cylinder in a wake.

6 Biblio. Refs.

1/1

USSR

K

KOROBKO, V. I., FAL'KOVICH, S. V., Saratov

"Some Nonselfsimilar Problems of the Theory of Jet Streams"

Moscow, Izvestiya Akademii Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 2, March-April 1970, pp 80-91

Abstract: This article contains an investigation of nonselfsimilar problems of the development of submerged plane flow in unbounded space and the development of plane submerged flow along a solid wall. The form of the asymptotic expansion of the current function is established, and the second and third terms of this expansion expressed in terms of selfsimilar solutions of G. Schlichting, and N. I. Akatnov and the index of selfsimilarity are found in final form.

It is demonstrated that in the case of the nonselfsimilar problem of development of an axially symmetrical radial-slot flow in unbounded space, the correction in the nonselfsimilar term is very small by comparison with the selfsimilar solution of L. G. Loytsyanskiy. Plane and axially symmetrical jet streams are widely used in various fields of engineering. These streams are formed by sources of finite dimensions and are essentially nonselfsimilar.

It is pointed out that the existing selfsimilar solutions of the two-dimensional problems of G. Schlichting for the development of the submerged flow

1/2

USSR

KOROBKO, V. I., FAL'KOVICH, S. V., *Izvestiya Akademii Nauk SSSR, Mekhanika Zhidkosti i Gaza*, No 2, March-April 1970, pp 80-91.

in infinite space and N. I. Akatanov for the development of a submerged flow along a solid wall are valid only at sufficiently large distances from the source. These solutions do not consider the initial velocity distribution. Mathematical analyses are presented for the basic equations of a plane laminar boundary layer, propagation of a submerged flow in infinite space, propagation of a submerged flow along a solid flat surface, the solutions of nonselfsimilar problems of plane jet streams, the nonselfsimilar problem of development of an axially symmetrical radial-slot flow in space submerged in the same fluid, the solutions of nonselfsimilar problems of axially symmetrical jet streams, and the development of a radial-slot flow in space submerged in the same fluid. It is pointed out that in the case of development of radial-slot flow in a space submerged in the same fluid, the selfsimilar solution of L. G. Loytsyanskiy is in fact the general solution of the problem within the framework of boundary layer theory.

2/2

1/2 045 UNCLASSIFIED PROCESSING DATE--27NOV70
TITLE--CERTAIN NONSELF-SIMILAR PROBLEMS IN JET FLOW THEORY --U-

AUTHOR--(02)-KOROBKO, V.I., FALKOVICH, S.V.

COUNTRY OF INFO--USSR

SOURCE--AKADEMIIA NAUK SSSR, IZVESTIIA, MEKHANIKA AMIKROSTI I GAZA,
MAR.-APR. 1970, P. 80-91
DATE PUBLISHED-----70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--JET FLOW, BOUNDARY LAYER THEORY, NOZZLE FLOW

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--2000/1391

STEP NO--0870421/70/000/000/0030/0091

CIRC ACCESSION NO--AP0125039

UNCLASSIFIED

UNCLASSIFIED

PROCESSING DATE--27NOV70

272 045

CIRC ACCESSION NO--AP0125039
ABSTRACT/EXTRACT--(U) GP-0-

ABSTRACT. DISCUSSION OF THE NONSELF-SIMILAR PROBLEMS ABOUT THE DEVELOPMENT OF A PLANE SUBMERGED JET IN AN UNBOUNDED SPACE AND THE DEVELOPMENT OF A PLANE SUBMERGED JET AT A WALL. AN ASYMPTOTIC EXPANSION FOR THE STREAM FUNCTION IS OBTAINED, AND THE SECOND AND THIRD TERMS OF THE EXPANSION, EXPRESSING SCHLICHTING'S (1956) AND AKATNOV'S (1953) SOLUTIONS AND THE SELF-SIMILARITY INDEX, ARE DETERMINED IN FINAL FORM. IT IS SHOWN THAT LOITSIANSKII'S (1951) SOLUTION TO THE NONSELF-SIMILAR PROBLEM OF A FLUID JET EXPELLED FROM AN ANNULAR NOZZLE INTO A SPACE FILLED WITH THE SAME FLUID AS THE JET CAN BE CONSIDERED AS THE GENERAL SOLUTION TO THE PROBLEM WITHIN THE FRAMEWORK OF BOUNDARY LAYER THEORY.

UNCLASSIFIED

1/2 026 UNCLASSIFIED PROCESSING DATE--27NOV70
 TITLE--EFFECT OF THE STRUCTURE OF POLY(VINYL CHLORIDE) ON THE RATE OF
 DIFFUSION OF A PLASTICIZER -U-
 AUTHOR-(04)-KOROBKO, V.I., CHALYKH, A.YE., VASENIN, R.M., BUKYANOVICH,
 V.M. *K*
 COUNTRY OF INFO--USSR
 SOURCE--PLAST. MASSY 1970, (2), 41-2
 DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--MOLECULAR STRUCTURE, POLYVINYL CHLORIDE, PHYSICAL DIFFUSION,
 PLASTICIZER, ACTIVATION ENERGY, THERMAL EFFECT/(U)S5 POLYVINYL CHLORIDE,
 (U)S60 POLYVINYL CHLORIDE, (U)S75 POLYVINYL CHLORIDE, (U)L7 POLYVINYL
 CHLORIDE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
 PROXY REEL/FRAE--1992/1704

STEP NO--UR/0191770/0007002/0041/0042

CIRC ACCESSION NO--AP0112698

UNCLASSIFIED

2/2 026

UNCLASSIFIED

PROCESSING DATE--27NOV70

CIRC ACCESSION NO--AP0112698

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE DIFFUSION OF DI-BO PHTHALATE (I) INTO SEVERAL BRANDS OF POLY(VINYL CHLORIDE) (II) (THE MOL. WT. AND D. IN G-CM PRIME3 ARE GIVEN) E.G., S-5 (50,000, 1.403), S-60 (50,000, 1.412), S-75 (68,000, 1.415), AND L-7 (47,000, 1.408) WAS STUDIED BY AN OPTICAL METHOD (R. M. VASENIN, ET AL., 1965). THE EFFECTIVE DIFFUSION COEFF. (D) WAS A LINEAR FUNCTION OF 1-T FOR THE ENTIRE TEMP. RANGE. THE APPARENT ACTIVATION ENERGY OF DIFFUSION (E) FOR THE VARIOUS II BRANDS DECREASED IN THE ORDER E SUBS-5 SMALLER THAN E SUBL-7 SMALLER THAN E SUBS-60 SMALLER THAN E SUBS-75, WHEREAS D OBEYED THE ORDER: D SUBS-5 GREATER THAN D SUBL-7 GREATER THAN D SUBS-60 GREATER THAN D SUBS-75. S-75 GLOBULES WERE ELONGATED AND RESEMBLED A FIBRILLAR SUPRAMOL. STRUCTURE, WHICH MADE ITS PACKING D. CONSIDERABLY HIGHER THAN THAT OF OTHER BRANDS, AND CONSEQUENTLY, S-75 EXERTED GREATER RESISTANCE TO THE PENETRATION OF I.

UNCLASSIFIED

USSR

UDC 612.873.2:616-003.96

EPSHTEYN, I. M., ALLIK, T. A., KOROHKOV, A. V., AYDARALIKOV, A. A.,
DZHUNUSHEV, M. D., AND KUTLEV, A. N., All-Union Scientific Research Institute
of Physical Education, and Kirgiz State Medical Institute

"Adaptation Mechanisms of the Cerebral Cortex and of Skeletal Muscles to
Hypoxia"

Frunze, Sovetskoye Zdravookhraneniye Kirgizii, No 2, Mar/Apr 72, pp 7-10

Abstract: The utilization of oxygen by the cerebral cortex and skeletal
muscles was determined on the basis of the rate constant of oxygen consump-
tion (RCOC). The control group of rats was kept in Frunze and the experimental
group was taken to a 3,200 m elevation, where pO_2 was 103 mm Hg. Consump-
tion of oxygen by the brain tissues was recorded by platinum electrodes
implanted at a depth of 500 μ . The RCOC by the brain cells was 0.0119,
0.0073, 0.0077, 0.0034, 0.0042, 0.0044 on the 3d, 10th, 20th, 30th, 45th,
and 60th days at 3,200 m, respectively (controls 0.0055). Physical exercises
(30 min on treadmill) changed these values to 0.0109, 0.0050, 0.0042,
0.0038, 0.0046, 0.0044, respectively (control 0.0034). The RCOC of the calf
muscles was 0.0300, 0.063, 0.073, 0.11, 0.23, 0.24 without exercises
(control 0.091), and 0.161, 0.161, 0.178, 0.18, 0.17, 0.18 (control 0.148)
1/2

USSR

EPSHTEYN, I. M., et al., Sovetskoye Zdravookhraneniye Kirgizii, No 2,
Mar/Apr 72, pp 7-10

with exercises. A lower RCOC in the cerebral cortex than in the calf muscles is attributed to the presence of glial cells in the brain which are characterized by a slow oxidative process. The physical exercises inhibited to some extent the oxidative processes in the brain, although the initial adaptation stages to the hypoxia are characterized by acceleration of the excitation processes in the cerebral cortex. Sharply reduced oxygen consumption by the calf muscles during the first several days at 3,200 m is attributed to low permeability of the muscle fibers by oxygen. The oxidative activity in the same muscles increased considerably after physical exercises. Evidently the physical load is more powerful factor than hypoxia with respect to oxygen consumption by muscles.

2/2

USSR

UDC 620.193.23:639.296

K
YEVSTYUKHIN, A. I., KOROBKOV, I. I., and OSIPOV, V. V.

"Zirconium Intermetallides and Their Effect on the Corrosion Properties of Zirconium Alloys"

Moscow, Akademiya Nauk SSSR, Atomnaya Energiya, Vol 28, No 3, Jan 70, pp 201-205

Abstract: An investigation was made of the properties of intermetallide impurities and their effect on the corrosion properties of zirconium alloys in water and vapor. The microhardness at various temperatures, the structure of the intermetallides, and the composition of oxide films were studied. The materials used and the experimental technique are described in detail. It was established that: 1) the corrosion of pure intermetallides ($ZrFe_2$, $ZrNi_2$, $ZrPd$, Zr_4Sn , Zr_2Cu) in the 400-800°C temperature range occurs more rapidly than of pure zirconium, both in oxygen and water vapor; 2) $ZrNi_2$ has the lowest oxidizing rate and Zr_4Sn the highest; Zr_4Sn has a low oxidizing rate at 300-400°C, but this rate increases sharply with increasing temperature; 3) a connection exists between the kinetics of oxidation, the structure, and composition of oxide films, occurring on the intermetallide surface; 4) Zr_2Ni , Zr_4Sn , and Zr_2Cu are softened by heating in the 350-450°C temperature range, while $ZrNi_2$ and $ZrFe_2$ retain their hardness up to 700°C. Orig. art. has: 4 figures, 3 tables, and 5 references.
1/1

1/2 038 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--ZIRCONIUM INTERMETALLIDES AND THEIR EFFECT ON THE CORROSION
PROPERTIES OF ZIRCONIUM ALLOYS -U-
AUTHOR-(03)-YEVSTYUKHIN, A.I., KOROBKOV, I.I., OSIPOV, V.V.

COUNTRY OF INFO--USSR

SOURCE--MOSCOW, AKADEMIYA NAUK SSSR, ATOMNAYA ENERGIYA, VOL 28, NO 3, MAR
70, PP 201-206
DATE PUBLISHED-----70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CORROSION RATE, ZIRCONIUM ALLOY, WATER, OXYGEN, CHEMICAL
REACTION KINETICS, METAL HEAT TREATMENT, COPPER COMPOUND, TIN COMPOUND,
NICKEL COMPOUND, IRON COMPOUND, MOLYBDENUM COMPOUND, OXIDE FILM

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3003/1952

STEP NO--UR/0089/70/028/003/0201/0206

CIRC ACCESSION NO--AP0130736

UNCLASSIFIED

2/2 038

UNCLASSIFIED

PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0130736

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. AN INVESTIGATION WAS MADE OF THE PROPERTIES OF INTERMETALLIDE IMPURITIES AND THEIR EFFECT ON THE CORROSION PROPERTIES OF ZIRCONIUM ALLOYS IN WATER AND VAPOR. THE MICROHARDNESS AT VARIOUS TEMPERATURES, THE STRUCTURE OF THE INTERMETALLIDES, AND THE COMPOSITION OF OXIDE FILMS WERE STUDIED. THE MATERIALS USED AND THE EXPERIMENTAL TECHNIQUE ARE DESCRIBED IN DETAIL. IT WAS ESTABLISHED THAT: 1) THE CORROSION OF PURE INTERMETALLIDES (ZRFE SUB2, ZRMO SUB2, ZR SUB2 NI, ZR SUB4 SN, ZR SUB2 CU) IN THE 400-800DEGREESC TEMPERATURE RANGE OCCURS MORE RAPIDLY THAN OF PURE ZIRCONIUM, BOTH IN OXYGEN AND WATER VAPOR; 2) ZRMO SUB2 HAS THE LOWEST OXIDIZING RATE AND ZR SUB2 NI THE HIGHEST; ZR SUB4 SN HAS A LOW OXIDIZING RATE AT 300-400DEGREESC, BUT THIS RATE INCREASES SHARPLY WITH INCREASING TEMPERATURE; 3) A CONNECTION EXISTS BETWEEN THE KINETICS OF OXIDATION, THE STRUCTURE, AND COMPOSITION OF OXIDE FILMS, OCCURRING ON THE INTERMETALLIDE SURFACE; 4) ZR SUB2 NI, ZR SUB4 SN, AND ZR SUB2 CU ARE SOFTENED BY HEATING IN THE 350-450DEGREESC TEMPERATURE RANGE, WHILE ZRMO SUB2 AND ZRFE SUB2 RETAIN THEIR HARDNESS UP TO 700DEGREESC.

UNCLASSIFIED

Television

USSR

UDC 621.397.238:621.397.62

KOROBKOV, L. A., TSIRLIN, V. M., SHESTAKOV, Yu. N., PETROV, V. A.,
~~PALITSKIY, V. M.~~, KHOROBRYKH, V. T., BEREZIN, I. I.

"A Device for Reception of Television Image Signals With Accompanying Audio"

Moscow, Otkrytiya, izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, 1970, No 36, Soviet Patent No 288028, class 21, filed 19 Apr 67, published 3 Dec 70, p 52

Translation: This Author's Certificate introduces a device for reception of television image signals with accompanying audio combined in a single channel of a television system. The device contains a synchropulse selector, sound and image separation modules, and modules for demodulating the audio channel signals. As a distinguishing feature of the patent, the device is designed for reducing transient interference and increasing the resistance to interference of the accompanying audio channel. Connected at the input of the installation are two devices for restoring the DC component of the video signal. One of these signal-restoration devices is connected to a device for synchromixture regeneration through an electronic switch controlled by a signal from the synchropulse selector. Signals from the synchropulse selector and synchrogenerator are sent to the device for

1/2

USSR

KOROBKOV, L. A., et al., Otkrytiya, izobreneniya, promyshlennyye obratzsy, tovarnyye znaki, 1970, No 36, Soviet Patent No 288028, class 21, filed 19 Apr 67, published 3 Dec 70, p 52

synchronixture regeneration. The second signal-restitution device is connected to a code-pulse demodulator and an amplifier through an electronic switch controlled by a signal from the synchropulse selector. The signal from the amplifier is sent to the output of the device through an optimum low-frequency filter and a bilateral clipper with low-frequency filter. Priority dates from 2 March 1967.

2/2

- 77 -

USSR

UDC 533.6.011

GRUZKOV, L. A., and KOROBKOV, V. A., (Leningrad), Leningrad Mechanical Institute, Leningrad Institute of Aviation Instrument Manufacture

"Base Pressure During the Emergence of a Central and a Peripheral Annular Jet Into a Coflowing Stream"

Kiev, Prikladnaya Mekhanika, Vol 7, No 9, Sep 71, pp 99-105

Abstract: The Chapman-Korst system, best developed method for determining the base pressure with supersonic streamline flow about projections, has been much better studied than methods of calculating subsonic conditions. In spite of the fact that special investigations have established the presence of longitudinal and transverse pressure gradients in shedding zones, it is assumed in the calculations that the pressure in the entire shedding zone is constant and is equal to the base pressure. In the proposed approximation method of calculation of the base pressure in a complex subsonic flow system, the pressure in the shedding zone is not considered to be constant. For the solution, use is made of equations of conservation of the flow rate and momentum of the stream in the initial section and in the section passing through the centers of the eddy zones formed beyond the base shear. The velocity profiles entering into the equations are found by integration of the expressions for the friction stress

1/2

Acoustics

USSR

UDC 534.322.3+534.83

KOROBKOV, V. YE., OSIPOV, G. L.

"The Current State of the Problem of Combating Transportation Noise in Cities"

Nauchn. tr. NII stroit. fiz. Gosstroy SSSR (Scientific Works of the Scientific Research Institute of Structural Physics of Gosstroy USSR), 1970, No 1(13), pp 65-80 (from RZh-Fizika, No 12(I), Dec 70, Abstract No 12Zh758)

Translation: The results of studies on methods of evaluating and measuring transportation noise and determining the laws of its propagation under building conditions are generalized and analyzed. Recommended values for the permissible noise of transportation flows and conclusions and proposals aimed toward lowering transportation noise in cities are given. 14 references. G. O.

1/1

USSR

UDC 621.371.029.55

BENEDIKTOV, Ye. A., GETMANTSEV, G. G., YEZHOV, A. I., KOROBKOV, ~~Yu. S.~~, MALYSHEV, S. K., MATYUGIN, S. N., MITTAEV, N. A., SAZONOV, Yu. A., CHERNOV, V. A., BEN'KOVA, N. P., BEREZIN, Yu. M., BUKIN, G. V., KOLOKOLOV, L. Ye., and PEREKHIVATOV, Yu. K.

"Results of an Experiment in Shortwave Radio Propagation"

Moscow, V sb. X Vses. konf. po rasprostr. radiovoln. Tezisy dokl. Sekts. 3. (Tenth All-Union Conference on the Propagation of Radio Waves; Report Theses; Section 3--collection of works) "Nauka," 1972 pp 73-76 (from RZh--Radiotekhnika, No 10, 1972, Abstract No 10A367)

Translation: Results of experiments on investigating the characteristics of wave propagation in the decameter range (5.7-15.0 MHz) are analyzed; the communications took place between the following magnetically adjacent points: an ionospheric station in Gor'kiy and two science research ships in the Indian Ocean. In particular, the possibility of communication over the Peterson beam was estimated. Two illustrations, bibliography of one. N. S.

1/1

1/2 010 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--NEW PROCESS FOR SYNTHESIZING 3 XGQPAPAVERINE -U-
AUTHOR--(02)--DOROFEYENKO, G.N., KOROBKOVA, V.G.
CCOUNTRY OF INFO--USSR
SOURCE--ZH. OBSHCH. KHIM. 1970, 40(1), 249-50
DATE PUBLISHED--70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--ORGANIC SYNTHESIS, ALKALOID, HETEROCYCLIC NITROGEN COMPOUND,
NARCOTIC
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--2000/0860 STEP NO--UR/0079/70/D40/001/0249/0250
CIRC ACCESSION NO--AP0124523
UNCLASSIFIED

2/2 010

CIRC ACCESSION NO—AP0124523

UNCLASSIFIED

PROCESSING DATE—30OCT70

ABSTRACT/EXTRACT—(U) GP-0- ABSTRACT. SELF ACYLATION OF HOMOVERATRIC ACID IN EXCESS POLYPHOSPHORIC ACID AT 90-5DEGREES, 10-15 MIN GAVE I, M. 153DEGREES, AND 95PERCENT YIELD. HOMOVERATRIC ACID AND NH SUB4 DAC IN HOT ACOH GAVE 85PERCENT 3 OXOPAPAVERINE (II), M. 232DEGREES. FACILITY: ROSTOV. GOS. UNIV., ROSTOV, USSR.

UNCLASSIFIED

1/2 030

UNCLASSIFIED

PROCESSING DATE--20NOV70

TITLE--PHTHALOCYANINES AND RELATED COMPCUNGS. IV.
POLYCHLOROPHTHALOCYANINES -U-

AUTHOR--(03)--MIKHALENKO, S.A., KOROSKOVA, YE.V., LUKYANETS, YE.A.

COUNTRY OF INFO--USSR

SOURCE--ZH. DSSHCH. KHIM. 1970, 40(2), 400-3 *K*

DATE PUBLISHED-----70

SUBJECT AREAS--CHEMISTRY

TOPIC TAGS--PHTHALOCYANINE, UREA, CHLORINATED ORGANIC COMPOUND, COMPLEX
COMPOUND, SOLUBILITY, IR SPECTRUM, MOLYBDENUM COMPOUND, CATALYST,
VANADIUM OXIDE, ALUMINUM COMPOUND, COPPER COMPLEX

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAE--3002/1119

STEP NO--UR/0079/70/040/002/0400/0403

CIRC ACCESSION NO--AP0128546

UNCLASSIFIED

2/2 030

UNCLASSIFIED

PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0123546

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. HEATING 0.01 MOLE APPROPRIATELY
 CHLORINATED PHTHALIC ANHYDRIDE WITH 0.1 MOLE UREA AND 0.0035 MOLE METAL
 CHLORIDE IN C SUB6 H SUB3 CL SUB3 FOR 4 HR AT 200DEGREES IN THE PRESENCE
 OF NH SUB4 MOLYBDATE OR METAVANADATE CATALYST GAVE THE TITLE
 PHTHALOCYANINE (PC) COMPLEXES (1). ALTERNATIVELY, EQUIMOLAR AMTS. OF
 UREA AND O, (NC) SUB2 C SUB6 CL SUB4 HEATED AS ABOVE WITH METAL CHLORIDE
 IN PHNO SUB2 FOR 4-5 HR ALSO GAVE 1, PURIFIED BY TREATMENT WITH AQ. HNO
 SUB3 AND NADH. THE CL ATOMS IN 1 RESULTED IN BATHOCHROMIC SHIFTS IN THE
 VISIBLE AND NEAR IR REGIONS. SPECTRA WERE REPORTED FOR THE TETRA,
 4,CHLORO, TETRA,3,CHLORO, OCTA,3,4,CHLORO, OCTA,4,5,CHLORO,
 OCTA,3,6,CHLORO, AND HEXADECACHLORO DERIVS. OF VOPC; HEXADECACHLORO
 ALOPC; THE TETRA,4,CHLORO, TETRA,3,CHLORO, OCTA,3,4,CHLORO,
 OCTA,4,5,CHLORO, OCTA,3,6,CHLORO, AND HEXADECACHLORO DERIVS. OF CUPC.
 THE UNSYM. COMPLEXES WERE MORE READILY SOL. IN ORG. SOLVENTS THAN THE
 SYM. ANALOGS. FACILITY: NAUCH.-ISSLED. INST. ORG. POLUPROD.
 KRASITELEI, MOSCOW, USSR.

UNCLASSIFIED

Steels

USSR

UDC 621.643.411.4.62-192

MOISEYEV, A. A., Candidate of Technical Sciences, SUSHAREVA, V. D., Engineer, ZEMZIN, V. N., Doctor of Technical Sciences, KHITRIK, A. I., Candidate of Technical Sciences, MOSHKOVICH, Ye. I., Candidate of Technical Sciences, KOROBCHIKIN, I. Yu., Candidate of Technical Sciences, KIRVALIDZE, N. M., Candidate of Technical Sciences, PISHCHIKOV, G. P., Candidate of Technical Sciences, DEYATKO, E. I., Engineer, All-Union "Order of the Red Banner of Labor" Scientific Research Institute of Heat Engineering imeni F. E. Dzerzhinskiy, Central Scientific Research Design and Planning Boiler and Turbine Institute imeni I. I. Polzunov, Road Construction Division, Southern Pipe Plant, All-Union Scientific Research Diesel Locomotive Institute

"Improving the Operational Reliability of Welded Joints and the Technological Properties of High-Strength EP18⁴ Austenitic Steel"

Moscow, Teploenergetika, No 8, Aug 72, pp 46-49

Abstract: The article is a report on the results of joint research by various scientific research institutes and industrial organizations to determine what effect methods of melting EP18⁴ steel might have on the work-

1/2

④

USSR

MOISEYEV, A. A. et al., Teploenergetika, No 8, Aug 72, pp 46-49

ing reliability of welded joints as well as on the other properties of the metal. It was found that crack formation in joints can be eliminated by reducing the oxygen content, as well as the concentrations of hydrogen, nitrogen, sulfur and phosphorus below certain levels. This can be done by melting from a fresh charge with subsequent vacuum-arc remelting. Electroslag remelting can be used as well, but is less effective.

2/2

1/2 026 UNCLASSIFIED PROCESSING DATE--13NOV70
TITLE--PHARMACOLOGICAL ACTIVITY AND TOXICITY OF NUCLEASES -U-
AUTHOR--(04)--LAPIK, A.S., GUBENKO, I.S., KORUCHKIN, L.I., SALGANIK, R.I.
COUNTRY OF INFO--USSR
SOURCE--FARMAKOL. TOKSIKOL. (MOSCOW) 1970, 33(2), 210-12
DATE PUBLISHED-----70
SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES
TOPIC TAGS--RIBONUCLEASE, DNA, MOUSE, CAT, CENTRAL NERVOUS SYSTEM, DRUG EFFECT
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAE--1994/1165 STEP NO--UR/0390/70/033/002/0210/0212
CIRC ACCESSION NO--AP0115184

UNCLASSIFIED

2/2 026

UNCLASSIFIED

PROCESSING DATE---13NOV70

CIRC ACCESSION NO--AP0115184

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. R NASE AND D NASE HAD LOW TOXICITY AND DID NOT AFFECT THE ARTERIAL PRESSURE, RESPIRATION, OR SMOOTH MUSCLE TONUS IN MICE OR CATS. NUCLEASES ADMINISTERED ONCE OR TWICE I.P. TO MICE AT 400 MG-KG HAD NO CYTOTOXIC OR MUTAGENIC ACTIVITY, AND D NASE REPEATEDLY ADMINISTERED I.V. AT 20 MG-KG DID NOT AFFECT THE CONTENT OR INTENSITY OF DNA SYNTHESIS IN CELL NUCLEI. TOXIC EFFECTS ON THE CENTRAL NERVOUS SYSTEM APPEARED ONLY WHEN LARGE DOSES (100 MG-KG OF D NASE AND R NASE WERE INJECTED DIRECTLY INTO THE BRAIN. NEITHER COMPO. ADMINISTERED 5 TIMES S. C. AT 50 MG-KG HAD ANY NOTICEABLE EMBRYOTOXIC EFFECT ON MICE. FACILITY: NOVOSIBIRSK. INST. ORG. KHIN, NOVOSIBIRSK, USSR.

UNCLASSIFIED

USSR

UDC: 537.531

KOMAR, A. P., KOROBOCHKO, Yu. S., MINEYEV, V. I., and PETROCHENKO, A. F.

"Bremsstrahlung of Electrons With Energies of 7-10 Mev in Thin Silicon Crystals"

Leningrad, Zhurnal Tekhnicheskoy Fiziki, vol. 41, No. 4, April 1971, pp 807-814

Abstract: The purpose of the experiments described in this paper is to make a more detailed study of the radiation spectra produced by a stream of electrons of 7-10 Mev of energy braked by a target of thin crystalline silicon and to compare the experimental results with those of theoretical calculations. The spectral measurements were made on an LPI betatron with a maximum energy of 15 Mev; the target, 7-11 microns thick, was placed in the betatron chamber so that the direction of the incident electrons and the axis of the braked radiation beam coincided

1/2

USSR

KOMAR, A. P., et al., Zhurnal Tekhnicheskoy Fiziki, Vol 41, No 4, Apr 71, pp 807-814

with the /110/ direction of the crystal. A collimator inside the chamber reduced the angular dispersion of the electrons to the target. The axial part of the output bremsstrahlung was conducted through a system of lead collimators to a scintillation spectrometer. A block diagram of the equipment is shown and a detailed description given.

2/2

- 127 -

USSR

UDC: 621.384.634.3

IVANOV, D. P., KOMAR, A. P., and KOROBOCHKO, Yu. S.

"Dynamics of Electron Capture in the Betatron"

Leningrad, Zhurnal Tekhnicheskoy Fiziki, vol. 41, No. 4, April 1971, pp 770-771

Abstract: This paper is a follow-up of a preceding article written by the last two authors named above in the Reports of the Academy of Sciences USSR (DAN SSSR, Fizika, No. 4, 1958, p 123) in which a mechanism for electron capture in betatron acceleration was proposed, based on the resonance coincidence of electron radial oscillation frequencies and the periodically changing Coulomb repulsion forces among the beam particles. Processing of the experimental data indicates that the curve of the current circulating in the chamber as a function of the injection current is nonmonotonic. On the basis of this observation, the authors of the present article theorize that the break in this curve corresponds to the optimal value of the injection current at which the

1/2

USSR

IVANOV, D., et al., Zhurnal Tekhnicheskoy Fiziki, Vol 41, No 4, Apr 71,
pp770-771

gamma-ray output provided by the accelerator is a maximum. They also specify three frequencies at which the capture of electrons at resonance is most effective, provided their idea of the capture mechanism is valid. They are members of the Leningrad Polytechnical Institute imeni M. I. Kalinin.

2/2

- 128 -

USSR

KOMAR, A. P.; KOROBOCHKO, Yu. S. (Leningrad Polytechnical Institute im. N. I. Kalinina)

"Bremsstrahlung of Relativistic Electrons in Crystals"

Leningrad, Fizika Tverdogo Tela; January, 1971; pp 245-51

ABSTRACT: A classical treatment is given the mechanism of the occurrence of coherent effects in the bremsstrahlung of electrons in crystals. It is shown that when individual atomic chains in thin crystals are subjected to radiation, it is possible to obtain spectra which are qualitatively the same (with the exception of polarization) as in the ultrarelativistic energy range of primary electrons. Formulas for the coherent and noncoherent components of the spectrum can be obtained in a form similar to the Schiff spectrum. The problem of the form of the coherent lines in the radiation spectrum is considered.

The article includes 5 equations, 4 figures, and a table showing a number of parameters for different materials used as targets. There are 20 references.
1/1

USSR

Corrosion

UDC: 621.771.23.011

KARDONOV, B. A., SHIRTS, V. V., BYKOVSKIY, G. S., KOROBOV, A. G.

"Rolling of Sheets of Highly Corrosion-Resistant Alloy"

Moscow, Metallurg, No 12, Dec 73, pp 25-27.

Abstract: EP-567 alloy has been recommended for chemical equipment which must be used in corrosive media such as acetic acid. The alloy, containing not over 0.03% C, not over 0.015% Si, not over 1.0% Mn, 14.5-16.5% Cr, 15-17% Mo, 3-4.5% W, not over 1.5% Fe, remainder Ni, has satisfactory ductility in the 950-1220° C temperature range. This alloy has high tensile strength and deformation resistance, resulting from the high content of molybdenum and tungsten. Considering the peculiarities of the alloy, the Central Scientific Research Institute for Ferrous Metallurgy and the Ashinskii Metallurgical Plant have developed and introduced a technology for production of sheets on a reversing quarto 1500 mill. This article studies the strength and ductility characteristics of the alloy in the 900-1250° C temperature interval. The technology developed can produce hot-rolled strips measuring 1000 by 2000 mm (4-10 mm thick). Sheets 1.5 to 2 mm thick with the same dimensions are produced on a quarto 1400 mill by cold rolling. The rolling forces do not exceed

1/2

USSR

Kardonov, B. A., Shtirts, V. V., Bykovskiy, G. S., Korobov, A. G., Moscow, Metallurg, No 12, Dec 73, pp 25-27.

the permissible forces for these mills. The corrosion resistance and mechanical properties of the finished sheets satisfy the requirements of consumers. The technological instruction calls for multipass rolling (60-55) → 10 → 6 → 4 mm; metal heated to 1180-1200° C; heating time of metal calculated at 2 min/mm thickness before rolling; temperature at mill exit at least 950° C; compression per pass not over 5 mm.

USSR

UDC 621.382.002

KOROBOV, A.I., ABALMAZOVA, M.G., KARASEV, V.I., NAUMCHENKO, A.S., REFIN, V.A.

"Methods Of Control Of The Imperfections Of The Film Structures Metal--Dielectric--Metal"

Elektron. tekhnika. Nauch.-tekhn.sb.Upr.kachestvom i standartiz. (Electronics Technology. Scientific-Technical Collection. Control Of Quality And Standardization), 1971, No 4(10), pp 12-19 (from RZh:Elektronika i yeye primeneniye, No 1, Jan 72, Abstract No 18515)

Translation: Methods are considered for control of imperfections of the thin-film structure metal--dielectric--metal: electrochemical coloration of the channels of high conductivity in the dielectric film, observation of local charges on the surface of the film with the aid of a mirror electron microscope, measurement of the dependence of the number of partial breakdowns on the magnitude of the applied voltage, and also the frequency dependence G and $\text{tg } \delta$ of capacitors in the low-frequency (40--5000 Hz) region, and measurement of the residual polarization. The characteristics are presented of the degree of imperfection of a number of structures which are used in thin-film microcircuits. The qualitative agreement is shown of the evaluation of the imperfection of these structures by various methods. Summary.

1/1

- 62 -

USSR

UDC 621.382.002

VOZHENIN, I.N., KOROBOV, A.I., NAUMCHENKO, A.S., ODOROTEV, A.F., REPIN, V.A.

"Quality Of Films Of Barium-Borosilicate Glasses Produced In A Vacuum By Thermal Evaporation"

Elektron. tekhnika. Nauch.-tekhn.sb. Upr.kachestvom i standartiz (Electronics Technology. Scientific-Technical Collection. Quality Control and Standards), 1971, Issue 1(7), pp 84-90 (from RZh--Elektronika i vayo armaneniya, No 10, October 1971, Abstract No 10B432)

Translation: The properties of a film of optimum composition 80 B₂O₃:80 Ca produced by vacuum-thermal evaporation by the flash method of powdered glass are equal to the basic properties of massive glass of the same composition. The films differ from massive glass by the increased defectiveness of the structure and the deficiency of oxygen. By annealing of the films in air and introduction of the corresponding impurities it is possible to improve the structure and to vary the electrical properties. The infrared absorption spectra of the films is presented, as well as the dependence of the breakdown voltage of the films on the thickness. With the introduction of BaO into the films, the dielectric constant of the films is linearly increased to six. During this, the tangent of the loss angle is smoothly increased and at 2-3 orders of magnitude, the breakdown voltage and the volume resistivity are decreased. Simultaneously, the magnitude of the internal mechanical stress is reduced.

6 ill. 2 tab. 8 ref. I.M.

1/1

USSR

UDC: 621.396.6-181.5

KARASEV, V. I., KOROBV, A. I., REPIN, V. A., MILOVA, G. P.

"Some Peculiarities in the Breakdown of Thin Films of Photoresist"

Elektron. tekhnika. Nauchno-tekhn. sb. Materialy (Electronic Technology. Scientific and Technical Collection. Materials), 1970, vyp. 5, pp 73-78
(from RZh-Radiotekhnika, No 5, May 71, Abstract No 5V186)

Translation: It is found that breakdown processes in a photoresist film are similar to the ionization processes which take place in gases in nonhomogeneous fields. Gas inclusions play a decisive part in the breakdown processes. The microrelief of electrode surfaces has an appreciable effect on breakdown of thin films of photoresist (up to one micron thick).

1/1

USSR

K UDC: 621.396.6.019.3-102.5

NAUMICHENKO, A. S., KUROBOV, A. I.

"On Physical Prediction of the Reliability of the Elements of Thin-Film Micro-circuits"

Elektron. tekhnika. Nauchno-tekhn. sb. (Electronic Technology. Scientific and Technical Collection), 1970, ser. 6, vyp. 1, pp 100-107 (from RZh-Radiotekhnika, No 7, Jul 70, Abstract No 7V271)

Translation: The authors consider problems of physical modeling of the failures of elements of thin-film micromodules, compilation of programs for accelerated tests, and the results of these tests. Data are given on investigation of physical processes of aging of the elements (resistors and capacitors). Four illustrations, bibliography of 19 titles. Resumé.

1/1

USSR

UDC: 621.375.82

DZYUBENKO, M. I., KOROBOV, A. M., MASLOV, V. V., and NAUMENKO, I. G.

"Investigating the Characteristics of Lasers Using Organic Compounds With Dispersion Resonators"

Kiev, V sb. Kvant. elektronika (Quantum Electronics--collection of works) "Nauk. dumka," No 6, 1972, pp 109-119 (from RZh--Fizika, No 4, 1973, Abstract No 4D1231)

Translation: The oscillation characteristics of 1-phenyl-4-(p-chlorodiphenyl) butadiene-1.3 in a prism dispersion resonator and bis-/1-p-tolyl-6-methyl-guinoline-4/trimethiodiancyaninperchlorate in a resonator with a diffraction grating are investigated. The solutions of these substances were excited by the second harmonic and fundamental frequency of a ruby laser in the first and second cases respectively. Smooth tuning of the average oscillation wavelength of the first compound was realized in the 4045-4215 Å range, for the second compound it was realized in the 7320-7620 Å range. Here, the radiation spectrum for each narrowed to 10-20 Å and 1-3 Å respectively. It was discovered that the superluminescence phenomenon arising in lasers using organic solutions with dispersion

1/2

USSR

DZYUBENKO, M. I., et al., V sb. Kvant. elektronika, No 6, 1972, pp 109-119

resonators limits the tuning frequency range and substantially affects the spectral, energy, and spatial angular characteristics of the stimulated emission. Bibliography of 15. Authors' abstract

2/2

- 40 -

USSR

UDC 535.89

K
DZYUBENKO, M. I., KOROBV, A. M. and NAUMENKO, I. G., Institute of Radiophysics and Electronics of the Academy of Sciences UkrSSR, Khan'kov.

"Flashbulb-Excited Organic Dye Laser of Green Light"

Kiev, Ukrainskiy Fizicheskii Zhurnal, Vol. 15, No. 2, Feb 70, pp 342-344

Abstract: The use of solutions of organic dyes to produce intense, highly directional coherent radiation was found to involve one basic difficulty associated with the short lifetime of organic molecules in the excited state. To produce generation in the green region of the spectrum, a discharge of a low inductance capacitor through a vacuum discharge into two direct xenon tubes of the type IFP-2000 was applied. The experiments established that by increasing the voltage from 6 to 24 kv the discharge period decreased from 3.8 to 2.1 μ sec and the length of a light pulse increased from 1.15 to 1.4 μ sec, while the rise front decreased from 0.7 to 0.4 μ sec. Aqueous and alcohol solutions of sodium fluorescein, 9-aminoacridine, 4-methylumbelliferone, and certain other coumarin derivatives were used. Generation was obtained in alcohol and aqueous solutions of fluorescein with concentrations of $1.25 \cdot 10^{-5}$ - $6.10 \cdot 10^{-4}$ mole/liter and the wavelengths varied in the range 5420-5810 \AA depending on the concentration. No radiation was obtained in the blue region of the spectrum.

1/1

1/2 051 UNCLASSIFIED PROCESSING DATE--04DEC70
TITLE--GREEN LIGHT LASER USING ORGANIC DYES EXCITED BY PULSE TUBES -U-
AUTHOR--(03)-DZYUBENKO, M.I., KOROBOV, A.M., NAUMENKO, I.G.
COUNTRY OF INFO--USSR
SOURCE--UKRAINS'KII FIZICHNII ZHURNAL, VOL. 15, FEB. 1970, P. 342-344
DATE PUBLISHED----FEB 70
SUBJECT AREAS--PHYSICS
TOPIC TAGS--LASER, LASER PUMPING, LASER POWER OUTPUT, XENON, PULSE SHAPER,
SODIUM COMPOUND, DYE
CONTROL MARKING--NO RESTRICTIONS
DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRA--1992/1448 STEP NU--UR/0185/70/015/000/0342/0364
CIRC ACCESSION NO--AP0112442
UNCLASSIFIED

2/2 051 UNCLASSIFIED PROCESSING DATE--04DEC70
CIRC ACCESSION NO--AP0112442
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DESCRIPTION OF EXPERIMENTS WITH A
GREEN LIGHT LASER USING AQUEOUS OR ALCOHOL SOLUTIONS OF SODIUM
FLUORESCHEIN, 9 AMINOACRIDINE, 4 METHYLBELLIFERONE AND OTHER COUMARIN
DERIVATIVES AS ACTIVE MEDIA AND TWO XENON PULSE TUBES, A CAPACITOR AND A
VACUUM DISCHARGER FOR PUMPING. THE SPECTRAL CHARACTERISTICS OF LASER
POWER OBTAINED WITH FLUORESCHEIN ARE DESCRIBED. FACILITY:
AKADEMIYA NAUK UKRAINS'KOI RSR, INSTITUT RADIOFIZIKI I ELEKTRONIKI,
KHARKOV, UKRAINIAN SSR.

UNCLASSIFIED

USSR

UDC 621.396.677:823.164

AMUNOV, A. G., GASICH, YE. V., ZAYATS, A. L., KOROBOV, B. S., DORFMAN, M. YE.,
VINOGRADOV, L. I.

"Rotating Mount"

USSR Author's Certificate No 271952, Filed 3 Mar 69, Published 1 Sep 70 (from
RZh-Radiotekhnika, No 4, Apr 71, Abstract No 4B86P)

Translation: A rotating mount for large-scale radio telescopes is introduced.

1/1

USSR

UDC: 621.396.67:624.97(088.8)

ARMOSOV, S. A., YEMEL'YANOV, A. S., KOROBV, B. S., SHARAMEY, A. Ya.

"A Spherical Support for Antennas"

USSR Author's Certificate No 259571, filed 29 Jul 68, published 27 Apr 70
(from RZh-Radiotekhnika, No 1, Jan 71, Abstract No 1B101 P)

Translation: A support is proposed which contains a housing, a central rod and a control mechanism for regulating the vertical and horizontal position of the antenna. The design provides for increased precision in setting the antenna, and operational reliability of the support.

1/1

AA0040638

K

UR 0482

Soviet Inventions Illustrated, Section I Chemical, Derwent, 1-70

242201 BLASTFURNACE HEAT INTENSIFICATION combines the conventional central oxygen blow with natural gas so that these together are converted into reducing gases in the combustion zone with resultant heat absorption. The blast through this central tuyere is adjusted so that the amount of gasified coke carbon in the centre of the hearth should be in a ratio of 0.5-1.2 of the amount of carbon gasified in the air tuyere. Addition of natural gas in this proportion provides a means of controlling the hearth centre heat.

15.4.65 as 1002462/22-2. KOROBOV, I. I. & POKHONOV, V. K.
DNEPROPETROVSK METALLURGICAL INST. (3.9.69) Bul 15/
25.4.69. Class 18a. Int.Cl.C 21b.

1/2

18

19750208