UNCLASSIFIED PROCESSING DATE--04DEC70

1/2 025

TITLE--WIDTH OF POLARIZED LINES IN RAMAN SPECTRA -U-

AUTHOR--KONDILENKO, I.I.

COUNTRY OF INFO--USSR

SOURCE--LENINGRAD, OPTIKA I SPEKTROSKOPIYA, APRIL 1970, PP 680-7

DATE PUBLISHED----APR70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--LINE WIDTH, RAMAN SPECTRUM, MAGNETIC DIPOLE MOMENT, ANISOTROPY, RELAXATION PROCESS, CARBON TETRACHLORIDE, BAND SPECTRUM, TEMPERATURE EFFECT, SOLUTION CONCENTRATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY FICHE NO----FD70/605005/E05 STEP NO--UR/0051/70/000/000/0680/0687

CIRC ACCESSION NO--AP0139726

UNCLASSIFIED

2/2 025 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0139726

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE AUTHORS STUDY THE VARIATION, WITH CONCENTRATION, OF THE WIDTH OF POLARIZED RAMAN LINES IN SOLUTIONS OF A NUMBER OF LIQUIDS DISTINGUISHED BY DIPOLE MOMENTS AND ANISOTROPY RELAXATION TIMES IN AN INERT SOLVENT (CC1 SUB4). IT IS ESTABLISHED THAT THE BAND STUDIED, AS A RULE, IS UNIFORMLY NARROWED. AT THE SAME TIME, IN PURE LIQUIDS A WIDENING OF THESE BANDS WITH AN INCREASE IN TEMPERATURE IS OBSERVED. POSSIBLE MECHANISMS OF THE WIDENING OF VIBRATIONAL BANDS IN MOLECULAR SPECTRA ARE DISCUSSED. A CONCLUSION IN DRAWN CONCERNING THE UNSUITABILITY OF THE MODEL FOR WIDENING WHICH RESULTS IN THE OVERLAPPING OF BANDS CORRESPONDING TO THE ASSOCIATION OF MOLECULES OF ONE TYPE. IN PURE LIQUIDS THE OBSERVED VARIATIONS WITH CONCENTRATION AND TEMPERATURE, OF THE WIDTH OF THE POLARIZED LINES ARE RELATED TO A RESONANCE EXCHANGE OF ENERGY BETWEEN MOLECULES.

UNCLASSIFIED

1/2 013 UNCLASSIFIED PROCESSING DATE--20NOV70
TITLE--THE INFLUENCE OF LIGHT ON INCORPORATION OF N PRIME15 FROM N PRIME15 H SUB4 PRIME POSITIVE INTO SOME AMINO ACIDS AND AMIDES OF WHEAT
AUTHOR-(03)-KONDORSKAYA, G.K., KAGAN, Z.S., KRETOVICH, V.L.

COUNTRY OF INFO--USSR

SOURCE--IZVESTIYA ADADEMII NAUK SSSR, SERIYA BIOLOGICHESKAYA, 1970, NR 3, PP 446-451
DATE PUBLISHED--------70

SUBJECT AREAS--AGRICULTURE, BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--WHEAT, NITROGEN ISOTOPE, CHEMICAL LABELLING, AMINO ACID, PHOTOCHEMISTRY, PLANT PHYSIOLOGY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--3001/0531 STEP NO--UR/0216/70/000/003/0448/0451

CIRC ACCESSION NO--AP0126279

UNCLASSIFIED

2/2 013 UNCLASSIFIED PROCESSING DATE--20NOV70
CIRC ACCESSION NO--AP0126279
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. N PRIME15 FROM (H PRIME15 N SUB4) H SUB2 PO SUB4 INTRODUCED INTO GREEN PARTS OF WHEAT SEEDLINGS, AS A 0,05 M SOLUTION OF MEANS OF VACUUM INFILTRATION METHOD WAS INTENSIVELY INCORPORATED INTO FREE ASPARAGINE, GLUTAMINE AND ALANINE, BUT WAS SLOWLY INCORPORATED INTO FREE ASPARTATE AND GLUTAMATE UNDER ILLUMINATION WAS WELL AS IN DARKNESS. LIGHT STIMULATED INCORPORATION OF N PRIME15 INTO ASPARAGINE AND ALANINE AND ESPECIALLY GREATLY INTO GLUTAMINE. THE ASSIMILATION OF N PRIME15 AND N PRIME15 N PRIME POSITIVE SUB4 AS DICARBOXYLIC AMINO ACID (ASPARTATE AND GLUTAMATE) PRECEDED THE ASSIMILATION OF N PRIME15 IN THE FORM OF RESPECTIVE AMIDES (ASPARAGINE AND GLUTAMINE). INDEED, THE RATIO OF ENRICHMENT OF DICARBOXYLIC AMINO ACIDS IN N PRIME15 EXCEEDED THAT OF THE AMIDES, BUT THE AMOUNT OF DICARBOXYLIC AMINO ACIDS WHOSE NITROGEN WAS FORMED FROM N PRIME15 H PRIME POSITIVE SUB4 WAS SIGNIFICANTLY LOWER THAN THE AMOUNT OF AMIDES WHOSE NITROGEN ALSO WAS FORMED FROM N PRIME15 H PRIME POSITIVE SUB4.
FACILITY: A. N. BACH INSTITUTE OF BIOCHEMISTRY, ACADEMY OF SCIENCES, USSR. AND TECHNOLOGICAL INSTITUTE OF FOOD INDUSTRY, MOSCOW.

UNCLASSIFIED

USSR

KONDORSKIY, I. D. (Moscow)

"On the Theory of Gyropendulum Systems"

Moscow, Mekhanika Tverdogo Tela, No 4, Jul-Aug 70, pp 11-15

Abstract: Cases are considered, in which the equations of gyropendulum systems are equivalent to the equations of a two-rotor gyrocompass. A theorem is given, according to which the equations of potentially imperturbable systems are identical with respect to external coordinates. 8 bibliographic entries.

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USSR

UDC: 669.24:538.632

KONDORSKIY, YE. I., VASIL'YEVA, R. P. and AKMURADOV, B., Moscow State University imeni M. V. Lomonosov

"The Ratio of Nernst-Ettingshausen and Hall's Anomalous Constant Effects in Nickel-Cobalt Alloys"

Sverdlovsk, Fizika metallov i metallovedeniye, Vol 33, No 1, Jan 72, pp 207-209

Abstract: Discussed are the results of measurements of the Hall and Nernst-Ettinghausen's (N.-E.) effects and resistivity for nickel-cobalt alloys at various temperatures. Involved is a series of nickel-cobalt alloys containing from 10 to 90% Co, as well as Co and Ni specimens. The nickel-cobalt alloys show various crystal structures depending on Co contents. Alloys containing up to 70% Co have a densely packed hexagonal crystal structure; alloys of lower cobalt concentrations have a face-centered cubic lattice. Both Hall and N.-E. emf and resistivity values were determined in vacuum (10^{-2}--10^{-3} mm Hg) on one and the same specimens at temperatures ranging from room to 500°C. A table presents the values of

USSR

KONDORSKIY, YE. I., et al, Fizika metallov i metallovedeniye, Vol 33, No 1, Jan 72, pp 207-209

parameters a, b, α, β and resistivity ρ for different crystal lattices of alloys. It appears that $\alpha/a\ T/\rho$ and $\frac{\beta}{b}\frac{T}{\rho}$ vary within limits predicted in earlier research. The experimental results support the validity of the theoretical formulas derived by other investigations and indicate, specifically, that the ratio $Qi/R_s\ \frac{\rho}{T}$ (Hall and N.-E. emf values), respectively for most Ni-Co alloys are independent of temperature. There is a weak temperature dependence of this ratio for nickel and nickel-rich alloys. (1 illustration, 1 table, 9 bibliographic references).

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1/2 026 UNCLASSIFIED PROCESSING DATE--04DEC70

TITLE--NATURE OF UNIAXIAL ,MAGNETIC, ANISOTROPY IN OBLIQUELY DEPOSITED MAGNETIC FILMS -U-

AUTHOR-(02)-KONDORSKIY, YE.I., DENISOV, P.P.

COUNTRY OF INFO--USSR

SOURCE--FIZIKA METALLOV I METALLOVEDENIE, APR. 1970, 29, (4), 880-883

DATE PUBLISHED----APR70

SUBJECT AREAS--PHYSICS, MATERIALS

TOPIC TAGS--MAGNETIC ANISOTROPY, TEMPERATURE DEPENDENCE, FERROMAGNETIC FILM, COBALT, CRYSTAL ORIENTATION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3003/0437 STEP NO--UR/0126/70/029/004/0880/0883

CIRC ACCESSION NO--AP0129662

UNCLASSIFIED

2/2 026 UNCLASSIFIED PROCESSING DATE--04DEC70

CIRC ACCESSION NO--AP0129662

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE TEMP. DEPENDENCE OF THE UNIAXIAL MAGNETIC ANISOTROPY CHARACTERIZING OBLIQUELY DEPOSITED CO FILMS WAS STUDIED WITH A VIEW TO DISCOVERING THE NATURE OF THE ANISOTROPY. TWO DISTINCT TYPES OF ANISOTROPY WITH DIFFERENT TEMP. CHARACTERISTICS WERE OBSERVED, IN ACCORDANCE WITH SIMPLE THEORY. FOR FILMS DEPOSITED AT SMALL ANGLES OF INCIDENCE THE MAIN PART WAS PLAYED BY ANISOTROPY ASSOCIATED WITH THE FIELDS OF MAGNETIC CHARGES; IN SUCH FILMS CHAINS OF CRYSTALLITES NORMAL TO THE PLANE OF INCIDENCE OF THE ATOMIC BEAM TENDED TO BE FORMED.

UNCLASSIFIED

1/2 025 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--SIMULTANEOUS OXIDATION OF TWO ELEMENTS FROM A THREE COMPONENT SOLID SOLUTION -U-

AUTHOR-(02)-KONDRACHENKO, L.A., SHCHERBEDINSKIY, G.V.

K

COUNTRY OF INFO--USSR

SOURCE--FIZ. KHIM. OBRAB. MATER. 1970, (1), 125-32

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS, CHEMISTRY

TOPIC TAGS--SOLID SOLUTION, METAL OXIDATION, THERMODYNAMIC ANALYSIS, IRON ALLOY, SILICON STEEL, CARBON ISOTOPE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1995/0924 STEP NO--UR/0472/70/000/001/0125/0132

CIRC ACCESSION NO--AP0116434

UNCLASSIFIED

2/2 025 UNCLASSIFIED PROCESSING DATE--20NOV70

CIRC ACCESSION NO--AP0116434

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. A THEORETICAL THERMODYNAMIC ANAL. WAS MADE FOR SEMI INFINITE AND FOR INFINITE MEDIA AT SUCH CONDITIONS THAT THE RATYOF CHEM. REACTIONS AT PHASE BOUNDARIES IS MUCH FASTER THAN THE DIFFUSION RATE WITHIN THE VOL. OF THE METAL. THE ORETICAL CONCLUSIONS ARE VERIFIED BY EXPTS. WITH SIMULTANEOUS OXION. OF SI AND C FROM THE ALLOY FE PLUS 1PERCENT SI PLUS 0.47PERCENT C INTO WHICH THE RADIOACTIVE PRIME14 C WAS INTRODUCED AS A TRACER. THE HEATING WAS IN A STREAM OF AR (2L.-HR) AND WATER VAPOR, WHEREBY THE C AND SI WERE ELIMINATED. SPECIMENS 12 TIMES 12 TIMES 10 MM, (REPRESENTING A SEMI INFINITE MEDIUM) WERE HEATED AT 950, 1050, AND 1150DEGREES, WHILE SPECIMENS 12 TIMES 12 TIMES 1 MM (REPRESENTING AN INFINITE MEDIUM) WERE HEATED AT 950DEGREES. AT EACH TEMP. 2 DURATIONS OF HEATING WERE SELECTED AND AT ALL TEMPS., ALL SPECIMENS WERE IN AUSTENITIC STATE. THECRETICAL VALUES CORRELATED WELL WITH EXPTL. ONES. ON THE BASIS OF BOTH THEORETICAL AND EXPTL. DATA, THE TEMP. DEPENDENCES OF THE D SUB11 AND D SUB22 DIFFUSION COEFFS. WERE DETD.

UNCLASSIFIED

Physiology

USSR

UDC 616.127-071:358.4

KONDRAKOV, V. M., Candidate of Medical Sciences, Lieutenant Colonel, Medical Corps, and KOCHETOV, A. K., Candidate of Medical Sciences, Lieutenant Colonel, Medical Corps

"Phase Analysis of the Contractile Function of the Myocardiosclerotic Heart in Hypoxia"

Moscow, Voyenno-Meditsinskiy Zhurnal, No 4, 1973, pp 65-68

Abstract: Polycardiographic studies were conducted on 3 groups of fasting subjects, or 3-3.5 hrs after a meal; the studies were repeated during the 18-20th minute of breathing a gas mixture containing 9.8% O_2. Group I consisted of 30 control subjects with a mean age of 37 yr. Group II consisted of 37 patients with focal postinflammatory cardiosclerosis, with a mean age of 34 yr. Group III consisted of 47 patients with limited atherosclerotic cardiosclerosis. All of the subjects were without complaints and had normal blood pressure. Analysis of the results showed that duration of the cardiac cycle differed little between the 3 groups. However, the average phase of asynchronous contraction in Group III was prolonged in comparison with Group I, which apparently was due to left ventricular hypertrophy, as well as dystrophic and sclerotic changes in the myocardium. Again, in comparison with

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R001401420016-2"

USSR

KONDRAKOV, V. M and KOCHETOV, A. K., Voyenno-Meditsinskiy Zhurnal, No 4, 1973, pp 65-68

Group I, mechanical systole in Group III was prolonged. The intrasystolic index, rate of increase in intraventricular pressure, and the mechanical coefficient in Group III were significantly decreased in comparison with Groups I and II ($P < 0.001$), while the cardiac tension index was increased in Group III in relation to the other 2 groups ($P < 0.001$). In the hypoxic test the heart rate increased by 5-7 beats/min in all 3 groups of subjects. In Groups I and II the phase of isometric contraction decreased and the rate of rise in the intraventricular pressure increased. In Group III in most of the subjects there was a tendency for the phase of isometric contraction to decrease; the rate of increase in the intraventricular pressure was decreased, as well as the intrasystolic index. These changes in the Group III subjects were indicative of stage I hypodynamia cordis.

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USSR

UDC 536.24:536.42

KARASEV, A. B., KONDRANIN, T. V., Moscow

"Radiant Heat Exchange in the Area of the Critical Point with Injection of the Products of Mass Carryover Into the Boundary Layer"

Mekhanika Zhidkosti i Gaza, No 5, 1971, pp 21-30.

Abstract: It is demonstrated that the presence of components with adsorption cross sections other than zero in the visible area of the spectrum in the boundary layer causes an increase in light flux to the surface in comparison with the flow arriving at the external boundary of the boundary layer. Conditions are produced allowing the range of wavelengths in which this effect occurs at all values of optical thickness of the boundary layer to be determined. A criterion is presented, indicating that in many flow modes, the influence of injection of vapors on the increase in radiant flux to the wall can be ignored.

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USSR

KARASEV, A. B., KONDRANIN, T. V., Moscow

"Effect of Mass Removal Products on Heat Exchange During Graphite Disintegration in an Emitting Air Plasma"

Moscow, Izvestiya Akademii Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 1, January-February 1971, pp 23-31

Abstract: The problem of a stationary hypersonic, high temperature, viscous, thermally conducting flow of emitting air around the leading critical point of a blunt body made of graphite in the region between the departing shock wave and the surface of the body is investigated. The radiant and convective heat exchange on an impenetrable surface and also in the presence of blowing are considered. The characteristics of graphite mass removal are found under the condition that radiation transport by its disintegration products occurs.

The diffusion was calculated by a binary model, that is, it was assumed that the mixture consists of two components: the oncoming air and the disintegration products. The chemical reactions in the boundary layer were considered frozen, and on the outer boundary of the boundary layer up to the shock wave, in equilibrium. The state of the gas at the disintegrated surface

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KARASEV, A. B., et al., Izvestiya Akademii Nauk SSSR, Mekhanika Zhidkosti i Gaza, No 1, January-February 1971, pp 23-31

was also determined from the condition of chemical equilibrium where the saturation vapor pressure was assumed equal to the stagnation pressure.

It is pointed out that in finding the thermodynamic and transport properties of the gases, the data from the papers by C. F. Hansen "Approximation for the Thermodynamic and Transport Properties of High-Temperature Air," NACA TR, 1959, R-50 and J. Hirshfelder, et al., Molecular Theory of Gases and Liquids, were used. The optical properties of the air were taken from the paper by Yu. A. Plastinin, et al., "Radiative and Absorption Properties of Air at High Temperatures T = 2,000-20,000° K," Vses. Konf. po Fizike Nizkotemperaturnoy Plazmy [All-Union Conference on Low Temperature Plasma Physics], Kiev, Naukova Dumka Press, 1966, and the optical properties of the graphite removal products, from the papers by Yu. A. Plastinin "Optical Absorption Cross Sections of Diatomic Molecules," Fizicheskaya Gazodinamika Ionizirovannykh i Khimicheski Reagiruyushcheikh Gazov [Physical Gas Dynamics of Ionized and Chemically Reacting Gases], Moscow, Nauka Press, 1968 and K. Wilson and W. Nicolet, "Spectral Absorption Coefficients of Carbon, Nitrogen and Oxygen Atoms," J. Quant. Spectroscop. Radian. Trans., Vol 7, No 6, 1967. All of the calculations were performed for a sphere 1 meter in radius.

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USSR UDC 617.51-001+616.89-036.11/7-085.835.3

KONDRASHCHENKO, V. T., GLANTS, B. R., and MAYEROVICH, I. M.

"Hyperbaric Oxygen Therapy of Hypoxia in Acute Brain Injuries and Acute Exogenous Psychoses"

Moscow, Zhurnal Nevropatologii i Psikhiatrii, No 2, 1971, pp 271-277

Abstract: Sixty-three patients with acute brain injuries (2d-3d degree concussion) and 61 others suffering from acute exogenous psychoses (carbon monoxide poisoning, alcohol psychosis) were treated either with hyperbaric oxygen, oxygen at normal barometric pressure, or oxygen inhalation conbined with various drugs. Hyperbaric oxygen was found to be more effective in both groups than either of the other modes of treatment. Besides exerting a favorable effect on the blood picture of the patients with brain injuries, hyperbaric oxygen abolished headaches after two to three treatments, normalized sleep, and enhanced the sense of well-being. In those suffering from mental disorders, one or two treatments with hyperbaric oxygen markedly reduced the respiratory insufficiency and hypoxia while relieving the psychotic symptoms. Inhalation of oxygen at ordinary pressure in pure form or combined with drugs was much less effective.

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USSR

UDC 669.140.089.14

TURSUNOV, A. V., GUTOROVA, V. L., KONDRASHEV, A. I., and PILYUSHENKO, V. L.

"Cold-Resistant Nickel-Free Structural Steel"

Dnepropetrovsk, Metallurgicheskaya i Gornorudnaya Promyshlennost', No 6, Nov-Dec 70, p 34

Abstract: A new procedure for producing cold-resistant nickel- and molybdenum-free steel developed jointly by members of the Don Scientific Research Institute of Ferrous Metallurgy and the Novokramatorsk Machine Building Plant is described. The chemical composition of this steel is (%): 0.35 C, 0.33 Si, 1.16 Mn, 0.29 W, 0.017 Ti, 0.021 Al, 0.034 S, and 0.023% P. Mechanical properties were determined after tempering at 880° and annealing at 600 and 650° on 28 x 28-mm longitudinal samples cut into bars. The sensitivity to overheating was determined by the drop in impact strength. The test results show that the steel is insensitive to overheating, possesses a significant reserve of viscosity (22-29 kg/cm^2 at -70°C), and its cold brittleness threshold, defined as the temperature at which 50% of the viscosity is lost, compared with viscosity at room temperature, lies below -70° C. 1/1

1/2 027 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--THE EFFECT OF MISHMETAL ON THE STABILITY OF ALLOYED CAST STEEL AT LOW TEMPERATURES -U-

AUTHOR-(05)-BRAYNIN, I.YE., PILYUSHENKO, V.L., KHARCHENKO, V.A., KONDRASHEV, A.I., GASHUTIN, V.P.

COUNTRY OF INFO--USSR

SOURCE--KIEV, TEKHNOLOGIYA I ORGANIZATSIYA PROIZVODSTVA, NO 1, 1970, PP 49-50

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--CHROMIUM ALLOY, MANGANESE ALLOY, MOLYBDENUM ALLOY, CAST STEEL, IMPACT STRENGTH, DUCTILITY, MECHANICAL PROPERTY, LOW TEMPERATURE METAL, MISCH METAL

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1999/1313 STEP NO--UR/0418/70/000/001/0049/0050

CIRC ACCESSION NO--AP0123272

UNCLASSIFIED

2/2 027 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0123272

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. RESEARCH RESULTS ARE GIVEN ON THE EFFECT WHICH MISHMETAL HAS ON THE PROPERTIES OF MANGANIFEROUS, CHROMMANGANESE, AND CHROMMANGANESE MOLYBDENUM GRADES OF STEEL AT TEMPERATURES BELOW ZERO. IT IS SHOWN THAT THE INTRODUCTION OF MISHMETAL INTO CAST ALLOYED STEEL RAISES ITS IMPACT DUCTILITY AT ROOM TEMPERATURE AND AT TEMPERATURES BELOW ZERO. THE BEST COLD STABILITY IS EXHIBITED BY STEEL ALLOYED WITH THE FOLLOWING COMPLEX OF ELEMENTS: CHROMIUM, MANGANESE, MOLYBDENUM, AND MISHMETAL.

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3801 (LA-tr-69-23(Draft)) DESIGN OF THE ISOCHRONOUS CYCLOTRON LABORATORY OF THE I. V. KURCHATOV INSTITUTE OF ATOMIC ENERGY. Venikov, N. I.; Oglobiin, A. A.; Khaldin, N. N.; Kondrashev, L. F. Translated by Helen J. Dahlby (Los Alamos Scientific Lab., N. Mex.), from report IAE-1888. 13p. Dep. CFSTI.

The laboratory is based on the U-240 isochronous cyclotron designed at the D. V. Efremov Scientific Research Institute of Electrophysical Apparatus. To expand the possibilities of the accelerator, an axial injector of ions from external sources (polarized protons, tritium, lithium, heavy ions) and a device for obtaining intensive pulsed neutron beams are planned. To improve the energy discontinuity of the beam ±0.02% without loss of intensity, a special system of external monochromatization will be used. Obtaining heavy ions preliminarily accelerated in a tandem (an electrostatic electron-stripping) generator and injected into the U-240 with stripping of the electrons inside the latter is specified for the future. (auth)

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USSR UDC 599.32+595.775:591.5+591.9

ROTSHIL'D, Ye. V., KONDRASHEV, V. E., TABUNINA, T. I., and POSTNIKOV, G. B., All-Union Scientific Research Antiplague Institute "Mikrob", Saratov and Gur'yevskaya Antiplague Station

"Rodents and Fleas in the Enzootic Plague Region Between the Ural and Emba Rivers"

Moscow, Zoologicheskiy Zhurnal, Vol 49, No 10, Oct 70, pp 1548-1562

Abstract: The desert located north of the Caspian Sea between the Ural and Emba rivers is an area of enzootic plague. The numerous specimens of fauna caught by the Gur'yevskaya Antiplague Station for bacteriological investigations, together with data available in the literature from 1875 to 1969 were used to systematize the available information and to shed light on the problem. The whole region was divided into small areas and still smaller landscapes according to such ecological factors as geology, surface relief, and type of soil. Data were compiled on the distribution of various rodents and the average number of epizoic fleas living on each type of animal. It was found that high soil salinity and moisture were unfavorable for Citellus pygmaeus, Citellus fulvus, and Meriones tamariscinus, but did not affect the distribution of Rhombomys

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USSR

ROTSHIL'D, Ye. V., et al., Zoologicheskiy Zhurnal, Vol 49, No 10, Oct 70, pp 1548-1562

opimus. The number of fleas living on Rhombomys opimus and Citellus pygmaeus was especially high in landscapes of recently dried up deltas which have moderate soil salinity and moisture. These factors promote the proliferation of plague-spreading epizoons among rodents.

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USSR

UDC: 621.681.4

KONDRASHEV, V. S., PAK, K. S.

"A Vacuum Pump"

Moscow, Otkrytiya, Izobreteniya, Promyshlennyye Obraztsy, Tovarnyye Znaki, No 12, Apr 72, Author's Certificate No 334403, Division F, filed 30 Apr 70, published 30 Mar 72, p 137

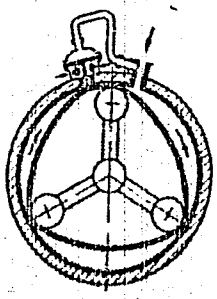
Translation: This Author's Certificate introduces: 1. A vacuum pump which contains an exhaustible housing with elastic shell forming the working chamber, and a rotor with rollers for transferring gas as the rotor traverses the shell from a suction pipe to a delivery pipe which is equipped with an exhaust valve. As a distinguishing feature of the patent, the dead space is eliminated and efficiency is improved by making the exhaust valve in the form of an elastic plate fastened at a right angle to the inside wall of the shell (for instance by making it in one piece with the shell) and passing through an opening in the outer wall of the shell into the delivery pipe. 2. A modification of this pump distinguished by the fact that a box is mounted on the housing with an elastic element such as a diephragm, and with a bellows connected on the inside to the elastic

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R001401420016-2"

USSR

KONDRASHEV, V. S., PAK, K. S., USSR Author's Certificate No 334403

plate and separating the cavity of the box into two chambers, one of which (with the plate) is connected to the delivery pipe, while the other (opposite the first) is connected to the suction pipe.



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USSR

UDC 621.524

KONDRASHEV, V.S.

"New Molecular Pump With Cylindrical System Of Interacting Working Organs"

Tr. Mosk. in-ta elektron. mashinostr. (Works Of The Moscow Institute Of Electrical Machine Construction), 1970, No 9, pp 131-155 (from RZh:Elektronika i yeye primeneniye, No 2, Feb 72, Abstract No 2A60)

Translation: The construction is described of a pump which was developed of Type MN-250. To avoid an increase of the axial dimension of the system, the working organs of the pump are coaxial, the cylinders of the rotor and stator entering one into another and forming three coaxial channels (providing the stages of the pump). The nominal rate of angular motion of the pump is 17,500 rot/min. The measured maximum vacuum of the pump was on the order of 5.10^{-9} mm of mercury with hydrogen mainly serving as the residual atmosphere. In the test process the pump was heated to a temperature of 220° C (at the pump housing) which did not cause any breakdown of the pump. 11 ref. A.F.

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USSR

UDC 621.3.032.35

MARKOVSKII, L. YA., TAUSHKANOVA, L. B., GLADKOVA, V. F., KONDRASHEV, YU. D.

"Interrelation between the Granulometric Composition of Zinc Sulfide-Cadmium Sulfide Luminophores and the Degree of Dispersion of the Original Zinc Sulfide-Cadmium Sulfide"

Leningrad, Russian, Zhurnal prikladnoi khimii, vol 46, No 7, July 73, pp 1430-1434

Abstract: The number of small particles in the luminophore ZnS-CdS (with Ag and NaCl) increased with increasing dispersion of both the ZnS and CdS, while the average grain size increased with decreasing specific volume of the sulfide powders. The ZnS affected the granulometric composition more than did the CdS. Electron micrographs of the 62% ZnS + 38% CdS product calcined at temperatures from 550 to 800°C show the increasing size of the grains with increasing calcination temperature.

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1/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

TITLE--IMPROVEMENT IN THE PREPARATION OF PHOSPHATIDE CONCENTRATES -U-

AUTHOR-(05)-KLYUCHKIN, V.V., ZUYEV, E.I., SAVELYEVA, V.L., KONDRASHIN, N.A., PIDRIYKO, YE.V.

COUNTRY OF INFO--USSR

SOURCE--MASLO-ZHIR. PROM. 1970, 36(2), 34-7

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--HYDROLYSIS, CRUDE OIL, PETROLEUM PRODUCT, PHOSPHOLIPID

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1996/1559 STEP NO--UR/9085/70/036/002/0034/0037

CIRC ACCESSION NO--AP0118542

UNCLASSIFIED

2/2 011 UNCLASSIFIED PROCESSING DATE--30OCT70

CIRC ACCESSION NO--AP0118542

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. UNDESIRABLE CHANGES IN PHOSPHOLIQIDS CAUSED BY THEIR SEPN. DURING HYDRATION OF OILS ARE HYDROLYSIS AND FORMATION OF DARK PHOSPHATIDES. THEREFORE, THE METHOD OF PRODUCTION MUST EXCLUDE OXION. PROCESSES AND HYDROLYSIS OF OIL. FOR THIS PURPOSE, THE CRUDE OIL FROM THE EXTN. EQUIPMENT FLOWS DIRECTLY TO HYDRATION WITH NEARLY COMPLETE ABSENCE OF CONTACE WITH AIR. THE CONTACT TIME OS OIL PHOSPHOLIQIDS WITH H SUB2 O IS CONSIDERABLE DECREASED. THE HYDRATION PPT. IS SEPD. FROM THE OIL ON A SUPERCENTRIFUGE AT 15,000 RPM. DRYING AND DEODORIZING THE PPT. TAKES PLACE AT 730 MM AND SMALLER THAN 110DEGREES IN 0.8-2.4 MM LAYERS DURING 2.5-7 MIN. THE QUALITY AND STABILITY OF THE PHOSPHOLIQIDS OBTAINED ARE VERY GOOD. FACILITY: KHABAROVSK. MASLO-ZHIR. KOMB., KHABAROVSK, USSR.

UNCLASSIFIED

Foundry

USSR

UDC 669.18-147-412:621.746.73

ASEYEV, R. E. (Engineer), ZHUCHIN, V. N. (Cand. of Techn. Sciences), and KONDRASHIN, V. M. (Engineer)

"Continuous Pouring of Iron-Nickel Alloys on a Radial Unit and the Surface Quality of Thin-Section Castings"

Moscow, Stal', No. 4, Apr 72, pp 313-316

Abstract: The paper deals with the causes of shrinkage cavities in iron-nickel alloy castings (55 x 270 mm) made on continuous radial pouring equipment. It is shown that the thermal stresses in the crystallizing crust which increase due to uneven cooling (separation of crust from the ingot mold wall), reaching the yield point of the material, are the principal cause. The growth of these stresses is governed by the temperature dependence of the yield point. The process of shrinkage cavitation ceases when the thermal stresses level off with the formation of a plastic articulation in the form of a fold or localized sag. Tests on various shapes of ingot molds indicate rippled ingot molds to be the only solution for preventing the formation of shrinkage cavities. (3 illustrations, 8 bibliographic references).

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Acc. Nr.: AP0047040 Ref. Code: UR0122

USSR

UDC 669.715:621.357.8:620.178.162 A

ZARETSKIY, E. M., Candidate of Technical Sciences, KESTNER, O. E., Candidate of Technical Sciences, KONDRASHINA, M. V., Engineer and TEMKINA, A. S., Engineer

"Wear Resistance of Hard Anodic Films on Aluminum Alloys"

Moscow, Vestnik Mashinostroyeniya, No 1, 1970, pp 58-59

Abstract: The results are presented of a series of investigations of anodizing conditions, under which an anodic film with increased antifriction properties is obtained on AK4-1 and D16T alloys. The antifriction properties of hard anodic films obtained in the sulfuric acid electrolyte, and also in a mixture of sulfuric and oxalic acids under various anodizing conditions, were obtained on samples made of AK4-1 and D16T alloys.

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Reel/Frame 19730478

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D16T samples, anodized in the electrolyte, cooled by dry ice, were tested on a MI-1 test stand in the presence of sliding friction in a MC-20 oil and AMG-10 hydrolysis at 50 kg/cm^2 pressure, and 0.4 m/sec sliding velocity against steel. The AK4-1 samples were tested under condition of dry friction at 25 kg/cm^2 pressure during 30 hours. The results are presented in graphs in the form of the dependence of friction coefficient on time for AK4-1 samples in the MC-20 oil, and for D16T samples, anodized under various conditions. These conditions are given in a table. The results show, that hard anodizing in the electrolyte containing sulfuric and oxalic acids, makes it possible to obtain on the AK4-1 alloy, an anodic film of increased wear resistance with low friction coefficient when operating in a fluid medium. Under condition of dry friction a coating of VAP-2 substantially improves the sliding. Original article has 2 figures and 1 table.

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57

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USSR

UDC 911.3.616.981.455(574)

KONDRASHKIN, G. A., PUGACHEV, Yu. A., KONDRASHKINA, K. I., KALYAZINA, I. M., PROSHIN, V. G., LUK'YANOVA, A. D., KORCHEVSKAYA, V. A., KORCHEVSKIY, P. G., and POLYAKOV, V. K.

"Landscape-Epidemiological Regional Division Into Tularemia Districts in the Trans-Ural Area of Western Kazakhstan"

V sb. Probl. osobo opasn. infektsiy (Problems of Especially Dangerous Infections -- collection of works) Byp. 5(15), Saratov, 1970, pp 91-105 (from RZh-Meditsinskaya Geografiya, No 4, Apr 71, Abstract No 4.36.96)

Translation: The Trans-Ural area of Western Kazakhstan consists of four landscape-epidemiological areas: the Barbastau-Ileko-Utvinskiy area (steppe), the Chelkaro-Ankatinskiy area (dry steppe), the Chiderty-Ulenty-Buldurtinskiy area (semi-desert), and the Kaldygayty-Uil'skiy area (semi-desert-desert). Each area is described. Characteristic for the steppe and dry steppe areas is the steppe type of tularemia focus; while the estuary semi-desert type of tularemia focus is typical for the semi-desert. The prolonged epizootic "calm" of tularemia foci in the Trans-Ural area is due to the progressive drying out of once extensive local river delta floods. Because of cattle slaughter, xerophyt plants take over with river land turning to desert.

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USSR

KONDRASHKIN, G. A., et al., Probl. osobo opasn. infektsiy (Problems of Especially Dangerous Infections -- collection of works) Vyp. 5 (15), Saratov, 1970, pp 91-105 (from RZh-Meditsinskaya Geografiya, No 4, Apr 71, Abstract No 4.36.96)

The projected irrigation of the Trans-Ural area by construction of the Volga-Ural canal may activate local native tularemia foci. Numerical tables are provided for small mammals and their ectoparasites in the areas defined.

2/2

USSR

UDC 911.3:616.981.455(470.5)

KONDRASHKIN, G. A., SKARZOV, M. M., KALYAZINA, I. M., KONDRASHKINA, K. I., PUGACHEV, Yu. A., DEMYASHEV, M. P., LUKYANOV, A. D., GRISHIN, A. V., PROSHIN, V. G., and EREMENKO, A. T.

"Natural Focal Activity of Tularemia in the Valley of the Central and Lower Ural River"

V sb. Probl. osobo opasn. infektsiy (Problems of Especially Dangerous Infections -- collection of Works), Saratov, No 4(14), 1970, pp 72-93 (from RZh-Meditsinskaya Geografiya, No 3, Mar 71, Abstract No 3.36.125) by B. Dobrokhotov

Translation: A detailed analysis of zonal differences in the structure of temporary fauna complexes of mammals and their associated parasitocenoses in the valley of the Ural River is presented. The characteristic boreal forms in the northern-latitude areas of the river are gradually changed to desert forms toward the South. The relationship of subsequent changes of these complexes from the north to the south with the epidemiological and epizootiological parameters of each zonal section of the natural focus of tularemia are emphasized. Development of natural foci of tularemia in the central and lower valley of the Ural River is related to characteristics of the fluctuation in

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USSR

KONDRASHKIN, G. A., et al., RZh-Meditsinskaya Geografiya, No 3, Mar 71, Abstract No 3.36.125.

the level of the Caspian Sea. Tables of the changes in species composition and population of mammals, Ixodes, Gamasidae, and fleas distributed over the various regions of the Ural floodplain (northern and southern part of the valley of the central Urals, Chapayevsk, Kalmyk, and Makhambets flood plain of the lower Ural River) are given.

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USSR

UDC 621.396.6-41

KONDRASHKIN, N. M.

"Bimetallic Devices for External Monitoring of the Contact Resistance in Radio Electronic Units"

V sb. Obmen opytom v radiopromyshlennosti (Experience Pooling in the Electronics Industry--collection of works), Vyp. 6, Moscow, 1970, pp 77-78 (from RZh-Radiotekhnika, No 10, Oct 70, Abstract No 10V414)

Translation: The author discusses the use of bimetallic elements for checking the contact resistance of grounding systems of radio electronic equipment modules in chassis made of alloys based on aluminum and magnesium. Manufacture of the bimetallic elements is described as well as the technology of building them into the units to be monitored. Four illustrations. N. S.

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USSR

UDC 911.3.616.981.455(574)

KONDRASHKIN, G. A., PUGACHEV, Yu. A., KONDRASHKINA, K. I., KALYAZINA, I. M., PROSHIN, V. G., LUK'YANOVA, A. D., KORCHEVSKAYA, V. A., KORCHEVSKIY, P. G., and POLYAKOV, V. K.

"Landscape-Epidemiological Regional Division Into Tularemia Districts in the Trans-Ural Area of Western Kazakhstan"

V sb. Probl. osobo opasn. infektsiy (Problems of Especially Dangerous Infections -- collection of works) Byp. 5(15), Saratov, 1970, pp 91-105 (from RZh-Meditsinskaya Geografiya, No 4, Apr 71, Abstract No 4.36.96)

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USSR

KONDRASHKIN, G. A., et al., Probl. osobo opasn. infektsiy (Problems of Especially Dangerous Infections -- collection of works) Vyp. 5 (15), Saratov, 1970, pp 91-105 (from RZh-Meditsinskaya Geografiya, No 4, Apr 71, Abstract No 4.36.96)

The projected irrigation of the Trans-Ural area by construction of the Volga-Ural canal may activate local native tularemia foci. Numerical tables are provided for small mammals and their ectoparasites in the areas defined.

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USSR

UDC 911.3:616.981.455(470.5)

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KONDRASHKIN, G. A., SKARZOV, M. M., KALYAZINA, I. M., KONDRASHKINA, K. I., PUGACHEV, Yu. A., DEMYASHEV, M. P., LUKYANOV, A. D., GRISHIN, A. V., PROSHIN, V. G., and EREMENKO, A. T.

"Natural Focal Activity of Tularemia in the Valley of the Central and Lower Ural River"

V sb. Probl. osobo opasn. infektsiy (Problems of Especially Dangerous Infections -- collection of Works), Saratov, No 4(14), 1970, pp 72-93 (from RZh-Meditsinskaya Geografiya, No 3, Mar 71, Abstract No 3.36.125) by B. Dobrokhotov

Translation: A detailed analysis of zonal differences in the structure of temporary fauna complexes of mammals and their associated parasitocenoses in the valley of the Ural River is presented. The characteristic boreal forms in the northern-latitude areas of the river are gradually changed to desert forms toward the South. The relationship of subsequent changes of these complexes from the north to the south with the epidemiological and epizootiological parameters of each zonal section of the natural focus of tularemia are emphasized. Development of natural foci of tularemia in the central and lower valley of the Ural River is related to characteristics of the fluctuation in

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USSR

KONDRASHKIN, G. A., et al., RZh-Meditsinskaya Geografiya, No 3, Mar 71, Abstract No 3.36.125.

the level of the Caspian Sea. Tables of the changes in species composition and population of mammals, Ixodes, Gamasidae, and fleas distributed over the various regions of the Ural floodplain (northern and southern part of the valley of the central Urals, Chapayevsk, Kalmyk, and Mukhambets flood plain of the lower Ural River) are given.

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USSR

UDC 621.357.8(088.8)

SAMETSKIY, B. I., BELOUSOV, V. I., POLYAKOV, A. M., SMOLENTSEV, G. P., KONDRASHKOV, M. P., KUROV, P. YE.

"Solution for Electrochemical Etching of Metals"

USSR Author's Certificate No 308097, filed 7 Apr 69, published 23 Aug 71 (from RZh-Khimiya, No 6 (II), Jun 72, Abstract No 6L266P)

Translation: A solution containing K_2SO_4 is patented for electrochemical etching of metals. It is distinguished by the fact that in order to improve the quality of marking a product made of Cu and its alloys, Na_2CO_3 has been introduced into it. The composition of the solution (in % by weight is as follows): 7.9-8.1% Na_2CO_3, 1.9-2.1 K_2SO_4, and the rest water. Example. When marking with a solution containing 8% Na_2CO_3 by weight, 1.9% K_2SO_4 and the rest water at a voltage of 5 volts on plates made of copper and BRKh-8 bronze, a clear image of the symbols is obtained which is not removed during machining.

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USSR UDC 614.3(47-22)

FONAREV, L. S., LIVSHITS, V. L., and KONDRASHOV, A. K., Chair of Social Hygiene and Public Health Organization, Leningrad Sanitary Hygiene Medical Institute, and Leningradskaya Oblast Sanitary Epidemiological Station

"Work of Sanitary Epidemiological Stations with Rural Public Sanitary Inspectors (Based on Materials From Leningradskaya Oblast)"

Moscow, Gigiyena i Sanitariya, No 7, Jul 70, pp 64-68

Abstract: In 1965 the health authorities of Leningradskaya Oblast decided to change the existing forms of volunteer assistance to sanitary epidemiological stations and physicians in rural areas by organizing a corps of public health inspectors, providing them with systematic training, and then assigning them specific responsibilities (e.g., inspection of sanitary conditions in homes, warehouses, and on farms; education of the people in the value of personal hygiene and regular medical check-ups; etc.). In just a few years these rural public sanitary inspectors have made a significant contribution to reducing morbidity for a number of infectious diseases, ulcers, and parasitic diseases. Training and assignment of work is the responsibility of sanitary epidemiological stations; the Red Cross helps to locate and recruit likely candidates.

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USSR

KOLOMOYTSEV, F. I., BELOV, D. G., KONDRASHOV, A. P., and MAL'TSEV, Ye. K.

"Effect of Electron Bombardment on Electroluminescence"

Minsk, Zhurnal Prikladnoy Spektroskopii, Vol. 12, No. 1, Jan 1970, pp 145-148

Abstract: By considering the excitation of electrically luminescent materials as the product of separate as well as combined actions of charged particles and electric fields, the authors undertook an investigation into the spectrum of the glow from an EL-510 target. It is asserted that there is no data in the literature for this type of research. The electron beam used in the experiments was obtained by a proton-electron accelerator; the remainder of the equipment and its interrelations are shown in a schematic diagram. Source of the electron beam was a tungsten filament, heated to incandescence, in a Pierce lens. The beam was controlled by two Faraday cylinders. Experiments were conducted at room temperature, and the pressure in the operating chamber was $5 \cdot 10^{-6}$ mm Hg. Luminescent screens in the form of

USSR

KOLOMOYTSEV, F. I., et al, Zhurnal Prikladnoy Spektroskopii, Vol. 12, No. 1, Jan 1970, pp 145-148

electroluminescent capacitors were the targets; the luminescent substance, EL-510, was deposited on transparent, electrically conducting glass 40-50 microns thick. The results of the experiments are given in the form of curves: with separate excitation of the screen by the electron beam and a sinusoidal voltage of about 80 volts at a frequency of 5 kHz, the maximum of the resultant spectrum did not shift. On the other hand, the intensity of the EL-510 glow under electron bombardment was much less than with the sinusoidal voltage. A possible explanation for this phenomenon is offered.

1/2 033 UNCLASSIFIED PROCESSING DATE--23OCT70

TITLE--EFFECT OF ELECTRON BOMBARDMENT ON THE LUMINESCENCE OF A COPPER ACTIVATED ZINC SULFIDE PHOSPHOR -U-

AUTHOR-(03)-KOLOMOITSEV, F.I., BELOV, D.G., KONDRASHOV, A.P.

COUNTRY OF INFO--USSR

SOURCE--ZH. PRIKL. SPEKTROSK. 1970, 12(1), 353-5

DATE PUBLISHED-------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--ELECTRON BOMBARDMENT, ZINC SULFIDE, ELECTRIC FIELD, ELECTROLUMINESCENCE, ELECTRON ENERGY, RADIATION INTENSITY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1052 STEP NO--UR/0368/70/012/002/0353/0355

CIRC ACCESSION NO--AP0107561

UNCLASSIFIED

2/2 033 UNCLASSIFIED PROCESSING DATE--23OCT70

CIRC ACCESSION NO--AP0107561

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE EFFECT OF SIMULTANEOUS BOMBARDMENT WITH FAST ELECTRONS AND THE APPLICATION OF A SINUSOIDAL VOLTAGE ELEC. FIELD ON THE NONADDITIVE LUMINESCENCE PROPERTIES OF ZNS-CU ELECTROLUMINOPHORS OF THE EL-510M TYPE WAS STUDIED BY USING AN EARLIER DESCRIBED METHOD (F. I. KOLOMOITSEV, D. G. BELOV, A. P. KONDRASHOV, AND E. K. MAL'TSEV, 1970). AT DIFFERENT AMPLITUDES AND A CONST. FREQUENCY OF THE EXCITATION VOLTAGE AND CONST. FLUX AND ENERGY OF THE FAST ELECTRONS, THE BRIGHTNESS OF THE ELECTROLUMINESCENCE, I SUBEL, AND SUBSEQUENTLY THE SUM LUMINESCENCE, ISIGMA, OF THE PHOSPHORS INCREASES BY THE FOLLOWING LAW: I EQUALS AU PRIMEB PLUS I SUBO, WHERE A AND B ARE EXPTL. DETD. COEFFS. AND I SUBO CHARACTERIZES THE LUMINESCENCE BRIGHTNESS EXCITED ONLY BY AN ELECTRON FLUX. IN THE LOW VOLTAGE REGION, THE SUM BRIGHTNESS EXCEEDS THE COMBINED BRIGHTNESS AND LEADS TO A NEG. NONADDITIVITY, DELTAI, WHICH DECREASES WITH INCREASING POTENTIAL TO ZERO AT 90-110 V, DEPENDING ON THE ELECTRON ENERGY. AT A CONST. EXCITATION VOLTAGE, THE LUMINESCENCE BRIGHTNESS IS ALMOST LINEARLY DEPENDENT ON THE ELECTRON ENERGY. THE NONADDITIVITY OF THE BRIGHTNESS AT 140 V IS POS. AND INCREASES WITH INCREASING ELECTRON ENERGY. HOWEVER, AT SMALLER THAN 100 V, THE NONADDITIVITY IS NEG.

UNCLASSIFIED

Acc. Nr: AP0050718 Abstracting Service: CHEMICAL ABST. 75 170 Ref. Code: 4R0368

94975h Effect of electron bombardment on the glow of an electroluminophor. Kolomoitsev, F. I.; Belov, D. G.; Kondrashov, A. P.; Mal'tsev, E. K. (USSR). *Zh. Prikl. Spektrosk.* 1970, 12(1), 145–8 (Russ). In the excitation of luminophor EL-510 m by current of electrons (50 μA, ~25 keV) or by sinusoidal voltage (~80 V, frequency 5 kHz), positions of the max. in the spectrum were virtually unchanged. In the case of current of electrons, the light intensity was significantly lower than in the case of excitation by sinusoidal voltage. Reflected and the surface layer delayed electrons (~50%) did not participate in the excitation of the electroluminophor. During the joint action of penetrating irradn. and elec. field, light intensity was lower than in the excitation by elec. field only. Under the conditions of simultaneous action of sinusoidal voltage and current of charged particles, in an "impoverishment" barrier of the Schottky type, an addnl. amt. of charge carriers was generated as δ-electrons. The appearance of secondary electrons caused a decrease of barrier resistance and the intensity of local elec. field decreased, which led to a decrease of electroluminescence intensity. M. Tichy

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REEL/FRAME
19810716

USSR UDC 669.14.018.29-414

GOL'DSHTEYN, M. I., BLYUM, E. E., GRIN', A. V., SELETKOV, A. I., LITVINENKO, D. A., LEYKIN, I. M., RUDCHENKO, A. V., OREL, E. I., VAYNTRAUB, S. S., LOKTIONOV, P. Ya., LASHCHEV, V. Ya., MOSIOSHVILI, V. V., MIROSHNICHENKO, S. I., and KONDRASHOV, M. M., Ural Scientific Research Institute of Ferrous Metals, Central Scientific Research Institute of Ferrous Metallurgy imeni I. P. Bardin, and Kommunarsk Metallurgical Plant

"Adoption of the Industrial Production of 15G2AF Sheet Steel"

Moscow, Stal', No 9, Sep 70, pp 828-830

Abstract: An investigation of the 15G2AF plate steel (10-25 mm), commercially produced at the Kommunarsk Metallurgical Plant, revealed that alloying of the manganese structural steel with nitrogen and vanadium increases the strength and plasticity properties of the normalized rolled steel. Normalizing of the metal effects a size reduction of the grain (to 10-12), which assures a low (-100°C to -120°C) cold brittleness threshold. The strength of the 15G2AF steel was found to be at least 60 kg/mm^2 and the yield stress at least 45 kg/mm^2. Use of 15G2AF steel for welded structures decreased weight, in comparison with steel 10G2S1, by 13.6%.
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UDC 669.18.046.55:669.562

USSR

TERZIYAN, P. G., SABIYEV, M. P., LOSHCHOV, V. Ya., KONDRASHOV, M. M., and CHEBOTNIKOV, A. G., Kommunarsk Metallurgical Plant; [redacted] Research Institute of Mining and Metallurgy

"Effect of the Method of Deoxidation on the Quality of Semi-Killed Steel"

Moscow, Metallurg, No 9, Sep 70, pp 21-22

Abstract: This paper concerns the effect of the method of deoxidation of semi-killed steel on the rejects of the first conversion. Until 1966, it was the practice to deoxidize semi-killed 3 ps steel in the ladle with [illegible]-ferrosilicon at 2.2 kg/t and with aluminum at 250 g/t. In 1966 the procedure was changed to deoxidation in the ladle with ferrosilicon alone, which has been used in correspondingly increased ratios. Deoxidation of 3 ps steel with ferrosilicon alone produces a more stable residual oxygen content in the steel. The test data show that the rejects of the first conversion, using ferrosilicon alone in the ladle, decrease as compared to that resulting from deoxidation with ferrosilicon and aluminum. A study of the macrostructure of ingots of semi-killed steel has demonstrated honeycomb blowholes in a normally deoxidized ingot. The blowholes were observed only in the upper part of the ingot. The formation and growth of honey comb blowholes in both semi-killed and rimmed

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USSR

TERZIYAN, P. G., et al, Metallurg, No 9, Sep 70, pp 21-22

steels are related to the ratio of pressure occurring in the blowhole (P_{bh}), which is in contrast to the directional external pressure on the blowhole (P_{ext}), the latter depending on ferrostatic pressure. With an increase in external pressure, the equilibrium concentrations of oxygen increase, creating dissimilar conditions for the reaction $C+{}^1/_2O_2 \rightarrow CO$ in various zones over the length of the ingot. The presence of blowholes at the surface of the upper part of the ingot is typical of normally deoxidized metal. The lack of such blowholes indicates overdeoxidation and the appearance of a shrinkage cavity.

2/2

1/2 018 UNCLASSIFIED PROCESSING DATE--020CT70

TITLE--EFFECTS OF BOIL DURATION PRIOR TO CAPPING AND OF 75PERCENT FERROSILICON PARTICLE SIZE ON THE SILICON ENRICHMENT OF THE TOP OF THE

AUTHOR-(05)-KONDRASHOV, M.M., SARYEV, M.P., VAINTRAUB, S.S., LASHCHEV, V.YA., TERZIYAN, P.G.

COUNTRY OF INFO--USSR

SOURCE--METALLURG (MOSCOW), 1970, 15(1), 21-3

DATE PUBLISHED--------70

SUBJECT AREAS--MATERIALS

TOPIC TAGS--INGOT CASTING, FERROSILICON, PARTICLE SIZE, DISTRIBUTION COEFFICIENT, SILICON, STEEL PRODUCTION

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1989/1933 STEP NO--UR/0130/70/015/001/0021/0023

CIRC ACCESSION NO--AP0108262

UNCLASSIFIED

2/2 018 UNCLASSIFIED PROCESSING DATE--020CT70

CIRC ACCESSION NO--AP0108262

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. USE OF 75PERCENT 10-29 MM PARTICLE SIZE FERROSILICON AIDS IN THE UNIFORM DISTRIBUTION OF THE SI. THE BOIL TIME OF THE METAL IN THE INGOT BEFORE CHEM. CAPPING HAS A GREATER EFFECT ON THE SI DISTRIBUTION IN THE TOP OF THE INGOT THAN THE 75PERCENT FESI PARTICLE SIZE FRACTION. THE OPTIMUM BOIL TIME FOR THE STEEL IN THE MOLD DEPENDING ON THE INTENSITY OF THE PROCESS SHOULD BE CONSIDERED AS 1.5-3 MIN. THE OPTIMUM 75PERCENT FESI PARTICLE SIZE FRACTION IS 10-30 MM. DATA OBTAINED CAN BE USED FOR OTHER PLANTS WORKING IN SIMILAR CONDITIONS AS THE KOMMUMARSK PLANT WHERE THE WORK WAS DONE.

AT0028860 CHEMICAL ABST. 2-70 UR 0000

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K

23957t Nature of internal defects causing stratification in a killed metal. Iodko, E. A.; Morgunov, A. V.; Mosiashvili, V. V.; Moiseenko, A. I.; Loshchev, V. Ya.; Nikulin, S. A.; Kondrashov, A. M.; Pogrebnoi, V. L. (USSR). *Probl. Stal'nogo Slitka, Tr. Konf. Slitku, 3rd* 1958 (Pub. 1969), 112–15 (Russ). Edited by Efimov, V. A. Izd. "Metallurgiya": Moscow, USSR. Ingots for sheet rolling had defects of lamination (sepn. into layers), and gas bubbles. Exptl. ingots were analyzed by an ultrasonic defectograph (frequency 2.5 MHz) and in addn. nonmetallic inclusions were detd. These defectographs showed the inclusion accumulation at the bottom part of the ingot. The more Al was used up for deoxidn. the more defects were present in the ingots. The mechanism of defect formation was assumed to be as follows: when the crystn. front (biphasic zone with dendritic structure) was wide and moved rapidly toward the center of the ingot, nonmetallic inclusions were more likely to be entrapped by the dendrites of the crystn. front.

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AT0028860

The width of crystn. front was larger at the bottom of the ingot, owing to the action of convection currents which carry the nonmetallic inclusions toward the bottom of the ingot. Increased temp. of casting and increased casting rate made the floating of nonmetallic inclusions easier and resulted in lesser nos. of defects. Another way was to insulate the mirror surface of the liq. metal by covering it with plates of mica. This decreased defects to 1/3. Still another way was to heat the mirror surface of the metal by covering it with an exothermic mixt. (such as Al + 75% Fe-Si + $NaNO_3$). This decreased defects to 1/3.

CMJR

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19680317

USSR

UDC 624.97:534.1

ESKIN, I. D. and KONDRASHOV, N. S.

"Free Oscillation of a Sandwich Rod with Dry Friction at the Contact Surface"

Kuybyshev, Tr. Kuybyshev. aviats. in-t (Transactions of the Kuybyshev Aviation Institute), Vyp 51, 1972, pp 35-44 (from Referativnyy Zhurnal -- Mekhanika, No 4, 1973, Abstract No 4V342 by Yu. A. Belyayev)

Translation: An approximate method for solving the problem of the free oscillation of a multilayer constructions with dry friction between the layers with arbitrary initial and boundary conditions is described. The nonlinear characteristic of rigidity of the systems being considered with distributed parameters, and in the general case the nonlinear boundary conditions are replaced by a piecewise-linear condition. The motion of the system is determined successively in stages. The partition of the system motion at the different stages is produced by the value of the increment of the zone of lumination, which satisfies the requirements of calculation accuracy. At each stage the solution is constructed for a linear system. Solutions to the problem are obtained according to the conditions and solutions at each stage. A method for evaluating the error of the solution is given and a means of evaluating the accuracy of the calculation is demonstrated. The method of calculation assumes

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USSR

ESKIN, I. D. and KONDRASHOV, N. S., Tr. Kuybyshev. aviats. in-t, Vyp 51, 1972, pp 35-44

the use of a high-speed computer. The essence of the method and its use are presented in an example problem on the free oscillations of a sandwich rod.

2/2

USSR

UDC: 539.3:534.1

KONDRASHOV, N. S.

"Normal Modes of Rib-Reinforced Cylindrical Shells"

Tr. Kuybyshev. aviats. in-t (Works. Kuybyshev Aviation Institute), 1970, vyp. 45, pp 249-255 (from RZh-Mekhanika, No 5, May 72, Abstract No 5V185)

Translation: The author determines the normal modes of a cylindrical shell with annular ribs spaced evenly with respect to each other and with respect to the edges. The initial equation is a differential equation of motion of the cylindrical shell in accordance with semi-momentless theory. Taking the cyclic symmetry of the given problem into consideration, the author derived a fairly simple transcendental frequency equation from which the overall spectrum of normal modes of the shell can be found with regard to the discrete placement of the ribs. Numerical examples are considered. V. V. Podalkov.

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USSR

UDC 615.9.032.77+615.9.032.2

KONDRASHOV, V. A., Institute of Biophysics

"A Method of Studying the Isolated Action of the Fumes (Gases, Aerosols) of Noxious Substances Passing Through the Skin and Lungs"

Moscow, Gigiyena Truda i Professional'nyye Zabolevaniya, No 6, 1970, pp 51-52

Translation: Considerable attention has been devoted in recent years to the action of fumes (gases, aerosols) of noxious substances passing through intact human and animal skin (N. M. Petrun', 1962; S. D. Zaugol'nikov et al.; others). Methods that do not require the simultaneous use of large numbers of animals have been described (N. M. Petrun', 1965; K. B. Leman; Schütze).

To carry out the poisoning of groups of animals by the fumes of various substances through isolated action on the skin or lungs, we devised a special apparatus in which the animals are secured in such a way that only the head or trunk is in the poisoning chamber during the experiment, while the chamber remains satisfactorily airtight. The apparatus as described below is for rats, but it can be used for other animal species as well (by changing the size).

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KONDRASHOV, V. A., Gigiyena Truda i Professional'nyye Zabolevaniya, No 6, 1970, pp 51-52

The apparatus consists of a metal plate 310 X 460 mm in size with 12 identical holding devices. Each device is intended to secure one rat. It consists of a horizontal plastic platform on which the animal rests during poisoning, a tray to collect urine and feces, a strap to tie the rat, a set of rings to limit the movements of the animal's head, a set of rubber collars, and a clamping device to close the gap between the poisoning chamber and the surrounding space around the animal's neck. During the procedure, the apparatus with the animals is hermetically connected to the poisoning chamber (instead of the door of a loading hatch).

The animals are immobilized by two technicians. The apparatus is first placed on a special bench. Then one technician stands inside, the other outside the apparatus. The first one puts on tightly fitting rubber gloves and grasps a rat in such a way that the hind paws are squeezed against the chest. The other puts an appropriately sized rubber collar around the animal's neck. Then the first technician forces the head through an opening in the plate and clamp. At the same time the other technician grasps a fold of skin between the ears and

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KONDRASHOV, V. A. Gigiyena Truda i Professional'nyye Zabolevaniya, No 6, 1970, pp 51-52

drawing it upward puts around the neck an appropriately sized ring mounted in grooves of the clamp (after which the rat can no longer pull its head back or crawl forward). The first technician puts a strap on the back of the animal near the hind legs and, encircling the horizontal plastic platform and tray with both ends of the strap, draws the ends upward and ties them together with a single knot on the back. He then twists the ends of the strap 2 or 3 times, makes two loops around the root of the tail, tray, and horizontal plastic platform, and knots the ends of the strap. The animal should be held with one hand until it is firmly secured (the second technician can do this) because rats are agitated, especially the first time they are handled, and they may bite. The second technician then holds the ring, draws forward the clamp a little, and with the help of pincers pulls the rubber collar to the outside of the plate of the apparatus. The first technician holds the front legs of the rat while the second one winds a nut onto a screw, tightly gripping the collar between the plate and the clamp. This ends the process of securing the animal. Throughout the poisoning period the rat lies "astride" the horizontal platform. Since its hind legs have no support, it is almost helpless to free itself. The other animals are dealt with the same way.

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KONDRASHOV, V. A., Gigiyena Truda i Professional'nyye Zabolevaniya, No 6, 1970, pp 51-52

The two technicians can handle 12 rats in 20 to 30 min. The apparatus with the rats is hermetically attached to the poisoning chamber with a frame and 4 bolts.

The design of the apparatus makes it possible to mount any number of holding devices in a sequence the reverse of the outside and inside of the plate. Therefore, the effect of fumes can be studied simultaneously on the skin and lungs. Before starting an experiment, the fur must be completely removed from the animals' trunk and extremities. In the case of rats this can be done with an electric hair clipper (Kometa), using a head with cutting blades 1/20 mm thick in order to produce as close a "haircut" as possible. Animals with a softer fur (especially rabbits) have to be shorn with scissors. It is best to use for these experiments purebred animals that have no fur (e.g., rats). In studying the effect of fumes on the skin of lungs, the atmospheric pressure in the poisoning chamber must be a little lower than in the room in order to prevent the fumes from acting in a different way from that under study if the airtightness of the poisoning chamber is destroyed.

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KONDRASHOV, V. A., Gigiyena Truda i Professional'nyye Zabolevaniya, No 5, 1970, pp 51-52

A certain air temperature must be maintained during the experiments: 28±1°C for clipped rats, 20±1°C for animals with fur. The apparatus to hold the animals can be used in any poisoning chamber that has a loading hatch and is equipped with a heating device which can be regulated. Our device can also be adapted for use in experiments to study protective clothing made from ordinary or special materials.

Bibliography

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Lenar, K. V., Kratkiy uchebnik rabochey i professional'noy gigiyeny (Short Textbook of Industrial and Occupational Hygiene), Moscow-Leningrad, 1945.

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USSR

KONDRASHOV, V. A., Gigiyena Truda i Professional'nyye Zabolevaniya, No 8, 1970, pp 51-52

Petrun', N. M., V sb.: Promyshlennaya toksikologiya i klinika professional'nykh zabolevaniy khimicheskoy etiologii (Industrial Toxicology and Symptoms of Occupational Diseases of Chemical Etiology), Moscow, 1962, p 67.

Petrun', N. M., Farmakol. i toksikol., 1965, No 4, p 468.

Schütze, W., Arch. Hyg. (Berl)., 1927, Vol 98, p 70.

6/6

USSR

UDC 615.616.24-003.656.6

DINKELIS, S. S., KRIKUNOV, G. N., KIRILYUS, Z. YE., KONDRASHOVA, M. YA., MYAKISHEV, I. A., POLYANSKAYA, L. A.

"Significance of the Petrographic Composition and Degree of Oxidation of Coal Dust When Evaluating It In Anthracosis Danger"

Nauch. tr. Irkutsk. med. in-t (Scientific Works of the Irkutsk Medical Institute), 1972, vyp 110, pp 39-40 (from RZh--Farmakologiya. Khimioterapevticheskiye Sredstva. Toksikologiya, No 3, Mar 73, Abstract No 3.54.889)

Translation: Three specimens of coal dust of defined petrographic composition and state of oxidation comprising 98-99 percent organic material and not containing SiO_2 were obtained experimentally. After intratracheal administration of these coal dust samples to rats, by the results of the histomorphologic and biochemical studies it was established that the rats developed pulmonary fibrosis. Among the trace components of the coal dust, the more expressed fibrogenic reaction was obtained for fusinite. The biological effects caused by the unoxidized coal dust (by comparison with oxidized) appeared more quickly and were most expressed during the first ten days after poisoning.

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USSR UDC 576.858(OGL).095.38:595.421

KONDRASHOVA, Z. N., Sverdlovsk Scientific Research Institute of Virus Infections

"Study of the Retention of the Virus of Omsk Hemorrhagic Fever in Ixodes persulcatus Under Conditions of a Massive Dosed Infection"

Moscow, Meditsinskaya Parazitologiya i Parazitarnyye Bolezni, Vol 39, No 3, May/Jun 70, pp 274-278

Abstract: Under laboratory conditions a "clean line" of Ixodes persulcatus was fed measured massive doses of Omsk hemorrhagic fever virus obtained from the Virus Institute. Their studies showed no increase of virus in the force fed ticks. The amount of virus in eggs, larvae, nymphs and imagos was always less than in the parent; titers showed large amounts of virus in feces of ticks. The infected ticks were made to feed on healthy white mice, under varying conditions for varying periods. None of the mice were infected, and tests for antihemagglutinins were negative. The virus titer in ticks fed on mice was two to three times less than the original, even in the case of very massive doses. Female ticks infected with Omsk virus in moderate doses did not transmit the virus to their eggs. The same ticks infected with encephalitis virus do transmit the disease to the animals they bite. The Omsk virus and the encephalitis virus, both arboviruses, behave differently, as shown by the above study.
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USSR

UDC 576.858.25.095.38:576.895.421

KONDRASHOVA, Z. N., and FILIPPOVETS, R. V., Sverdlovsk Scientific Research Institute of Virus Infections

"Infection Rate of Ixodes persulcatus Ticks and Some Aspects of Transovarial Transmission After Their Controlled Infection With Tickborne Encephalitis Virus"

Moscow, Voprosy Virusologii, No 6, Nov/Dec 70, pp 703-708

Abstract: Results are presented of a study of the infection rate, incidence of transovarial transmission, and changes in the virus in the imago-egg-lava stages of the ticks. The ticks were infected by controlled feeding of certain suitable insects. After strong infection of adult female ticks with Sof'in KE virus strain, the virus was found in 100 percent of the eggs of these ticks. A clear relationship was noted between the infection rate of the eggs laid and the virus dose used for the infection. When this dose was reduced to 1.3-2.3 lg LD_{50}/0.03 ml, no virus could be found in the eggs. Infection of batches of eggs was studied in all stages of egg development. It was found that the extent of infection of tick larvae was equivalent to that of eggs in the last days of their development. The results obtained confirm the previous observation that application of a massive dose of the virus to the tick organism

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KONDRASHOVA, Z. N., and FILIPPOVETS, R. V., Voprosy Virusologii, No 6, Nov/Dec 70, pp 703-708

at the beginning of its development guarantees maximum infection of the tick, at which level the "ovarial barrier" is absolutely overcome by the virus.

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1/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70
TITLE--A STUDY OF THE SURVIVAL OF THE VIRUS OF OMSK HEMORRHAGIC FEVER IN IXODES PERSULCATUS IN CONDITIONS OF THEIR MASSIVE INFECTION -U-
AUTHOR--KONDRASHOVA, Z.N.

COUNTRY OF INFO--USSR

SOURCE--MEDITISINSKAYA PARAZITOLOGIYA I PARAZITARNYYE BOLENZI, 1970, VOL 39, NR 3, PP 274-278
DATE PUBLISHED--------70

SUBJECT AREAS--BIOLOGICAL AND MEDICAL SCIENCES

TOPIC TAGS--HEMORRHAGIC FEVER, TICK, ENCEPHALITIS, MOUSE

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
PROXY REEL/FRAME--2000/0231 STEP NO--UR/0358/70/039/003/0274/0278

CIRC ACCESSION NO--AP0123993
UNCLASSIFIED

2/2 018 UNCLASSIFIED PROCESSING DATE--30OCT70
CIRC ACCESSION NO--AP0123993
ABSTRACT/EXTRACT--(U) GP-0- ABSTRAXT. IXODES PERSULCATUS TICKS WHICH WERE REARED IN THE LABORATORY AND TE TED FOR THE ABSENCE OF SPONTANEOUS VIRUS CARRIER STATE WERE INFECTED WITH A MASSIVE DOSE OF OHF VIRUS (3-4 LG LD SUB50 PER 0.03 M). IN NONE OF THE CASES THE INOCULATED DOSE REMAINED UNCHANGED TILL T E E OF OV POS TION. THE DECLINE IN THE AMOUNT OF THE VIRUS WAS REGUL RAL CNSER D B THE END OF FEEDING ON MICE. IN NO CASE WAS THE VIRUS TRANSMITTED TO MICE UPON FEEDING. NO TRANSMISSION IN THE COURSE OF ME MO PHO IS 'AS OBSERVED WITH OHF VIRUS USED IN THE DOSE IN WHICH TBE V US (SOPHYI STRAIN) AL AYS OVERCAME THE OVARIAN BARRIER OF THE TICK. WHEN INJECT TICKS FED ON MICE THE VIRUS WAS ALWAYS FOUND IN TICKS' FECES, HO EVE , ITS TITER WAS ALWAYS MUCH LOWER THAN UNDER SIMILAR CONDITION WITH T E VIRUS. FACILITY: SVERDLOVSKIY NAUCHNO-ISSLED. INSTITUT VIRTSNYKH INFEDTSIY.

UNCLASSIFIED

USSR

UDC 533.69.01+533.662.013

KONDRAT, K. I.

"Induced Velocities of Free and Attached Vortices of a Wing With Cambered Axis and With Axis Nonperpendicular to the Flow"

Tr. Leningr. in-t aviats. priborostr. (Transactions of the Leningrad Institute of Aircraft Instrument-Making), 1970, Vypusk (Issue) 66, pp 83-94 (from RZh-Mekhanika, No 12, Dec 70, Abstract No 12B330, by V. I. Putyata)

Translation: To eliminate the characteristics that exist when the lift line theory is applied to a wing with a cambered axis or with an axis nonperpendicular to the flow, it is proposed that the lift line be replaced with a vortex filament of finite thickness. The terminal velocity induced by the filament at the point of its axis is assumed to be equal to the mean arithmetic velocity induced at two points on the filament surface in a section passing through this point. Formulas are derived for calculation of the velocity components induced at an arbitrary point both of the sheet of free vortices and of the attached vortex filament. The problem of the best choice of filament radius is not discussed. The claim that variation in the position of the calculated points on the surface of the core does not affect mean velocity is not proven.

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USSR

DERBENEV, Ya. S., KONDRATENKO, A. M., SKRINSKIY, A. N., Institute of Nuclear Physics, Siberian Department, Academy of Sciences, USSR

"The Dynamics of Particle Polarization Near Spin Resonances"

Moscow, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, No 4, 1971, pp 1216-1226

Abstract: The motion of particle spin in storage rings (accelerators) is investigated. The methods and results of specified works on the study of spin resonances are generalized for the case of an arbitrary closed orbit. In addition to first-approximation resonances, resonances of higher orders are considered, for which rules for the selection of resonating harmonics are obtained. The major part of the work is devoted to the passage of resonances. The concept of an effective zone and an adiabatic zone is introduced. A complete solution of the single-passage problem, which consolidates the particular solutions of cited works is presented. On this basis the problem of the periodic passage of resonance is solved with use of the general nature of spin motion in a periodic field. 1 figure. 17 bibliographic entries.

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USSR

DERBENEV, Ya. S., KONDRATENKO, A. M., and SKRINSKIY, A. N., Corresponding Member of the Academy of Sciences USSR, Institute of Nuclear Physics of the Siberian Department of the Academy of Sciences USSR, Novosibirsk

"On the Motion of the Spin of Particles in an Accumulator With an Arbitrary Field"

Moscow, Doklady Akademii Nauk SSSR, Vol 192, No 6, 21 Jun 70, pp 1255-1258

Abstract: Certain general results of practical interest are presented concerning a study of the motion of spin in accumulators (or accelerators) with an arbitrary electromagnetic field, since studies of the behavior of the polarization of particles in accelerators are ordinarily limited to the case of a magnetic field that is almost constant in direction. It is shown that there is a periodic orbit $n(\theta)$, having the sense of direction of polarization of the periodic solution, around which the spin rotates, maintaining the projection in this direction. The spin turns around n through the same angle $2\pi\nu$ in a period of motion in orbit, independent of the place of observation and initial conditions. Of practical importance is the fact that the angular velocity makes it possible to produce the necessary orientation of n relative

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DERBENEV, Ya. S., et al, Doklady Akademii Nauk SSSR, Vol 192, No 6, 21 Jun 70, pp 1255-1258

to the velocity and field at a given point in the orbit. It is pointed out, in conclusion, that the existence of a stable periodic motion of the spin indicates that the beam polarization of an accumulator with an arbitrary electromagnetic field under a closed orbit is stable in the same degree as in an accelerator with a magnetic field that is almost constant in direction, thus opening up broad possibilities for the control of polarization in accumulators.

1/2 039 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--ON THE NON LINEAR THEORY OF WAVES IN A BOUNDED MAGNETOACTIVE PLASMA -U-

AUTHOR--KONDRATENKO, A.N.

K

COUNTRY OF INFO--USSR

SOURCE--UKRAYIN. FIZ. ZH. (USSR), VOL. 15, NO. 5, P. 745-51 (MAY 1970)

DATE PUBLISHED----MAY70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--PLASMA WAVE, MAGNETOACTIVE PLASMA, SURFACE WAVE, PLASMA HEATING, ACOUSTIC WAVE, DRIFT MOBILITY, NONLINEAR EFFECT

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--3005/1810 STEP NO--UR/0185/70/015/005/0745/0751

CIRC ACCESSION NO--AP0133715

UNCLASSIFIED

2/2 039 UNCLASSIFIED PROCESSING DATE--13NOV70

CIRC ACCESSION NO--AP0133715

ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. SUPPOSING A SMALL FIELD AMPLITUDE AND USING THE SYMPTOTIC METHOD, NON LINEAR BOUNDARY CONDITIONS AND A SURFACE WAVE FIELD IN MAGNETOACTIVE PLASMA WERE FOUND WITH AN ACCURACY UP TO THE SECOND TERM OF THE FIELD AMPLITUDE. IT IS SHOWN THAT THE SURFACE WAVES ARE UNSTABLE IN SOME REGIONS OF THE DISPERSION CURVES, EXCITING VOLUME WAVES IN THE SECOND APPROXIMATION WHICH PROPAGATE IN THE PLASMA. THE PHENOMENON OF AN ION HEATING WITH A FAST MAGNETOSOUND WAVE IS EXPLAINED BY A LOW FREQUENCE INSTABILITY OF A NON LINEAR DRIFT OF PLASMA PARTICLES ACROSS THE MAGNETIC FIELD. (14 REFS.).

UNCLASSIFIED

1/2 040 UNCLASSIFIED PROCESSING DATE--20NOV70

TITLE--INSTABILITY OF FINITE AMPLITUDE WAVES IN A BOUNDED PLASMA -U-

AUTHOR--KONDRATENKO, A.N.

COUNTRY OF INFO--USSR

SOURCE--ZHURNAL TEKHNICHESKOI FIZIKI, VOL. 40, MAR. 1970, P. 649-651

DATE PUBLISHED--------70

SUBJECT AREAS--PHYSICS

TOPIC TAGS--WAVEGUIDE, WAVE PROPAGATION, MAGNETIC FIELD, PLASMA PROPERTY

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED

PROXY REEL/FRAME--1994/1257 STEP NO--UR/0057/70/040/000/0649/0651

CIRC ACCESSION NO--AP0115274

UNCLASSIFIED

2/2 040 UNCLASSIFIED PROCESSING DATE--20NOV70
CIRC ACCESSION NO--AP0115274
ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. DESCRIPTION OF A POSSIBLE MECHANISM DESCRIBING THE HEATING OF PLASMA IONS BY A HIGH AMPLITUDE MAGNETOSONIC WAVE PROPAGATING IN A PLASMA WAVEGUIDE PLACED IN A CONSTANT MAGNETIC FIELD. UNDER THESE CONDITIONS, THERE IS A CONSTANT DRIFT OF PLASMA PARTICLES ACROSS THE MAGNETIC FIELD DUE TO THE FACT THAT THE PARTICLES ARE PLACED IN CROSSED FIELDS (THE MAGNETIC FIELD ALONG THE WAVEGUIDE AXIS AND THE PRESSURE OF THE WAVE ALONG THE WAVEGUIDE RADIUS). DRIFT INSTABILITY IS USED TO EXPLAIN THE HEATING OF THE IONS.
FACILITY: AKADEMIIA NAUK UKRAINSKOI SSR, FIZIKO-TEKHNICHESKII INSTITUT, KHARKOV, UKRAINIAN SSR.

UNCLASSIFIED

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R001401420016-2"

USSR UDC 669.295.055.2

GALITSKIY, N. V., KONDRATENKO, A. V., LEBEDEV, G. N., VATAMANYUK, V. I., and PISAREV, L. V., PECHENIK, T. S.

"Pilot Plant Study of Production of Pigment Titanium Dioxide by Burning Titanium Tetrachloride in a Hydrogen Flame"

Sb. tr. Vses. n.-i. i proyektn. in-t titana [Collected works of All-Union Scientific-Research and Planning Institute for Titanium], 6, 1970, 47-54, (Translated from Referativnyy Zhurnal-Metallurgiya, No. 1, 1971, Abstract No.1 G189 by the authors).

Translation: Results are presented from pilot plant studies of the production of pigment TiO_2 in a reconstructed installation at the Kaluga Chemical-Metallurgical Combine. The possibility is demonstrated of producing TiO_2 by burning $TiCl_4$ in an air-hydrogen flame on equipment used for production of Aerosil, although the individual units and apparatus require considerable reconstruction. The TiO_2 specimens produced have good whiteness, dispersion, covering power and oil number, but high Cl content, low pH of aqueous extract and rutile content below the requirement of the state standard. 2 figures; 2 tables.

AA0038356

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UR 0482

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Soviet Inventions Illustrated, Section I Chemical, Derwent,

239008 COLD BUTT WELDER for rings of various sections comprises moving (2) and fixed (1) jaws. The moving jaws have a projection (3) which locates the ring (4) internal surface. When the jaws are closed the projection enters recess (5) on the fixed jaws and holds the ring for welding. For welding ring sections other than rectangular the projection (3) is a compound one not rigidly attached to the jaw, and comes away with the ring on separation of the jaws.

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AUTHORS: Kondratenko, I. N.; Vorob'yev, Yu. A.; Stroyman, I. M.; Terent'yev, Yu. Ya.

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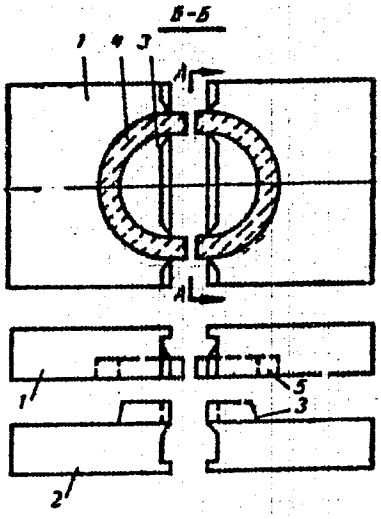

15.9.67 as 1186066/25-27.I.N.KONDRATENKO et alia(11.9.69)
Bul 10/10.3.69. Class 49h. Int.Cl.B 23k.

19731484

USSR UDC: 621.318.1

KONDRATENKO, L. A.

"A Method of Producing Mixed Ferrites"

V sb. Razrabotka i primeneniye sredstv vychisl. i inform. tekhn. Uch. zap. Penz. politekhn. in-ta, vyp. 1(Development and Use of Facilities for Computer and Information Technology. Scientific Notes of Penza Polytechnical Institute, No 1--collection of works), Penza, 1970, pp 142-145 (from RZh--Radiotekhnika, No 6, Jun 71, Abstract No 6V466)

Translation: The paper describes a method of making mixed ferrites based on chemical isolation of the corresponding hydroxides with subsequent annealing. This method has a number of advantages over the mechanical method of mixing, including reduction of the annealing temperature, and hence reducing the probability of flaws developing in the crystal lattice. Two illustrations, bibliography of three titles. N. S.

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USSR

UDC 547.539.131

KONDRATENKO, N. V., SYROVA, G. P., POPOV, V. I., SHEYNKER, Yu. N., and YAGUPOL'SKIY, L. M., Institute of Organic Chemistry, Academy of Sciences, Ukrainian SSR

"Aryltrihalosilanes and Germanes. σ Constants of Trihalosilyl and -Germyl Groups

Leningrad, Zhurnal Obshchey Khimii, Sep 71, Vol 41, No 9, pp 2056-2060

Abstract: The synthesis of fluorobenzene derivatives with $SiHlg_3$ and $GeHlg_3$ substituents where Hlg=F, Cl and Br is described and the σ constants of these groups determined. It was found that the induction effect increases in the series of substituents $CHlg_3$<$SiHlg_3$<$GeHlg_3$ with an increase in the electron donor capacity of the central atom to the halide atoms. The $SiHlg_3$ and $GeHlg_3$ hardly differ with respect to the conjugation effect, but they both excel the acceptor effect of the corresponding $CHlg_3$ groups. The regularities in changes in the σ_C constant value are attributed to the participation of silicon and germanium atoms in d_π-P_π conjugation. The yields, physical constants and analytical results of the obtained compounds are presented in a table.
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Acc. Nr. AP0041852 Abstracting Service: CHEMICAL ABST. 4/73 Ref. Code UR0366

89921h Benzal iodide. Feshchenko, N. G.; Kondratenko, N. V.; Yagupol'skii, L. M.; Kitsanov, A. Y. (Inst. Org. Khim., Kiev, USSR). *Zh. Org. Khim.* 1970, 6(1), 191 (Russ). Refluxing a mixt. of PhCHO and P_2I_4 in C_6H_6 gave $PhCHI_2$. Similarly, 3-$FC_6H_4CHI_2$ and 4-$FC_6H_4CHI_2$ were prepd. The compds. decomp. rapidly in storage. Heating $PhCHI_2$ with 4-$O_2NC_6H_4NHNH_2$ gave $PhCH{:}NNC_6H_4NO_2$-4. CPJR

REEL/FRAME
19751733

PHYSICS
Acoustics

USSR

KONDRATENKO, P. S., DEVCHENKOV, V. S., Institute of Theoretical Physics imeni L. D. Landau, Academy of Sciences of the USSR, Chernogolovka

"Concerning Sound in Quantum Crystals"

Leningrad, Fizika Tverdogo Tela, Vol 15, No 2, Feb 73, pp 440-443

Abstract: A study is made of the behavior of zero-sound and phonon modes in quantum crystals. It is found that the parameter describing interaction of these modes is the ratio of their typical velocities. The corresponding dispersion equations are derived in two limiting cases (weak and strong quantum cases) with respect to this parameter. Criteria for the stability of quasi-partial and phonon subsystems are found on the basis of these equations. The authors thank I. Ye. Dzyaloshinskiy for numerous comments and interest in the work.

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Acc. Nr: AP0037848 Ref. Code: UR 0056

PRIMARY SOURCE: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1970, Vol 58, Nr 1, pp 291-295

OPTICAL BRANCHES OF SPIN WAVES IN FERROMAGNETIC METALS

P. S. Kondratenko

By methods of microscopic theory of a Fermi fluid it is shown that along with the low frequency branch of spin waves in ferromagnetic metals there exists a family of high frequency spin waves with a quadratic dispersion law in the long wavelength region and a relative damping $\sim\sqrt{\Theta/\varepsilon_F}$ (Θ is the Curie temperature and ε_F the conductivity electron Fermi energy).

REEL/FRAME
19730837

USSR UDC 678.5.06.539.374

ABIBOV, A. L., BUNAKOV, V. A., KOPEYKIN, V. N., and KONDRATENKO, R. M., Moscow Aviation Institute imeni S. Ordzhonikidze

"Determination of the Mechanical Properties of Wound Fiberglass"

Riga, Mekhanika Polimerov, No 1, Jan-Feb 73, pp 162-164

Abstract: A study was made of the problems of determining the transverse modulus of elasticity of a fiberglass material in the wound state and of the rheological properties of the material on the basis of short- and long-time creep curves for processes of winding taking place at normal and elevated temperatures. Rigidity of the investigated material in the transverse direction was determined by compression of 40 layers of glass fibers with EDT-10 binder in a device which did not restrict filtration of the binder in the direction of the reinforcing fibers. It was found that in winding by existing modes, the mechanical behavior of a layer depends essentially on time. To describe the relationship of deformations to load, it was proposed to use a nonlinear model of a Maxwell viscous-elastic body. In winding with prehardening and preheating (80°C) and times commensurable with the time of winding of one layer for large parts, this relationship can be ignored. The relationship of the modulus of elasticity for a layer to the level of loading and magnitude

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USSR

ABIBOV, A. L., et al., Mekhanika Polimerov, No 1, Jan-Feb 73, pp 162-164

of prehardening of the fiberglass strip is presented. Five figures, three bibliographic references.

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1/2 026 UNCLASSIFIED PROCESSING DATE--13NOV70

TITLE--WETTABILITY AND PROPERTIES OF MONO AND DIBORIDES OF GROUP IV AND VI METALS -U-

AUTHOR-(03)-TUMANOV, V.I., GORBUNOV, A.YE., KONDRATENKO, T.M.

COUNTRY OF INFO--USSR

SOURCE--ZH. FIZ. KHIM. 1970, 44(2), 540

DATE PUBLISHED--------70

SUBJECT AREAS--CHEMISTRY, MATERIALS

TOPIC TAGS--BORIDE, TITANIUM COMPOUND, CHROMIUM COMPOUND, TUNGSTEN COMPOUND, ZIRCONIUM BORIDE, COPPER ALLOY, NICKEL ALLOY, CHROMIUM ALLOY, MOLYBDENUM ALLOY, MICROHARDNESS, WETTING

CONTROL MARKING--NO RESTRICTIONS

DOCUMENT CLASS--UNCLASSIFIED
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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE WETTABILITY OF TIB, CRB, WB, ZRB SUB2, AND CRB SUB2 BY CU, NI, AND ALLOYS OF NI-CR, NI-CR-MO HAVE BEEN STUDIED. THE SP. ELEC. COND. AND MICRO HARDNESS ARE GIVEN. THE CONTACT WETTING ANGLE WAS DETD. AT 10 PRIME NEGATIVE4-10 PRIME NEGATIVE5 TORR BY THE DROP METHOD AT THE M.P. OF THE WETTING MATERIAL SP. ELEC. COND. WAS MEASURED BY USING THE EDDY CURRENT METHOD AND MICROHARDNESS WAS MEASURED IN KG-MM PRIME2 AT A LOAD OF 40 G. THE WETTABILITY OF ZRB SUB2 BY MANY COMPONENT NI BASED ALLOYS WAS LESS THAN THAT ON PURE NI. THE CONTACT WETTING ANGLE VARIED FROM 75-80DEGREES. IN THE CASE OF CRB, THE WETTING ANGLE WAS ZERO. WETTABILITY OF MONO AND DIBORIDES BY NI AND CU IMPROVED WITH RISING AT. NO. OF THE METAL OF BORIDE. DECREASE OF B CONTENT IN MONOBORIDES AS COMPARED TO DIBORIDES RESULTED IN THE DECREASE OF CONTACT WETTING ANGLE BY NI AND CU.

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KONDRATENKO, V. I., and KHASKIN, I. G.

"Method of Production of Isomeric Chloroxyisobutyronitriles"

USSR Author's Certificate No 309005, filed 14/10/68, published 29/09/71, (Translated from Referativnyy Zhurnal, Khimiya, No 9, 1972, Abstract No 9 N552 P by T. A. Belyayeva).

Translation: When methacrylonitrile (I) reacts with Cl_2 in water, isomeric chloroxyisobutyronitriles (II) are produced, which have fungicidal activity. Twenty-one point six g I is added to 0.4 l water, Cl_2 is passed through at 12-18° at a rate slightly exceeding the rate of its absorption for 8 hours, the substance is kept for 10 hours at 16-18°, N_2 is blown through, the substance is extracted with ether, dried over Na_2SO_4 and 19.3 g II are separated. NMR spectra indicate that the isomers are present in approximately equal quantities. The absorption bands in the IR area are presented.

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USSR

KONDRATENKO, V. I., KHASKIN, I. G.

"Production of Chloro Derivatives of Propionic Acid from Ethylene Cyanohydrin"

Kim. Tekhnologiya. Nauch-Proizv. Sb., [Chemical Technology, Scientific and Production Collection], 1971, No 4 (58), pp 34-36. (Translated from Referativnyy Zhurnal Khimiya, No 4, Moscow, 1972, Abstract No 4N644 by T. A. Belyaeva).

Translation: A mixture of 388 g ethylene cyanohydrin and 6.6 g $PhNMe_2$ is blown through with N_2, chlorinated with Cl_2 for 24-26 hr (until the weight stops increasing) at a temperature rising to 110°; then the HCl gas is blown away with nitrogen, the mixture is filtered and distilled, selecting the fraction with bp 49-61°/10 ($ClCH_2CH_2CN$, $ClCH_2Cl_2CCN$); 62-6°/10 ($ClCH_2CH_2CN$, $ClCH_2Cl_2CCN$); 119-34°/10 ($ClCH_2ClCCONH_2$); 136 - 46°/10 ($ClCH_2Cl_2CCONH_2$). The mixture of products produced upon chlorination has almost no herbicidal activity with a dose of 10 kg/ha; in concentrations of 0.01 and 0.001% this mixture shows toxicity for fungus for pure cultures of the phytopathogenic fungus series, but is somewhat weaker than phygome and TMTD.

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USSR

UDC: 621.396.961

REUTOV, A. P., MIKHAYLOV, B. A., KONDRATENKOV, G. S., BOYKO, B. V.

"Sidelooking Radar Stations"

Radiolokatsionnyye stantsii bokovogo obzora (cf. English above), Moscow, "Sov. radio", 1970, 360 pp, ill. 1 r. 15 k. (from RZh-Radiotekhnika, No 12, Dec 70, Abstract No 12G2 K)

Translation: The authors discuss the theory of operation of airborne sidelooking radar stations designed to give detailed radar images of surroundings. Methods are demonstrated for improving radar resolution. Two types of sidelooking radar are examined in detail: with antenna located along the fuselage, and with artificial antenna aperture. A survey is given of information published in the literature relating to the principles of sidelooking radar design and the peculiarities of sidelooking radar mapping. Attention is given to a number of fundamental differences between sidelooking and conventional radar. 170 illustrations, 5 tables, bibliography of 106 titles. Resumé.

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USSR

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RUDAVSKIY, V. P., KUCHEROVA, M. N., KONDRATENKO, V. I., LITOSHENKO, N. A., and BABIN, Ye. P.

"Synthesis of Acylphosphazo Compounds"

USSR Author's Certificate No 316694, filed 10 Jun 68, published 27 Jan 72 (from Referativnyy Zhurnal -- Khimiya, Svodnyy Tom (I, L-S), No 1(II), 1973, Abstract No 1N505P by T. A. Belyayeva)

Translation: Compounds RC(X)N = P(OOCR')YZ (I) (R = alkyl, alkyl halide, phenyl halide; X = O, NPh, NEt, NC_6H_4Me; R' = alkyl, alkyl halide, phenyl halide; Y and Z = Cl or OOCR') and $(R'''COO)_3P$ == NOCR"CON == $P(OOCR''')_3$ (II) (R"= alkylene halide; R"' = alkyl, alkyl halide, phenyl halide) are synthesized in reaction of corresponding trichloro- and bistrichlorophosphazo compounds (III) with carbonate in organic solvent. The reaction is terminated by boiling of the reaction mixture. Example. To 0.03, 0.06, or 0.09 mole R'COOM (M = Na or K) in 30 ml of organic solvent 0.03 mole RCON == PCl_3 is added during continuous stirring and cooling with ice water. The reaction mixture is boiled for 8-10 hrs on water bath, kept at 20°C for 6 hrs, MCl is removed by filtration and the remained mass is concentrated by evaporation. The obtained viscous liquid (I) (X = O) is purified by multiple precipitation from C_6H_6 or PhMe with petroleum ether. Using III, compounds II are prepared in a similar way. I and II can be used as herbicides.

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USSR UDC: 536.21:548

YEGOROV, B. N., KONDRATENKOV, V. I., and ANIKIN, I. N., Moscow

"Studying the Thermal Conductivity and the Coefficient of Linear Expansion of the Single Crystals of Synthetic Mica (Fluorophlogopite) and Natural Phylogopite"

Moscow, Teplofizika Vysokikh Temperatur, Vol 10, No 1, Jan-Feb 1972, pp 82-86

Abstract: The authors present the results from studying the anisotropy of the thermal conductivity of the single crystals of synthetic mica (fluorophlogopite) in the /001/, /100/, /010/, and /110/ orientations and within the 300-900°K range and of the single crystals of natural mica (phlogopite and muskovite) in the /001/ cleavage plane within the 300-600°K range. The coefficient of linear expansion of fluorophlogopite is studied in the /100/ and /010/ orientations within the 300-1100°K range. Several possible explanations are offered to explain the fact that $\lambda_{[001]}$ of fluorophlogopite rises above 700°K and that of phlogopite rises above 600°K. Thermal conductivity anisotropy makes it possible to explain the frequently encountered rhombiform crystals of fluorophlogopite. Original article: one table, three formulas, three figures, and 11 bibliographic entries.

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1/2 040 UNCLASSIFIED PROCESSING DATE--02OCT70

TITLE--THERMAL CONDUCTIVITY OF FINE FIBERED MATERIALS BASED ON KAOLIN AND BASALT FIBERS -U-

AUTHOR-(02)-YEGOROV, B.N., KONDRATENKOV, V.I.

K

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ABSTRACT/EXTRACT--(U) GP-0- ABSTRACT. THE RECENTLY DESCRIBED METHODS (E. AND K., 1968) WAS USED FOR MEASURING THE TEMP. DEPENDENCE OF COEFFS. OF THERMAL COND. OF KAOLIN AND BASALT INSULATING BOARDS AND PAPERS AT 100-700DEGREES. SAMPLES BASED ON KAOLIN AND BASALT FIBERS WERE TREATED BY ORGANOSILICON BINDER K-60 AND WERE ANNEALED FOR 10 MIN AT 700DEGREES BEFORE THE MEASUREMENT. RESULTS, PRESENTED IN GRAPHIC FORM, INDICATED THE INCREASED THERMAL COND. OF MINERAL BOARDS AND PAPERS IN THE COMPARISON WITH A THERMAL COND. OF CERAMIC FIBERS WITH A BULK D. OF 80 KG-M PRIME3 WHILE THE CHARACTER OF TEMP. DEPENDENCE OF COEFFS. OF THERMAL COND. WAS RETAINED. THE COEFFS. OF THERMAL COND. OF DAOLIN BOARDS WERE IDENTICAL FOR BOTH STUDIED BULK DS. (260 AND 350 KG-M PRIME3) UP TO 400DEGREES. AT LARGER THAN 400DEGREES KAOLIN BOARDS WITH BULK D. OF 260 KG-M PRIME3 EXHIBITED HIGHER THERMAL COND. IN THE COMPARISON WITH KAOLIN BOARDS WITH A CLOSER STRUCTURE.

UNCLASSIFIED

USSR

KONDRATENYA, S. G.; YABLONSKIY, A. I. (Institute of Mathematics, Belorussian Academy of Sciences)

"Singular Points in Solutions of Systems of Second-Order Differential Equations"

Minsk, Differentsial'nyye Uravneniya; November, 1970; pp 1970-5

ABSTRACT: In the system of differential equations $\frac{dx}{dz} = \frac{P(x, y, z)}{R(x, y, z)}$, $\frac{dy}{dz} = \frac{Q(x, y, z)}{S(x, y, z)}$ -- where P, Q, R, and S are polynomials in x and y with coefficients which are holomorphic functions of z in the region D -- sufficient and (in isolated cases) necessary and sufficient conditions are found for the existence of algebraic and certain nonalgebraic solutions [x(z), y(z)] with the property $x(z) \to \infty$, $y(z) \to \infty$ for $z \to z_0 \in D$. The conclusions drawn are a generalization of the results of an article by the authors

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KONDRATENYA, S. G. and YABLONSKIY, A. I., Differentsial'nyye Uravneniya, November 1970, pp 1970-5.

appearing in a previous issue of the same journal (Vol 4, No 6, 1968; pp 983-90) in which similar questions were considered for normal systems of second-order differential equations with polynomials in x and y and having the right sides holomorphic with respect to z. A theorem is presented.

The article includes 23 equations. There are two references.