proposed by the abstracter shows a good coincidence of the results even in the case of the width being divided into a relatively small number of longitudinal elementary strips. [Abstracter's note: Complete translation].

Bogdanov, A.P.

BOGDANOV, A.P., inzh.

Self-unloading barges of new design. Rech.transp. 16 no.9:14-17 S '57. (MIRA 10:12)
(Barges)

BOGDANOV, Boris Vladimirovich, inzh.; GALKOVSKAYA, Mariya Grigor'yevna, kand. tekhn.nauk; YEFREMOV, G.V., retsenzent; BOGDANOV, A.P., red.; SHLENNIKOVA, Z.V., red. izd-va; BODROVA, V.A., tekhn.red.

[Sectional barge trains for propulsion by pushing] Sektsionnye sostavy dlia vozhdeniia sposobom tolkaniia. Moskva, Izd-vo "Rechnoi transport," 1961. 144 P. (MIRA 15:2)
(Inland water transportation) (Towing)

BOGDANOV, A., starshiy inzhener-leytenant

The flier made an observation. Vest. Vozd. Fl. no.11:73-75 N '61. (MIRA 15:2)

(Airplanes, Military--Maintenance and repair)

BOGDANOV, A.P.

86-58-4-16/27

AUTHOR: Vinogradov, R. I., Engineer, Lt Col, Docent, Candidate of Technicial Sciences; Bogdanov, A. P., Engr-Capt

TITLE: Aerodynamical configuration of a Supersonic Aircraft (Aerodynamicheskaya komponovka sverkhzvukovogo samoleta)

PERIODICAL: Vestnik vozdushnogo flota, Nr 4, 1958, pp 55-63, (USSR)

ABSTRACT: First the author discusses the general peculiarities of the configuration of a supersonic aircraft and presents in Fig. 1 a table of classified aerodynamical configuration of such an aircraft based on two main features: the configuration of the wing and the arrangement of the empennage. He divides the whole range of speeds into subsonic, transonic, supersonic and hypersonic regions and describes each region seperately. He indicates that the transition from subsonic to supersonic speeds is bound with the problem of overcoming the additional (wave) resistance which increases greately in the transonic region, and that the character and the magnitude of the change of the coefficient of wave resistance of an aircraft, with respect to velocity, depend on the wave resistance of the parts and their location on that aircraft.

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86-58-4-16/27

Aerodynamic Configuration of a Supersonic Aircraft

The author also discusses how the form and the aspect ratio of a wing, the form and relative thickness of an airfoil affect the character of the flow of wave resistance of a wing. In Fig. 2 he presents a diagram showing the dependence of the coefficient of head resistance of an aircraft on M at zero lift force. In Fig. 3 the graph shows the interdependence between the relative thickness of the airfoil and M critical for an arrow and a rectilinear wing. In Fig. 4 he shows the influence of the relative thickness of airfoil on the coefficient of wave resistance at its maxium value.

Further the author analyzes the aircraft with respect to their wing form. He analyzes seperately various aircraft, aircraft with a triangular wing, rectilinear wing, arrow wing, an aircraft with a wing in the form of a ring (Fig. 5), an aircraft with a circular wing (aircraft-saucer Fig. 6), an aircraft without a horizontal empennage (tailless aircraft or flying wing), an aircraft with the horizontal empennage located in the rear, and an aircraft with the horizontal empennage located in the front. (aircraft-duck)

Finally the author mentions the constructional changes in the wings which should improve their aerodynamical characteristics during take-off and landing at low speeds and which he calls the mechanization of the wing. He discusses also the following

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Aerodynamic Configuration of a Supersonic Aircraft

86-58-4-16/27

prospective means of mechanization of supersonic aircraft: the jet flap, the control of the boundary layer, the variable sweep-back of the wing (Fig. 7), and the variation of the angle of a wing's setting.

There are three schematic drawings, three diagrams, and one photo.

AVAILABLE: Library of Congress

1. Airplanes - Supersonic characteristics 2. Airfoils - Supersonic characteristics 3. Airplanes - Aerodynamic characteristics

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1(2);1(3) PHASE I BOOK EXPLOITATION SOV/2307

Bogdanov, Aleksandr Pavlovich, Rostislav Ivanovich Vinogradov, and Konstantin Dmitriyevich Mirtov

Sbornik zadach po konstruktsii i prochnosti samoletov (Collection of Problems on Aircraft Constructipn and Strength) Moscow, Oborongiz, 1959. 230 p. Errata slip inserted. 7,000 copies printed.

Reviewer: Kh. S. Khazanov, Candidate of Technical Sciences, Docent; Ed.: A.M. Yarunin, Engineer; Ed. of Publishing House: L.A. Belyayeva; Tech. Ed.: N.A. Pukhlikova; Managing Ed.: A.I. Sokolov, Engineer.

PURPOSE: This text book was approved by the Ministry of Higher Education of the USSR for students of aeronautics vuzes and departments.

COVERAGE: This collection of problems on the design and strength of aircraft was compiled for the courses "Strength analysis of air-

Card 1/4

craft" and " Construction and design of aircraft". It is intended to aid students to solve engineering and analytical problems under the supervision of instructors and independently.

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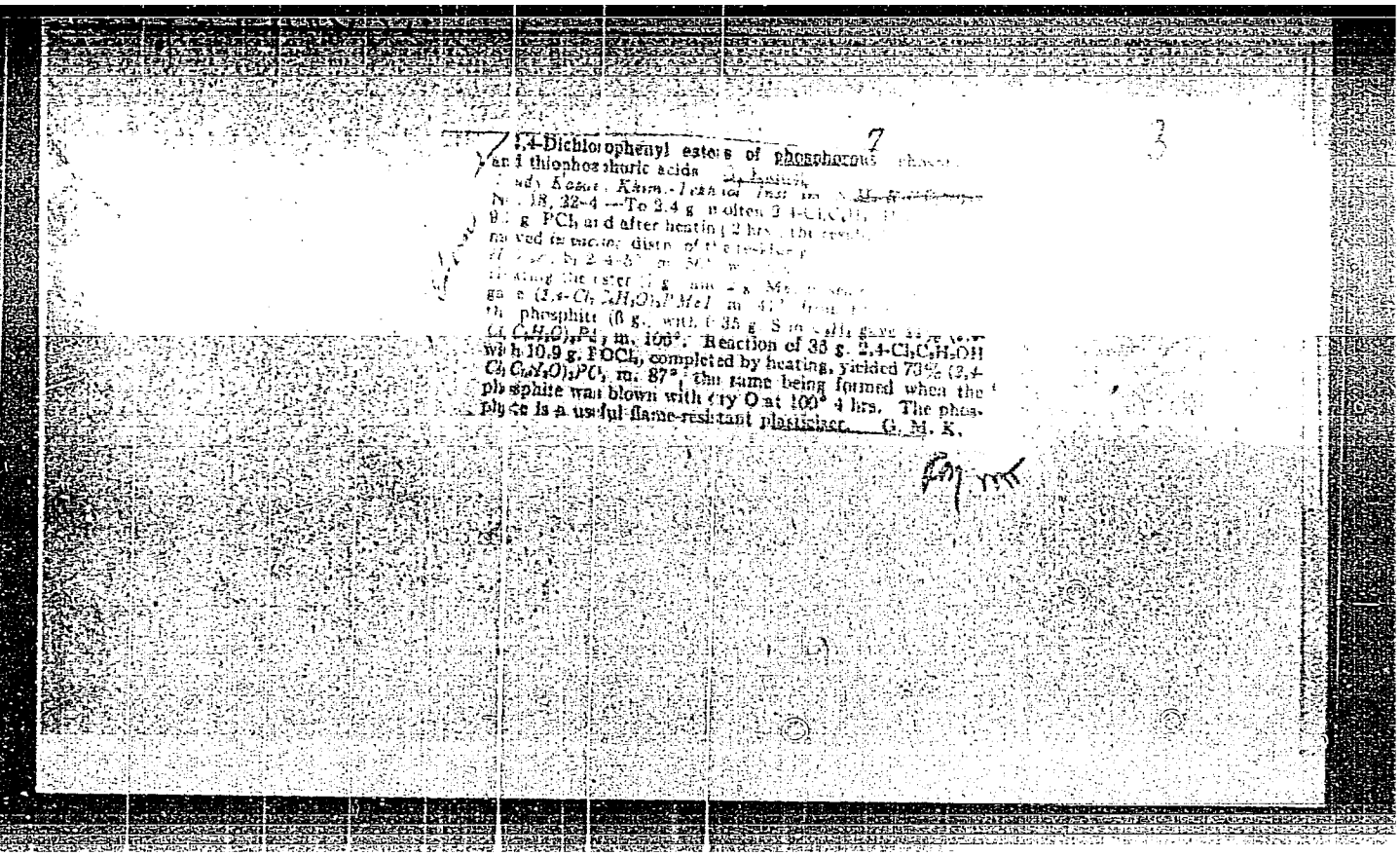
9-18-59



2,4-Dichlorophenyl esters of phosphorous
an d thiophosphoric acids
[illegible] Khim. Prom. [illegible]
No. 18, 32-4.—To 2.4 g. molten 2,4-Cl$_2$C$_6$H$_3$OH
8.5 g. PCl$_3$ and after heating 2 hrs. the
removed in vacuo; distn. of the residue
[illegible] b. 2,4-Cl$_2$C$_6$H$_3$O[illegible]
treating the reaction
gave (2,4-Cl$_2$C$_6$H$_3$O)$_2$PMe[illegible]
th phosphite (8 g., with 0.35 g. S in
(2,4-Cl$_2$C$_6$H$_3$O)$_3$P, m. 100°. Reaction of 35 g. 2,4-Cl$_2$C$_6$H$_3$OH
with 10.9 g. POCl$_3$, completed by heating, yielded 73% (2,4-
Cl$_2$C$_6$H$_3$O)$_3$PO, m. 87°; the same being formed when the
phosphite was blown with dry O at 100° 4 hrs. The phos-
phate is a useful flame-resistant plasticizer. G. M. K.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000205820005-9"

BOGDANOV, A.P., inzhener; ZHUKOVSKIY, B.M.

The use of terpene colledion lacquers for wood finishing. Mech. transp. 14 no.12:26-27 D '55. (MLRA 9:3)
(Lacquer and lacquering)

KUZNETSOV, Ye.V.; BOGDANOV, A.P.

Reactivity of nitrophthalyl chlorides. Report No.1: Synthesis of 3- and 4-nitrophthalyl chlorides. Trudy KKHTI no.26:75-77 '59. (MIRA 15:5)

(Phthalic acid)

KUZNETSOV, Ye.V.; BOGDANOV, A.P.

Reactivity of nitrophthalyl chlorides. Report No.2: Interaction of 4-nitrophthalyl chlorides with saturated monoatomic alcohols. Trudy KKHTI no.26:78-87 '59. (MIRA 15:5)
(Phthalic acid) (Alcohols)

KUZNETSOV, Ye.V.; BOGDANOV, A.P.; DIVGUN, S.M.

Reactivity of nitrophthalyl chlorides. Report No.3: Synthesis of fully substituted alkyl-4-nitrophthalates. Trudy KKHTI no.26:88-92 '59. (MIRA 15:5)
(Phthalic acid)

KUZNETSOV, Ye.V.; BOGDANOV, A.P.; GIL', A.p.

Synthesis of resins on the basis of 3- and 4- nitrophthalic acids and polyatomic alcohols, and study of some laws of their polycondnesation. Vysokom.soed. 2 no.5:759-764 My '60. (MIRA 13:8)

1. Kazanskiy khimiko-tekhnologicheskiy institut.
(Resins, Synthetic)
(Phthalic acid)
(Alcohols)

ACCESSION NR: AP4041011 S/0120/64/000/003/0035/0039

AUTHOR: Bogdanov, A. P.; Firsov, Ye. I.

TITLE: Multichannel coincidence spectrometer based on AI-100-1

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1964, 35-39

TOPIC TAGS: spectrometer, coincidence spectrometer, multichannel spectrometer, multichannel coincidence spectrometer, gamma spectrometer

ABSTRACT: A multichannel multipurpose gamma-spectrometer is described which permits measuring the gamma-radiation and gamma-gamma-coincidence spectra and determining the lifetime of excited states within 1—100 microsec (possibly longer). The spectrometer has a "fast-slow"-coincidence scheme and is designed with standard Soviet equipment. NaI(Tl), 20 x 30-mm crystals combined with FEU-29 photomultipliers serve as radiation detectors. Pulse-height analysis is performed by a single-channel AADO-1 and a multichannel (in

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ACCESSION NR: AP4041011

another branch) AI-100-1 analyzer. Schemes of the output-data unit of AI-100-1 feeding the EPP-09 recorder and the time-measuring attachment are given. A fast coincidence circuit intended for slow (resolution, 5×10^{-8} sec) scintillators is described. A single Co^{60} spectrum and a Co^{60} coincidence spectrum illustrate the spectrometer operation. Orig. art. has: 8 figures

ASSOCIATION: Institut fiziki AN BSSR (Institute of Physics, AN BelSSR)

SUBMITTED: 11Jul63

ENCL: 00

SUB CODE: NP

NO REF SOV: 003

OTHER: 000

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S/0250/64/008/006/0376/0378

ACCESSION NR: AP4042726

AUTHOR: Bogdanov, A. P., Firsov, Ye. I.

TITLE: The feasibility of using a luminescence spectrometer to study the gamma-rays from the (n, (gamma) reaction

SOURCE: AN BSSR. Doklady*, v. 8, no. 6, 1964, 376-378

TOPIC TAGS: spectrometer, luminescence spectrometer, Gamma ray, gamma spectrometer, (n, Gamma) reaction, thermal neutron, neutron radiation capture, spectrometer resolution, background attenuation

ABSTRACT: A luminescence spectrometer with a NaI(Tl) crystal was added to the system used in a channel, tangential to the reactor core, to study the gamma-rays emitted in thermal-neutron radiation capture. The luminescence spectrometer was used to supplement the magnetic spectrometer and improved the performance of the system by increasing the resolution and attenuating the gamma-ray background. The instrument combines the 70 x 70 cm crystal with a photomultiplier, has a Cs^{137} -line resolution of 13%, and allows the isotope sample to be reduced to 30-40g. Pulses from the multiplier are sent into an AI-100-1 multichannel amplitude analyzer. The analyzer is provided with an EPP-08

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ACCESSION NR: AP4042726

automatic-spectrum tape recorder. The gamma-ray beam from the isotope sample being studied is shaped by collimators set in the channel, passes through the vacuum chamber of the magnetic spectrometer and reaches the crystal. The innovation was found to be an effective means of studying the (n, γ) reaction. Orig. art. has: 1 figure.

ASSOCIATION: Institut fiziki AN BSSR (Physics Institute, AN BSSR)

SUBMITTED: 09Dec63

SUB CODE: NP NO REF SOV: 001 ENCL: 00 OTHER: 000

2/2

Card

ACCESSION NR: AP4029698 S/0089/64/016/004/0354/0355

AUTHORS: Bogdanov, A. P.; Firsov, Ye. I.

TITLE: Gamma-radiation from the IRT-2000 reactor of the Belorussian Academy of Sciences

SOURCE: Atomnaya energiya, v. 16, no. 4, 1964, 354-355

TOPIC TAGS: radial channel, IRT 2000 reactor, gamma radiation, neutron beam, lead collimator, single crystal, electron photomultiplier, automatic recorder, spectrometer, tangential channel, half life period

ABSTRACT: The gamma-radiation spectrum emerging from the fuel core has been measured on a horizontal radial channel of an IRT-2000 reactor. A 20 cm-thick plug consisting of a paraffin and boron carbide mixture was used for filtering the neutron beam, and lead collimators were utilized for the formation of a gamma-radiation beam. A NaI (Tl) single crystal measuring 70x70 mm, combined with an electron photomultiplier, was employed as a spectrometer. An AI-100-1 multichannel analyzer was used for an amplitude analysis,

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ACCESSION NR: AP4029698

the resulting data being recorded by an automatic device. The peaks discernible in the spectrum produced in the experiment corresponded to gamma-radiation with energies of 2.2 and 7.7 Mev. Similar methods have been used to investigate the spectrum of a residual gamma-radiation in an idle reactor after it was working for a long period of time at 1,000 kw capacity. The various spectra recorded over periods of 6, 20 and 70 hours following the stoppage of the reactor revealed gamma-radiations with energies ranging from 0.9 to 3 Mev. A further checkup on the behavior of the long-lived acitivity spectrum was impossible as it would have required the idling of the reactor for a lengthy period of time. Orig. art. has: 4 figures.

ASSOCIATION: None

SUBMITTED: 16Jul63 DATE ACQ: 01May64 ENCL: 00

SUB CODE: PH, NS NR REF SOV: 002 OTHER: 000

Card 2/2

L 14006-66 EWT(m) DIAAP
ACC NR: AP6002469

SOURCE CODE: UR/0386/65/002/011/0522/0526

AUTHOR: Bogdanov, A. P.; Tadeush, V. N.; Firsov, Ye. I. 34 32 B

ORG: Institute of Physics, Academy of Sciences BSSR (Institut fiziki Akademii Nauk BSSR)

TITLE: Determining the parameter for a mixture of M1- and E2-radiations for the 0.341 Mev transition in the Ti^{49} nucleus 19

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 2, no. 11, 1965, 522-526

TOPIC TAGS: titanium, gamma radiation, gamma transition, transition radiation

ABSTRACT: The authors attempt to resolve the contradictory data in the literature on the multiplicity of γ-radiation for the 0.341 Mev transition in the Ti^{49} nucleus. One source finds this transition to be a mixture of M1+E2 with a mixture parameter of -0.1 for +2.2. Another work finds evidence of a pure M1- transition. The authors irradiated a titanium target 8 mm in diameter and 2 mm thick with a collimated neutron beam with a flux of $4 \cdot 10^6$ neutrons/cm^2·sec. The γ-radiation detectors were two scintillation counters with thallium-activated sodium iodide crystals 70 mm in

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L 14006-66
ACC NR: AP6002469

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diameter and 70 mm high. The resolving power of both spectrometers was 10% at a gamma energy of 661 kev. The coefficient A_2 is found to be -0.05 ± 0.010, which is somewhat lower than the theoretical value for a pure M1- transition (A_2 = -0.071). A curve is given showing the coefficient A_2 as a function of the mixture parameter for a mixture of M1 and E2 radiations in the first transition. This curve shows a mixed transition with a mixture parameter of -0.06 or +2.0. The authors are grateful to P. A. Krupchitskiy and G. A. Lobov who were responsible for the instigation of this experiment. Orig. art. has: 3 figures.

SUB CODE: 18/ SUBM DATE: 25Oct65/ ORIG REF: 001/ OTH REF: 005

Card 2/2

KUZNETSOV, Ye.V.; BOGDANOV, A.P.

Destructive oxidation of α-nitronaphthalene under pressure. Trudy KKHTI no.30:89-91 '62. (MIRA 16:10)

BOGDANOV, A.S.

All-Union conference on fishing industry problems
Ryb. khoz., 28, no. 2, 1952

1. BOGDANOV, A.S.

2. USSR (600)

4. Fish Culture

7. Maintain fish reserves in southern seas of the U.S.S.R., Ryb.khoz., 28, No.11, 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

L 14315-65 EPF(n)-2/EWT(m)/EWP(b)/EWA(d)/EWP(t) Pu-4 BSD/ASD(m)-3
JD/JG/WB/HLK
ACCESSION NR: AT4048059 S/0000/64/000/000/0117/0123

AUTHOR: Korolev, N.V., Gorbunov, S.A., Bogdanov, A.S., Nadutenko, G.P. B

TITLE: Redistribution of impurities in titanium and its alloys during oxidation

SOURCE: Soveshchaniye po metallurgii, metallovedeniyu i primeneniyu titana i yego splavov. 5th, Moscow, 1963. Metallovedeniye titana (Metallography of titanium): trudy* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 117-123

TOPIC TAGS: titanium impurity, titanium alloy impurity, impurity redistribution, titanium oxidation, titanium hardness

ABSTRACT: The possible redistribution of impurities between the surface layers and the basic mass of titanium specimens during oxidation in air was studied on technically pure titanium (composition known) and some alloys after heating at 800-1200C; carbon, nitrogen, iron, aluminum, silicon, calcium and magnesium were determined. The distribution of microhardness was studied on polished sections through the gas-saturated layer. Spectral analysis and occasional local analysis were performed. Standard values, obtained from non-oxidized specimens, served as controls. Spectral analysis and measurements of microhardness showed that the gas-saturated layer in specimens

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oxidized at 1100-1200C is a solid solution which includes not only oxygen, but also carbon (to 1%) and nitrogen (to 3%); besides, some enrichment of the surface layer by iron, silicon and aluminum was observed. At these temperatures, the content of nitrogen in the surface layer was increased significantly by the interaction of titanium with the nitrogen from the air. The thermodynamic calculation of the dependency of the isobaric potential of formation of the oxides of impurities and alloying elements on temperature confirmed the probability of redistribution of these elements during oxidation. Spectral analysis showed enrichment of the gas-saturated layer by alloying elements after oxidation in the following binary alloys: Ti-Mo, Ti-V, Ti-Cr, Ti-Mn, Ti-Sn and Ti-Cu containing up to 10% alloying elements; thus, at certain temperatures, the amount of Mo, V and Cr exceeded the initial content 2-3 fold, and almost pure tin and copper appeared on the surface. The study also led to the discovery of an uneven distribution of impurities not only in different melts but within different specimens of the same melt; thus, the calcium and magnesium content exceeded the average 5-6 fold in some specimens. Unreported admixtures were also found. Orig. art. has: 3 figures, 1 table and 2 formulas.

ASSOCIATION: none

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000205820005-9"

L 14315-65
ACCESSION NR: AT4048059

SUBMITTED: 15Jul64 ENCL: 00 SUB CODE: MM

NO REF SOV: 003 OTHER: 001

Card 3/3

L 39976-65 EWA(c)/EWT(m)/EWP(b)/T/EWA(d)/EWP(w)/EWP(t) IJP(c) JD/GS

ACCESSION NR: AT4048088 S/0000/64/000/000/0294/0301

AUTHOR: Korolev, N. V.; Gorbunov, S. A.; Bogdanov, A. S.

TITLE: Application of optical emission microanalysis to the study of titanium alloys

SOURCE: Soveshchaniye po metallurgii, metallovedeniyu i primeneniyu titana i yego splavov. 5th, Moscow, 1963. Metallovedeniye titana (Metallography of titanium; trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, [illegible]

TOPIC TAGS: titanium, titanium alloy, titanium alloy microanalysis, optical emission microanalysis, emission [illegible]

ABSTRACT: The modernization of emission microanalysis units has made possible analyses in an atmosphere of inert gases and the amplification [illegible] microspark. Microspark analysis is [illegible] in the analysis of alloys for nitrogen and oxygen. The optical system of the modernized unit is shown in Fig. 1 of the Enclosure. This unit provides for the use [illegible] in the quartz plate for sparking the [illegible] spark and a guide groove it is possible

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L 39976-65

ACCESSION NR: AT4048088

charges to an area with a diameter up to 0.05 mm, with a minimum depth of the
... microns. The wiring diagram ...
either ... weak microspark is included ...
... investigating titanium ...
data ... comparison with conventional spectral ...
... analysis without destroying ...
thod and appliances may be used for microspectral analysis ...
They may also be used for analyzing thin layers of the material on copper plates.
Microspectral emission analysis of surface layers ...
the causes of defects arising due to variation of ...
... material thickness may be analyzed. The guide ...
one to localize the changes during microspectral analysis ...
... following elements in grains of the ...
... be used together with ...
... Al-Cu, % Mo, Ti+5% Al+0.5% Fe, a ...
... phase brittleness in these ...
of microsections, both in the usual way and by polarized ...

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L 39976-65
ACCESSION NR: AT4048088

0

microspectral analysis, since this enables one to determine the alloy structure and estimate the quality of the existing chemical heterogeneity. The best way of doing this is by forming a layer of TiO_2 300-750 A thick. A 260-460 A layer is yellow, 480-530 A is purple, and 600-750 A is blue. Prior to microanalysis, the surfaces cracks, breaks and other defects should be oxidized and observed under a microscope with different magnifications in polarized light. Orig. art. has: 5 figures and 1 table.

ASSOCIATION. None

SUBMITTED: 15Jul64 ENCL: 01 SUB CODE: OP, MM

NO REF SOV: 003 OTHER: 000

Card 3/4

ACC NR: AP6029038 (A) SOURCE CODE: UR/0413/66/000/014/0055/0055

INVENTORS: Mikhalev, I. I.; Novikov, A. N.; Bogdanov, A. S.; Kostyrev, V. A.; Mikhaylova, M. P.

ORG: none

TITLE: A method for producing an elastic heat-resisting glued joint in metals and in nonmetallic construction materials. Class 22, No. 183858

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 55

TOPIC TAGS: metal gluing, glue welding, glue, construction material, rubber

ABSTRACT: This Author Certificate presents a method for producing elastic heat-resisting glued joints in metals and in nonmetallic construction materials, with pressure applied in the course of gluing, and with the use of two different heat-resisting glues. To insure the elasticity of a glued joint under low gluing pressure, a mixture of two types of glues is used. One of the glues is characterized by low viscosity and frangibility (for instance, phenol polyvinylacetal), while the lower layer is made of an elastic glue (such as phenolic rubber).

SUB CODE: 13, 11/ SUBM DATE: 27Jan65

Card 1/1

UDC: 621.792.4.05

SOV/132-59-3-15/15

S., and Bogdanov, A.Sh.

Aerial Electromagnetic Prospecting in the USSR.

okhrana nedr, 1959, Nr 3, pp 62-64, (USSR)

describes three different methods of electromag-
cting - the method of registering the resistance
an aircraft aerial, the induction method, and
thod which constitutes the article's main topic.
the aerial, a grounded cable, the b.d.k. (for beskonech-
y a grounded recording of an electromagnetic
l' - endless cable). In 1955, the Ministry of
ral Resources Conservation of the USSR) hav-
high importance of the aerial electromagnet-
rdered the development of this method by
Mezhduvedomstvennaya komissiya po aeroelek-
-Departmental Committee for Aerial Electro-
ng). The latter was composed of represent-
wing organizations: Ministry of Geology
s Conservation of the USSR, Vsesoyuznyy

SOV/132-59-3-15/15

AUTHORS: Shirokov, A.S., and Bogdanov, A.Sh.

TITLE: Chronicle. Aerial Electromagnetic Prospecting in the USSR.

PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 3, pp 62-64, (USSR)

ABSTRACT: The article describes three different methods of electromagnetic prospecting - the method of registering the resistance emitted from an aircraft aerial, the induction method, and the b.d.k.-method which constitutes the article's main topic. It is done by the aerial recording of an electromagnetic field created by a grounded cable, the b.d.k. (for beskonechno dlinnyy kabel' - endless cable). In 1955, the Ministry of Geology and Mineral Resources Conservation of the USSR) having realized the high importance of the aerial electromagnetic prospecting, ordered the development of this method by establishing the Mezhduvedomstvennaya komissiya po aeroelektrorazvedke (Inter-Departmental Committee for Aerial Electromagnetic Prospecting). The latter was composed of representatives of the following organizations: Ministry of Geology and Mineral Resources Conservation of the USSR, Vsesoyuznyy

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Chronicle. Aerial Electromagnetic Prospecting in the USSR

nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki /VITR/ (All-Union Research Institute of New Methods and Techniques in Prospecting), Institut mashinovedeniya i avtomatiki Akademii nauk Ukrainskoy SSR /IMA/ (Institute of Mechanical Engineering and Automation of the AS Ukrainian SSR), Institut fiziki zemli Akademii nauk SSSR /IFZ/ (Institute of the Physics of the Earth of the AS USSR), and Moskovskiy geologorazvedochnyy institut (Moscow Geological and Prospecting Institute). As Scientific head of this committee was appointed Corresponding Member of the AS USSR A.N. Tikhonov. The following scientists took part in the development of the b.d.k.-method: Corresponding Member of the AS USSR K.B. Karandeyev (IMA AS USSR), L.Ya. Mizyuk (IMA AS USSR), N.M. Shuval-Sergeyev (VITR), Corresponding Member of the AS USSR A.N. Tikhonov (IFZ AS USSR), and V.I. Dmitriyev (IFZ AS USSR). During 1959, several industrial areas of the Southern Urals, the Magodzhar, Dzhezkazgan, and the Kola peninsula will be subject to prospecting and mapping by the new method. The b.d.k.-equipment consists of the

Chronicle. Aerial Electromagnetic Prospecting in the USSR

ground and aerial apparatus. The ground apparatus has a vacuum tube generator which generates A.C. of up to 2 kw at 81 , 244, 976, and 3,906 cycles and feeds it into the grounded cable. The latter is some 15 km in length and enables the prospecting of an area as large as 300-350 sq km. In addition to this, the following units belong to the ground apparatus: an ultrashort wave transmitter to transmit reference signals, a radio station for the command communication, a current-registering device, several rectifiers, and a field power station of the ZhES-9-type. The aerial apparatus mounted on a MI-4-type helicopter consists of a measuring device, an RSIU-3M-type radio station, and a power unit with a PO-500-type transformer. The prospecting is carried out at a flying speed of 60 to 120 km/hr and at an altitude of 50 to 200 m. The scale range varies from 1 : 10,000 to 1 : 50,000. A helicopter flying under favorable conditions can map a prospecting area as large as 300 sq km within 2 to 3 weeks provided its flying speed is 90 km/hr, the cable is laid once, and the scale of 1 : 25,0(

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Chronicle. Aerial Electromagnetic Prospecting in the USSR

is used. However, it takes 3 to 4 weeks to map this area when the scale 1 : 10,000 is used. The approximate cost of this operation is 250-300,000 rubles.

ASSOCIATION: Ministerstvo geologii i okhrany nedr SSSR (Ministry of Geology and Conservation of the Natural Resources of the USSR)

USCOMM-DC-60,855

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000205820005-9"

FEDYNSKIY, V.V., doktor fiziko-matem. nauk, red.; SHIROKOV, A.S., red.; KOVALEVA, A.A., red.; GRATSIANOVA, O.P., nauchn. red.; BORISOV, A.A., nauchn. red.; FEDYUK, V.I., nauchn. red.; KOTLYAREVSKIY, B.V., nauchn. red.; POMERANTSEVA, I.V., nauchn. red.; MOZZHENKO, A.N., nauchn. red.; LOZINSKAYA, A.M., nauchn. red.; SHNEYERSON, M.B., nauchn. red.; BOGDANOV, A.Sh., nauchn. red.; NIKITSKIY, V.Ye., nauchn. red.; KUDYMOV, B.Ya., nauchn. red.; PETROV, L.V., nauchn.red.; KOMAROV, .S.G, nauchn. red.; GORBUNOV, G.V., nauchn. red.; DUNCHENKO, I.A., nauchn. red.; FEL'DMAN, I.I., nauchn. red.; POMETUN, D.Ye., nauchn. red.; BEKMAN, Yu.K., ved. red.; VORONOVA, V.V., tekhn. red.

[Status and prospects for developing geophysical methods for mineral prospecting] Sostoianie i perspektivy razvitiia geofizicheskikh metodov poiskov i razvedki poleznykh iskopaemykh; materialy. Pod red. V.V. Fedynskogo. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 623 p. (MIRA 14:11)

1. Nauchno-tekhnicheskaya geofizicheskaya konferentsiya, Moscow, 1959.
2. Ministerstvo geologii i okhrany nedr SSSR (for Fedynskiy, Petrov).
(Prospecting—Geophysical methods)

BOGDANOV, A.Sh.; SHIROKOV, A.S.

Development of aerial electric surveying in the U.S.S.R. (MIRA 14:9)
Razved. i okh. nedr 27 no.5:61-63 My '61.

1. Ministerstvo geologii i okhrany nedr SSSR.
(Auronautics in surveying)

S/169/62/000/003/020/098
D228/D301

AUTHORS: Bogdanov, A. Sh. and Tarkhov, A. G.

TITLE: Development of ore prospecting by electrical methods in the next few years

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 24, abstract 3A207 (Razvedka i okhrana nedr, no. 7, 1961, 31-37)

TEXT: It is noted that electrical prospecting can be expediently applied not only for direct orebody searches but also for closely studying a mineralized area's geologic structure. The replacement of the current methods of lateral electrical sounding and d.c. electrical profiling by more mobile and productive techniques is of great significance. In this respect frequency electromagnetic sounding, whose apparatus weighs ~200 kg, is promising; the method's depth potential extends down to 400 m. The method of potential sounding is progressing. The customary equipment of the resistivity method is used in this technique which is distinguished

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Development of ore ...

by its high productivity and simplicity of interpreting the observational results. The new methods of d.c. profiling and magnetic and phase-amplitude measurement, for which the AFI-2 (AFI-2) apparatus that has been successfully proved in different areas of the USSR, has been created, are promising. Aerial methods of electrical prospecting which have successfully replaced surface operations in some districts, are acquiring especial significance. New equipment has been developed for the method of induced polarization, ?-59 (VP-59), which, on being somewhat modernized, can also be applied for operations according to the method of field formation. The methods of high-frequency ground and aerial electrical-prospecting -- radiopiles -- are being practised widely. The well and shaft versions of the technique of radiowave X-raying are extremely promising. [Abstracter's note: Complete translation.]

Card 2/2

BOGDANOV, A.Sh.; ATYAKIN, A.K.; LITVINOV, N.N.

Extra-deep boring in the U.S.S.R. Razved.i okh.nedr 28 no.3:61-63 Mr '62. (MIRA 15:4)

1. Ministerstvo geologii i okhrany nedr SSSR (for Bogdanov).
2. TSentral'noye konstruktorskoye byuro Ministerstva geologii i okhrany nedr SSSR (for Atyakin, Litvinov).
(Boring)

VAN'YAN, L.L.; BOBROVNIKOV, L.Z.; BOGDANOV, A.Sh., red.; BORUSHKO, T.I., red.izd-va; BYKOVA, V.V., tekhn. red.; IVANOVA, A.G., tekhn. red.

[Electric prospecting in the method of inducing a magnetic field] Elektrorazvedka po metodu stanovleniia magnitnogo polia. Moskva, Gosgeoltekhizdat, 1963. 183 p. (MIRA 16:6)
(Magnetic prospecting)

BOGDANOV, A.Sh.

Prospecting for ores of importance in agriculture and nonmetallic minerals using geophysical methods. Sov. geol. 7 no.7:84-91 Jl '64. (MIRA 17:11)

1. Gosudarstvennyy geologicheskiy komitet SSSR.

KUSKOV, L.S.; BOGDANOV, A.T., redaktor.

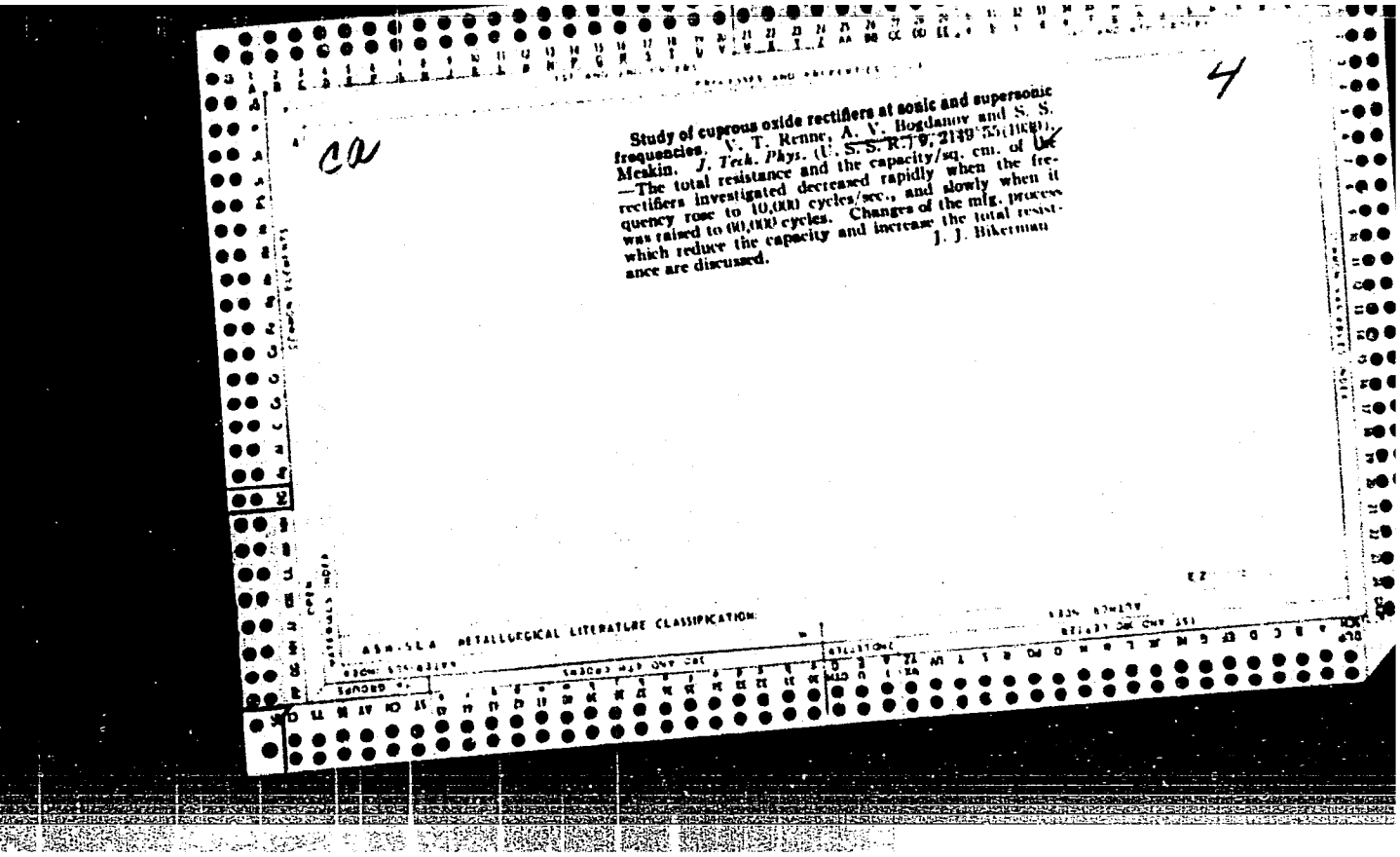
[Hydroelectric power station water resources management] Vodnoe khoziaistvo gidroelektrostantsii. Moskva, Gos. energ. izd-vo, 1954. 284 p. (MLRA 7:7)
(Hydroelectric power stations) (Hydraulic engineering)
(Hydrology)

KUSKOV, Lev Sergeyevich; BOGDANOV, A.T., retsenzent; POLIN, Kh.M., retsenzent; LAGAR'KOV, N.I., red.; DOBROMRAVOVA, S.M., red.izd-va; SALAZKOV, N.P., tekhn.red.

[Hydrological and water supply calculations in the exploitation of reservoirs] Gidrologicheskie i vodokhoziaistvennye raschety pri ekspluatatsii vodokhranilishch. Moskva, Izd-vo "Rechnoi transport," 1957. 247 p. (MIRA 11:4)
(Hydrology--Tables, calculations, etc.)

BOGDANOV, A.T., inzh.; KULESHOV, M.P.

Difficulties with sludge ice at the Uglich Hydroelectric Power Station. Gidr. stroi. 31 no.9:37-40 S '61. (MIRA 14:12)
(Uglich Hydroelectric Power Station--Ice on rivers, lakes, etc.)



Study of cuprous oxide rectifiers at sonic and supersonic frequencies. V. T. Rennc, A. V. Bogdanov and S. S. Meskin. *J. Tech. Phys.* (U. S. S. R.) 9, 2139-55(1939). —The total resistance and the capacity/sq. cm. of the rectifiers investigated decreased rapidly when the frequency rose to 10,000 cycles/sec., and slowly when it was raised to 80,000 cycles. Changes of the mfg. process which reduce the capacity and increase the total resistance are discussed. J. J. Biberman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

S.A. Bogdanov, A.V

E

40 621.314.632 – 82

Copper-oxide high-frequency rectifiers with increased stability. RENNE, W. T., AND BUGDANUW, A. W. *Elektrosvyaz, No. 2, pp. 67–70, Feb., 1941.* S. S.

BOGDANOV, A.

GUDTSOV, N. T., LOZINSKII, M.G. ZUDIN, I.F., BOGDANOV, A., and MATVEEVA, M. P. C. A. Vol. 45, 8955 d

"Properties of Metals and Alloys at High Temperatures in Vacuo". N. T. Gudtsov, M. G. Lozinskii, I. F. Zudin, N. A. Bogdanov, and M. P. Matveeva. Izvest. Akad. Nauk S.S.S.R., Otdel, Tekh. Nauk 1950, 108-25

App. is described for heating polished steel specimens of 25 sq. mm. cross-sect area up to the m.p. in vacuo (10^{-6} mm. Hg) and etching at the desired temp. by admitting Cl, HCl, HNO_3, N oxides, or air to several mm. Hg pressure. Heating is accomplished by passing elec. current through the specimen, and the temp. is detd. by thermocouples welded to the specimen. Above 900° the specimens are etched in vacuo because of the varying rate of vaporization of the phases and impurities present. Special attachments permit measurement of Vickers hardness at temp. up to 900° and of the rate of vaporization of the metal.

BOGDANOV, A.

Catalysis

Effect of concentration of H+ ions on the rate of catalysis
Zhur. fiz. khim. 26 no. 5, 1952

BOGDANOV, A. V.

BOGDANOV, A. V. - "Certain Nonlinear Effects in Homogeneous Electron Plasma." Sub 12 Jun 52, Moscow Oblast Pedagogical Inst. (Dissertation for the Degree of Candidate in Physicomathematical Sciences).

SO: Vechernaya Moskva January-December 1952

KUZNETSOV, A.P.; KIRILLOV, A.A., inzhener, retsenzent; BOGDANOV, A.V., inzhener, redaktor.

[Assembling welded metal structures; advanced training manual for workers] Sborka svarnykh metallicheskikh konstruktsii; uchebnoe posobie dlia povysheniia kvalifikatsii rabochikh. Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry [Uralo-Sibirskoe otd-nie] 1953. 147 p. (MLRA 7:6)
(Electric welding) (Building, Iron and steel)

SOV/44-59-1-464

16(1), 24(3)

Translation from : Referativnyy zhurnal.Matematika,1959,Nr 1,p 93 (USSR)

AUTHOR: Bogdanov, A.V.

TITLE: The Oscillations of an Electronic Plasma With Consideration of the Eigen Effect of the Electrons

PERIODICAL: Tr.Vses.zaochn.energ. in-ta,1957, vyp 11, 68 - 73

ABSTRACT: The author considers longitudinal oscillations in a homogeneous electronic plasma which is in the field of uniformly distributed positive ions of density n_0 ; the effect of the eigen influence of the plasma electrons (radiation friction) is taken into account. The following system of equations is solved :

$$\frac{\partial f}{\partial t} + (v \operatorname{grad}_x) f + (w \operatorname{grad}_v) f + \left(\frac{w}{s_0} - \frac{eE}{ms_0} \right) \operatorname{grad}_w f = 0 ,$$

$$\operatorname{div} E = 4\pi e \left(n_0 - \iint_{-\infty}^{\infty} f dv dw \right) .$$

After the linearization and integration of the system there arises a dispersion equation, the investigation of which shows that the consider ation of the eigen effect of the plasma electrons leads to the precisio of the dispersion equation.

Ye.S. Alekseyev

Card 1/1

BERSENEV, V.S.; Prinimali uchastiye: ZINEVICH, V.D.; MOROZOV, V.I.; MUKHACHEV, V.S.; KAPRALOV, Ye.P.; KOLCHANOV, V.D.; BOGDANOV, A.V.; OBUKHOVICH, I.I.; OSTROZHINSKIY, A.I.; KHROMOV, M.I.; SIVOCHUB, A.A.

Breaking a solid body with a high-pressure water jet. Zap. LGI 41 no.1:44-51 '59. (MIRA 16:5)
(Jets--Fluid dynamics)

30368
S/058/62/000/005/103/119
A061/A101

24.6716
24.6714

AUTHOR: Bogdanov, A. V.

TITLE: Excitation of longitudinal oscillations in electron flows

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 13, abstract 5Zh88 ("Tr. Vses. zaochn. energ. in-ta", 1961, no. 17, 15 - 22)

[A

TEXT: Longitudinal waves, as may appear in a system of two electron plasmas, have been studied theoretically. Equations of A. A. Vlasov (Many-particle theory, GITTL, 1952) are taken as the basis of the calculation. The equations are solved by the method of the branching theory. The dispersion equation is derived, and also the solubility condition for the initial system of equations in the form of traveling waves of constant amplitude. The special case of a fixed plasma, traversed by an electron flow, is considered. It is shown that if the thermal motion of electrons is neglected, both in the plasma and in the flow, the solubility condition for the initial system of equations in the form of traveling waves of constant amplitude contradicts the dispersion equation. In this case, no longitudinal oscillations are excited in the plasma. The flow-

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38369
S/058/62/000/005/104/119
A061/A101

24.6714
24.6716

AUTHOR: Bogdanov, A. V.

TITLE: Excitation of transverse electromagnetic oscillations in electron flows

PERIODICAL: Referativnyy zhurnal, Fizika, no. 5, 1962, 13, abstract 5Zh89 ("Tr. Vses. zaochn. energ. in-ta", 1961. no. 17, 23 - 30)

TEXT: Transverse electromagnetic waves in plasma currents have been studied theoretically. The initial system of equations is provided by a system of integral and differential equations offered by A. A. Vlasov (Many-particle theory, GITTL, 1952). The system is solved by using the branching theory. A dispersion equation is obtained, which relates the frequency to the propagation constant. The solubility condition for the initial system of equations is found in the form of traveling waves of constant amplitude. Two special cases of the general theory are considered. If the fixed plasma is traversed by the electron flow, no transverse oscillations of constant amplitude are excited in the system (this conclusion is reached by neglecting the thermal motion of electrons both in the

Card 1/2

S/058/62/000/005/104/119
A061/A101

Excitation of transverse...

plasma and in the flow). The flow-plasma system is unstable. The system of two electron flows with a compensated mean charge, moving in the same direction but of different concentrations and velocities, is also considered. It is shown that transverse oscillations are excited in two sufficiently wide plane-parallel electron flows interacting with each other and moving with equal velocities, but different mean concentrations.

V. Lopukhin

[Abstracter's note: Complete translation]

Card 2/2

S/058/62/000/003/037/092
A061/A101

9.3150

AUTHORS: Bogdanov, A. V., Vatollo, V. V.

TITLE: Ion oscillations in plasma

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1962, 68 - 69, abstract 3B553 ("Tr. Vses. zaochn. energ. in-ta", 1961, no. 17, 31 - 36)

TEXT: Ion oscillations in plasma are considered on the basis of Vlasov's equation which is linearized with respect to the Maxwell distribution with disturbed velocity distribution. The dispersion equation is obtained. When assuming the electron temperature to diverge from the ion temperature, the sustained ion oscillations with ionic plasma frequency are found. B. Davydov's result (RZhFiz., 1959, no. 6, 13495) is also obtained for the case when there is no divergence of temperatures. The group velocity of propagation of ion oscillations in plasma is established.

L. Maksimov

[Abstracter's note: Complete translation]

Card 1/1

S/035/62/000/002/012/052
A001/A101

3,1400

AUTHORS: Vatollo, V. V., Bogdanov, A. V.

TITLE: On dynamics of stellar systems

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 2, 1962, 41, abstract 2A354 ("Tr. Vses. zaoch n. energ. in-ta", 1961, no. 17, 37-44)

TEXT: The authors study small deviations of a stellar system from the steady state. For this purpose, the authors assume some law of distribution of additional density (without explaining its selection); this law contains unknown parameters which are selected in such a way that Boltzman's equation should be satisfied as precise as possible. (The paper contains errors: some terms are omitted in the linearization of Boltzman's equations; parameters k, m and l are assumed now constant, now dependent on coordinates; the real part in formula 7 is separated in a wrong way; addition of forces of gravitation and light pressure, introduced by T. A. Agekyan for certain conditions, p. 37, cannot be applied to the entire Galaxy. Reviewer). There are 6 references.

V. Antonov

[Abstracter's note: Complete translation]

Card 1/1

KRAYTSER, L.I.; BOGDANOV, A.V. (Moskva, G-48, ul. Usacheva, d.62, kv.259).

Use of mechanical suturing devices in radical operations for cancer of the cardia and esophagus. Vop. onk. 9 no.12:87-90 '63. (MIRA 17:12)

1. Iz 3-y kafedry khirurgii TSentral'nogo instituta usovershenstvovaniya vrachey (zav. kafedroy - prof. V.I.Kazanskiy) na baze TSentral'nov klinicheskoy bol'nitsy Ministerstva putey soobshcheniya (nachal'nik - zasluzhennyy vrach RSFSR V.N. Zakharchenko).

BOGDANOV, A.V.; ZHILKO, E.I. ; FEDOSEYEV, S.V.

Operating magnetic memory unit (MOZU) for a special-purpose electronic computer. Sbor. trud TSNIICHM no.30:94-101 '63. (MIRA 16:10)

(Magnetic memory(Calulating machines))

KHARITONOV, L.G., kand. med. nauk; BOGDANOV, A.V.

Cancer of the esophagus and cardia in pulmonary tuberculosis.
Sov. med. 27 no.8:62-65 Ag '64. (MIRA 18:3)

1. 3-ya kafedra khirurgii (zav.- prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na baze TSentral'noy klinicheskoy bol'nitsy (nachal'nik V.N. Zakharchenko) Ministerstva putey soobshcheniya, Moskva.

LIMONCHIK, S.L., kand. med. nauk; KHARITONOV, L.G., kand. med. nauk; BOGDANOV, A.V.

Valvulotubular gastrostoma in the surgery of cancer of the stomach and esophagus. Khirurgiia 40 no.8:124-126 Ag '64. (MIRA 18:3)

1. III kafedra khirurgii (zav. - prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na baze TSentral'noy klinicheskoy bol'nitsy (nachal'nik - zasluzhennyy vrach RSFSR V.N. Zakharchenko) Ministerstva putey soobshcheniya i Kuybyshevskaya bol'nitsa No.2 (glavnyy vrach I.L. Popkov) Vodzdravotdela, Moskva.

RASSTRIGIN, N.N.; KHARITONOV, L.G.; BOGDANOV, A.V.

Complications in esophagoscopy under anesthesia and their diagnosis and treatment. Khirurgiia 40 no.9:78-82 S '64 (MIRA 18:2)

1. 3-ya kafedra khirurgii (zav. - prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na baze TSentral'noy klinicheskoy bol'nitsy (nachal'nik - zasluzhennyy vrach RSFSR V.N. Zakharchenko)Ministerstva putey soobshcheniya, Moskva.

KHARITONOV, L.G., kand. med. nauk; BOGDANOV, A.V.

Lesion of the thoracic duct during surgery on the esophagus.
Khirurgiia 40 no.9:84-86 S '64 (MIRA 18:2)

1. Tret'ya kafedra khirurgii (zav. - prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na baze TSentral'noy klinicheskoy bol'nitsy (nachal'nik - zasluzhennyy vrach RSFSR V.N. Zakharchenko) Ministerstva putey soobshcheniya, Moskva.

KAZANSKIY, V.I., prof. (Moskva, Leningradskiy prospekt 27, kv.1); KHARITONOV, L.G., kand. med. nauk; RASSTRIGIN, N.N., kand. med. nauk; BOGDANOV, A.V.

Prevention and treatment of complications following radical operations in cancer of the central thoracic section of the esophagus. Vest. khir. 92 no.4:9-13 Ap '64 (MIRA 18:1)

1. Iz 3-y kafedry khirurgii (zav. - prof. V.I.Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na base TSentral'noy klinicheskoy bol'nitsy (nachal'nik - zasluzhennyy vrach RSFSR V.N. Zacharenko) Ministerstva putey soobshcheniya.

BOGDANOV, A.V.; KRAYTSER, L.I.; KHARITONOV, L.G.

Cancer of the upper region of the stomach with transition into the esophagus in patients over 60 years of age. Khirurgiia 41 no.4:52-56 Ap '65. (MIRA 18:5)

1. 3-ya kafedra khirurgii (zav. - prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na baze TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya, Moskva.

MAKAROVA, K.A.; BOGDANOV, A.V.

State of an esophagointestinal anastomosis 15 years after gastrectomy for cancer of the upper region of the stomach with a transition to the esophagus. Khirurgiia 41 no.4: 129-130 Ap '65. (MIRA 18:5)

1. III kafedra khirurgii (zav. - prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.

KAZANSKIY, V.I.; BOGDANOV, A.V.; KHARITONOV, L.G.

Selection of the esophageal anastomosis in radical operations for cancer of the upper portion of the stomach invading the esophagus. Vop. onk. 11 no.7:18-23 '65. (MIRA 18:9)

1. Iz 3-y kafedry khirurgii (zav.- prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na baze TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya (nachal'nik - zasluzhennyy vrach RSFSR V.N. Zakharchenko).

L 32060-66 EWT(l)/EWP(m)/T-2/EWP(k) IJP(c) AT
ACC NR: AR6016167 SOURCE CODE: UR/0058/65/000/011/G015/G016

AUTHOR: Bogdanov, A. V.

TITLE: Interaction of ultrasonic and magnetohydrodynamic waves in a plasma

SOURCE: Ref. zh. Fizika, Abs. 11G117

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 20. M., 1964, 37-39

TOPIC TAGS: magnetohydrodynamics, ultrasonic wave propagation, ultrasonic field, plasma wave propagation

ABSTRACT: Starting from the kinetic method of plasma investigation, the author considers the propagation of slow magnetohydrodynamic waves ($kc/\omega \gg 1$) in an electron-ion plasma in the presence of an ultrasonic field in the latter. The investigation is carried out in a linear approximation with allowance for the electron-electron and ion-ion collisions. It is shown that resonance excitation of oscillations takes place in the plasma, at frequencies satsifying the laws of dispersion of the magneto-hydrodynamic and magnetic-sound waves, when the ultrasonic waves propagate at an angle δ to the magnetic field and $0 < \delta < \pi/2$. In the case of longitudinal propagation of ultrasound ($\delta = 0$) the perturbation of the density in the plasma is due only to the ultrasound. At angles δ close to $\pi/2$, the ultrasound excites in the plasma only weakly-damped magnetic sound waves. [Translation of abstract]

SUB CODE: 20

Card 1/1

L 29928-66 EWP(k)/EWT(1)/T

ACC NR: AR6006198 SOURCE CODE: UR/0124/65/000/010/B021/B021

AUTHOR: Bogdanov, A. V. 34 B

TITLE: Kinetic theory of propagation of sound in diatomic and multiatomic gases

SOURCE: Ref. zh. Mekhanika, Abs. 10B145

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vyp. 17. M., 1963, 221-225

TOPIC TAGS: ultrasonics, gas, gas kinetics equation

ABSTRACT: A molecular-kinetics theory of ultrasound propagation in rarefied multiatomic gases is given. It is based on the Bolzmann formula in accordance with P. L. Bathnagar, E. P. Gross, and M. Krook. Dispersion equations are derived for cases when the wave length of the sound waves is greater than the distance of the free run of molecules.

L. Filippov.

SUB CODE: 20/ SUBM DATE: none

Card 1/1 CC

L 11204-67 EWP(m)/EWP(k)/EWT(1) IJP(c)

ACC NR: AR6020064 (N) SOURCE CODE: UR/0124/66/000/001/B015/B015

47

AUTHOR: Bogdanov, A. V.

TITLE: Interaction between ultrasonic and magnetohydrodynamic waves in a plasma

SOURCE: Ref. zh. Mekhanika, Ab. 1B110

REF SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva, vyp. 20, M., 1964, 37-39

TOPIC TAGS: plasma wave, ultrasonic wave, MHD, plasma resonance

ABSTRACT: The author uses the kinetic method of plasma investigation as a basis for studying the propagation of slow magnetohydrodynamic waves ($kc/\omega \gg 1$) in an electron-ion plasma when an ultrasonic field is present. The investigation is done in the linear approximation with regard to electron-electron and ion-ion collisions. It is shown that resonance excitation of oscillations takes place in the plasma at frequencies which satisfy the law of dispersion of magnetohydrodynamic and magnetoacoustic waves when ultrasonic waves are propagated at an angle δ to the magnetic field ($0<\delta<\pi/2$). Ultrasonic waves are the sole factor contributing to density perturbations in the plasma in the case of longitudinal propagation of ultrasound ($\delta=0$). When δ is close to $\pi/2$, ultrasound produces only weakly damped magnetoacoustic waves in the plasma. A. Karchevskiy. [Translation of abstract]

SUB CODE: 20

Card 1/1 jb

L 41198-66 EWT(1)/EWT(m)/T/EWP(t)/ETI/EWP(k) IJP(c) JD/AT

ACC NR: AR6014914 SOURCE CODE: UR/0124/65/000/011/B015/B015

83
B

AUTHOR: Bogdanov, A. V.

TITLE: Ultrasound in electron-ion plasma

SOURCE: Ref. zh. Mekhanika, Abs. 11B100

REF SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 147, 1964, 193-199

TOPIC TAGS: ultrasonic field, plasma oscillation, plasma electron oscillation, isotropic plasma, linear approximation

ABSTRACT: Longitudinal oscillations of a uniform plasma are investigated in the scope of the kinetic method of Bhatnagar P., Gross E. P., Krook M. (Phys Rev, 1954, 94, 511). An additional term describing the effect of the ultrasonic field on the charged particles is introduced in the kinetic equation. The investigation is conducted in the linear nonisothermal approximation, taking into account collisions of charged particles (electron-electron and ion-ion). The theory of ionic oscillations is constructed in complete analogy to the theory of electronic oscillations under the conditions: for the electron and ion temperatures $T_e \gg T_i$ and the fast electrons create a background compensating the average ion charge. Expressions for the charge density amplitudes as a function of the frequency and amplitude of the ultrasonic potential are obtained. The resonance character is shown for ultrasonic excitation of the plasma near the natural oscillation frequencies of the electrons ν_e and ions ν_i. For the plasma in a neon gas discharge tube $\nu_e \approx 9 \cdot 10^9$ hz and $\nu_i \approx 4.6 \cdot 10^6$ hz. Bibliography of 9 citations. K. Goncharov. [Translation of abstract]

SUB CODE: 20

Card 1/1

ACCESSION NR: AR4015124 S/0124/63/000/012/B011/B011

SOURCE: RZh. Mekhanika, Abs. 12B65

AUTHOR: Bogdanov, A.V.

TITLE: Longitudinal electron oscillations in an ionized gas

CITED SOURCE: Uch. zap. Mosk. obl. ped. in-ta, v. 119, 1962, 3-6

TOPIC TAGS: ionized gas, electron oscillation, plasma wave, isothermal sound

TRANSLATION: The author carries out a theoretical examination of the propagation of longitudinal plasma waves of small amplitude in a partially ionized gas. Collisions between electrons and ions and neutral particles are taken into account. He uses simple approximations for the collision integrals in the kinetic equation. For isothermal processes he obtains a dispersion equation which is then investigated under the assumption that the wavelengths exceed the Debye radius and the electron free path. The presence of Landau damping is not taken into consideration. In the case of a fully ionized gas, the results coincide with those known

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ACCESSION NR: AR4015124

previously. The same holds for weakly-damped waves in a low-pressure plasma. As the charged particle concentration tends to zero, an equation is obtained for the propagation of isothermal sound. B.N. Gershman.

DATE ACQ: 31Dec63 SUB CODE: PH ENCL: 00

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ACCESSION NR: AR4014761 S/0058/63/000/012/E002/E002

SOURCE: RZh. Fizika, Abs. 12E12

AUTHOR: Bogdanov, A. V.

TITLE: Contribution to the kinetic theory of the propagation of sound in diatomic and polyatomic gases

CITED SOURCE: Sb. Primeneniye ul'traakust. k issled. veshchestva. Vy*p. 17. M., 1963, 221-225

TOPIC TAGS: sound, sound propagation, kinetic theory, sound propagation kinetic theory, diatomic gas, polyatomic gas, molecular kinetic theory, kinetic equation, dispersion equation

TRANSLATION: A molecular-kinetic theory is presented for the distribution of ultrasound in rarefied polyatomic gases. The theory is based on an approximate form of the Boltzmann kinetic equation as

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given by Bhatnagar, Gross, and Cook (RZhFiz, 1956, no. 4, 10152). The dispersion equations are obtained for the case when the length of the sound waves exceeds the molecule mean free path. L. Filippov.

DATE ACQ: 24Jan64 SUB CODE: PH ENCL: 00

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ACCESSION NR: AP4013409 S/0057/64/034/002/0254/0258

AUTHOR: Bogdanov, A.V.

TITLE: Magneto-acoustic waves in a nonisothermal plasma

SOURCE: Zhurnal tekhn.fiz.,v.34, no.2, 1964, 254-258

TOPIC TAGS: plasma, nonisothermal plasma, magnetoacoustic wave, wave damping

ABSTRACT: The propagation of low frequency magneto-acoustic waves in a non-isothermal plasma is discussed on the basis of the kinetic equation with self-consistent fields. Collisions are taken into account, the approximate collision model proposed by P.L.Bhatnagar, E.P.Gross and M.Krook (Phys.Rev.,94,511,1954) being employed. The linearized kinetic equations for small deviations of the electron and ion distribution functions from their Maxwellian values are written. From these a dispersion equation is derived which is valid when the wave frequency and the collision frequencies are small compared with the ion Larmor frequency, and the distance traversed by an ion due to its thermal motion during a Larmor period is small compared with the wavelength. When both the ion and electron temperatures (T_i, T_e) are small

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compared with $m_i C_A^2$ (m_i is the ion mass and C_A is the Alfven velocity) and the collision frequency is either very small or very large compared with kC_A (k is the wave number), the dispersion equation reduces to that given by the magnetohydrodynamic approximation for low sound velocity, C_s. When the collision frequency is small, the sound velocity in the dispersion equation is given by

$$C_s^2 = 2(T_e + T_i)/m_i.$$

This is in agreement with earlier results of S.I.Braginskiy and A.P.Kazantsev (Sb. "Fizika plasmy", Izd.AN SSSR,4,24-31,1958). When the collision frequency is large, the sound velocity is given by

$$C_s^2 = (5/3)(T_e + T_i)/m_i.$$

The damping of the magneto-acoustic waves reaches a maximum when the collision frequency is equal to kC_A. The damping is then of the order of the square of the ratio of the ion thermal velocity to the Alfven velocity, and is accordingly small. Orig.art.has: 33 formulas.

BOGDANOV, A.V.

Ionic oscillations in a molecular plasma. Zhur. tekh. fiz. 33 no.11:1366-1369 N '63. (MIRA 16:12)

1. Moskovskiy oblastnoy pedagogicheskiy institut imeni N.K.Krupskoy.

L 52019-65 EWP(m)/EPF(n)-2/EPR/EWG(v)/EPA(w)-2/EWT(1)/EWG(m)/T-2/EWA(m)-2/EPA(sp)-2
Pd-1/Pe-5/Pi-4/Po-4/Ps-4/Pz-6/Pab-10 IJP(c) AT

ACCESSION NR: AP5013043 UR/0057/65/035/005/0803/0808

AUTHOR: Bogdanov, A.V.

TITLE: Magnetohydrodynamic waves in a plasma in the presence of a beam of charged particles

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 5, 1965, 803-808

TOPIC TAGS: plasma beam interation, plasma dynamics, plasma stability, plasma wave propagation, magnetic sound wave

ABSTRACT: The author discusses the propagation of fast magnetoacoustic waves in the presence of a neutral beam of charged particles with [illegible] the ions taken into account. The calculations are based [illegible] equations for the plasma and the beam with collisions treated in the manner P.L.Bhatnagar, E.P.Gross, and M.Krook (Phys. Rev., 94, 5[illegible]). The method of treatment is that proposed by S.I.Braginskiy and A.P [illegible] Fiziky i Izd., 8 SSR, 4, 24, 1958). The dispersion equation [illegible] long-wavelength magnetohydrodynamic waves propagating at an arbitrary angle to the external magnetic field is derived with the assumption that all the frequencies

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involved are small compared with the ion Larmor frequency. Collisions and the difference between the electron and ion temperatures do not affect the dispersion of Alfven waves in the first approximation. The solutions of the dispersion equation for fast magnetoacoustic waves are discussed separately for a dense plasma, and the condition for plasma stability [illegible] of degrees of freedom of the ions is carried throughout as a parameter [illegible] are accordingly directly applicable to the cases of unmagnetized, diamagnetic, and [illegible] in which vibrations are not excited. Orig. art. has: 28 formulas.

ASSOCIATION: Moskovskiy oblastnoy pedagogicheskiy institut im. N.K. [illegible]
(Moscow Regional Pedagogical Institute)

SUBMITTED: 30Mar64 ENCL: 00 SUB CODE: ME

NR REF SOV: 006 OTHER: 002

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BOGDANOV, A. V.

"Agricultural Utilization of Peat-Marsh Soils on the Kolkhoz imeni Kirov, Logishinskiy Rayon, Brestskaya Oblast." Cand Agr Sci, Inst of Soil Improvement, Water and Marsh Economy, Acad Sci Belorussian SSR. (KL, No. 2, Jan. 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13)
SO: Sum. No. 598, 29 Jul 55

BOGDANOV, A.V.

SHMAKOV, P.V., professor, doktor tekhnicheskikh, nauk, zasluzhennyy deyatel' nauki i tekhniki, redaktor; LUR'YE, O.B., doktor tekhnicheskikh nauk, redaktor; ROGINSKIY, V.Yu., kandidat tekhnicheskikh nauk, dotsent, redaktor; BOGDANOV, A.V., inzhener, redaktor; CHERNYSHEV, V.M., inzhener; redaktor.

[Collection of articles on television broadcasting] Sbornik materialov po televizionnomu veshchaniiu. Leningrad, 1956. 211 p. (MLRA 10:6)

1. Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi imeni A.S.Popova. Leningradskoye, Urkainskoye i Latviyskoye pravleniye.

(Television--Transmitters and transmission)

BOGDANOV, Aleksandr Vasil'yevich; MAYOROV, Viktor Konstantinovich; PROKOPOVICH, Viktor Pavlovich; BENESHEVICH, I.I., kandidat tekhnicheskikh nauk, redaktor; STIKHNO, T.V., tekhnicheskiy redaktor

[Remote control of railroad junction transformer substations] Teleupravlenie transformatornymi podstantsiiami zheleznodorozhnykh uzlov. Moskva, Gos.transp.zhel-dor. izd-vo, 1957. 128 p. (MIRA 10:8)
(Remote control) (Railroad--Electric equipment)

BOGDANOV, A. V.

Metastasis of gastric cancer into the umbilicus simulating strangulated umbilical hernia. Klin. med. no.11:131-132 '61.
(MIRA 14:12)

1. Iz Kromskoy rayonnoy bol'nitsy Orlovskoy oblasti.

(STOMACH—CANCER)
(UMBILICUS—CANCER)
(HERNIA)

BOGDANOV, A. V. (pos. Kromy)

Ureteral anomaly in a 4-month-old child. Arkh. pat. no.6:78-79 '62. (MIRA 15:7)

1. Iz Kromskoy rayonnoy bol'nitsy Orlovskoy oblasti (glavnyy vrach I. A. Vasilevskiy)

(URETERS—ABNORMITIES AND DEFORMITIES)

BOGDANOV, A.V.

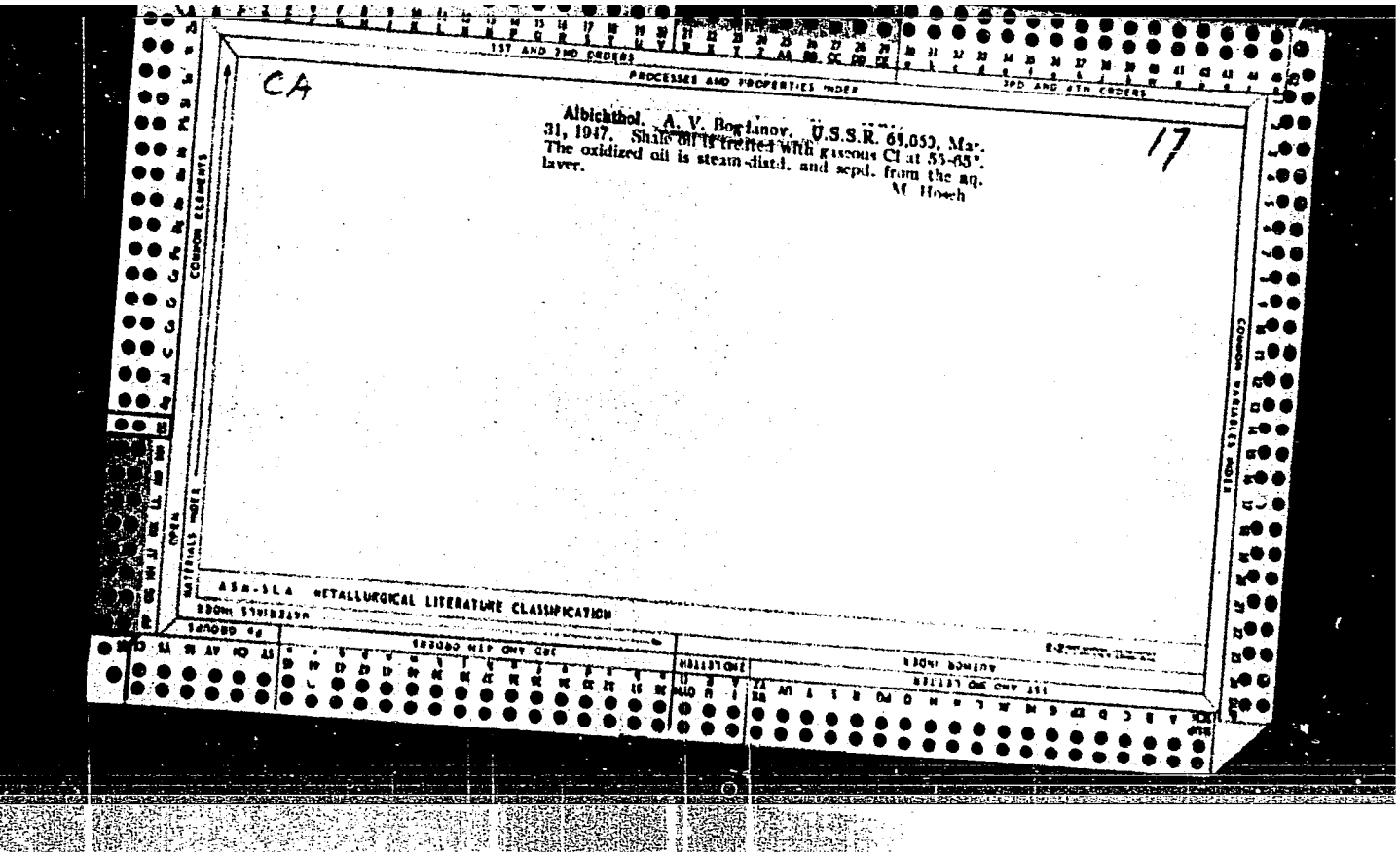
Case of open injury of the liver. Khirurgiia 39 no.10:120 O '63. (MIRA 17:9)

1. Iz Kromskoy rayonnoy bol'nitsy (glavnyy vrach I.A. Vasilevskiy) Orlovskoy oblasti.

KAZANSKIY, V.I., prof.; BOGDANOV, A.V.; KHARITONOV, L.G., kand. med. nauk; RASTRIGIN, N.N., kand. med. nauk

Causes of fatal outcome following radical operations for cancer of the upper section of the stomach involving the esophagus. Khirurgiia 40 no.2:93-98 F '64. (MIRA 17:7)

1. 3-ya kafedra khirurgii (zav. - prof. V.I. Kazanskiy) TSentral'nogo instituta usovershenstvovaniya vrachey na baze TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya, Moskva.



2903 Bogdanov, A. V.

Sel'skokhozyaystvennoye osvoyeniye torfyano-bolotnykh pochv v kolkhoze imeni Kirova. Logishinskogo rayona Brestskoy oblasti. Minsk, 1954. 20 s. 21 sm. (Akad. nauk Belorus. SSR. In-t melioratsii, vodnogo i bolognogo khozyaystva). 100 ekz. B. Ts. - (54-56201)

BOGDANOV, Aleksey Vyacheslavovich; SLUTSKIN, Grigoriy Solomonovich; MAMONTOV, V.G., inzh., retsenzent; VICHEREVIN, A.Ye., inzh., red.; DROZDOVA, N.D., tekhn. red.

[Prolonging the life of elements of the superstructure] Prodlenie sroka sluzhby elementov verkhnego stroeniia puti; iz opyta raboty peredovykh kollektivov. Moskva, Transzheldorizdat, 1963. 70 p. (MIRA 16:5)

(Railroads--Maintenance and repair)

BOGDANOV, Aleksandr Vasil'yevich; PESHKHONOV, I.N., inzh., retsenzent; ROZIN, A.I., inzh., red.; MARCHENKOV, I.A., tekhn.red.

[Boring] Rastochnoe delo. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 232 p. (MIRA 14:4)
(Drilling and boring)

SUKOTSKIY, S.F., inzh.; BOGDANOV, A.Ye., inzh.

Reconstructing pole-type steaming chambers into automatically controlled semiautoclaves. Gidr. mekhan. 31 no. 1:16-19 Ja '61. (MIRA 14:2)

(Autoclaves)

BOGDANOV, Branislav, dr.; BOSKOVIC, Sreten, dr.

Preservation of skin grafts for a longer time. Med. arh. 18 no.6:33-39 N-D'64.

1. Hirurska klinika Medicinskog fakulteta u Sarajevu (Sef: Prof. dr. Leopold Kaufer) ; Zavod za transfuziju krvi u Sarajevu (Direktor: Dr. Sreten Boskovic).

MILETIC-SAIN, Dimitrije, Dr.; BOGDANOV, Branka, dr.

Administration of antirachitic vitamin to the newborn for prevention of rickets. Med. arh., Sarajevo 10 no.4:45-49 July-Aug 56.

1. (Iz Univerzitetske decije, klinike Medicinskog fakulteta u Sarajevu. Sef prof. dr. M. Sarvan).
(RICKETS, prev. & control
vitamin D in newborn (Ser))
(INFANT, NEWBORN, dis.
rickets, prev. by vitamin D (Ser))
(VITAMIN D, ther. use
prev. of rickets in newborn (Ser))