L 29266-66 EWT(1)/FBD/FCC GW/WS-2

ACC NR: AP6019305 SOURCE CODE: UR/0203/65/005/004/0787/0789

AUTHOR: Kushnerevskiy, Yu. V.

ORG: none

79
67
6

TITLE: Summer school on investigation of the lower ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 787-789

TOPIC TAGS: ionosphere, radio wave absorption, solar activity, solar flare, diurnal variation, solar eclipse, atmospheric recombination, radio wave propagation, atmosphereic disturbance aurora

ABSTRACT: A summer school on investigations of the lower ionosphere was 28 September-9 October 1964 under the sponsorship of the National Committee on Geodesy and Geophysics and the German Academy of Sciences. Participants were present from Bulgaria, GDR, Poland, USSR, West Germany and Czechoslovakia. The first group of reports was devoted to discussion of investigation of radio wave absorption in the lower ionosphere. Krechmer (GDR) discussed measurement of radio wave absorption in the ionosphere by the A1 method. Lippert (GDR) reviewed the results of study of absorption by the A2 method during the time of a solar eclipse in Bulgaria at a frequency of 25 Mc/s. Comparison with data by the A1 method revealed a correspondence between them in seasonal and diurnal variations. Knut (GDR) presented the results of measurements of absorp-

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tion in the region of long radio waves at the time of sunrise. Taubenheim (GDR) analyzed data on absorption by the A1 and A2 methods, especially during a solar eclipse. It was demonstrated that on the basis of a two-layer model of the lower ionosphere with different recombination coefficients it is possible to separate the absorption present in the D and E layers. The maximum contribution to absorption measured by the A2 method is from the F2 layer. G. A. Mikhaylov (USSR) reported on the "Function of Propagation and the Mean Phase Velocity of Electromagnetic Waves at Superlow Frequencies." D. S. Fligel' (USSR) gave two reports: "Lightning Discharges and Propagation of Electromagnetic Waves of Low and Superlow Frequencies Over the Earth's Surface" and "Properties of the Coefficients of Refraction, Attenuation and Transmission of the Ionosphere at Low and Superlow Frequencies." Problems of the aeronomy of the lower ionosphere were discussed by Taubenheim. He analyzed the composition, temperature distribution, density and other parameters in dependence on time of day and season. Wagner (GDR) discussed the excitation of electrons and ionization. Artificial earth satellite data were presented on ionization fluxes in the regions from 0.13 A to Lα. Taubenheim gave the results of influence of solar flares on the propagation of short radio waves. The behavior of the ionosphere at the time of Dellinger effects was considered. It was shown that at the time of solar flares there is an increase of ionization by 20-50% in the E region. In the F region ionization changes by 20-30% are observed only at the time of very strong flares. There is a relationship between

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solar flares which give radio emission bursts at 3 cm and ionospheric disturbance. The absorption maximum is at about 75 km. Analysis of observations revealed that the decrease of electron concentration after flares is described by the law $e^{-\beta t}$, where $\beta = 2 \cdot 10^{-3}$ sec^{-1}. Sprenger (GDR) discussed ionization in the auroral region. The observations were made at 33 Mc/s. Inhomogeneities move from east to west at a velocity of about 1,000 m/sec. Lauter (GDR) discussed different manifestations of the influence of high-energy particles on the ionosphere. The maximum effect was observed during the minimum of solar activity. The author analyzed the shapes of the curves of field strength of long radio waves and the influence exerted on them by particles and inhomogeneities. In evening during the time of a solar flare the D layer does not disappear to the end of the disturbance. Contributions by other speakers are summarized in one or two sentences. The participants at the summer school visited the ionospheric station on Rugen Island and the ionospheric observatory at Kuhlungsborn. Orig. art. has: 1 formulas. [JPRS]

SUB CODE: 03, 04 / SUBM DATE: none

Card 3/3 CC

ACC NR: AP7002205 SOURCE CODE: UR/0203/66/006/006/1120/1122

AUTHOR: Kashin, A. A.; Klimanov, F. P.; Kushnerevskiy, Yu. V.; Mirkotan, S. F.; Nerovnya, L. K.

ORG: Moscow State University, Physics Department (Moskovskiy gosudarstvennyy universitet, Fizicheskiy fakul'tet); Institute of Terrestrial Magnetism, Ionosphere, and Radio Wave Propagation, AN SSSR (Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR)

TITLE: Drift of small-scale inhomogeneities at Mirnyy (Antarctica)

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 6, 1966, 1120-1122

TOPIC TAGS: ionosphere, ionospheric drift, ionospheric inhomogeneity, ionospheric radio wave

ABSTRACT: Observations of ionospheric drifts were organized at Mirnyy during the Eighth Antarctic Expedition. Measurements of the motion of small-scale inhomogeneities were made using the short-range reception method. "Delta"-type antennas with an active load of 600 ohm served as the receiving antennas. To reduce the effects of polarization and radii noise on the measurements, the receiving antennas were placed in parallel. Signals from the receiving antennas were fed to an antenna switch through a matching balancing transformer is a single-wire hf cable. A wide-band

 UDC: 550.388.2

ACC NR: AP7002205

rhombic antenna served as the transmitting antenna. The drift-measuring system was an ordinary ionospheric station operating at fixed frequencies. The transmitter, a pulsed wide-band power amplifier, had the following characteristics: pulse width, 200 μsec; repetition frequency, 50 cps; pulse power 1—1.5 kw; and frequency range, 1.5—18.0 Mc. Operation of the entire system was controlled by a synchronizer. The receiver, a superheterodyne unit, had the following characteristics: frequency range, 1.5—18.0 Mc; transmission band, 15 kc; and sensitivity for a 2:1 S/N ratio, 2 μv. At the input of the receiver an electronic switch successively coupled antennas to it. Received and amplified signals were fed to an oscillograph and subsequently photographed at a rate of 13 cm/sec from its screen.

The drift of small-scale inhomogeneities in the E and F2 layers was observed from March to December 1963. It was found that drift velocity in the two layers varied from 40 to 400 m/sec, with average values of 180 and 214 m/sec, respectively. Drift was primarily to the northwest and southeast.

The results of a harmonic analysis of annual data on ionospheric drift indicated that for each of the two layers there was a constant component of the drift velocity which had large amplitude and was directed toward the equator (i.e., was almost perpendicular to the auroral zone). The vectors of diurnal and semidiurnal drift components were found to rotate counter clockwise in the E layer and clockwise in the F2 layer; both velocity vectors were larger in the F2 layer than in the E layer. The semidiurnal component of the drift velocity prevailed in the E layer, while the diurnal component in the F2 layer.

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ACC NR: AP7002205

Concerning the relationship between drift velocity and magnetic activity it was revealed that this relationship was almost absent in the E layer, while it manifested itself clearly in the F2 layer: the drift velocity increased sharply with an increase in the K index. Orig. art. has: 5 figures.

[WA-3]

SUB CODE: 20/ SUBM DATE: 18Nov65/ ORIG REF: 002/ OTH REF: 003/ ATD PRESS: 5113

Card 3/3

KUSHNERIK, A., inzhener-polkovnik

General purpose gear for kitchen machines. Tyl i snab. Sov. Voor. Sil 21 no.7:68 Jl '61. (MIRA 14:8)
(Kitchens--Equipment and supplies)

TSIGLER, V.D.; KAMINSKIY, V.K.; KUSHNERIK, N.I.; PANKRATOV, D.I.; LARENKOV, A.P.; EYSMOND, W.V.

Redesigning certain elements of low tonnage gas chamber kilns for burning dinas bricks. Ogneupory 21 no.3:107-114 '56. (MLRA 9:8)

1. Khar'kovskiy institut ogneuporov (for TSigler). 2. Krasnogorovskiy ogneupornyy zavod (for Kaminskiy, Kushnerik, Pankratov, Larenkov, Eysmond).

(Firebricks) (Kilns)

15 (2)

AUTHORS: Kaminskiy, V. K., Pankratov, D. I., Kushnerik, N. I. SOV/131-59-9-3/12

TITLE: An Experiment for the Utilization of Foam Filters

PERIODICAL: Ogneupory, 1959, Nr 9, pp 395-401 (USSR)

ABSTRACT: A method for removing dust from gases by means of a foam layer was developed by the Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Institute of Technology imeni Lensovet). In 1957 the high efficiency of such apparatus was proved in the Krasnogorovka Works imeni Lenin by means of a test foam filter. The testing plant was elaborated by the above mentioned works together with the Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (UNIIO) (Ukrainian Scientific Research Institute for Refractories). Table 1 shows the experimental results obtained with a foam filter. Table 2 shows the suction ventilation systems of the fire-clay grinding section. Table 3 shows the working results of the ventilation- and purification systems, equipped with foam filters, for January and February 1959. Figure 1 shows the schematic illustration of a foam filter, followed by a description. Figure 2 is a schematic illustration of the foam filter apparatus of the fire-clay section. Table 4 shows the pulp

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density in the clarifying plant. In the majority of cases the degree of purity was above 95%. Figures 3 and 4 show photos of the foam filters in the fire-clay section, as well as of the clarifying plants. A description of these plants follows. Finally the foam filters are designated as simple, cheap, and efficient devices. There are 4 figures and 4 tables.

ASSOCIATION: Krasnogorovskiy shamotno-dinasovyy zavod im. Lenina
(Krasnogorovka Fire-clay and Dinas Works imeni Lenin)

FOLGAYETSKIY, Vladimir Vladimirovich [Fidhaiets'kyi, V.V.], kand. tekhn. nauk; KUSHNEROV, D.K. [Kushnerov, D.K.], kand. tekhn. nauk, retsenzent

[Fluxes for automatic welding; a welder's library] Flusy dlia avtomatychnoho zvariuvannia; biblioteka zvarnykh. Kyiv, Derzhmekhvydav URSR, 1963. 117 p. (MIRA 18:6)

AUTHOR: Kushnerov, F.R. SOV/19-58-6-410/685

TITLE: An Instrument for Determining the Linear Expansion Coefficient and the Elasticity Modulus of Samples of Metals and Other Materials (Pribor dlya opredeleniya koeffitsiyenta lineynogo rasshireniya i modulya uprugosti obraztsov metallov i drugikh materialov)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, pp 90-91 (USSR)

ABSTRACT: Class 42i, 12_{03}. Nr 113644 (583744 of 26 Sep 1957). Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. An instrument with an electric measuring bridge circuit supplied from an electronic oscillator, a thermal chamber for the samples, a pickup, and a photorelay for recording the readings; to increase the sensitivity of measurements, the sample holder is designed in the form of a differential capacitive reactance pickup with a central electrode contacting the sample and side plate-electrodes electrically coupled with the primary winding of a transformer receiving high-frequency

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An Instrument for Determining the Linear Expansion Coefficient and the Elasticity Modulus of Samples of Metals and Other Materials

current from the electronic [redacted], the secondary winding ends of the transformer are closed and form a circuit tuned in resonance with the frequency of the oscillator.

MARGOLIS, L.Ya.; YENIKEYEV, E.Kh.; ISAYEV, O.V.; KRYLOVA, A.V.; KUSHNEROV, M.Ya.; Prinimala uchastiye: VILENKINA, S.M., laborant

Modification of hydrocarbon oxidation catalysts. Kin.i kat. 3 no.2:181-188 Mr-Ap '62. (MIRA 15:11)

1. Institut khimicheskoy fiziki AN SSSR.
(Hydrocarbons) (Oxidation) (Catalysts)

SUMIN, Ivan Petrovich; KUSHNEROV, Petr Ivanovich; KOS'YANENKO, Filipp Ivanovich; OKHRIMENKO, V.A., otv. red.; BERESLAVSKAYA, L.Sh., tekhn. red.

[Using the long hole method for coal breakage in the Kuznetsk Basin mines] Primenenie dlinnoshpurovogo sposoba otboiki uglia na shakhtakh Kuzbassa. Moskva, Gos.nauchno-tekhn.izd-vo litry po gornomu delu, 1960. 24 p. (MIRA 15:1)
(Kuznetsk Basin—Coal mines and mining)

POLESHCHUK,V.Ye., kand. istoricheskikh nauk, dotsent, mayor; KUSHNEROV,P.I., podpolkovnik; YAKOVLEV,V.N., kapitan 2-go ranga; DMITRIYEV,V.A., kapitan 3-go ranga; UFIMTSEV,L.Ya.,red.; MIRKISHIYEVA,S., tekhn.red.

[The fighting and revolutionary traditions of the sailors of the Red Banner Caspian Fleet] Boevye i revoliutsionnye traditsii moriakov Krasnoznamennoi Kaspiiskoi flotilii. Baku, Azerbaidzhanskoe gos. izd-vo, 1960. 178 p. (MIRA 14:5)
(Russia--Navy)

KUSHNEROV, V., inzh.; PINAYEV, I., inzh.

Elastic jointless crane tracks. Prom. stroi. i inzh. soor. 5 no.2:50-52 Mr-Ap '63. (MIRA 16:4)
(Cranes, derricks, etc.—Equipment and supplies)

LYAKHOV, P.A.; GENERALOV, G.S.; KLOCHKOVA, N.D.; KUNIN, L.Ye.; KUSHNEROV, V.A.; ROVENSKIY, I.I.

Addition of pyrite cinder to the agglomeration charge.
Obog. rud. 3 no.3:24-25 '58. (MIRA 12:1)
(Sintering) (Pyrites)

KUSHNEROVA, T.P.; SEMENCHUK, D.I., glavnyy red.

[Role of business accounting in the struggle for the profitableness of socialist industrial enterprises] Hosprozrakhunok u borot'bi za rentabel'nist' sotsialistychnykh promyslovykh pidpriiemstv. Kyiv, 1959. 44 p. (Tovarystvo dlia poshyrennia politychnykh znan' URSR. Ser.2, no.7) (MIRA 12:10)
(Accounting)

RAZUMOVICH, M.B., kand. biol. nauk,; KUSHNERUK, A.G.,; MIKHNYUK, N.F.

Medicinal properties of phytoncides. Zhivotnovodstvo 20 no. 7:43-45 Jl '58. (MIRA 11:8)

1. Zhivotnovod kolkhoza "Molodaya gvardiya," Brestskogo rayona, Brestskoy oblasti (for Kushneruk). 2. Direktor shkoly Berestovitskogo rayona, Grodnenskoy oblasti (for Mikhnyuk).
(Phytoncides)
(Calves--Feeding and feeding stuffs)

KUSHNERUK, S. (UA6KJH)

Short and ultrashort radio waves. Radio no.3:14 Mr '65.
(MIRA 18:6)

KUSHNERUK, V.V., agronom

Increase the production of buckwheat. Zemledelie 7 no.11:79-82 N '59
(Buckwheat) (MIRA 13:3)

KUSHNEV, A.P.; MURAV'YEV, B.V., kand. arkhitektury, nauchnyy red.; ZHURAVSKIY, N.A., red.; VORONETSKAYA, L.V., tekhn. red.

[Designing buildings for districts of the Far North] Proektirovanie zdanii dlia raionov Krainego Severa. Leningrad, Gos.izdvo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 194 p. (MIRA 15:1)

(Russia, Northern—Building)

KIM, M.V.; BITADZE, M.A.; YERMILOV, B.F.; ZYDEL', A.I.; KUSHNEV, A.P.; LAZAREV, N.N.; MIKAV'YEV, D.M.; BONDAREV, P.D., kand. tekhn. nauk, nauchnyy red.; OSENKO, L.M., red.izd-va; RODIONOVA, V.M., tekhn.red.

[Erection of foundations under permafrost conditions; from practice used in the Norilsk region] Vozvedenie fundamentov v usloviiakh vechnomerzlykh gruntov; iz opyta Noril'skogo raiona. Moskva, Gosstroiizdat, 1962. 53 p. (MIRA 15:9)

1. Russia (1917- R.S.F.S.R.) Krasnoyarskiy ekonomicheskiy administrativnyy rayon. Sovet narodnogo khozyaystva.
(Foundations) (Noril'sk—Frozen ground)

KUSHNEV, Yu.I.

Effect of psychic trauma on the course of dermatologic processes. Vest. derm. i ven. no.4:20-25 Ap '63. (MIRA 17:5)

1. Kafedra kozhnykh bolezney (zav. - chlen-korrespondent AMN SSSR prof. P.V. Kozhevnikov) Leningradskogo instituta usovershenstvovaniya vrachey imeni S.M. Kirova.

KUSHNEV, Yu.A.

Permeability of the skin to iodine. Vest.derm.i ven. no.9:11-15 '61. (MIRA 15:5)

1. Respublikanskiy kozhno-venerologicheskiy institut (Leningrad)
(IODINE) (SKIN--PERMEABILITY)

KUSHNEV, Yu.A.

Psychosomatic trend in modern foreign dermatology. Critical review of the literature. Vest.derm.i ven. 35 no.4:8-12 Ap '61. (MIRA 14:5)

1. Iz kafedry kozhnykh bolezney (zav. - chlen-korrespondent AMN SSSR prof. P.V. Kozhevnikov) Gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M. Kirova (dir. - dotsent A.Ye. Kiseleva).
(DERMATOLOGY) (MEDICINE, PSYCHOSOMATIC)

KLIMOV, K.V.; LEVINA, TS.M.; KUSHNEVA, T.N.

Determination of the sensitivity of dysentery bacilli to antibiotics of the tetracycline group using the diffusion in the agar method. Antibiotiki 10 no.6:544-546 Je '65. (MIRA 18:7)

1. Kafedra infektsionnykh bolezney (zav. - prof. V.M. Domrachev) Krymskogo meditsinskogo instituta i 2-ya gorodskaya Bol'nitsa, Simferopol'.

ALEKSANDROVA, M.F.; KUSHNEVA, V.S.

Restoration of hemopoiesis in dogs following chronic γ-irradiation and exposure to Sr^{90}. Radiobiologiia 5 no.2:202-206 '65. (MIRA 18:12)

KUSHNEVA, V.S. (Moskva)

Combined effect of quartz dust and radon in an experiment.
Gig. truda i prof. zab. 4 no.1:22-28 Ja '60. (MIRA 15:3)
(LUNGS--DUST DISEASES) (RADON--PHYSIOLOGICAL EFFECT)
(QUARTZ--PHYSIOLOGICAL EFFECT)

L 13810-63 EWT(1)/EWT(m)/EDS/ES(b) AMD/AFFTC/ASD AR/K
ACCESSION NR: AP3003927 S/0205/63/003/004/0523/0528

AUTHOR: Aleksandrova, M. F.; Kushneva, V. S. 56

TITLE: Combined effect of small doses of external gamma irradiation and strontium 90 on the hematopoiesis of dogs

SOURCE: Radiobiologiya, v. 3, no. 4, 1963, 523-528

TOPIC TAGS: gamma irradiation, strontium 90, hematopoiesis, erythrocyte, reticulocyte, granulocyte, neutrophil, erythroblast, leucoerythroblastic index

ABSTRACT: A study of the combined effect of small doses of γ-irradiation and Sr^{90} on the hematopoiesis of dogs was conducted with three groups of mongrel dogs (a total of 17) weighing 9 to 16 kg. Two dogs served as controls. Group I was subjected to γ-irradiation with daily doses of 5 r from a GUP-Co^{60}-5 apparatus at 1.67 r/hr for 3 hr. The cumulative dose amounted to 3855 rad at the end of the experiment, which lasted three years. Group II was injected with Sr^{90} (11.2 μc/kg for 35 days, followed by 1 μc/kg every two weeks); by the end of the experiment the cumulative dose amounted to about 508 rad, which was more than 100 times the maximum permissible dose. The dogs in group III received half

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the above doses of external and internal radiation. Clinical examination showed that, in appearance, test animals subjected to the prolonged combined action of γ-rays and Sr^{90} (for 3 years) differed very little from the controls. Investigation of the peripheral blood and bone marrow, however, revealed significant disturbances in the hematopoiesis of all tested animals. In group I (external irradiation) the number of erythroblasts was normal or slightly higher than normal throughout the experiment. This probably was due to the discontinuity of irradiation, which was beneficial to the development of regenerative processes in the organism. A marked depression in the formation of red blood cells was observed in group II four months after the initial injection. However, the erythrocyte content of the peripheral blood showed only slight variations. After 12 to 15 months, the number of reticulocytes in group II increased by 200 to 325% of the initial, after which the erythrocyte level increased by some 600,000. The number of granulocytes decreased to 60% of the normal. The number of neutrophils in the peripheral blood decreased by 40% after two months and remained low throughout the experiment. The experimental data show that the external irradiation brought about a disturbance in the correlation between erythro- and leucopoiesis which was manifested in increased erythropoiesis simultaneously with the inhibition of granulopoiesis. The initial leucoerythroblastic index

L 13810-63
ACCESSION NR: AP3003927

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(1.9 to 2.0) decreased to 0.9 to 1.0 four months after the beginning of the experiment. Orig. art. has: 1 table and 2 figures.

ASSOCIATION: none

SUBMITTED: 17May62 DATE ACQ: 15Aug63 ENCL: 00

SUB CODE: AM NO REF SOV: 001 OTHER: 002

Card 3/3

L 34924-65

ACCESSION NR: AT5006112 S/0000/64/000/000/0112/0116

AUTHOR: Kushneva, V. S. 12 B+1

TITLE: Accumulation of strontium-90 in the skeleton of dogs after chronic administration of the isotope

SOURCE: Raspredeleniye, biologicheskoye deystviye, uskoreniye vyvedeniya radioaktivnykh izotopov (Distribution, biological effect, acceleration of the excretion of radioactive isotopes); sbornik rabot. Moscow, Izd-vo Meditsina, 1964, 112-116

TOPIC TAGS: strontium-90, radioisotope, radiation measurement, bone, radioactivity

ABSTRACT: Study of the dynamics and extent of Sr^{90} accumulation in vivo and evaluation of absorbed doses in dogs after prolonged chronic uptake of the isotope with food. After 3 years of ingesting Sr^{90} (at first 11.2 μc/kg, then 35 days later 1 μc/kg was regularly added every 2 weeks), the experimental animals differed very little from the control in outward appearance, but several of the bodily systems were impaired, especially the hematopoietic organs. Radiometry of tail vertebrae amputated 2, 6, 19, 24, 30, and 36 months after the start of the experiment revealed the presence of strontium in the bones. The rate of deposition seemed to be constant. But the concentration of the isotope was not the same in different parts of

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L 34924-65

ACCESSION NR: AT5006112

the skeleton. The differential accumulation factor ranged from 40-5. The correlations established between the concentrations of activity in the tail vertebrae and in other parts of the skeleton can be used for in vivo evaluation of tissue doses of radiation in various parts of the skeleton of animals chronically exposed to Sr^{90}. They are also of value in determining the average amount of strontium throughout the body. Orig. art. has 2 tables.

ASSOCIATION: none

SUBMITTED: 10Apr64 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 000

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L 53975-65
ACCESSION NR: AP5010337 UR/0205/65/005/002/0202/0206

AUTHOR: Aleksandrova, M. F.; Kushneva, V. S. 4/8

TITLE: Restoration of hemopoiesis in dogs following chronic gamma-irradiation and strontium-90 administration

SOURCE: Radiobiologiya, v. 5, no. 2, 1965, 202-206

TOPIC TAGS: animal, dog, chronic irradiation exposure, gamma-irradiation, strontium-90, fractional radiation dose, irradiation effect, hemopoiesis, erythropoiesis, bone marrow, peripheral blood

ABSTRACT: Restoration of hemopoiesis was investigated in 3 groups of dogs under the following conditions: external gamma-irradiation with a daily 5 r dose for 36 mos (group 1); administration of strontium-90 per os in a dose of 11.2 microcuries/kg and 35 days later administration of a 1 microcurie/kg dose every 2 weeks for 36 mos (group 2); and, gamma-irradiation combined with strontium-90, in doses comprising 0.5 of the doses administered to groups 1 and 2, for 36 mos (group 3). Erythropoiesis of bone marrow and peripheral blood changes were

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determined monthly over a period of 36 to 49 mos. Additional investigations were carried out to determine the functional state of bone marrow after 36 mos of irradiation. Campolon (1 ml) was administered to 4 control animals and to 15 of the experimental animals and then leukocyte counts (total number and percentage of each type) were made for the first 6 hrs and after 24 hrs. Findings show that prolonged action of small doses of external gamma-irradiation depresses hemopoiesis, reducing the erythroblast and granulocyte counts of bone marrow by 40-60%. Leukopenia and thrombopenia develop in the peripheral blood. Restoration of hemopoiesis proceeds very slowly, and even a year after discontinuation of irradiation, bone marrow and peripheral blood composition are only partially normalized. Prolonged external gamma-irradiation or strontium-90 administration in equivalent doses produces certain differences in hemopoiesis: a) with strontium-90 administration, the restoration of certain indices (erythroblasts, thrombocytes, and monocytes) is retarded; and, b) with external gamma-irradiation, restoration of erythroblasts in the bone marrow takes place much earlier, but is unstable. Serious functional damage of hemopoiesis was disclosed by leukocyte counts following campolon administration. No further analysis of results is

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ACCESSION NR: AP5010337

presented at this time. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: None.

SUBMITTED: 06May63 ENCL: 00 SUB CODE: LS

NR REF SOV: 007 OTHER: 000

Card 3/3

KUSHNIKOV, A.

Sericulture - Chuvash

Raising silkworms on oak. Kolkh proizv., 12, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952, Uncl.

BURGVITS, G.A., inzh.; DIANOV, I.M., inzh.; KUSHNIKOV, B.D., inzh.;
LAZAREV, Yu.G., inzh.; KEMDYS', P.N., kand.tekhn.nauk

Use of high-speed shaft mills for coal crushing. Energomashinostroenie 7 no.10:19-22 O '61. (MIRA 14:10)
(Coal, Pulverized) (Boilers--Firing)

COUNTRY: USSR

ABS. JOUR: Ref Zhur-Biologiya, No.1, 1959, No. 1505

AUTHOR: Kushnikov, M.; Gavrilov, A.

TITLE: Collection of Seeds of Yellow Pine.

ORIG. PUB.: [illegible], 1958, No.[illegible], 70-[illegible]

ABSTRACT: No abstract

CARD: 1/1

KUSHNIR, A.

Radio - Receivers and Reception

Control of timbre in the "Rekord" receiver. Radio No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

KUSHNIR, A.I. [Kushnyr, A.I.]; KAZIMIRCHUK, Yu.A.[Kazymyrchuk, IU.A.]; GLOVATSKIY, S.M.[Hlovatskyi, S.M.]; KLYATSKIY, T A.[Kliats'kyi, T.A.], red.; KALASHNIKOVA, O.G.[Kalashnykova, O.H.], tekhn. red.

[How we control soil erosion] Iak my boremosia z eroziieiu gruntiv. Kyiv, Derzh. vyd-vo sil's'konospodars'koi lit-ry URSR, 1961. 12 p. (MIRA 15:3)
(Ukraine--Soil conservation)

KUSHNIR, A. S.

Nurses and Nursing

Basic rules for the general care of patients. Reviewed by A. S. Kushnir. Med. sestra no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

1. KUSHNIR A. S.

2. USSR (600)

4. Nurses and Nursing

7. Conducting practical training in therapeutics in schools for nurses; from work experience in schools for nurses. Med. sestra No. 11 . 1952

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

KUSHNIR, B.G., gornyy inzh.; DUNAYEVSKIY, P.V., gornyy inzh.

Lvov-Volyn Basin in the seven-year plan. Ugol' Ukr. 3 no.8:9-10 Ag '59. (MIRA 12:12)
(Lvov-Volyn Basin--Coal mines and mining)

KUSHNIR, D. M.

KUSHNIR, D. M. "The clinical characteristics of typhus in vaccinated persons", Trudy Kishinevsk. gos. med. in-ta, Vol. 1, 1949, p. 101-06.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh Statey No. 11, 1949)

USSR/Physics Jul/Aug 48
Spectrum Analysis
Multiplets

"Separation of the 2536.5 Angstrom Line and Formation of Quasi-Molecules in Mercury-Molecular Gas Systems," Yu. A. Kushnikov, Siberian Physicotech Inst, Tomsk State U imeni V. V. Kuybyshev, 5 pp

"Iz Ak Nauk SSSR, Ser Fiz" Vol XII, No 4

Obtained spectra emitted by Hg atoms in presence of foreign molecular gases. Used molecular gases with different dipole moments (A_r, H_2, CO, H_2O, N_2, O_2) to observe the influence of the form and magnitude of interaction upon the nature of changes in spectrum.

53/49T104

USSR/Physics (Contd) Jul/Aug 48

Found splitting of the mercury line (2536.5 angstroms) in mixtures of Hg with Ar and N_2. Multiplet separation was not observed in mixtures of Hg with O_2 and H_2.

53/49T104

KUSHNIKOV, YU. A.

PA 53/49T104

KUSHNIKOV, Yu.A.

USSR/Physics - Absorption spectra

Card 1/1 Pub. 43 - 14/97

Authors : Kushnikov, Yu. A.

Title : Effect of nitrogen on the absorption spectrum of mercury vapors

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 252-253, Mar-Apr 1954

Abstract : The absorption spectrum of mercury vapors was experimentally investigated in a mixture with N at a mercury pressure of 1 - 2 mm and nitrogen pressure of 200 - 700 mm of mercury column at temperatures ranging from 200 - 260° and 1100 - 1300° C. In addition to the absorption of the Hg atoms, which were in a state of collision with the N_2 molecules (quasi-molecules), the author also observed the absorption of H_g atoms forming stable H_gN_2 complexes (van der Waals molecules). The concentrations of above mentioned and other Hg atoms were theoretically calculated.

Institution : Academy of Sciences Kaz-SSR, Institute of Chemical Sciences

Submitted : .....

24(7) PHASE I BOOK EXPLOITATION SOV/1700

Lvov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956.
t. III: Atomnaya spektroskopiya (Materials of the 10th All-Union Conference on Spectroscopy, 1956. Vol 2: Atomic Spectroscopy)
Lvov, Izd-vo L'vovskogo univ., 1958. 568 p. (Series: Its: Trudy, [no.] 45) Errata slip inserted. 3,000 copies printed.

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po spektroskopii.

Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.P. Moyseyenk, Doctor of Physical and Mathematical Sciences; I.I. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical and Mathematical Sciences; V.G. Koritskiy, Candidate of Technical Sciences; S.M. Mayskiy, Candidate of Physical and Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Mathematical Sciences; V.S. Milyanchuk (Deceased), Doctor of Physical and Mathematical Sciences; A.Ye. Gluzberman, Doctor of Physical and Mathematical Sciences; M.I. S.L. Gurar; Tech. Ed.: T.V. Zaranyuk.

PURPOSE: This book is intended for scientists and researchers in the field of spectroscopy, as well as for technical personnel using spectrum analysis in various industries.

COVERAGE: This volume contains 177 scientific and technical studies of atomic spectrography presented at the 10th All-Union Conference on Spectroscopy in 1956. The studies were carried out by members of scientific and technical institutes and include extensive bibliographies of Soviet and other sources. The studies cover many phases of spectroscopy: spectra of rare earths, electromagnetic radiation, physicochemical methods for controlling uranium production, physics and technology of gas discharge, optics and spectroscopy, abnormal dispersion in metal vapors, spectroscopy and the combustion theory, spectrum analysis of ores and minerals, photographic methods for quantitative spectrum analysis of metals and alloys, spectral determination of the hydrogen content of metals by means of isotopes, tables, and atlases of spectral lines, spark spectrographic analysis, statistical study of variation in the parameters of calibration curves, determination of traces of metals, spectrum analysis in metallurgy, thermochemistry in metallurgy, and principles and practice of spectrochemical analysis.

Card 2/31

Contents of the 10th All-Union Conference (Cont.) SOV/1700

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Card 12/31

KUSHNIKOV, Yu.A.; LEVCHENKO, L.V.

Effect of properties of the sovent on the Raman spectra line intensities of a solute. Izv. AN Kazakh. SSR. Ser.khim, no.1: 121-123 '58. (MIRA 12:2)

(Solution (Chemistry)--Spectra)

ALEKSEYEVA, A.I.; GRINMAN, I.G.; KALININ, S.K.; KUSHNIKOV, Ya.A.; MARZUVANOV, V.L.; FRISH, S.E., prof., red.; SUVOROVA, R.I., red.; ROROKINA, Z.P., tekhn.red.

[Spectral lines of mercury] Atlas spektra rtuti. Alma-Ata, 1959. 6 p. (MIRA 12:10)

1. Akademiya nauk Kazakhskoy SSR. 2. Chlen-korrespondent AN SSSR (for Frish).
(Mercury--Spectrum)

ALEKSEYEVA, A.I.; GRINMAN, I.G.; KALININ, S.K.; KUSHNIKOV, Yu.A.; MARZUVANOV, V.L.; FRISH, S.E., prof.,red.; SUVOROVA, R.I., red.; RUROKINA, Z.P., tekhn.red.

[Atlas of the spectrum of mercury] Atlas spektra rtuti. Alma-Ata, 1959. 1 v. (MIRA 14:1)

1. Akademiya nauk Kazakhskoy SSR. Fiziko-tekhnicheskiy institut.
2. Chlen-korrespondent AN SSSR (for Frish).
(Mercury--Spectra)

KRASNOMOLOVA, L.P.; KUSHNIKOV, Yu.A.; LEVCHENKO, L.V.

Intensity of the elctronic absorption spectra of solutions of carbonyl compounds. Izv.AN Kazakh.SSR.Ser.khim. no.1:55-61 '59. (MIRA 13:6)

(Carbonyl compounds--Spectra)

S/081/62/000/002/003/107
B149/B108

AUTHORS: Kushnikov, Yu. A., Levchenko, L. V., Krasnomolova, L. P.

TITLE: Intensity of the C=O line combination scattering spectra of aliphatic compounds

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 18-19, abstract 2B95, (Izv. AN KazSSR. Ser. khim. no. 1(19), 1961, 68-74)

TEXT: The intensity of C=O lines has been measured in the combination dispersion spectra of ketonic aliphatic compounds dissolved in n-heptane. It was found that the intensity of the C=O lines depends on the direction of the displacement of the carbonyl bond electrons, resulting from the induction effect and the conjugation effect, in such a way that enrichment in electrons of the C=O bond is accompanied by increased intensity of its lines. An increase in intensity also occurs in the presence of strong electronegative substituents through the displacement of the non-bonding electrons of the carbonyl oxygen toward the carbonyl bond. [Abstracter's note: Complete translation.]

Card 1/1

L 21341-65 EWT(m)/EWP(j)/T Pc-4 BSD/SSD/AFWL/APGC(b)/ESD(gs)/ESD(t)
RWH/RM

ACCESSION NR: AT5001011 S/2850/64/011/000/0104/0107

AUTHOR: Lyubman, N.Ya., Agashkin, O.V., Kushnikov, Yu.A., Kartseva, I.I., Shostak, F.T., Imangaziyeva, G.K. 87

TITLE: Membranes based on styrene-formadehyde resins. Part 2. A study of the structure of styrene-formaldehyde resins by infrared spectroscopy

SOURCE: AN KazSSR. Institut khimicheskikh nauk. Trudy, v. 11, 1964. Sintez i issledovaniye vysokomolekulyarnykh soyedineniy (Synthesis and research of high-molecular compounds), 104-107

TOPIC TAGS: styrene formaldehyde resin, polystyrene membrane, infrared spectroscopy, polymer composition, styrene polymerization

ABSTRACT: Styrene-formaldehyde resins were prepared by a method described in the first part of the paper (Izv. AN KazSSR, Seriya Khim. i Tekhn. Nauk (1963), #3), involving condensation in the presence of 45% sulfuric acid and when 0.5:1 to 3:1 molar ratios of formaldehyde to styrene; they were analyzed by infrared spectroscopy of the membranes or their solutions in carbon tetrachloride. The spectra shown in Fig. 1 of the Enclosure proved the absence of vinyl groups; thus, the reaction proceeds with the participation and

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L 21341-65
ACCESSION NR: AT5001011

elimination of double bonds in the styrene chain. Oxygen is bonded into ether and acetal groups, and the length of the acetal chain increases with the feed concentration of formaldehyde. Aromatic rings do not form a part of the linear chain, whose terminals are formed by hydroxyl and methyl groups. Ketone groups are present, but the low intensity of the corresponding bands indicates a low concentration. Selected structures for the chain of styrene formaldehyde resins are proposed. Elemental composition, molecular weight, specific gravity, and refractive index of the studied specimens were determined and tabulated. Orig. art. has: 2 tables, 1 figure, and 4 formulas.

ASSOCIATION: Institut khimicheskikh nauk, Akademiya nauk Kazakhskoy SSR (Institute of Chemical Sciences, Academy of Sciences of the Kazakh SSR)

SUBMITTED: 00 ENCL: 01 SUB CODE: MM

NO REF SOV: 002 OTHER: 000

Card 2/3

KIR'YAKOV, Gleb Zakharovich; PONOMAREV, V.D., akademik, retsenzent; SONGINA, O.A., doktor khim. nauk, retsenzent; KABANOV, B.N., doktor khim. nauk, retsenzent; KUSHNIKOV, Yu.A., kand. khim. nauk, retsenzent; ILYUSHCHENKO, V.M., kand. khim. nauk, retsenzent; KOZIN, L.F., kand. khim. nauk, otv. red.; IVANOVA, E.I., red.

[Electrode processes in sulfuric acid solutions of zinc] Elektrodnye protsessy v sernokislykh rastvorakh tsinka. Alma-Ata, Nauka, 1964. 186 p. (MIRA 17:12)

1. Akademiya nauk Kaz.SSR (for Ponomarev).

81508

SOV/137-59-5-10745

18.1220

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 183 (USSR)

AUTHORS: Turkin, V.D., Kushnikova, L.K.

TITLE: Investigation Into Alloys of the Copper-Manganese-Silicon System

PERIODICAL: Sb. nauchn. tr. Nauchno-tekhn. o-vo tsvetn. metallurgii, Mosk. in-t tsvetn. met. i zolota, 1958, Nr 29, pp 18 - 25

ABSTRACT: The authors investigated Cu alloys with 1 - 12% Mn and 1 - 4% Si. At 730° - 750°C the Cu alloys were suitable for forgings. Isothermic and polythermic cross sections of structural diagrams were plotted. Two phases were revealed: the α solid solution of Mn and Si in Cu and the β -phase (possibly Mn_5Si_3). Part of the Cu alloys, quench-hardened at 900°C, had a liquid phase. It was established that the solubility of Mn and Si changed sharply with changing temperatures. As a result of investigations Cu alloys were selected adopting a high hardness after quench-hardening at 800°C and tempering at 400°C. In quench-hardened

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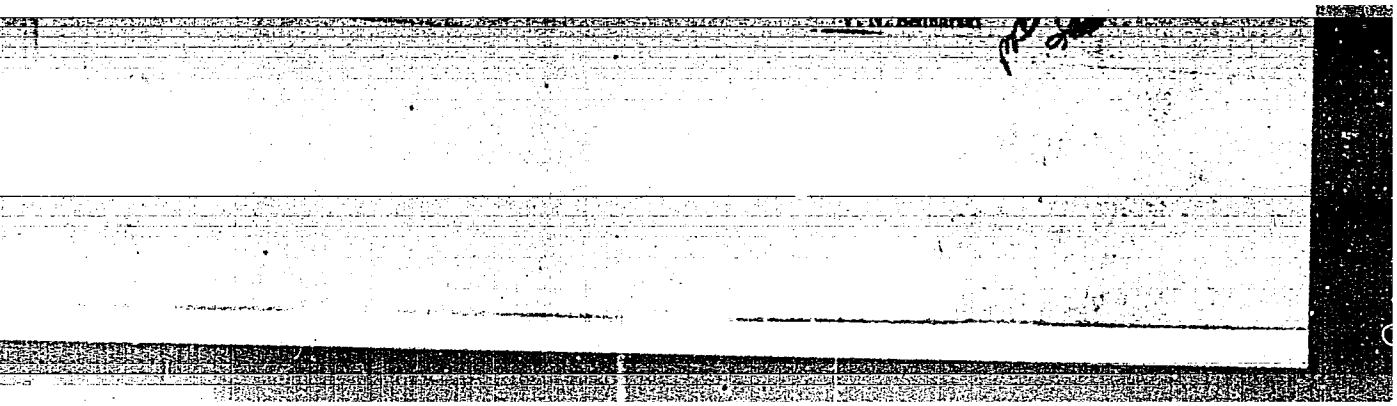
SOV/137-59-5-10745

Investigation Into Alloys of the Copper-Manganese-Silicon System

state the Cu alloys are very ductile (δ 35 - 50%), they have satisfactory strength after tempering (σ 60 - 70 kg/mm^2). Cu alloys may replace Sn-bronzes and some Ni containing bronzes.

A.P.

Card 2/2



APPROVED FOR RELEASE: 03/13/2001 CIA-RDP86-00513R000927820020-1"

KUSHNIKOVA, V. G.

5

Kinetics of formation of sulfide films on the surface of oxidized minerals of heavy metals in flotation. S. I. Mitrofanov, L. A. Strigin, V. G. Kushnikova, and G. S. Rozhavskii. *Colloid J.* (U.S.S.R.), 17, 216–21 (1955) (Engl. translation).—See *C.A.* 49, 13849d. H. L. H.

(3)

Kushnikova, V. G.

Kinetics of formation of sulfide films on the surface of oxidized minerals of heavy metals in flotation. S. I. Mitrofanov, I. A. Strigin, V. G. Kushnikova, and G. S. Rozanov-skii (State Sci. Research Inst. Non-Ferrous Metals, Moscow). *Kolloid. Zhur.* 17, 235-41(1955).—The uptake Γ (because of ion exchange) of $S^{=}$ from a soln. of Na_2S by cerussite (I), malachite (II), and chrysocolla (III) increased with time t and concn. c of Na_2S according to $\Gamma = at^n$ and $\Gamma = bc^n$, when t was 10–300 sec., c was 0.02–0.6 g./l., and Γ was less than 20 mg./g. For I, m and n usually were = 0.5, i.e. the rate of sulfide film formation was detd. by diffusion; only at low temp. and low c, m was about 0.3, i.e. was detd. by chem. reaction. The rate $d\Gamma/dt$ was greater the higher the temp., and the apparent rate of activation was 4500 and 6000 cal./mole for I and II, resp., between 4° and 30°. The Γ on I had a max. near pH 9.5, presumably because of formation of colloidal PbS at higher pH, while Γ on II and III decreased when pH increased from 8 to 11. The sulfide film on I was gradually removed by agitation in tap water, more at pH 8 than at pH 10, and especially when the liquid contained quartz sand. The amt. of S taken up by 1 sq. cm. of II or III in the usual conditions of flotation was 0.013 and 0.002 mg., resp. J. J. Bikerman

(3)

SOV/136-58-6-11/21

AUTHORS: Mitrofanov, S.I. and Kushnikova, V.G.

TITLE: Kinetics of the Sulphidisation of Smithsonite and Calamine and Collector Adsorption on their Surface (Kinetika sul'fidizatsii Smitsonita i kalamina i adsorbtsii sobiratelya na ikh poverkhnosti)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 6, pp 62 - 65 (USSR)

ABSTRACT: The conditions for the sulphidizing of the important oxidising zinc minerals smithsonite and calamine, respectively, from the Tetyukhinskoye and Tayninskoye deposits, and the adsorption on them of collectors has been studied by the authors with the aid of radioactive isotopes (S^{35} and P^{32}). The minerals were ground and the -0.3 + 0.15 mm fraction screened out. 10 ml of a sodium sulphide (sulphate-free) solution containing S^{35} were taken with 0.5 g of mineral for the sulphidisation experiments, the radioactivity of the solid separated after a given time and washed under standard conditions being determined. The effects on sulphide adsorption of its initial concentration (Figure 1), of pH (Figure 2) of mixing time at different temperatures (10 to 67 °C)

Card1/3

(Figure 3) were studied as well as the influence of potassium-xanthate concentration on its adsorption on calamine for various states of sulphidisation and activation (Figure 4). Tests on adsorption were also carried out, showing the influence of pH on the recovery of calamine in the concentrate and adsorption of butyl xanthate on it (Figure 5), of mixing time at various temperatures (Figure 6). Comparison of the curves shows a parallelism between amenability to flotation of the minerals and adsorption of the collector, especially evident with simultaneous action of a depressor for a constant consumption of collector (Figure 7); the range of parallelism otherwise is limited (Figure 8). The authors' give equations for the growth of the sulphide film and the adsorption covering by diethyldithiophosphate and xanthate on the minerals. The apparent activation energy for the sulphidisation of calamine and smithsonite are given as 5540 and 3880 cal, and that for the adsorption of dithiophosphate and isoamyl xanthate 2400 cal.

Kinetics of the Sulphidisation of Smithsonite and Calamine and Collector Adsorption on their Surface SOV/136-58-6-11/21

Sulphidisation lowers the adsorption of xanthate on calamine; adsorption of collector rises sharply on calamine and smithsonite after activation by copper sulphate, especially after sulphidisation before activation; however, elevation of the concentration above a certain level lowers the adsorption of collector. There are 8 figures and 2 Soviet references.

ASSOCIATION: Gintsvetmet

Card 3/3

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Adsorption of diethyl dithiophosphate and butyl xanthate on the surface of sulfides in an acid medium. Sbor.nauch.trud.GINTSVETMET no.16:9-24 '59. (MIRA 14:4)
(Adsorption) (Flotation--Equipment and supplies)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Adsorption of butyl xanthate on pyrrhotine. Sbor.nauch.trud. GINTSVETMET no.16:25-32 '59. (MIRA 14:4)
(Flotation--Equipment and supplies) (Adsorption)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Studying the sulfidization of oxidized zinc minerals not readily processes by flotation. Sbor.nauch.trud.GINTSVETMET no.16:33-40 '59. (MIRA 14:4)

(Flotation) (Zinc ores)

MITROFANOV, S.A.; KUSHNIKOVA, V.G.

Collector adsorption on smithsonite and calamine. Sbor.nauch.trud. GINTSVETMET no.16:41-49 '59. (MIRA 14:4)
(Adsorption) (Zinc ores)

KUSHNIKOVA, V.G.

Studying thefloatability of smithsonite and calamine. Sbor.nauch. trud.GINTSVETMET no.16:50-62 '59. (MIRA 14:4)
(Flotation) (Zinc ores)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Effect of pH on the adsorption of tridecylamine on minerals.
TSvet. met. 33 no.10:1-4 O '60. (MIRA 13:10)
(Flotation--Equipment and supplies)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Effect of the liquid to solid ratio on the adsorption of butyl xanthate on sulfides. TSvet. met. 34 no. 4:67-68 Ap '61. (MIRA 14:4)

(Flotation--Equipment and supplies) (Adsorption)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.; Prinimal uchastiye: GAYDARZHIYEV, S.S., inzh.

Effect of temperature on the adsorption of tridecylamine on smithsonite and other minerals. TSvet. met. 34 no.11:17-19 N '61. (MIRA 14:11)

(Flotation--Equipment and supplies)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Adsorption and desorption of tridecylamine on quartz in connection with its floatability. Gor. zhur. no.3:79 Mr '62. (MIRA 15:7)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut tsvetnykh metallov, Moskva.
(Quartz) (Flotation--Equipment and supplies) (Adsorption)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Effect of the xanthate chain length on the kinetics of its adsorption on the surface of pyrite, chalcopyrite, and galenite and its desorption by sodium sulfide. Sbor. nauch. trud. Gintsvetmeta no.19:19-21 '62. (MIRA 16:7)

(Flotation--Equipment and supplies)

KUSHNIKOVA, V.G.; MITROFANOV, S.I.

Collector desorption from mineral surfaces. Sbor. nauch. trud. Gintsvetmeta no.19:22-33 '62. (MIRA 16:7)

(Flotation--Equipment and supplies)

MITROFANOV, S.I.; KUSHNIKOVA, V.G.

Sorption of copper and zinc cations on certain minerals. Sbor. nauch. trud. Gintsvetmeta no.19:34-39 '62. (MIRA 16:7)

(Flotation) (Zinc) (Copper)

KUSHNIKOVA, V.G.; VAN YUN-DE[Wang Yung-tieh]; MITROFANOV, S.I.

Adsorption of sodium diethyl dithiophosphate and copper cation on pyrrhotine. Sbor. nauch. trud. Gintsvetmeta no.19:40-43 '62. (MIRA 16:7)

(Flotation) (Pyrrhotite)

MITROFANOV, S.I.; KOSHELKOVA, V.G.

Sorption of chromium compounds on sulfide minerals during the addition of bichromates. Tsvet. met. 37 no.6:15-17 Je '64.
(MIRA 17:9)

MITROFANOV, S. I.; KUSHNIKOVA, V. G.

"Selective adsorption of tridecylamine on sulfides in relation to their floatability."

report submitted for 7th Intl Mineral Processing Cong, New York, 20-25 Sep 64.

MITROFANOV, S.I. (Moskva); KUSHNIKOVA, V.G. (Moskva)

Effect of potassium bichromate and sodium sulfide on amine adsorption on heavy metal sulfides in connection with their flotability. Izv. AN SSSR. Met. i gor. delo no.5:167-171 S-O '64.

(MIRA 18:1)

KOZLOV, Ya.K., inzh.; SAVIN, G.P., inzh.; KUSHNIKOVA, V.S., inzh.; TONKONOG, V.A.

"Dies for forging and stamping power presses" by D.E. Shaposhnikov. Reviewed by IA. K. Kozlov and others. Vest. mash. 38 no. 6:85-86 Je '58. (MIRA 11:7)

(Dies(Metalworking))

KUSHNIR, A., general-mayor tankovykh voysk

A vast knowledge is needed for instructing and training. Voen. vest. 43 no.10:68-70 O '63. (MIRA 16:12)

ACC NR: AP6032121 (A,N) SOURCE CODE: UR/0346/66/000/010/0036/0038

AUTHOR: Chernyshev, V. V.; Burtsev, V. I.; Kushnir, A. T.; Orlov, V. A.

ORG: none

TITLE: Immunity to plague in weaned piglets vaccinated with an avirulent, dry, vaccine aerosol

SOURCE: Veterinariya, no. 10, 1966, 36-38

TOPIC TAGS: immunity, plague, pig, biologic aerosol, veterinary medicine, vaccine

ABSTRACT: The time required for vaccination to produce effective immunity, and the duration of immunity, were studied in piglets vaccinated against plague with an avirulent, dry, viral vaccine in aerosol. Healthy, two-month-old, weaned piglets, taken from both vaccinated and nonvaccinated sows, were used. Table 1 shows the results of the attempt to infect piglets, some of which were vaccinated by aerosol and some intramuscularly, with plague. The experimental data showed that by far less vaccine is required for aerosol than for intramuscular vaccination, and that immunity develops after, and is effective for, approximately the same periods with both methods. The authors suggest that wide application of this efficient method will save considerable time for veterinary workers.

Card 1/3 UDC:619:616.988.75-097]:636.4

ACC NR: AP6032121

Table 1. Results of attempt to inject piglets vaccinated by aerosol or intramuscularly against plague (virus dose $1 \cdot 10^5$ LD_{50} ml)

Vaccination method	Intramuscular		By aerosol		From nonvaccinated sows
Vaccine dose	1,0		1,0		
Time of infection after vaccination (days)	30	60	30	60	
Result of injection*	0/10	0/10	0/10	0/10	10/10

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Table 1 cont.

Vaccination method	From vaccinated sows	By aerosol...	Intramuscular
Vaccine dose			
Time of infection after vaccination (days)			
Result of injection*			

*Numerator - number of animals falling sick; denominator - number of animals in experiment.

Orig. art. has: 1 table

[WA-50; CBE No. 14]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 005 [EL]

Card 3/3

KUSHNIR, A.Ye.; YEFREMOV, V.P.; BEL'CHINSKIY, V.A.

"Geodesy in construction" by N.K.Farenbrukh. Reviewed by A.E. Kushnir, V.P.Efremov, V.A.Bel'chinskii. Prom.stroi. no.10: 56-3 of cover '62. (MIRA 15:12)

1. Kazgiprotsvetmet.
(Geodesy) (Building)
(Farenbrukh, N.K.)

DROBINSKIY, I.R.; KUSHNIR, D.M.

Results of the parenteral use of tetracyclines in reckettsial and other diseases. Trudy Kish.gos.med.inst. 13:59-69 '60.
(MIRA 16:2)

1. Kafedra infektsionnykh bolezney Kishinevskogo gosudarstvennogo meditsinskogo instituta.
(TETRACYCLINE) (RICKETTSIAL DISEASES)

KUSHNIR, E.A. [Kushnir, IE.A.]

Symbolical methods for the solution of differential equations in the early period of development of their theory. Ist.-mat. zbir. 3:37-49 '62. (MIRA 16:10)

120-2-29/37

AUTHOR: Spivak, G. V., Yurasova, V. Ye., Kushnir, F. F. Prilezhayeva, I. N.

TITLE: Installation for metal etching by means of Ion Bombardment (Ustanovka dlya Travleniya Metallov Ionnoy Bombardirovkoy (UIT-1)).

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, No. 2, pp. 106 - 110 (USSR).

ABSTRACT: Cathode sputtering has lately been widely applied to structure investigation of metals, alloys and dielectrics (Ref. 1). Its advantages compared with chemical plating have been discussed in Reference 2. Technical details of such installations have been described in References 3 and 4. In the present article the authors give the description of the UIT-1 (УИТ-1) installation, thought to be much more efficient than the existing ones, mainly because of the availability of necessary conditions for plating at high temperatures. Similarly to the installation described in Reference 3, the UIT-1 (УИТ-1) permits accelerated sputtering of a particular sample under forced regimes at high potentials and, similarly to that described in Reference 4, permits evaporation in a gaseous stream. Compared with other types, UIT-1 (УИТ-1) has the following advantages. It permits simultaneous sputtering of three

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Installation for Metal Etching by Means of Ion Bombardment.

samples (as compared with one in the installation described in References 3 and 4); this enables rapid evaluation of the best conditions for ion plating. A special arrangement for inserting the heated sample is provided, enabling the temperature to be monitored. The temperature may be varied between 100 and 700°C. It is also possible to plate already plated samples with deposits of quartz or metal without introducing air under the bell-jar thus preventing oxidisation of samples. The general view of the installation is given in Figure 1. It consists of a vacuum system (Fig. 2) and power supplies (Fig. 3). The apparatus for simultaneous plating of three samples is shown in Figure 4. Their shape may be arbitrary, with the maximum dimension of the surface to be plated of 20 x 20mm. For accelerated etching at temperatures near room temperature a special insert is provided at the apex of the glass bell-jar (Fig. 6). It is stressed that UIT-1 (УИТ-1) assures good control of the etching and plating processes and a swift change from one operation to another, e.g. the deposition of quartz or metal films on to a sample may begin one minute after the finish of sputtering; changing of sputtered samples takes no more than 15 minutes.

Installation for Metal Etching by Means of Ion Bombardment. 129-2-29/37

The analysis of the ion bombardment etching and of the applicability of the cathode sputterer to the analysis of the grain boundaries and of the surface relief structures of metals and alloys have been discussed in Reference 2. The following have co-operated with the authors in the design of the device: I.P. Bulanova, A.I. Klenova, A.I. Krokhina, N.A. Pereverzev, V.V. Potekhin and T.F. Filippova. Four photographs and three schematic diagrams are given. There are 5 references, 3 of which are Slavic.

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AUTHORS: Yurasova, V. Ye., Spivak, G. V., Kushnir, F. F. SOV/48-23-6-19/28

TITLE: Methods for the Development of the Structure of Metals and Alloys by Ion-bombardment (Metodika vyyavleniya struktury metallov i splavov ionnoy bombardirovkoy)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 6, pp 744 - 749 (USSR)

ABSTRACT: In the first part of the present paper ion-etching of the granular boundaries and of the structural composition of the alloys are investigated within a large temperature interval. First, the advantages of cathodic spraying as against chemical etching and thermal evaporation in a vacuum are pointed out. One of the most important advantages is the possibility of carrying out structural investigations within a large temperature interval. For visual investigation and for photographing a special attachment was constructed (Fig 1). Seven pictures are then shown of aluminum bronze (Figs 2,3), which were taken after various forms of thermal treatment by ion-spraying and cathodic spraying and 350-fold enlargement. The first series of pictures

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distinctly show the formation of the martensite structure in the three ranges of temperature , whereas the second series shows the structural grains at various temperatures. In the second part of the paper the destruction of the surface of the structural grains of polycrystals or of monocrystals by ion-bombardment is investigated. First, the fact is pointed out that by the investigation of the symmetric indentations our knowledge of the mechanism of cathode-spraying has been extended, and that new possibilities of applying ion bombardment may now be found. It follows from the pictures (Fig 5) that the symmetry of orientated indentations agrees with the orientation of the surface of a monocrystal. In the following, the influence exercised by the increase of ion energy is investigated and explained on the basis of figure 5. The results obtained make it possible to assume that the orientated indentations may form in the course of ion-etching. There are 6 figures and 7 references, 5 of which are Soviet.

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AUTHORS: Spivak, G. V., Kushnir, F. F., and Yurasova, V. Ye.

TITLE: УИТ-3 (UIT-3) installation for etching metals, semiconductors and dielectrics through ion bombardment

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 25 no. 6, 1961, 707 - 712

TEXT: The present paper has been presented at the 3rd All-Union Conference on Electron Microscopy, held in Leningrad from October 24 to 29, 1960. It describes a new model of a technical installation of type УИТ-3 (UIT-3) for etching metals, semiconductors, and dielectrics through ion bombardment. The models UIT-1 and UIT-2 have been described in Refs. 1 and 2 (Spivak G. V., Yurasova V. Ye., Kushnir F. F., Prilezhayeva I. N., Pribory i tekhnika eksperim., № 2, 106 (1957); Yurasova V. Ye., Spivak G. V., Kushnir F. F., Izv. AN SSSR, Ser. Fiz., 23, 744 (1959)). The UIT-3 installation is designed for the following investigations of the surface structure of materials under different conditions: 1) heating of a sputtered specimen not above 1200°C; 2) cooling of the specimen during

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УИТ-3 (UIT-3) installation...

etching with running water; 3) observation of the object surface during sputtering or evaporation by using an optical system with a long focal length; 4) expansion or compression of the specimen during ionic etching or evaporation; 5) application of quartz or metal foils (necessary for the subsequent electron-optical study of the powdered surface) right after ionic etching of the specimens. The UIT-3 installation consists of the following main components: system for generating and measuring the vacuum, feeding device, control console, device for expansion and compression of the specimens, metallographic microscope and a device to sputter and heat the specimens. The vacuum system of UIT-3 is analogous to that of UIT-1. The electric system consists of the following main components: high-tension rectifier for 10 kv and 50 ma; heating current transformer (7 v, 250 a) with a device to transfer the potential either to heat or evaporate the specimen; platinum-platinum-rhodium or chromel-alumel thermo couples with a millivoltmeter for measuring the temperature of the specimen; device for measuring the vacuum and turning on the pumps; interlocks which switch off the high tension when the doors of the installation are opened. Fig. 2 shows a diagram of the UIT-3 installation. The shape of the specimens to be sputtered may be arbitrary if no load is applied. The maximum size of a

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specimen bombarded with ions should not exceed 30 x 30 x 8 mm. When the specimen is heated up to 1200°C it should not be larger than 20 x 20 x 2 mm.

During sputtering a specimen having a maximum cross section of 20 mm^2 and a length of 60 mm can be expanded or compressed under a load of 400 kg. Right after the ionic etching a quartz, metal, or carbon foil can be put on the specimen. The ionic etching may create impressions at the edges of the monocrystals which have the symmetry of these edges. The oriented figures, which are obtained by cathode sputtering and corresponds to the symmetry of the surface where they are located, may be used to determine roughly the indices of simplest crystal edges. The application of ionic etching seems very promising to visualize dislocations, especially for heated specimens if chemical etching cannot be used. There are 4 figures and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

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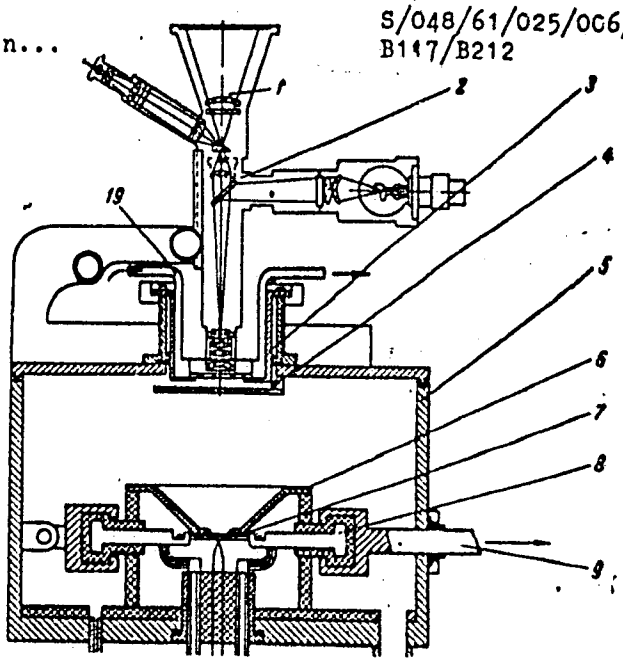

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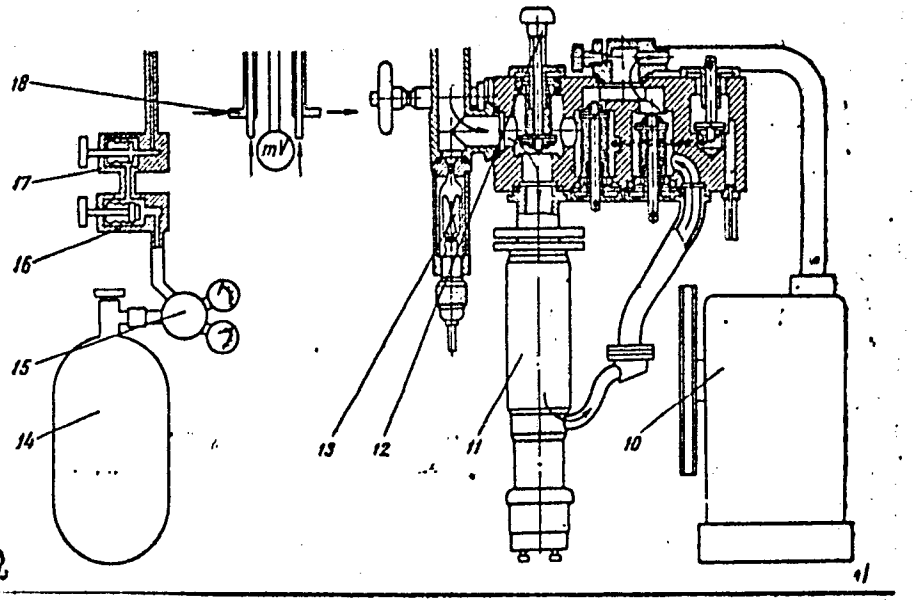

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