MARKELOV, K. D.

6261. Markelov, K. D. Vnutrifabrighnyy khozyaystvennyy raschet-sotsialisticheskiy metod khozyaystvovaniya. (Na materialakh ordena trud. Krasnogo znameni tashk. Tekstil'nogo kombinata im. i.v. stalina). Tashkent, izd.-vo SAGU, 1954. 24s., vklyuch. obl. 22sm. (Akad. nauk uzbek. SSR. in-t ekonomiki). 105 ekz. B.ts.-[54-58191]

SO: Knizhamya Lgtopis' 1,1955

MARKELOV, K.D.

Introduction of business accounting into every workshop at the Tashkent Textile Combine. Trudy SAGU no.75:27-36 '55.
(MLRA 10:5)

(Tashkent--Textile industry--Accounting)

MARKELOV, M., inzhener.

Use of water-resistant glue in the construction of wooden barge hulls. Rech. transp. 14 no.3:24-27 Mr '55. (MLRA 8:5)
(Barges) (Gluing)

84-58-1-8/32

AUTHOR: Markelov, M., Chairman of the Irkutsk Area Economic Council

TITLE: For a Better Servicing of Economic Areas (Polneye udovletvoryat' nuzhdy ekonomicheskogo rayona)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 1, pp 17-18 (USSR)

ABSTRACT: The article is a criticism of air services within the Irkutsk economic area, and an analysis of what a properly organized air transportation service could accomplish in boosting the economic activity of this huge area with its enormous unexploited wealth. The author states that the industrial production of the area has grown forty-fold since the beginning of Soviet rule. A new impetus followed the general reorganization of the industrial and construction administration half a year ago. Great distances and wide dispersion of industries, absence of roads, and a short navigation season on waterways makes the use of air transportation a prime necessity. Reference is made to the Mamsk-Chuysk muscovite mines, whose general administration, local mine administrations and the mines themselves are hundreds of kilometers apart, the mines alone stretching over an area 30-40 km.wide and 150 km.long. The gold mining trust Lenzoloto is another example of the same fact. In process of creation is the Baykal-Cheremkhovo metallurgical area. The Irkutsk and Bratsk power projects, the first of them already partly in operation, as well as several lumber enterprizes are also mentioned. The production of muscovite is scheduled to be doubled within the

Card 1/2

For a Better Servicing of Economic Areas

next few years. At present, 10-14 days are required for the transportation of goods to some of these places, and considerable stores especially of consumer goods must be kept in many places. A more effective air service between the railroad terminal of Ust'Kut and the industries is advocated. The prospect of increased service by the Il-12, Il-14 and the Li-2 aircraft, to be withdrawn from main air arteries is welcomed, but the author contends that even the newest equipment, such as the AN-10, could be efficiently used. Although freight rates on local air routes have been reduced recently, they are still practically prohibitive, so that air transportation is resorted to in cases of extreme necessity. Only 4 percent of total transportation is carried by air. The author uses the contention of major aircraft designers - O. K. Antonov and S. V. Il'yushin that the new turbo-prop airliners are cheaper in operation than piston-engine aircraft, to suggest their use for mass transportation of ores, raw materials and other technical cargo. He refers to the present difficulties in getting the muscovite from the mines to the industries. Pack animals are still in use in some places, especially during the spring and fall slush periods. The author relates the attitude of the Economic Council that the most effective means of transportation of muscovite between the establishments of the Mamslyuda Trust would be the helicopter. The Council has slated for them about 3,000 tons of cargo for this year. A 10 percent increase in air transportation within the area is planned for 1958.

AVAILABLE: Library of Congress
Card 2/2 1. Air transportation - USSR

MARKELOV, M.A., inzhener.

Separate loading of concrete mixers. Stroi.prom. 33 no.3:43-44 Mr '55. (MIRA 8:5)

(Concrete)

KHRUSHCHEV, N.S.; PODGORNYY, N.V.; ZASYAD'KO, A.F.; RUDAKOV, A.P.; KAZANETS, I.P.; SHILIN, A.A.; MEL'NIKOV, N.V.; BURMISTROV, A.A.; SHEVCHENKO, V.V.; MAYAKOV, L.I.; ROZENKO, P.A.; KUZ'MICH, A.S.; ZADEMIDKO, A.N.; BRATCHENKO, B.F.; STRUYEV, A.I.; KRASNIKOVSKIY, G.V.; BOYKO, A.A.; KAGAN, F.Ya.; USKOV, A.A.; VLADYCHENKO, I.M.; TOPCHIYEV, A.V.; DEGTYAREV, V.I.; KHUDOSOVTSEV, N.M.; GRAFOV, L.Ye.; IVANOV, V.A.; KRATENKO, I.M.; GOLUB, A.D.; IVONIN, I.P.; SAVCHENKO, A.A.; ROZHCHENKO, Ye.N.; CHERNEGOV, A.S.; MARKELOV, M.N.; LALAYANTS, A.M.; GAPONENKO, F.T.; POLUEKTOV, I.A.; SKLYAR, D.S.; PONOMARENKO, N.F.; POTAPOV, A.I.; POLYAKOV, N.V.; SUBBOTIN, A.A.; POLSTYANOY, G.N.; TRUKHIN, P.M.; TKACHENKO, A.G.; OSTROVSKIY, S.B.; MYRTSEV, M.P.; DYADYK, I.I.; SHPAN'KO, T.P.; RUBCHENKO, V.P.

Kondrat Ivanovich Pochenkov; obituary. Sov. shakht. 11 no.9: 48 S '62. (MIRA 15:9)

(Pochenkov, Kondrat Ivanovich, 1905-1962)

1. MARKELOV, M. Ya., Eng.

2. USSR (600)

4. Wood - Testing

7. Basic mechanical characteristics of lumber and reinforcing material used in wooden barge constructions. Trudy TsNIRF No. 10, 1951.

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

MARKELOV, M.Ya., inzh.

Using the method of matching the load on cross connections in approximate calculation of horizontal ship bottoms. (MIRA 11:9)
Sudostroenie 24 no.7:4-10 Jl '58.
(Hulls (Naval architecture))

MARKELOV, M.Ya., inzh.

Equipment for testing the watertightness of reinforced concrete ships. Trudy TSNIIRF no.40:119-125 '59. (MIRA 13:6)
(Ships, Concrete--Testing)

MARKELOV, N., agronom

Planting grasses on alpine pastures ("Recommendations on planting grasses on alpine pasture of Tien Shan Province" by A.N.Gusarova). NTO 3 no.3:61 Mr '61. (MIRA 14:3)
(Tien Shan--Pastures and meadows)

BOYENKO, I.D., prof., red.; MARKELOV, N.G., otv. red.; TROITSKIY, S.P., zam. otv. red.; KOZLOV, V.A., red.; CHERNYAYEV, N.V., red.; KONOPLEV, G.M., tekhn. red.

[Treatment at the health resorts of Transbaikalia]Lechenie na kurortakh Zabaikal'ia; sbornik nauchno-prakticheskikh rabot. Pod obshchei red. I.D.Boyenko. Chita, TSentrl kurortnoe upr. Profsoiuzov, No.2. 1960. 162 p. (MIRA 15:12)

1. Nauchno-prakticheskaya konferentsiya vrachey sanitarno-kurortnykh uchrezhdeniy Chitinskogo territorial'nogo upravleniya kurortov, sanatoriyev i domov otdykha. 3d, Darasun, 1959. 2. Zaveduyushchiy kafedroy normal'noy fiziologii Chitinskogo gosudarstvennogo meditsinskogo instituta (for Boyenko). 3. Zaveduyushchiy kafedroy patologicheskoy fiziologii Chitinskogo gosudarstvennogo meditsinskogo instituta (for Kozlov).
(TRANSBAIKALIA—HEALTH RESORTS, WATERING-PLACES, ETC.)

MARKELOV, N., elektromontazhnik

Internal and external potentialities. Grazhd. av. 20 no.10:21 O '63. (MIRA 16:12)

SHURILIN, S. YA., [illegible], N. V.

Karakul Sheep

Introducing cost accounting on karakul farms. Kar. i zver., 5, No. 2, 195?.

MONTHLY LIST OF RUSSIAN ACCESSIONS. Library of Congress, June 195?. UNCLASSIFIED.

MARKELOV, N. V.

665. Operativnyy kontrol' za raboroy material' no otvestvennykh [illegible]its. 2-e dop. i ism. lzd. M., izd-vo tsentrosoyuza, 1954. 28s. 20 sm. (U pomoshch' predsedatelyu pravl sel'po). 50.000 ekz 40K (54-54758) 334.5.078.3

SO: Knizhnaya Letopis', Vol 1, 1955

MARKELOV, Nikolay Viktorovich; ROMANTSOV, Yefrem Dmitriyevich; SEMENOV, Petr Kuz'mich; SOLOMEVICH, F.F., red.; GURVICH, F.G., red.izd-va; FOMICHEV, P.M., tekhn.red.

[Fundamentals of auditing the managerial operations of cooperative society organizations] Osnovy revizii khoziaistvennoi deiatel'nosti organizatsii potrebitel'skoi kooperatsii. Izd.2., ispr. i dop. Moskva, Izd-vo TSentrosoiuza, 1959. 207 p. (MIRA 13:4)
(Cooperative societies--Auditing and inspection)

MARKELOV, P.A.

[Milling machine operator; a manual for new workers] Frezerovshchik; posobie novomu rabochemu. Moskva, Oborongiz, 1945. 97 p. (MIRA 13:5)

(Milling machines)

MARKELOV, P. A.

MARKELOV, P.A.; BRUSHTEYN, B.Ye., redaktor; KHRUSTALEV, S.I., tekhnicheskiy redaktor.

[High-speed steel milling with end milling cutters] Skorostnoe frezerovanie stalei tortsevymi frezami. Moskva, Gos. izd-vo obor. promyshl., 1953. 147 p. (MLRA 7:8)
(Metal cutting)

MARKELOV, P.A.

High-speed form milling of surfaces by hard alloy cutters. Stan. i instr. 27 no.10:33-35 O '56. (MLRA 9:12)
(Milling machines)

MARKelov, P.A.

AUTHOR: **Markelov**, P.A., Engineer. 122-2-10/23

TITLE: The machinability of 40ХНВА steel in turning and drilling (Obrabatyvayemost' stali 40 KhNVA pri tochenii i sverlenii)

PERIODICAL: "Vestnik Mashinostroyeniya" (Engineering Journal), 1957, No.2, pp. 54 - 55 (U.S.S.R.)

ABSTRACT: The nickel-chrome-tungsten structural steel 40ХНВА is increasingly used as a replacement for the nickel-chrome-molybdenum steel 40ХНМА. The comparison of machinability of the two steels shows the tungsten steel to yield about 25% greater tool life. A plot of the cutting force against the cutting speed shows almost identical curves. Plots of surface finish against cutting speed are given for both steels, showing little difference in either the annealed or the heat-treated condition. In drilling, the tungsten steel is somewhat less machinable.

Card 1/1 There are 2 graphs and 3 tables.

AVAILABLE: Library of Congress

69351
SOV/123-59-19-78491

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 19, p 93 (USSR)

AUTHOR: Markelov, P.A.
18.5200 18.6100
TITLE: Some Problems Concerning the Efficient Use of Mineral Ceramics in Metal Cutting

PERIODICAL: V sb.: Rezaniye mineralokeram. instrumentami. Moscow, Oborongiz, 1958, pp 65 - 78

ABSTRACT: The author states some general considerations on the use of mineral ceramics in metal cutting. He points out the expediency of fastening the plates by mechanical means instead of soldering them onto the tool. Designs of cutters are described, which were developed by the NIAT (Scientific Research Institute of Aviation Technology), the plates of which are fastened in a mechanical way. A special feature of these cutters is the uniform distribution of clamping stresses over the supporting surface of the plate. The geometric parameters of the cutting parts of ceramic tools are given, as recommended by the NIAT, for the machining of light alloys and steels with $\sigma_b = 60 \div 180$ kg/mm^2. The grinding conditions as well as the characteristics of abrasive disks

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SOV/123-59-19-78491

Some Problems Concerning the Efficient Use of Mineral Ceramics in Metal Cutting

are described. The unsatisfactory machinability of heatproof and stainless steel and alloys, as well as of unhardened aluminum alloys by mineral ceramic tools is pointed out. A graph is shown, estab lishing the relation between the power exponent m in the equation $T = f(v)$ and the mechanical properties of some machined metals. Examples are given of the treatment of machine parts by mineral ceramic cutters, as well as the methods of improving the cutting conditions. Twelve figures, one table.

O.A.B.

Card 2/2

PHASE I BOOK EXPLOITATION SOV/4269

Markelov, Pavel Alekseyevich

Rezaniye metallov instrumentami s keramicheskimi plastinkami (Cutting of Metals With Ceramic-Tip Tools) Moscow, Oborongiz, 1960. 284 p. 7,000 copies printed.

Ed.: B. Ye. Brushteyn, Candidate of Technical Sciences; Ed. of Publishing House: F.G.Tubyanskaya; Tech. Ed: V.P. Rozhin; Managing Ed.: S.D. Krasil'nikov, Engineer.

PURPOSE: This book is intended for technical personnel in plant laboratories and scientific research establishments. It may also be useful to students of schools of higher education and innovators in machinery-manufacturing plants.

COVERAGE: The book contains general data on research and industrial use of cutting tools fitted with ceramic tips. The design and geometric parameters of cutting edges of ceramic-tip tools and the relationship between the physical-mechanical and operational properties of ceramics are discussed. Recommendations for brazing, sharpening, and finishing of cutting edges are made. Practical suggestions for the selection of methods, cutting regimes, parts materials, and the operation of ceramic-tip tools are given. Reference is made to the experimental work of Professors I.I. Kitaygorodskiy and A.I. Isayev in 1951 on the development of ceramic tool materials.

Card 1/6

GUBERMAN, Roman L'vovich, kand. ekon. nauk; MARKELOV, Petr Alekseyevich; FEL'DBAUM, Samson Solomonovich; SHERESHEVSKIY, Leonid Emmanuilovich; KEYLIN, A.D., prof., red.; LEVCHUK, K.V., red. izd-va; TSAGURIYA, G.M., tekhn. red.

[Transportation organization of export and import freight in the U.S.S.R.] Organizatsiia perevozok eksportnykh i importnykh gruzov SSSR. [By] R.L.Guberman i dr. Moskva, Vneshtorgizdat, 1962. 250 p. (MIRA 16:5)
(Freight and freightage)

1. KLOK, A. K., ENG. ; MARKELOV, P. I., ENG.

2. USSR (600)

4. Apartment Houses

7. Advanced method in construction of apartment houses. Biul. stroi. tekh. 9. No. 20. 1952.

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

MARKELOV, S.

How we organize the popularization of production and technical matters. Sov.profsoiuzy 4 no.12:44-45 D '56. (MLRA 10:1)

1. Predsedatel' komissii po kul'turno-massovoy rabote zavkoma.
(Technical education)

MARKELOV, V., val'tsovshchik

Man with a restless soul. Metallurg 9 no.11:32 N '64. (MIRA 18:2)

1 Zavod "Elektrostal'", zamestitel' predsedatelya zavodskogo soveta novatorov.

MARKELOV, V.A., mayor meditsinskoy sluzhby

Cryotherapy of burns. Voen.-med.zhur. no.8:78-79 Ag '57. (MIRA 10:12)
(BURNS, therapy,
cryother. (Rus))
(COLD, therapeutic use,
burns (Rus))

MARKELOV, V.A.

Automatic device for measuring the absorption of ultrasonic waves. Izm.tekh. no.11:52-53 N '61. (MIRA 14:11)
(Ultrasonic waves--Industrial applications)
(Pulse techniques(Electronics))

MARKELOV, V.A.

Ultrasonic level indicator for loose materials. Priborostroenie no.11:12-14 N '62. (MIRA 15:12)

(Level indicators)
(Ultrasonic waves—Industrial applications)

KARPUKHIN, V.D., kand. tekhn. nauk; MARKELOV, V.A., inzh.

Effect of mine water on the heat increment of the ventillating current. Izv. vys. ucheb. zav.; gor. zhur. 7 no.11:59-62 '64.
(MIRA 18:3)

1. Khar'kovskiy institut gornogo mashinostroyeniya, avtomatiki i vychislitel'noy tekhniki. Rekomendovana kafedroy tekhniki bezopasnosti.

L 10310-63 EWT(1)/BDS--AFFTC/
ASD/ESD-3

ACCESSION NR: AP3000170 S/0141/63/006/002/0418/0420

AUTHOR: Markelov, V. A.

54

TITLE: Method for calculating the oscillator (spectral) line width 21

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy, radiofizika, v. 6, no. 2, 1963, 418-420

TOPIC TAGS: electronic oscillator molecular oscillator

ABSTRACT: As it was suggested by J. P. Gordon, et al. (Phys. Rev., 99, 1264, 1955), the oscillator line width can be measured by converting the oscillator into an "equivalent" amplifier. The article provides a theoretical justification for this method and also extends its applicability over the case of a molecular oscillator. The line width of the latter is determined by the thermal noise in the oscillating circuit and by the noise due to the spontaneous radiation of molecules; lack of isochronism and the shot noise of molecules can be neglected. Orig. art. has: 13 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific-Research Radiophysics Institute, Gor'kiy University)

Card 1/2

L 6849-65 EEO-2/EWT(d)/EWT(1)/EWT(m)/EEC-4/EED-2/EWA(h) Pn-4/Pj-4/Pl-4
APGC(b)/ASD(a)-5/AFETR/RAEM(a)/RAEM(c)/RAEM(1)/ESD(gs)/RAEM(t)
ACCESSION NR: AP4044104 S/0141/64/007/003/0497/0501

74
73

AUTHOR: Markelov, V. A. 19

TITLE: Sensitivity of a radiometer containing a system with variable parameters

SOURCE: IVUZ. Radiofizika, v. 7, no. 3, 1964, 497-501

TOPIC TAGS: receiver signal to noise ratio, correlated noise, 25
radiometry, receiver sensitivity, amplifier random noise

ABSTRACT: The radiometer referred to in the present article is defined as a receiver assembly using a compensation or modulation method of reception and consisting of an amplifier, a square-law detector, and a low-pass filter. The output of the receiver is a useful signal and noise, both constituting independent δ-correlated random processes. It is shown that the presence of correlations between the individual spectral amplitudes of the noise and of the

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L 6849-65

ACCESSION NR: AP4044104

signal at the output adversely affects the sensitivity of the radiometer, compared with the case when an amplifier with time-invariant parameters is used (having the same noise factor and bandwidth). The conclusion is illustrated by an example of an amplifier with time-varying gain. Orig. art. has: 14 formulas.

ASSOCIATION: Nauchno issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute at the Gor'kiy University)

SUBMITTED: 18Oct63 ENCL: 00

SUB CODE: EC NR REF SOV: 005 OTHER: 001

Card 2/2

L 6848-65 EEO-2/EWT(1)/EEC-4/EED-2/EWA(h) Pm-4/Pn-4/Pl-4 AFETR/ASD(a)-5/
RAEM(c)/APGC(b)/RAEM(1)/RAEM(t)
ACCESSION NR: AP4044105 S/0141/64/007/003/0502/0513

70
68

AUTHOR: Markelov, V. A.

TITLE: Passage of a noise signal through a system with variable parameters

SOURCE: IVUZ. Radiofizika, v. 7, no. 3, 1964, 502-513

TOPIC TAGS: white noise, correlated noise, parametric amplifier noise, regenerative parametric amplifier, superregeneration, amplifier random noise

ABSTRACT: The systems analyzed are parametric regenerative and superregenerative amplifiers with periodically varying parameters responding to the passage of white noise. Rather than use the transfer-function method, which has been employed by others, the author derives his general relations directly from the differential equations for the circuit. Expressions are derived for the correlation func-

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ACCESSION NR: AP4044105 2

tion and for the spectrum of the periodic nonstationary process at the output of the system. Depending on the relative values of the frequency and magnitude of the attenuation in the circuit, the output spectral envelope can either be similar to that of the input or can differ greatly, and this governs the conditions under which the random process can be detected. The expressions obtained for the correlation function are used to determine the spectrum of the process at the output of the amplifier; the spectrum of such a process after square-law detection is also determined. Some of the results of the present work agree with those of Yu. Ye. D'yakov (Dissertation, Moscow, 1961). Orig. art. has: 4 figures and 37 formulas.

ASSOCIATION: Nauchno issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute at the Gor'kiy University)

SUBMITTED: 18Sep63 ENCL: 00

SUB CODE: EC NR REF SOV: 004 OTHER: 001

Card 2/2

GRYAZNOV, Yu.N., inzh.; KUKHAREV, I.D., inzh.; MARKELOV, V.A., inzh.

Device for measuring the quantity of material on a scraper conveyor. Mekh. i avtom. proizv. 19 no.7:30-32 Jl '65.
(MIRA 18:9)

ACC NR: AP7002584 (N) SOURCE CODE: UR/0413/66/000/023/0079/0079

INVENTOR: Markelov, V. A.

ORG: none

TITLE: A method for eliminating the influence of a cumulative error on the performance of an acoustic echo-sounding surface locator. Class 42, No. 189172 [announced by Scientific Research Institute of Basic Chemistry (Nauchno-issledovatel'skiy institut osnovnoy khimii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 79

TOPIC TAGS: acoustic echo, sound wave, sound propagation, error minimization, acoustic equipment, acoustic measurement, acoustic ranging, acoustic reflection, acoustic wave, acoustoelectric effect

ABSTRACT: This Author Certificate presents a method for eliminating the influence of a cumulative error on the performance of an acoustic echo-sounding surface locator. To increase the accuracy, reliability, and speed, the time displacement of every third single reflected impulse is measured in respect to the sounding impulse. This is accomplished by breaking the entire measuring cycle into three stages. During the first stage, the accumulating condenser is charged up to the load proportional to the time consumed in propagating the sounding impulse to and from the reflecting

UDC: 621.396.669:681.88

Card 1/2

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ACC NR: AP7002584

surface. In the second stage, the condenser load charge is measured, while during the third stage the condenser is discharged. The measuring device is connected to the accumulating condenser only during the second stage. During the other stages it is disconnected in such a way that its scale retains the reading which corresponds to the result of the previous measuring cycle.

SUB CODE: 13, 20/ SUBM DATE: 04Jan66

Card 2/2

ACC NR: AP7004765 (N) SOURCE CODE: UR/0413/67/000/001/0079/0079

INVENTOR: Markelov, V. A.

ORG: None

TITLE: A device for eliminating the effect of multiplicative interference on the operation of an acoustic echo ranging level indicator. Class 42, No. 190039 [announced by the Scientific Research Institute of Basic Chemistry (Nauchno-issledovatel'skiy institut osnovnoy khimii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 79

TOPIC TAGS: acoustic echo, acoustic equipment, acoustic ranging, signal interference, liquid level indicator

ABSTRACT: This Author's Certificate introduces a device for eliminating the effect of multiplicative interference on the operation of an acoustic echo ranging level indicator. The unit contains a demodulator flip-flop which converts the delay time between the probing and reflected pulses to a square pulse of corresponding duration, an amplitude gate which limits this pulse with respect to the upper and lower level and an automatic electronic potentiometer which measures the constant voltage proportional to the delay time of the useful signal pulse. Measurement accuracy and reliability are improved and the speed of the device is increased by using a potential inverter and a differentiating circuit to connect the one-output terminal of the measurement flip-

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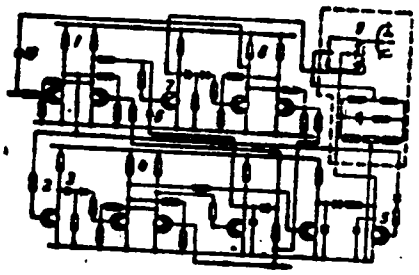
UDC: 621.396.669:681.88

flop to the set terminal of the demodulator dlip-flop and to the base of a transistor connected in parallel with a storage capacitor. The zero-output terminal of the measurement flip-flop is connected through a logical AND element to the base of the control transistor. The collector of this transistor is connected through the differentiating circuit to the set terminal of the discharge flip-flop and to the control



1--measurement flip-flop; 2--potential inverter; 3--differentiating circuit; 4--demodulator flip-flop; 5--transistor; 6--logical AND element; 7--control transistor; 8--discharge flip-flop; 9--amplifier; 10--logical AND element

ACC NR: AP7004765

grid of the first stage in the electronic amplifier of the measuring instrument. The set terminal of the measurement flip-flop is connected to a video amplifier through a logical AND element, while the reset terminals of the discharge flip-flop and the modulator flip-flop are connected directly to a source of synchronizing pulses. The reset terminal of the measurement flip-flop is connected to this same pulse source through a logical AND element.

SUB CODE: 09, 14/ SUBM DATE: 06Jan66

Card 3/3

L 21935-66 EWA(h)/EWT(l)/EWT(m)/FCC GW

ACC NR: AP6014485 SOURCE CODE: UR/0089/65/019/005/0469/0470

AUTHOR: Kotel'nikov, V. P.; Markelov, V. N.; Nelepo, B. A.

ORG: none

TITLE: New data on the atmospheric radioactivity and fallout density near the Black sea

SOURCE: Atomnaya energiya, v. 19, no. 5, 1965, 469-470

TOPIC TAGS: atmospheric radioactivity, research ship, scintillation spectrometer, radioactive fallout, radioactive aerosol, radon, thoron, cesium, cerium, manganese, ruthenium, rhodium

ABSTRACT: During August and September 1964, at the time of the 16th cruise of the research ship Mikhail Lomonosov, the artificial radioactivity of the atmosphere over the Black Sea was determined. The concentration and isotopic composition of the radioactive elements in the lower layers of the atmosphere, the density, and short-lived isotope concentration of the fallout were measured. The aerosols were collected by means of a 225 m^3/hour capacity air filtering system while the fallout samples were obtained from the deposits of trays containing oil-soaked filter paper, placed at a height of 14 meters over the surface of the water. A scintillation spectrometer was used to determine the isotopic composition from 8.9 to 66.6 x 10^{-4} disintegrations/sec m^3, with an average value of 34.4 x 10^{-4}. The average density of the long-lived radioactive fallout at sea level ranged from 3.3 to 221 x 10^{-1} disintegrations/sec m^2,

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UDC: 551.577.7:541.182.2/3

L 21935-66
ACC NR: AP6014485

with an average of 46.0×10^{-1}. During the days with precipitation, the concentration of radioactive products in the atmosphere decreased and the activity of the fallout increased. The average concentration of natural radioactive products from the decay of radon and thoron were found to be 9.2×10^{-1} and 17.7×10^{-1} disintegrations/sec m^3, respectively. Thus, the radon daughter concentration was higher by three orders of magnitude than that of aerosols containing long-lived radioactive fission products. The following nuclides were identified in the atmospheric samples: ^{144}Ce, $^{106}Ru + ^{106}Rh$, ^{137}Cs, and ^{54}Mn. The data agreed with other published values but they indicated a slight increase of the concentration and a reduction of the density of the average daily fallout at the Black Sea region in comparison with results obtained during the ninth cruise of the ship in October 1960. Orig. art. has: 2 figures and 1 table. [NA]

SUB CODE: 18, 04 / SUBM DATE: 19Mar65 / ORIG REF: 001

Card 2/2 mst

KOTEL'NIKOV, V.P.; MARKELOV, V.N.; NELEPO, B.A.

Recent data on atmospheric radioactivity and the fallout density in the Black Sea Basin. Atom. energ. 19 no.5:469-470 N '65.
(MIRA 18:12)

IVANOV, V.A., kand. tekhn. nauk, dotsent, MARKOV, V.F., inzh.; VAPIN, R.K., inzh.

Torsional vibrations in closed circuits of power transmissions. Izv. vys. ucheb. zav.; mashinostr. no.2:61-70 '64. (MIRA 17:5)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche imeni Baumana.

IVANOV, V.A., kand. tekhn. nauk, dotsent; ZAFIR, A.A., inzh.; MARKELOV, V.F., inzh.

Investigating the axial [illegible] at a [illegible] coupling [illegible]. Izv. vys. ucheb.zav.;mashinostr. no.5:39-45 '64. (MIRA 18:1)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche imeni N.E.Baumana.

MARKELOV, V. T.

PA 18T67

USSR/Mines and Mining - Equipment
Mineral Industries Sep 1947

"Use of a Spreader at Kimpersayski Workings," V. T. Markelov, 2 pp

"Gornyy Zhurnal" No 9

Describes a temporary mechanical spreader to ease the huge labor drain required to do this job by hand. A home-made apparatus using a GAZ-AA, 40-hp automobile engine or a track-moving machine made by the "Metalist" Factory.

18T67

MARKELOV, V. T.

Apr 49

USSR/Mining Methods

"Classification of Mining Systems," Dr G. A. Tsulukidze, Prof, Active em, Acad Sci Georgian SSR; A. M. Alyamskiy, P. I. Gorodetskiy, M. A. Korobko, Ye. Ya. Makhno, N. N. Polyakov, Co-Workers of Chair of Ore Mining, Leningrad Mining Inst; V. T. Markelov, P. M. Vol'fson, A. G. Barlas, Mining Engineers; L. I. Baron, V. N. Semevskiy, Candidates Tech Sci, 7 pp

"Gor Zhur" No 4

Proposed classification has two main divisions: mining mildly slanting deposits of small and average width, and mining steeply slanting deposits of any width and [illegible] deposits with mildly slanting walls. First division is divided into: solid, pillar, and room-pillar. Second has two main subdivisions (containing a more detailed breakdown): Mining is done without collapsing leaning rocks in early stages of extraction, and mining is done with collapsing of leaning rocks in early stages of extraction.

MARKELOV, V. V. ; YAKUTOVICH, M. V.; VOSKRESENSKIY, V. N.

Dynamometer for Thin-Sheeted Lattices.

Steel 5, 185, 1945

[illegible], [illegible].

Installation of electric power [illegible]---
Moskva, Gos. izd-vo lit-ry po stroi[illegible]
([illegible])

T13621.43

MARKELOV,V.V., inzhener; SOKOLOV,D.V.,inzhener, redaktor; UDOD,V.Ya., redaktor; VOLKOV,V.S., tekhnicheskiy redaktor

[Electric assembly work] Elektromontazhnye raboty. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture. 1955. 33 p.
(Electric engineering) (MIRA 9:3)

MARKELOV, Vasiliy Vasil'yevich; SOKOLOV, D.V., inzhener, nauchnyy redaktor; TYAPKIN, B.G., redaktor izdatel'stva; GUSEVA, S.S., tekhnicheskiy redaktor

[Installation of electric power and lighting equipment] Montazh silovogo i osvetitel'nogo elektrooborudovaniia. Izd. 2-oe, ispr. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1956. 133 p. (Electric engineering) (MLRA 9:9)

MARKELOV V. V

PHASE I BOOK EXPLOITATION SOV/1297

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke, Moscow, 1957

Polucheniye izotopov. Nauchnyye osnovy ikh primeneniya v dozimetrii; trudy konferentsii... (Isotope Production. High-energy Gamma-Radiation Facilities. Radiometry and Dosimetry; Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science) Moscow, Izd-vo AN SSSR, 1958. 293 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye upravleniya po ispol'zovaniyu atomnoy energii SSSR.

Editorial Board: Prolov, Yu.S. (Resp. Ed.), Zhavoronkov, N.M. (Deputy Resp. Ed.), Aglintsev, K.K., Alekseyev, B.A., Bochkarev, V.V., Lebedinskiy, N.I., Malkov, P.P., Sinitsyn, V.I., and Popova, O.L. (Secretary); Tech. Ed.: Novichkov, N.D.

PURPOSE: This collection is published for scientists, technologists, persons engaged in medicine or medical research, and others concerned with the production and/or use of radioactive and stable isotopes and radiation.

COVERAGE: Thirty-eight reports are included in this collection under three main subject divisions: 1) production of isotopes 2) high-energy gamma-radiation facilities, and 3) radiometry and dosimetry.

TABLE OF CONTENTS:

ALEKSEYEV, Aleksandr Grigor'yevich; GANYAYEV, Boris Dmitriyevich; MARKELOV, Vasiliy Vasil'yevich; SOKOLOV, D.V., inzh., nauchnyy red.; GORDEYEV, P.A., red. izd-va; ABRAMOVA, V.M., tekhn. red.

[Industrial installation of large preassembled electric equipment at industrial enterprises] Industrial'nyi montazh elektrooborudovaniia promyshlennykh predpriiatii. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 123 p. (MIRA 14:6)
(Electric apparatus and appliances)

ALEKSEYEV, A.G.; BAYUSHKIN, S.N.; MARKELOV, V.V.; NEBESNYY, A.D.; SOKOLOV, D.V., inzh., red.; VOLNYANSKIY, A.K., glav. red.; TARAN, V.D., red.; SEREBRENNIKOV, S.S., red.; MIKHAYLOV, K.A., red.; STAROVEROV, I.G., red.; VOLODIN, V.Ye., red.; NIKOLAYEVSKIY, Ye.Ya., red.; CHEKHOVSKAYA, T.P., red. izd-va; BOROVNEV, N.K., tekhn. red.

[Concise manual on electric wiring operations] Kratkii spravochnik proizvoditelia elektromontazhnykh rabot. Pod red. D.V.Sokolova. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 311 p. (MIRA 14:10)

1. Moscow. Gosudarstvennyy proyektnyy institut Tyazhpromelektroproyekt.

(Electric wiring—Handbooks, manuals, etc.)

MARKELOV, V.V.[deceased]; ...SAKOVA, I.A.; K...VA, G.I., red.

[Collection of norms and rates on electric assembly installation operations in rural areas] Sbornik norm i rastsenok na elektromontazhnye raboty v sel'skoi mestnosti. Moskva, Gosstroiizdat, [illegible]. [illegible] p.

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.

Markelov, V. V.

FRANK, G.M.; GABELOVA, N.A.; MARKELOV, V.V.; MARTUSOV, Ye.T.(Moskva)

Radiograph, a universal nonlinear integrating device for in vivo research by means of radioactive isotopes. Biul. eksp. biol. i med. 41 no.1:73-76 Ja '56. (MLRA 9:5)

(ROENTGENOGRAPHY, appar. and instruments
universal non-linear integrating device for research during lifetime with radioactive isotopes)

MARKELOV, V. V.

AUTHORS: Markelov, V. V., Lusnchikhin, A. L., Nikiforov, V. I., 89-2-35/35

TITLE: A Pocket β-, γ- Radiometer (Karmannyy β-, γ-radiometr).

PERIODICAL: Atomnaya Energiya, 1958, Nr 2, p. 217-218 (USSR)

ABSTRACT: With the pocket dosimeter constructed by the Medical Academy of Science it is possible to measure: γ-doses from 0 to 1, 0 to 10, 0 to 100 and 0 to 1000 mC/sec, with E_γ of from 0,25 to 2 MeV. For β - radiation the following ranges are adjustable: 0 to 50 and 0 to 5000 particles/cm^2.sec (E_β 0,3 to ... MeV). For β-counting a window is to be opened which must be closed in γ - counting. The accuracy of indication in all ranges amounts to $\pm$ 15%. The amplifier is built on the basis of semiconductor triodes. The feed element guarantees an uninterrupted operation of 200 h. The device can also be used in dusty and damic rooms in a temperature range of from -10°C to 50°C. There is 1 figure.

AVAILABLE: Library of Congress

1. Radiometers-Design

Card 1/1

AUTHORS: Keirim-Markus, I. B., Markelov, V. V., Nikiforov, V. I., Uspenskiy, L. N. 89-2-34/35

TITLE: A Universal Scintillation Dosimeter (Universal'nyy stsintillyatsionnyy dozimetr).

PERIODICAL: Atomnaya Energiya, 1958, Nr 2, pp. 216-219 (USSR)

ABSTRACT: In the Medical Academy of Science a portable cevice was developed by which all practical problems of dosimetry can be solved. The universal usability is obtained by the replacement of scintillation heads. The γ - scintillation head permits to measure γ-doses of from 0,25 to 50 mC/sec. The β-counter above all serves for the control of β-contaminated surfaces. It is possible to measure β- currents of from $2,5 \cdot 10^3$ to $2,5 \cdot 10^6$ - β--particles/min. A special scintillation head has been provided for, which permits to measure 3.10^2 to 3.10^5 α- particles/min. Smaller numbers of particles can be determined with the headphone. The head is insensitive toward β- and γ- radiation. For the measurement of thermal neutrons a thin plastic screen which contains the phosphor ZnS-Ag, B is used. Neutron currents of from 15 to $1,5 \cdot 10^4$ neutrons/cm^2,sec can be measured by it. The counter is insensitive to γ-radiation and only weakly sensitive to rapid neutrons. An electric circuit diagram for

Card 1/2

A Universal Scintillation Dosimeter. 89-2-3-/33

the device, which weighs 5 kg is also given. There are 2 figures.

AVAILABLE: Library of Congress.

Card 2/2 1. Scintillation counters-Design

85339

9.6150

S/120/60/000/005/007/051
E192/E382

AUTHORS: Keirim-Markus, I.B., Lushchikhin, A.M., Markelov, V.V. and Uspenskiy, L.N.

TITLE: Universal Scintillation Radiometer РУС-3 (RUS-3)
Note I. The Measuring Unit

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No. 5, pp. 35 - 40

TEXT: The following requirements were taken into account in the design of the instrument: 1) small size, light weight and portability; 2) the instrument should be supplied from 110 - 220 V mains as well as from batteries or accumulators; 3) the measuring meter and the electronic circuits should produce an error of not more than ± 30%; 4) the measuring range should extend from 1/2 to 100; 5) the instrument should not be affected by atmospheric or climatic conditions. The resulting instrument is illustrated in the detailed circuit diagram of Fig. 1. The input device of the instrument is a photomultiplier which is connected to the electronic unit by means of a cable having a length of about 1 m. The multiplier is followed by an emitter-follower pre-amplifier, based on a

Card 1/4

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E192/E382

Universal Scintillation Radiometer RUS-3. Note I. The Measuring Unit

high-frequency transistor (cut-off frequency of 60 Mc/s). The emitter-follower is followed by an amplifier-shaper circuit based on transistors $П_2$ and $П_3$. The first transistor acts as the pulse amplifier, while the second transistor performs the shaping of the pulse. The presence of the resistor in the emitter of $П_2$ ensures that the amplifier is stable. The output pulse obtained from the shaping stage has a duration of about 10 μs and its amplitude is 7 V (when the supply voltage is 8 V). The shaping stage is followed by an integrating circuit which is preceded by an emitter-follower (transistor $П_4$). The integrating circuit has three different capacitances which correspond to the ranges of 30, 300 and 3 000 pulses/sec. The circuit is followed by another transistor stage which is connected to a microammeter which indicates directly the number of pulses per second. The upper portion of the diagram in Fig. 1 illustrates the supply sources for the instrument. The

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E192/E382

Universal Scintillation Radiometer RUS-3. Note I. The Measuring Unit

photomultiplier requires a stable voltage of 1200 V. This potential is obtained from an oscillator based on a transistor, type П3-Б (P3-V), and a suitable transformer. This oscillator operates satisfactorily even with input voltages as low as 3 V. The current taken by it (at 3 V) is about 81 mA. The supply voltage produced by the generator changes by about 3% when the input voltage is changed from 3 to 10 V. It can be seen that the instrument can be supplied with battery voltages from 3 to 12 V; as regards the mains voltage, this can vary from 80 to 250 V. In order to cover this range of AC voltages it is advised that a ferroresonant stabiliser followed by a rectifier be employed. In such a system it is possible to reduce the voltage changes to about 8 V when the input varies from 80 to 250 V. Constructionally, the instrument is in the form of small units which can easily be withdrawn and repaired or replaced by new units. The overall weight of the instrument with a set of batteries is about 3 kg. A photograph of the

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E192/E382

Universal Scintillation Radiometer RUS-3. Note I. The Measuring Unit

instrument is given in Fig. 2. The authors express their gratitude to G.M. Skachov for taking part in the construction of the instrument. There are 2 figures and 1 Soviet reference.

SUBMITTED: August 13, 1959

Card 4/4

KEYRIM-MARKUS, I.B.; MARKELOV, V.V.; USPENSKIY, L.N.

Method of simultaneous control of pollution of surfaces with α- and β-substances. Med.rad. 5 no.10:68-72 '60. (MIRA 14:2)
(RADIATION--MEASUREMENT)

S/081/61/000/024/026/086
B138/B102

AUTHORS: Zav'yalov, A. P., Istomina, A. G., Markelov, V. V.

TITLE: Apparatus for the measurement of tritium oxides

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 172, abstract 24Ye45 (Med. radiologiya, v. 5, no. 12, 1960, 57 - 60)

TEXT: A description is given of a scintillation device based on standard apparatus, by means of which the specific activity of tritium oxides can be recorded up to $1 \cdot 10^{-9}$ counts per ml, and, with some modification, up to $\sim 1 \cdot 10^{-10}$ counts per ml. A block diagram is given and the transmitting element is described. Specimens can be exchanged very rapidly and a minimum amount of time is required to restore the photomultiplier to its working level. The scintillator is a solution of 4 - 5 g paraterphenyl and 0.05 - 0.01 g ПОПОП (POPOP) (1.4-di-[2-(5-oxazole)]-benzene) in 1 l scintillation toluene or scintillation dioxane. The sensitivity of the device and methods of increasing it are considered. [Abstracter's note: Complete translation.]

Card 1/1

20689

S/120/61/000/001/027/062
E032/E114

26.2246

AUTHORS: Keirim-Markus, I.B., Lushchikhin, A.M., Markelov, V.V., and Uspenskiy, L.N.

TITLE: The Universal Scintillation Radiometer PYC-3 (RUS-3). II. γ- and β-Probes

PERIODICAL: Pribory i tekhnika eksperimenta, 1961,No.1, pp.86-91

TEXT: The first part of this paper is given in Ref.5. In accordance with the design specifications for the PYC -3 (RUS-3) radiometer, the dose-rate range of the instrument should be 1-250 μr/sec. This corresponds to a γ-ray flux between 1.6×10^3 and 4×10^3 γ quanta/cm^{2}sec. In order to achieve the required accuracy of ± 30% at the lower limit, it is necessary to record about 10 pulses over a time interval of $\tau = RC = 3$ sec. It follows that the minimum recorded counting rate should be about 3 pulses/sec and the efficiency of the probe with a 1 cm^2 screen should be about 0.2%. Such a low efficiency can be achieved with an inorganic crystal of about 0.1 cm^3, or a larger organic crystal. For practical reasons a polycrystalline stilbene screen (phosphor), 25 mm in diameter and about 150 mg/cm^2 thick, was used. The screen

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The Universal Scintillation Radiometer [illegible] -3 (RUS-3).
II. γ- and β-Probes

was produced by compressing stilbene powder under a pressure of 700-800 kg/cm^2 at 100 °C. The design of the γ counter head is shown in Fig.2. The counter head consists of a cylindrical steel envelope 10 which serves as a magnetic and electrostatic screen for the [illegible]-25 (FEU-25) photomultiplier 9. The lid 17 can be rotated and carries a standard specimen of Tl^{204} which has a half-life of about 4 years. By rotating the lid the standard specimen can be brought to face the phosphor 20 through a special aperture in the plate 13. The standard source is used to check the operation of the instrument. The β-probe is illustrated in Fig.5. The phosphor 24 is again made of stilbene and has a thickness of 40 mg/cm^2 and a total area of 100 cm^2. It is mounted on the conical light guide 20 which connects it to the [illegible]-29 (FEU-29) photomultiplier 15. The stilbene screen (phosphor) is covered by a synthetic film with an evaporated layer of aluminium 27, having a total thickness of 4.5 mg/cm^2. The probe is calibrated by means of a standard Tl^{204} specimen 17 which is

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E032/E114

The Universal Scintillation Radiometer PYC -3 (RUS-3).
II. γ- and β-Probes

located in the ring 18 . By rotating the ring the standard specimen can be brought to face an aperture in the conical part of the envelope 19 and irradiate a small auxiliary stilbene screen deposited on the conical part of the light guide 20 . With the screen 26 in position, the β-probe can be used to monitor weak γ-ray fields from about 0.02 μr/sec. When the screen is removed, the device can be used to record β-ray fluxes between 0.15 and 80 $\beta/cm^2 sec$. When used in conjunction with a suitable specimen collector, it can be used to determine the concentration of β- and γ-active gases in air in the range 10^{-10} to 5×10^{-8} C/ℓ (L.M. Mikhaylov and A.D. Turkin, Ref.12). The β-probe has a β/γ ratio of 50-80. An α-probe and a neutron probe will be described in a subsequent paper. Acknowledgements are made to N.A. Sergeyev for help in the experiments and the preparation of the paper, and to A.A. Vasil'yev who took part in the construction of the probes. There are 5 figures and 14 references: 9 Soviet, 4 English and 1 German.
Card 3/5

S/120/61/000/001/027/062
E032/E114

The Universal Scintillation ....

SUBMITTED: December 10, 1959

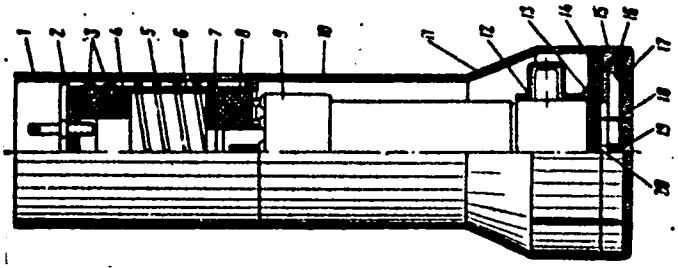

Fig.2

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E032/E114

The Universal Scintillation .....

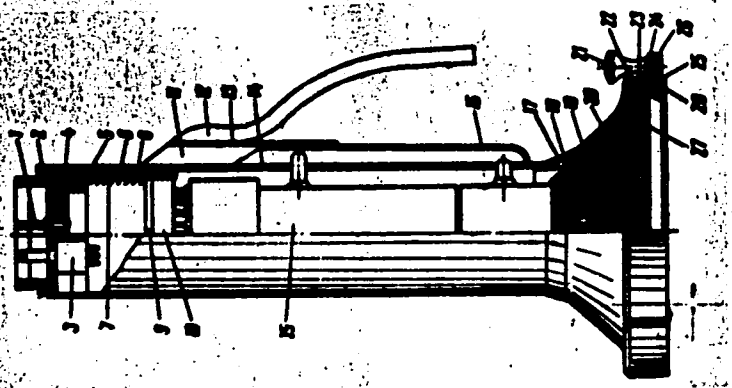

Fig.5

Card 5/5

MARKELOV, V. V., USPENSKIY, L. N., KEYRIM-MARKUS, I. B., KORNEYEV, V. T.,

"The measurement of tissue doses of neutrons behind reactor shielding"

report to be submitted for the Sympsoium on Biological Effects of Neutron Irradiations (IAEA), Upton Long Island, N. Y., 7-11 Oct 63.

KEIRIM-MARKUS, I.B.; KORNEYEV, V.T.; MARKELOV, V.V.; USPENSKIY, L.N.

Measuring the tissue doses of neutrons outside the reactor shielding.
Atom. energ. 15 no.5:386-393 N '63. (MIRA 16:12)

DYMOV, V.V.; LOBASHEV, B.P.; MARKELOV, V.V.; SABININ, P.G.

Structural characteristics of the hydrostatic extrusion equipment designed by the Central Scientific Research Institute of Ferrous Metallurgy. Sbor. trud. TSNIICHM no.43:32-42 '65.
(MIRA 18:10)

L 1662-66 EWT(d)/EWP(e)/EWT(m)/EWP(v)/EWP(t)/EWP(k)/EWP(h)/EWP(z)/EWP(b)/EWP(l)/EWA(c) JD/HW

ACCESSION NR: AT5022888 UR/2776/65/000/043/0053/0059

AUTHOR: Borok, B. A.; Malin, A. P.; Markelov, V. V.; Andreyev, P. S.; Kutyrina, V. M.; Loginov, A. A.; Grosval'd, V. G.; Aksenov, G. I.

TITLE: Experience in rolling powders in an industrial-type rolling mill

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 43, 1965. Poroshkovaya metallurgiya (Powder metallurgy), 53-59

TOPIC TAGS: rolling mill, powder metallurgy, metal powder, powder metal rolling

ABSTRACT: The authors describe an industrial two-high powder-rolling mill with roll diameters 600 and 900 mm, based on a standard rolling mill originally built in 1940, and equipped with special powder-feeding bunkers. The mill consists of an open-top steel housing with variable positioning of rolls -- they can be aligned either horizontally or at angles of 22.5°, 45°, and 60°C (Figs. 1, 2). Its main drive is powered by a DC 257.4 kw (350 HP) 40-800 RPM motor. It has been used for the experimental rolling of strips from the powders of iron, OKh18N9 stainless steel, molybdenum, and titanium. These experiments demonstrated the

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ACCESSION NR: AT5022888

mill's suitability for organizing the industrial production of poreless strips from the powders of different metals and alloys. Such strips, 0.8-1.0 mm thick, display physical properties that are not inferior to those of strips produced by rolling ingot metal. This strip thickness is in complete agreement with the basic equation of rolling, which implies that strip thickness is a function of roll diameter:

$$h = \frac{\gamma_p}{\gamma_s}\left[1 + \frac{D}{\delta} + \frac{\alpha^2}{2}\right], \qquad (1)$$

where γ_p and γ_s are the densities of powder (bulk weight) and strip, respectively, g/cm^3, D is the roll diameter, δ is the thickness of rolled strip, mm; α is the angle of reach, deg; and γ is the coefficient of reduction of the powder during rolling. Hence this basic equation applies not only for laboratory rolling mills but also for industrial rolling mills and can be used in designing the latter. Before the rolling of metal powders can be industriallyintroduced, however, these three problems must be solved: lateral restriction of the zone of deformation of powder in the rolls; continuous, uniform supply of powder to the feeder; and con-

L 1662-66

ACCESSION NR: AT5022888

tinuous sintering of the strip. Orig. art. has: 2 figures, 3 tables, 5 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 02 SUB CODE: MM, MT

NO REF SOV: 010 OTHER: 005

Card 3/5

L 1662-66

ACCESSION NR: AP5022888

ENCLOSURE: 01

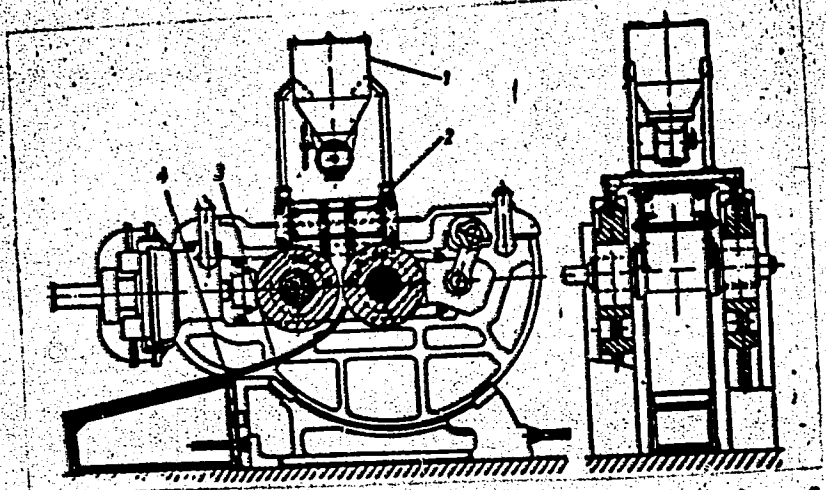

Fig. 1. Diagram of modified rolling mill (horizontal positioning of rolls): 1 - bunker; 2 - feeder; 3 - receiving chute; 4 - receiving table

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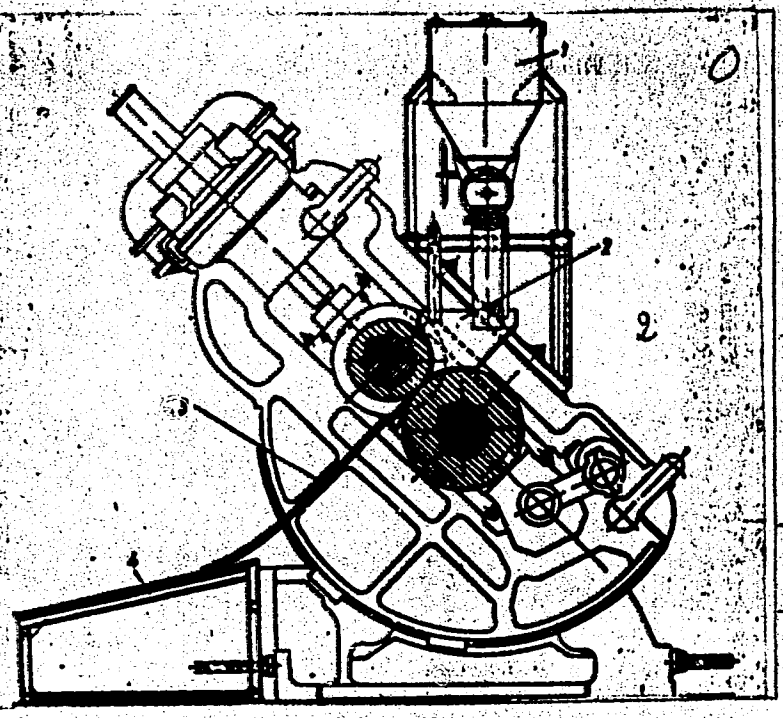
L 1662-66

ACCESSION NR: AP5022888

ENCLOSURE: 02

Fig. 2. Diagram of modified rolling mill (tilted positioning of rolls)

1 - bunker; 2 - feeder; 3 - receiving chute; 4 - receiving table



Card 3/3

ACC NR: AP6025661 (A) SOURCE CODE: UR/0413/66/000/013/0126/0127

INVENTOR: Venediktov, V. A.; Vasil'yev, Yu. A.; Popov, N. I.; Markelov, Ye. V.; Veynblat, M. Kh.; D'yakov, A. P.; Shishakov, K. I.; Yusim, L. Ya.; Skvortsov, A. M.; Kireyev, Yu. A.; Guzanov, G. N.; Gerasimovich, S. G.

ORG: None

TITLE: A fluid device for damping torsional vibrations. Class 47, No. 183539 [announced by the Turbine Motor Plant (Turbomotornyy zavod)]

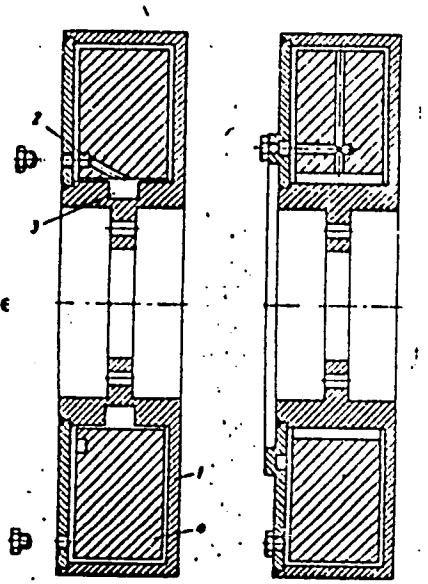
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 126-127

TOPIC TAGS: vibration damping, hydraulic device, torsional vibration

ABSTRACT: This Author's Certificate introduces a fluid device for damping torsional vibrations. The unit consists of a housing with a hole for fluid delivery and a movable annular disc with a compensating cavity set inside the housing. The installation is designed for more reliable and simpler filling of the unit with fluid by providing the faces of the disc or the internal surface of the housing opposite the hole for fluid delivery with at least one annular groove connected to the compensating cavity by channels in the disc body.

Card 1/2 UDC: 621-752.2

ACC NR: AP6025661



1—housing
2—annular groove
3—compensating cavity
4—disc

SUB CODE: 13,20/SUBM DATE: 28Apr65

Card 2/2

BUTUZOV, Ye.A., kand.tekhn.nauk; MARKELOV, Yu.I., inzh.

Magnetographic method for testing nonmagnetic current-carrying materials. Vest.mash. 41 no.7:85-87 Jl '61. (MIRA 14:6)
(Magnetic instruments)

MARKELOVA, A. A.

LEVENBERG, T.M.; MARKELOVA, A.A.; KULESHOVA, V.M.

Comparative study of the degree of graininess of photographic silver deposits. Trudy LIKI no.4:179-189 '56. (MLRA 10:5)

1.Kafedra obshchey fotografii i tekhnologii obrabotki kinoplenki.
(Photography--Developing and developers)

BREYDO, I.I.; MARKELOVA, A.A.

Properties of Kodak photographic plates used in astronomical photography. Izv.GAO 21 no.3:161-173 '58.
(MIRA 13:4)
(Astronomical photography--Apparatus and supplies)

SOV/81-59-14-50935

Translation from: Referativnyy zhurnal, Khimiya, 1959, Nr 14, p 438 (USSR)

AUTHORS: Breydo, I.I., Markelova, A.A.

TITLE: Infrared Photographic Materials and Their Hypersensibilization

PERIODICAL: Izv. Gl. astron. observ. v Pulkove, 1958, Vol 21, Nr 3, pp 174 - 181 (English summary)

ABSTRACT: The results of an investigation of some types of infrared photographic materials of Soviet production are cited as well as of some types of Agfa and Ilford plates. For plates which loose their sensitivity during storing it has been shown that hypersensibilization with water and an ammonia solution is very efficient in several cases. The conditions of storing and the approximate periods of storability of hypersensibilized plates are cited. A method is described for the sensibilization of highly-sensitive photographic plates to rays of the infrared region of the spectrum by bathing in solutions of the corresponding dyestuffs and the possibility of the hypersensibilization of such plates has been tested.

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G. Sennikov

23(5) SOV/77-4-2-10/18

AUTHORS: Breydo, I.I., Markelova, A.A.

TITLE: The Influence of Triethanolamine and Ammonia Hypersensitization on the Spectral Sensitivity of Photographic Materials (Vliyaniye gipersensibilizatsii trietanolaminom i ammiakom na spektral'nuyu chuvstvitel'nost' fotomaterialov)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 2, pp 135-136 (USSR)

ABSTRACT: The article begins with a reference to the short work also published by I.I. Breydo (Ref. 1) which stated that hypersensitization by triethanolamine did not alter the spectral sensitivity of photographic materials. However, the authors came to rather different conclusions, after having determined the spectral sensitivity of several photographic materials before and after hypersensitization by triethanolamine and ammonia.

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The exposures made ranged from 0.05 to 90 secs., sometimes 750 secs., and were made on an ISP-73 spectrosensitometer. The results of the experiments were as follows: 1) for some types of photographic plates (e.g. Agfa Phototechnische C Ortho) the increase of sensitivity after hypersensitization does not depend on the wavelength, and the form of the spectral sensitivity curve remains invariable; 2) for other types of plates (e.g. Agfa Astro panchromatisch, Kodak 1-M) hypersensitization proved much more effective for the region of additional sensitivity than for natural sensitivity, so that the spectral sensitivity curve changes. However increase of the effectiveness of hypersensitization with increasing exposure is the same for all λ for these materials, too; 3) only in one case (Ilford HP-3 plate) was the increase in the

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effectiveness of the hypersensitization with increasing exposure greater for the region of natural sensitivity than for additional sensitivity; 4) hypersensitization by triethanolamine and ammonia gave analogous results; this corresponds to the data produced by Vendrovskiy and Sheberstov for white light [Ref. 2]. The authors drew the following conclusions from these results: hypersensitization by triethanolamine or ammonia can have two effects; 1) it can cause a general increase of light sensitivity over both regions: This effect is virtually non-existent at short exposures, i.e. such hypersensitization reduces the deviations from interactivity at long exposures. Increase of sensitivity is equal for all wavelengths, the effectiveness of the hypersensitization depending on the type of emulsion; 2) it can have a specific effect on certai:

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types of sensitizers, leading to a considerable growth mainly of the additional sensitivity of the corresponding panchromatic and especially infra-red materials [Ref. 3]. The effectiveness of the hypersensitization varies for the regions of natural and additional sensitivity. The authors mention that the results obtained for Ilford HP-3 plates do not follow this system entirely. It is evident that in some cases the increase of sensitivity due to the first of the two effects mentioned does not extend entirely to the region of additional sensitivity. However the authors stress that in the latter case, the form of the spectral sensitivity curve will change with increased exposure in contrast to the generally held opinion [Ref. 4]. There are 4 Soviet references.

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The Influence of Triethanolamine and Ammonia Hypersensitization on the Spectral Sensitivity of Photographic Materials.

ASSOCIATION: Glavnaya astronomicheskaya observatoriya AN SSSR (Main Astronomical Observatory of the AS of the USSR)

SUBMITTED: December 10, 1958

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23(5) SOV/77-4-2-11/18

AUTHOR: Ryzhanov, S.G.

TITLE: The Role of Optically Prohibitive Migrations in the Mechanics of Light Absorption by Silver Bromide (Rol' opticheski-zapreshchennykh perekhodov v mekhanizme pogloshcheniya sveta bromidom serebra)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 2, pp 136-138, (USSR)

ABSTRACT: The author first discusses the system of optically permissible migrations, i.e. migrations in a crystal during which the wave number of the electron completing a quantum migration from one zone to another is preserved. The figure illustrates this system and gives the three energetic zones of a silver bromide crystal: the valence zone of the elctrons on the Br^- ions: the exciton zone: the zone of conductivity of the AgBr crystal. He states that the exciton formed as a result of absorption of the corresponding light quantum should

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S/081/61/000/011/011/040
B105/B203

AUTHORS: Breydo, I. I., Markelova, A. A.

TITLE: Hypersensitization of photographic materials by means of triethanolamine

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 11, 1961, 74, abstract 11B546 (Izv. Gl. astron. observ. v Pulkove, 1960, 21, vyp. 4, 190-199)

TEXT: The authors describe the methods of hypersensitization (H) by means of triethanolamine (TEA). An investigation of domestic and foreign photomaterials showed that (H) is more efficient with long exposure times, and reduces the non-interchangeability in the case of short exposures. (H) is more efficient for photomaterials with great non-interchangeability, as well as for photomaterials with low photosensitivity. (H) increases the photosensitivity by the 2 to 3-fold by exerting a weak effect on the contrast coefficient. It is assumed that the effect of (TEA) leads to the formation of additional disturbances of the microcrystal lattice which increase the stability of the centers of the latent image in early stages

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of its formation. The action of NH_3 is similar to that of (TEA) although the efficiency of (H) is different for different photomaterials. Photographic plates hypersensitized with (TEA) are highly resistant; with the use of NH_3, however, fog increases when stored. The spectral sensitivity of some photomaterials does not change after (H); with other materials, the main effect is observed in the range of additional sensitivity. [Abstracter's note: Complete translation.]

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S/081/61/000/022/053/076
B101/B147

AUTHORS: Breydo, I. I., Markelova, A. A.

TITLE: Hypersensitization of infrachromatic plates

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1961, 380, abstract 22L334 (Zh. nauchn. i prikl. fotogr. i kinematogr , v. 6, no. 1, 1961, 19 - 26)

TEXT: The hypersensitizing treatment of non-sensitized and optically sensitized photographic plates by means of water and ammonia solutions under different conditions was studied. It was found that the hypersensitization by means of water is not only due to the washing out of the bromine ions from the layer but also to the action of the water or of an aqueous ammonia solution on the sensitizing dye. It is assumed that in this connection oxidation products of the dyes having a desensitizing effect are washed out. [Abstracter's note: Complete translation.]

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S/560/61/000/009/001/009
D045/D114

AUTHORS: Breydo, I. I., Markelova, A. A., and Shchegolev, D. Ye.

TITLE: The identification of authentic objects on the Moon's far side by the first photographs taken of this side

SOURCE: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli. No. 9, Moscow, 1961, 30-40

TEXT: The study was conducted to identify authentic details on the first photographs of the Moon's far side taken on October 7, 1959 by the automatic interplanetary station, to determine their selenographic coordinates, and on this basis to compile a map of the Moon's far side with an approximate distribution of the brightness of the revealed details. For this purpose, contact positives from negatives obtained by telerecording pictures of the Moon's far side, double-negatives obtained from the same negatives, and prints of pictures obtained from a magnetic tape were used. These prints were enlarged approximately 10 times. Lenses with focal lengths of 200 and 500 mm had been used for taking the pictures. The coordinates of

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the details of the lunar surface were determined by using the known coordinates of the automatic station at the moment of photographing, and calculating and tracing a network of selenographic coordinates in the external perspective projection. The terminator line, calculated according to the selenographic coordinates of the Sun at the moment of observation, was plotted onto the network, and the angle of phase determined. The network copied and printed on diapositive plates was superimposed on a set of prints designed for determining the coordinates of the details of the Moon's far side. The diameter of the Moon's disk on these prints was 20 cm. A map-chart of the Moon's far side showing the approximate distribution of brightness of the revealed details is included. It is accompanied by a table in which all objects and details marked on the map are described as to their color and form. The map-chart was compared with maps and atlases of the visible side of the Moon and the border zones on the chart with photographs contained in the atlas of the Likskaya observatoriya (Likskaya Observatory). Since almost all the details plotted on the map-chart actually seemed to exist, it was assumed that the objects on the Moon's far side, plotted on the map-chart according to photographs taken by the automatic station, were authentic.

Since the Moon, at the moment of photographing, was almost in its full phase, a larger part of the observed formations is distinguished from the surrounding area by its albedo. Therefore, the map-chart of the Moon's far side should be regarded as a chart of areas with different reflectivity and not as a relief map. Kh. I. Potter and T. A. Polozhentseva are thanked for assistance in calculating coordinate data. There are 2 figures, 3 tables and 3 references: 1 Soviet-bloc and 2 non-Soviet-bloc. The English-language reference is: H. P. Wilkins, P. Moore, The Moon, L., 1955.

SUBMITTED: January 21, 1961

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37929

S/035/62/000/005/019/098
A055/A101

3.1230

AUTHORS: Breydo, I. I., Markelova, A. A.

TITLE: Increasing the photosensitivity of photographic materials by means of their preliminary illumination

PERIODICAL: Referativnyy zhurnal, Astronomiya i Geodeziya, no. 5, 1962, 17, abstract 5A151 ("Izv. Gl. astron. observ. v Pulkove", 1961, 22, no. 4, 195 - 205, English summary)

TEXT: To investigate the effect of a short preliminary illumination on the light-sensitvity and on the contrast-coefficient γ of several photographic materials used in astrophotography, the "stepped wedge" of a ФСР -4 (FSR-4) sensitometer was exposed on them, with the exposure varying from 0.05 to 3,000 sec. The supplementary illumination of the photographic material before or after the main one was uniform with 0.05 sec exposure. It was shown that, for some of the photographic materials, the short preliminary illumination up to a background-density 0.3 - 0.5 causes a considerable (2 to 3 times) increase of the light-sensitivity, especially at main exposures of long duration. At the same time,

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the initial section of the characteristic curve extends and the γ of the photographic material decreases. Therefore, such a method for increasing the sensitivity is particularly interesting in the cases when it is necessary to detect a detail having a low brightness. This fact is illustrated by neon-lamp spectrum photographs obtained, respectively, on preliminary illuminated and nonilluminated Agfa Spektral rot rapid plates. Investigation was made of the dependence of the sensitivity increase effect upon the background-density up to which the photographic material was preliminarily illuminated, upon the duration of the main illumination, upon the duration of the dark pause between the preliminary and main illuminations and upon the wavelength of the acting light. For three of the eleven investigated photographic materials, the preliminary illumination did not increase the light-sensitivity or caused only a slight increase of it. There are 17 references.

I. Breydo

[Abstracter's note: Complete translation]

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