BABAYAN, Kh.P.; BOYADZHYAN, N.G.; GRIGOROV, N.L.; MAMIDZHANYAN, E.A.; TRET'YAKOVA, Ch.A.; SHESTOPEROV, V.Ya.

Study of "young" high-energy electron-photon air showers. Zhur. eksp. i teor. fiz. 46 no.5:1525-1539 My '64. (MIRA 17:6)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta i Institut fiziki Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR, Yerevan.

BABAYEN, Kh.P.; BRIKKER, S.I.; GRIGOROV, N.L., POPGURSKAYA, A.V.,
SAVEL'YEVA, A.I.; SHESTOPEROV, V.Ya.

Production of π°-mesons at energies of $5 \cdot 10^{12}$ — 10^{13} ev.
Zhur. eksp. i teor. fiz. 47 no.1:379-381 Jl '64.
(MIRA 17:9)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta i Fizicheskiy institut Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR, Yerevan.

L 4464-66 EWT(1)/EWT(m)/FCC/T/EWA(m)-2/EWA(h) GW

ACC NR: AP5024624 SOURCE CODE: UR/0048/65/029/009/1648/1651

AUTHOR: Babayan, Kh. P.; Grigorov, N.L.; Tret'yakova, Ch.A.; Shestoperov, V.Ya.

ORG: Institute of Nuclear Physics, Moscow State University im. M.V.Lomonosov (Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Characteristics of interactions that give rise to large ionization bursts /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya, Seriya fizicheskaya, v. 29, no. 9, 1965, 1648-1651

TOPIC TAGS: primary cosmic ray, secondary cosmic ray, nucleon interaction, inelastic interaction, pion, ionization chamber, ionization hodoscope, nuclear emulsion

ABSTRACT: The authors and collaborators have previously investigated the nuclear interactions that give rise to large ionization bursts (I.A. AN SSSR Ser. fiz., 26, 558, 1962; Zh. eksperim. i teor. fiz., 37, 1147, 1959; ibid., 46 110, 1964; Ibid., 47, 379, 1964; International Conference on Cosmic Rays, Jaipur, Proceedings, 5, 51, 1963) and have found that these interactions are characterized by large inelasticities and the transfer of a large fraction of the primary energy to neutral pions. In the present paper they report results of a continuation of these investigations. Two experimental techniques were employed; the ionization calorimeter technique, and the authors' method of controlled nuclear emulsions (described in some of the references cited above).

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L 4464-66

ACC NR: AP5024624

In the calorimeter measurements, two trays of ionization chambers under a 60 g/cm^2 lead served to record the electron-photon component accompanying the nuclear active particle. The nuclear interaction took place in a 60 g/cm^2 slab of graphite, and the energy of the neutral pions produced was determined by two trays of chambers under 3 and 5 cm of lead. Beneath this assembly was an ionization calorimeter consisting of 8 trays of ionization chambers separated by 10 cm thick iron slabs, which served to determine the energy retained by the primary or transferred to charged pions. A total of 676 bursts of energy greater than 1.4 x 10^{11} eV were recorded at an altitude of 3200 m above sea level. The fraction K_o of the primary energy transferred to neutral pions was very broadly distributed: the average value of K_o was 0.58 and K_o was greater than 0.7 in 43 % of the events. The large fluctuations of K_o must be taken into account when data involving large bursts are interpreted. Twelve showers in which the energy transferred to neutral pions exceeded 2 x 10^{12} eV were investigated with the controlled nuclear emulsion technique. In 70 % of these events the total inelasticity was close to unity and the neutral pions received 70 to 80 % of the primary energy. Only four neutral pions were produced on the average per event, and the single most energetic neutral pion received 40 to 50 % of the primary energy. In conclusion, we express our gratitude to the staff of the Krakow Institute of Nuclear Research for making their results available to us. Orig. art. has: 3 figures and 1 table.

SUB CODE: NP/ SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 001

Card 2/2

L 4465-66 EWT(l)/EWP(e)/EWT(m)/EPF(c)/EWP(i)/FCC/T/EWP(b)/EWA(m)-2/EWA(h)

ACC NR: AP5024625 WW/GW/WH SOURCE CODE: UR/0048/65/029/009/1652/1655

AUTHOR: Babayan, Kh. P.; Grigorov, N.L.; Mamidzhanyan, E.A.; Sobinyakov, V.A.; Shestoperov, V. Ya.

ORG: Scientific Research Institute of Nuclear Physics, Moscow State University im. M.V.Lomonosov (Nauchno-issledovatel'skiy institut yadrenoy fiziki Moskovskogo gosudarstvennogo universiteta); Physics Institute of the State Committee on Use of Atomic Energy, SSSR (Fizicheskiy institut Gosudarstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR)

TITLE: Investigation of interactions of particles with energies of the order of one TeV by the ionization calorimeter technique /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1652-1655

TOPIC TAGS: primary cosmic ray, secondary cosmic ray, energy distribution, air shower, nucleon interaction

ABSTRACT: The authors have employed the 10 m^2 ionization calorimeter described in the preceeding article (Izv. AN SSSR Ser. fiz., 29, 1648, 1965 / see Abstract ACC NR AP5024624/) to determine the energy spectrum at 3200 meters above sea level of single nuclear-active particles in the cosmic radiation. A hodoscope consisting of 200 Geiger-Muller counters and several scintillation and Cerenkov counters, located at dis-

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L 4465-66

ACC NR: AP5024625

tances up to 10 meters from the calorimeter, recorded the showers accompanying the nuclear active particle. Events were selected in which a single nuclear-active particle traversed the ionization calorimeter unaccompanied by a shower of more than 10^3 particles, and 109 such events were observed in which the energy of the nuclear-active particle exceeded 5×10^{11} eV. The counting rate was 0.32 particles/m^2 sterad hour and was independent of whether a 60 g/cm^2 graphite absorber was present or absent. The exponent in the integral energy spectrum of solitary nuclear-active particles in the atmosphere was found to be approximately 2.5 for energies between 5×10^{11} and 10^{13} eV. This exponent is considerably greater than that in the energy spectrum of the primary cosmic rays at the top of the atmosphere, and it is suggested that the difference is due to an energy dependence of the interaction mean free path. It is shown that the data are consistent with an interaction free path of 102 g/cm^2 at 10^{11} eV and 72 g/cm^2 at 10^{13} eV. Orig. art. has: 6 formulas, 2 figures, and 1 table.

SUB CODE: NP/ SUBM DATE: 00/ ORIG REF: 008/ OTH REF: 001

Card 2/2

L 4475-66 EWT(l)/EWT(m)/FCC/T/EWA(h) IJP(c) GW

ACC NR: AP5024626 SOURCE CODE: UR/0048/65/029/009/1656/1663

AUTHOR: Grigorov, N.L.; Rapoport, I.D.; Savenko, I.A.; Skuridin, G.A.; Shestoperov, V. Ya.

ORG: none

TITLE: Some problems and possibilities relating to investigation of cosmic rays in the 10^{11} to 10^{13} eV range /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1656-1663

TOPIC TAGS: primary cosmic ray, secondary cosmic ray, energy distribution, nucleon interaction, artificial earth satellite, high energy particle

ABSTRACT: The authors review the available data on the energy spectrum and absorption and interaction mean free paths of nuclear-active cosmic ray particles with energies from 10^{11} to 10^{13} eV. The data are discordant, and part of this discordance is traced to neglect of the fluctuation of the fraction of the primary energy that is transferred to neutral pions in an elementary interaction event. There is evidence that the absorption and interaction mean free paths are not energy independent. It would be desirable directly to measure the interaction cross section, but it does not seem practical to do this. To measure the interaction free path in carbon for nuclear-active

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L 4475-66

ACC NR: AP5024626

particles with energies above 10^{13} eV to an accuracy of 10 % by means of a 10 m^2 ionization calorimeter operating at 3200 m above sea level, for example, would require 60 years of continuous observation. A satellite-borne ionization calorimeter with a geometric factor of 10^4 cm^2 sterad, however, could accumulate very valuable data within a few months. Meanwhile, it is anticipated that new installations now under construction or recently operative will soon clarify the situation with regard to the energy spectrum of the nuclear-active component and the altitude dependence of the nucleon component. Orig. art has: 11 formulas, 2 figures, and 5 tables.

SUB CODE: NP/ SUBM DATE: 00/ ORIG REF: 018/ OTH REF: 004

PC

Card 2/2

L 44794-66 EWT(l)/EWI(m)/FCC/T/EWA(h) IJP(c) GW

ACC NR: AP5024636 SOURCE CODE: UR/0048/65/029/009/1693/1695

AUTHOR: Nymmik, R.A.; Shestoperov, V. Ya.

ORG: Institute of Nuclear Physics, Moscow State University im. M.V.Lomonosov (Institute yadernoy fiziki Moskovskogo gosudarstvennogo universiteta)

TITLE: Calculation of some characteristics of extensive air showers in the framework of a model of a strongly fluctuating elementary interaction event /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1693-1695

TOPIC TAGS: primary cosmic ray, secondary cosmic ray, extensive air shower, nucleon interaction, inelastic interaction, spectral energy distribution

ABSTRACT: The authors, employing the shower development model of N.L.Grigorov and V. Ya.Shestoperov (Zh. eksperim. i teor. fiz., 34, 1539, 1958), have calculated some characteristics of extensive air showers on the assumption that the elementary interaction events initiating the showers are of two kinds: "pionization" processes, in which pions are multiply produced with an inelasticity of 0.29, and "catastrophic" events, in which the pionization process is followed by transfer of 70 % of the primary energy to three charged or neutral pions. Experimental evidence for the existence of such different interaction processes has been obtained by N.L.Grigorov, V.Ya.Shestoperov, and collaborators (Zh. eksperim. i teor. fiz., 46, 110, 379 (1964)). For the calculation it was

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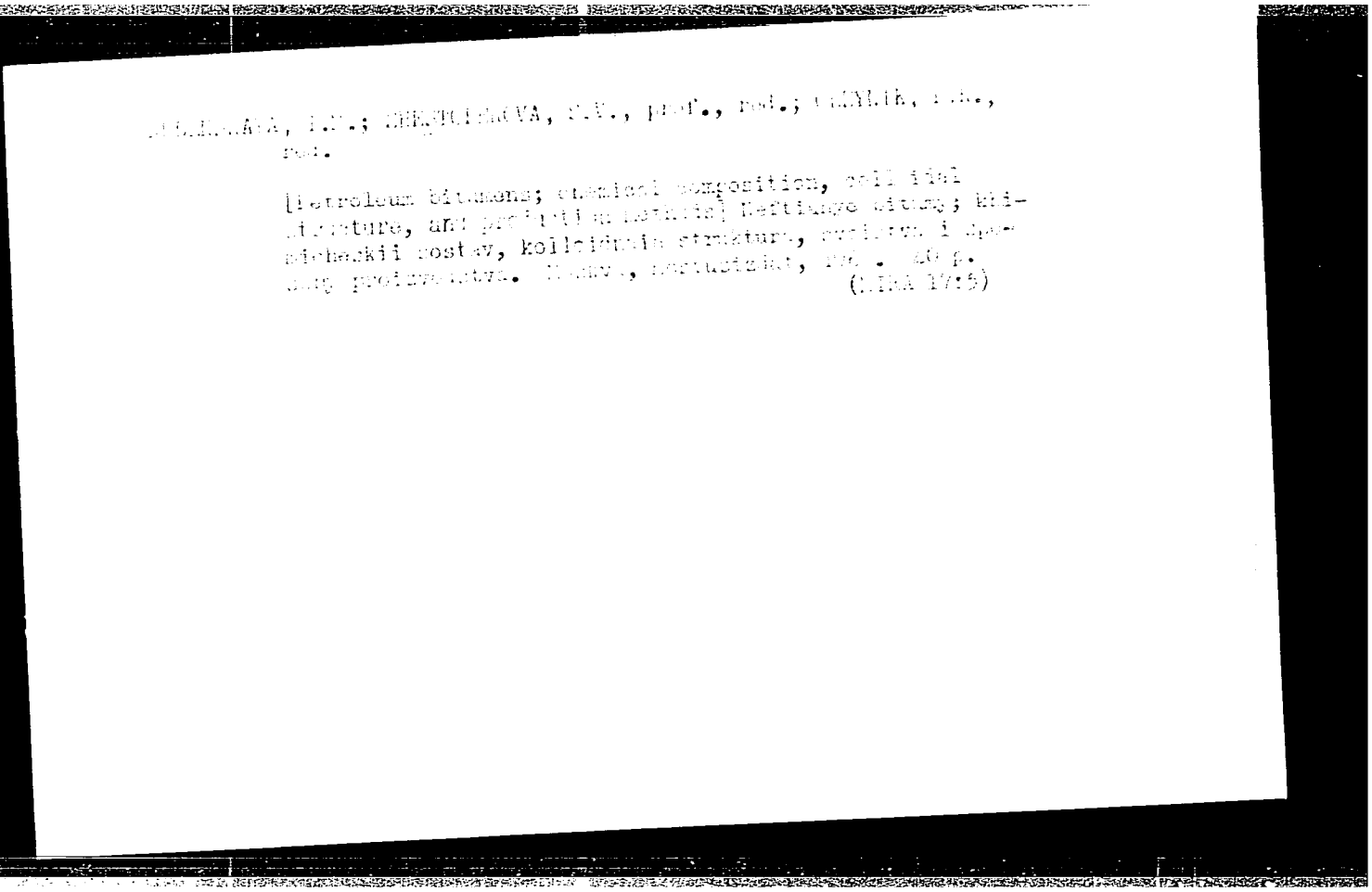
L 4479-66

ACC NR: AP5024636

assumed that the probability for pionization is 0.7, the probability for a catastrophic event with production of hard charged pions is 0.2, the probability for a catastrophic event with production of hard neutral pions if 0.1, the absorption and interaction free paths of nuclear active particles in the atmosphere are 120 and 83 g/cm^2, respectively, and that the exponent in the primary energy spectrum is 1.7. Fluctuations in the location of the catastrophic events were taken into account. It was found that in 75 % of the showers having 10^5 particles at sea level, over half the shower particles are due to catastrophic interactions. Taking account of fluctuations in the inelasticity and location of the initiating event reduces the estimated value of the primary proton energy, derived from the number of particles in the shower. It is concluded that the flux of ultrahigh energy particles obtained by L.G.Dedenko and G.T.Zatsepin (Tr. Mezhdunarodnoy konferentsii po kosmicheskim lucham, Vol. II, 222. Izd. AN SSSR, M., 1960), who did not take account of fluctuations, is greater than the true flux. It was found that the ratio of the energy flux in the nuclear-active component to that in the electron-photon component is several times less than it would be if there were no inelasticity fluctuations. Reliable experimental data on this ratio would therefore be of great interest. Orig. art. has: 3 figures.

SUB CODE: NP/ SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 000

Card 2/2



[illegible], I.V.; [illegible]VA, S.F., prof., red.; [illegible], red.

[Petroleum bitumens; chemical composition, colloidal structure, and practical use] Neftianye bitumy; khimicheskii sostav, kolloidnaia struktura, svoistva i primenenie proizvodstve. Moskva, Gostoptekhizdat, [illegible]. 40 p. (MIRA 17:5)

BELYAYEV, Yu.D.; SHESTOPEROVA, Z.A.; ZYUKOVA, K.I.; YEVDOKIMOVA, M.G.

Use of predrisone in the compound treatment of pneumonia in children during the first year of life. Sov.med. 26 no.2: 138-140 F'63. (MIRA 16:6)

1. Iz Gor'kovskoy detskoy bol'nitsy No.25 (glavnyy vrach Ye.M. Smol'yaninova)
(PNEUMONIA) (INFANTS--DISEASES)
(PREDNISONE)

GRIGOROV, N.L.; TRETYAKOVA, C.A.; SHESTOPIEROV, V.J.; BABAYAN, C.P.; BAYADSYAN, N.G.; BUJA, Z.; LOSKIEWICZ, J.; MASSALSKI, J.; OLES, A.

Integral spectrum of ionization pulses caused by nuclear active particles of cosmic radiation at mountain altitudes. Nukleonika 7 no.2:61-73 '62.

1. Institute of Nuclear Physics, University of Moscow (for Grigorov, Tretyakova and Shestopierov). 2. Institute of Nuclear Physics, Armenian Academy of Sciences, Erevan (for Babayan and Bayadsyan). 3. Institute of Nuclear Research, Polish Academy of Sciences, Cracow and Department of Physics II, Academy of Mining and Metallurgy, Cracow (for Buja, Loskiewicz, Massalski and Oles.)

GRIGOROV, N.L.; TRETYAKOVA, C.A.; SHESTOPIEROV, V.Y.; BABAYAN, C.P.; BAYADSYAN, N.G.; BABECKI, J.; LOSKIEWICZ, J.; MASSALSKI, J.; OLES, A.

Investigations of energy particles interactions with atomic nuclei at the mountain altitudes. Nukleonika 7 no.12: 759-767 '62.

1. Institute of Nuclear Physics, University of Moscow, Moscow (for Grigorov, Tretyakova, Shestopierov). 2. Armenian Academy of Sciences, Institute of Nuclear Physics, Erevan (for Babayan and Bayadsyn). 3. Institute of Nuclear Research, Laboratory of High Energy Physics, Krakow, Polish Academy of Sciences (for Babecki, Loskiewicz, Massalski, Oles).

Shestopalov, L. M.

USSR.

The Determination of the Mechanical Properties of Metals Using a Small Conical Impression and a Method Similar to Elevated Temperatures. F. F. Vitman, M. A. Stein, B. S. Ioffe and L. M. Shestopalov. (Zhurnal Tekhnicheskoi Fiziki, 1954, 24, (5), 849-859). [In Russian]. The apparatus for determining the mechanical properties of metals at elevated temperatures in vacuum without preparing specimens, is described. The practical possibility of determining the yield point and tensile strength at elevated temperatures using a small conical impression is demonstrated.—V. G.

Jul 1967

Separators

"Improvement of Air Separator for Pyrites and Other Heavy Impurities in Coal," V. I. Klyuchev, A. A. Shreter, 7 pp

"Izv VTI" No 7

Results given of a test of the Klyuchev air separator (All-Union Power Engineering Institute) on unwashed Donbass area coals. Gives an analysis of the operation of the separator and recommends uses in separators for mills. Illustrated with diagrams and formulas.

PA 1473

KUCHKPATOVA, Ye.G.; ROMANOV, I.I.; TARASOV, Ye.F.; SHESTOV, A.I.; MAKAROV, N.A., otvetstvennyy redaktor; BOYARSKAYA, L., redaktor; PAVLOVA, M., tekhnicheskiy redaktor

[The "Urals" pavilion (Sverdlovsk and Molotov Provinces, Udmurt A.S.S.R., Chelyabinsk and Kurgan provinces); a guidebook] Pavil'on "Ural" (Sverdlovskaia i Molotovskaia oblasti, Udmurtskaia ASSR, Cheliabinskaia i Kurganskaia oblasti); putevoditel'. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 27 p. (MLRA 9:8)

1. Moscow. Vsesoyuznaia sel'skokhozyaystvennaya vystavka, 1954-
(Ural Mountain region--Agriculture)
(Moscow--Agricultural exhibitions)

SHESTOV, A. P.

USSR/Chemistry

Card : 1/1

Authors : Levin, E. S., and Shestov, A. P.

Title : Polarographic determination of sulfones

Periodical : Dokl. AN SSSR, 96, Ed. 5, 999 - 1002, June 1954

Abstract : Polarographic determination of sulfones, originated in connection with the sulfonation of aromatic hydrocarbons is discussed. The secondary products of such sulfonation reaction are Ar - SO_2 - Ar'. In many cases sulfones are formed but with only one or several sulfo-groups - SO_3H. Such substances are water-soluble just as aromatic sulfo-acids thus making their identification and separation quite difficult. Three references. Tables, graphs.

Institution : The K. E. Voroshilov State Scientific-Research Institute of Organic Semi-products and Dyes.

Presented by: Academician, A. N. Frumkin, April 13, 1954

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 869

Author: Shestov, A. P.

Institution: None

Title: Sulfonic Acids from Sulfones as By-Products of Sulfonation Processes. I. Formation of Sulfonic Acids from Phenyl Sulfone During the Sulfonation of Benzene with Fuming Sulfuric Acid

Original Periodical: Zh. obshch. khimii, 1956, Vol 26, No 4, 1219-1224

Abstract: When benzene is sulfonated with fuming sulfuric acid to the m-disulfonic acid (I), the reaction mixture, in addition to I, contains ~25% 3,3'-phenylsulfonedisulfonic acid (II), calculated on a C_6H_6 basis. At temperatures of 70-160° the number of H-atoms on the benzene nucleus substituted with SO_3H and SO_2 groups is equal to 2; above 160° the number of substituted H-atoms increases and at ~220° the number of such atoms substituted with SO_3H groups alone is 2. The reaction was carried out with purified C_6H_6, freezing point 5.5°,

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SHESTOV, N. P.

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Sulphonic acids of sulphones as by-products in sulphonation. II. Behaviour of disulpho-acid of diphenyl sulphone during alkaline fusion of benzene-*m*-disulphonic acid. A. P. Shestov and N. A. Osipova (*Zh. obshch. Khim.*, 1956, 26, 2005—2009).—Almost complete conversion could be attained (yield of resorcinol 98·6—99%) by the method adopted. Attempts were made to exclude side reactions by (*a*) use of pure sulphonic acid (obtained from the sulphonyl chloride, (*b*) use of an apparatus containing a nickel cartridge inserted in a quartz tube housed in an electric furnace, with means for maintaining an atm. of N_2 in the tube. Resorcinol in the melt was determined by nitrosation and by direct separation. In the case of alkaline fusion of diphenylsulphone 3 : 3'-disulphonic acid phenol was identified by bromination. A. L. B.

State Sci Res Inst Organic Intermediate Products + Dyes

Sulfonic acids of sulfones as by-products of sulfonation processes. III. Behavior of diphenyl sulfone and its sulfonic acids during action of sulfuric acids. A. P. Shestov and N. A. Osipova (State Inst. Org. Intermed. and Dyes, Moscow). *Zhur. Obshchei Khim.* 26, 2866–72(1956); cf. *C.A.* 51, 4990a.—Ph_2SO_2 heated with 20–63% oleum to about 100° yields *3,3'-disulfonic acid* (I); *chloride*, m. 180.5–1° (from $CHCl_3$); *amide*, m. 240.6–50.1°. If the amount of SO_3 is insufficient, the product is the monosulfonic acid. Reaction of Ph_2SO_2 with 86–93% H_2SO_4 results in 5 hrs. at 230° in cleavage to $PhSO_2H$ along with formation of some I. Sulfonation of Ph_2SO_2 greatly reduces the hydrolyzability of the substance by aq. H_2SO_4, as under these conditions the monosulfonic acid is 30% cleaved and I is unaffected.

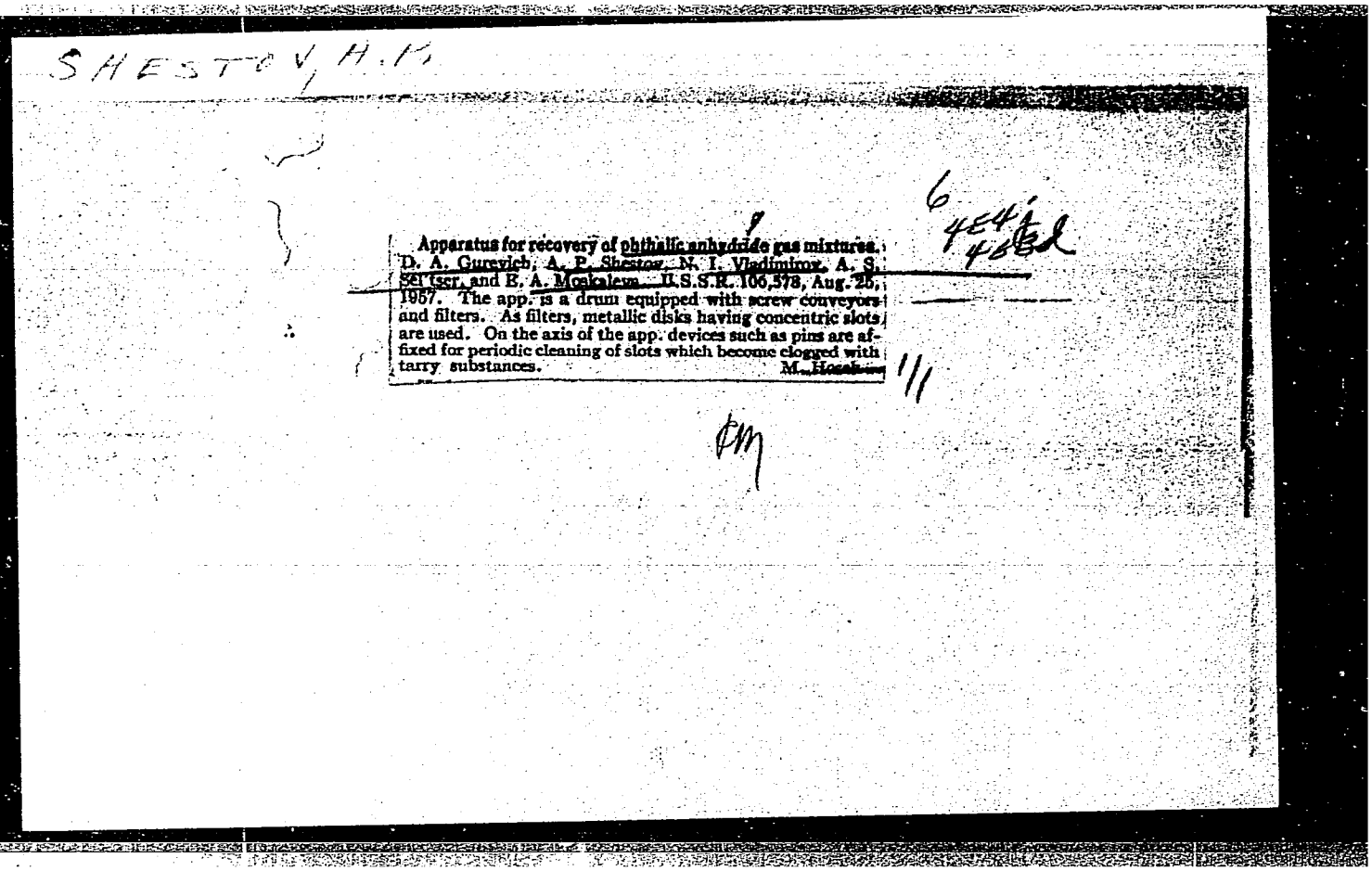
G. M. Kosolapoff

SHESTOV, ~~N.E.~~ A.P.

5

Scrubber for gases and vapors. D. A. Gutsevich, A. P. Shestov, N. I. Vladimirov, A. S. Sel'tser, and E. A. Moskaleva. U.S.S.R. 106,221, July 25, 1957. Gases and vapors contg. solid impurities or impurities likely to form solids in contact with liquids used for irrigation are scrubbed in a tower contg. plates provided with slots. Within the slots are installed knives mounted on rotating shafts. These prevent clogging of the slots and decrease the free space in the tower.

M. Hoseh



SHESTOV, N.I.

Apparatus for recovery of phthalic anhydride gas mixtures. D. A. Gurevich, A. P. Shestov, N. I. Vladimirov, A. S. Sertsev, and E. A. Moskalenko. U.S.S.R. 106,578, Aug. 25, 1957. The app. is a drum equipped with screw conveyors and filters. As filters, metallic disks having concentric slots are used. On the axis of the app. devices such as pins are affixed for periodic cleaning of slots which become clogged with tarry substances. M. Hosak

SHESTOV, A.P.; OSIPOVA, N.A.

Sulfonic acids as side products in sulfonation process of sulfones. Part 4: Possibilities of polarographic determination of sulfonic acids of 4,4'-dimethyl-diphenylsulfone, 4,4'-dichlorodiphenyl-sulfone, 2,2'-dinaphthyl sulfone. Zhur.ob.khim. 27 no.10:2790-2796 O '57. (MIRA 11:4)

1.Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley im. k.Ye. Voroshilova.
(Sulfone) (Naphthyl sulfone) (Polarography)

AUTHORS: Shestov A. P., Osipova, N. A. SOV/79-29-2-54/?

TITLE: Sulphone Sulphonic Acids as By-products in Sulphonation Processes (Sul'fokisloty sul'fonov, kak pobochnyye produkty pri protsessakh sul'firovaniya).
V. On Some Factors Influencing the Formation of Sulphone Sulpho Acids (V. O nekotorykh faktorakh, vliyayushchikh na obrazovaniye sul'fokislot sul'fonov)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol. 29, Nr 2, pp. 595-599 (USSR)

ABSTRACT: In connection with earlier papers by the authors (Refs. 1-3) it was further of interest to find those factors which exercise influence on the degree of formation of sulphone sulphonic acids and to ascertain the conditions of sulphonation which lead to their minimum formation. For this purpose benzene was sulphonated. The investigation of the possible reactions which lead to the formation of the sulpho acids of diphenyl sulphone in the sulphonation of benzene shows that it may be divided into two groups. The first group comprises reactions which take place in the formation of sulphone sulpho acids by way of diphenyl sulphone as intermediate product connected with its subsequent sulphonation. The second group comprises reactions in which sulphone sulpho acids form directly from benzene sulphonic acids

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Sulphone Sulpho Acids as By-products in Sulphonation Processes V. On Some Factors Influencing the Formation of Sulphone Sulpho Acids

The reactions of the first group may take place only in the sulphonation of the free carbohydrate; on the other hand, e.g. such a stepwise formation of the diphenyl sulphone sulpho acid by way of diphenyl sulphone is impossible in a sulphonation of benzene monosulpho acid. It was found that diphenyl sulphonic acids may form according to the first type of reaction as well as according to the second one. Thus, it was found that the formation of diphenyl sulphone sulpho acids in sulphonation of benzene with oleum takes place under the formation of diphenyl sulphone as intermediate product as well as directly from benzene monosulpho acid. The m-benzene disulpho acid practically is not transformed into diphenyl sulphone sulpho acids under the above conditions of sulphonation. The conditions which lead to a minimum formation of diphenyl sulphone sulpho acids were found as well as the delaying influence exercised by sodium sulphate on the formation of diphenyl sulphonic acids in the sulphonation of benzene with oleum. There are 3 tables and 8 references, 6 of which are Soviet.

SOV/79-29-2-57/7

Sulphone Sulpho Acids as By-products in Sulphonation Processes. V. On Some Factors Influencing the Formation of Sulphone Sulpho Acids

ASSOCIATION: Nauchn.-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley (Scientific Research Institute of Organic Semiproducts and Dyes)

SUBMITTED: July 11, 1958

Card 3/3

SHESTOV, A.P.; OSIPOVA, N.A.

Investigation of the sulfonation process of aromatic compounds. Org. poluprod. i kras. no.2:13-45 '61. (MIRA 14:11)
(Aromatic compounds) (Sulfonation)

SHESTOV, A.P.; OSIPOVA, N.A.; PETUKHOVA, K.K.

Sulfone sulfonic acids as by-products in sulfonation processes. Part 6: Possibility of using the chromatopolarographic method for the quantitative determination of sulfonic acids of naphthalene and dinaphthylsulfone. Zhur.ob.khim. 31 no.6:1780-1787 Je '61. (MIRA 14:6)

1. Nauchno-issledovatel'skiy institut poluproduktov i krasiteley imeni K.Ye.Voroshilova.
(Sulfone) (Naphthalene) (Sulfonic acids)

L 58861-65 EPA(w)-2/EWT(m)/EWA(m)-2 Pt-7 IJP(c) GS
ACCESSION NR: AT5007940 S/0000/64/000/000/0591/0594

AUTHOR: Danilov, V. I.; Yenchevich, I. B.; Zamolodchikov, B. I.; Marchenko, B. N.; Novikov, D. L.; Polferov, E. A.; Rozanov, Ye. I.; Savenkov, A. L.; Safonov, A. N.; Shestov, A. V.

TITLE: Increasing the internal beam current of the OIYaI synchrocyclotron to 680-Mev

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 591-594

TOPIC TAGS: synchrocyclotron, high energy accelerator

ABSTRACT: The Laboratory of Nuclear Problems of OIYaI modified the synchrocyclotron to increase the intensity of the internal beam, with the work being conducted in two directions: (a) obtaining a high-frequency program in the synchrocyclotron such that the current at the terminal radius of the accelerator would be a maximum; and (b) creating a focusing system that compensates for the defocusing action of the spatial charge at the center of the accelerator and thus increases the mean current of accelerated protons. The phase motion in the synchrocyclotron is analyzed in

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two principal stages: first, the capture of the particles at the center of the synchrocyclotron during the accelerating regime; and second, their phase motion during the acceleration process up to the terminal radius. The equations of D. Bohm and L. Foldy (*Phys. rev.*, 72, 649 (1947)) are insufficient for the solution of the problem of the optimum capture of charged particles in the accelerating regime in synchrocyclotrons of several hundred Mev. This is explained by the fact that the growth in energy per revolution in the first stage for a constant accelerating potential (U_0=const.) depends upon the radius of the orbit. The curve describing the relative growth of proton energy per revolution as a function of radius was calculated by means of pictures of the dee potential field which were obtained from a model of the central region of the OIYaI synchrocyclotron in an electrolytic tank. Experimental measurements of the current at the radius R=30 cm determined the magnitude of $\dot{\omega}_{s\ init}$ (growth of the circular frequency in units of radians per second^2) that ensures optimum capture conditions. Choice of this radius necessitates excluding the influence of variations in the phase conditions during proton acceleration in the region of the middle and terminal radii. The magnitude of $\dot{\omega}_{s\ init}$ varied over a wide range with variation of the magnetic field strength at the center of the accelerator. For voltage at the dee of U_0=12 kilovolts and for existing geom-

L 58861-65
ACCESSION NR: AT5007940

etry of the accelerating gap, the dependence of the intensity (capture effectiveness) upon $\dot{\omega}_{s\ init}$ for the OIYaI synchrocyclotron showed the optimum value to be 2.25x 10^{10} rad/sec^2 (B.I. Zamolodchikov, et al. Preprint OIYaI P-720, Dubna, 1961). Correction of the parameters of the accelerator's resonance system in January 1961 led to a frequency program with the indicated value of $\dot{\omega}_{s\ init}$ at the beginning of acceleration, which led in turn to increasing the internal beam from 0.3 to 0.8 microamperes at the terminal radius R=274.5 cm. The proton current was measured by means of the induced activity of an aluminum target, according to the reaction $Al^{27}(p,3pn)Na^{24}$, obtained at radii R=270 to 280 cm. A target with a lead backing was calibrated against a beam of protons, extracted from the synchrocyclotron chamber, by means of a Faraday cylinder. The second stage of the work consisted in creating high-frequency characteristics of the synchrocyclotron $\omega_g=\omega_g(t)$ and $U_0=U_0(\omega_g)$ such that they ensure simultaneously the optimum conditions for the capture of the ions and their subsequent acceleration up to the terminal radius without phase loss. During selection of the frequency program of the synchrocyclotron consideration was taken of the damping of phase oscillations during the process of proton acceleration up to the terminal radius of the accelerator. Use was made of the invariance of the integral of action J during the adiabatic variations of the system's parameters.

Card 3/5

L 58861-65
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Further increase in the intensity of the synchrocyclotron was reached by introduction of additional vertical (axial) focusing of the accelerated ion beam in the central region of the accelerator. Investigations of the focusing systems demonstrated the advantage of electrostatic focusing over magnetic focusing at the center of the accelerator. The system of focusing electrodes used in the OIYaI synchrocyclotron was constructed with the possibility of regulating the gap between the dee and supplementary electrodes. Moreover, the configuration of the electric field can be varied by regulation of the arrangement of the grounded screen placed between the dee and the potential electrodes. The Hill equation can describe the motion of the ions in the accelerator's magnetic field and in the electrostatic field created by the supplementary electrodes. The optimum arrangement of the electrodes of the focusing installation was found by experimental study of the properties of the system according to the dependence of the beam current upon U_f (focusing voltage in kilovolts) for various distances of the electrodes from the center of the accelerator. The internal beam current for the indicated conditions was approximately doubled, amounting at the present time to 2.2-2.3 microamperes. Orig. art. has: 7 figures.

Card 4/5

L 58861-65
ACCESSION NR: AT5007940

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy, Dubna (Joint Institute of Nuclear Research)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: NP

NO REF SOV: 001 OTHER: 002

Card 5/5

L 07919-67 EWT(m) IJP(c)

ACC NR: AP6021991 SOURCE CODE: UR/0120/66/000/003/0019/0022

AUTHOR: Danilov, V. I.; Yenchevich, I. B.; Rozanov, Ye. I.; Tomilina, T. N.; Shestov, A. V.

ORG: Joint Nuclear Research Institute, Dubna (Ob"yedinennyy institut yadernykh issledovaniy)

TITLE: Control of a 680 Mev synchrocyclotron

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1966, 19-22

TOPIC TAGS: synchrocyclotron, particle acceleration, coincidence circuit

ABSTRACT: The paper presents a system of control of various synchrocyclotron operating conditions. A phototransducer, having an optico-mechanical connection with a high frequency generator furnishes square pulses of positive polarity. These pulses are used for the regulation of the generator and for synchronizing the operating auxiliary apparatus with the accelerator. A flow chart of this operation is shown. In the continuous mode of operation, the capture and acceleration of the particles occurs in each period of modulation. The synchronization pulses, coincident with the front of the phototransducer pulses, are directed into two channels. In the first of these, the actuating pulses are formed; these pulses move into the exit tube with or without time delay and then into the operator of the high frequency generator. In the second chan-

UDC: 621.384.611.2

Card 1/2

L 05392-67 IJP(c)
ACC NR: AT6031503 SOURCE CODE: BU/2503/66/014/000/0005/0019

AUTHOR: Danilov, V. I.; Enchevich, I. B.; Marchenko, B. N.; Polferov, E. A.; Safonov, A. N.; Shestov, A. V.

47
42
B+/

ORG: none

19

TITLE: Increasing the internal beam current of the synchrocyclotron of the Joint Institute for Nuclear Research by additional electrostatic focusing

SOURCE: Bulgarska akademiya na naukite. Fizicheski institut. Izvestiya na Fizicheskiya institut s ANEB, v. 14, 1966, 5-19

TOPIC TAGS: synchrocyclotron, electrostatic field, electrode, duant, accelerator, rectifier, proton current

ABSTRACT: A description is given of the effects of an electrostatic field in the central region in the synchrocyclotron of the Joint Institute of Nuclear Research upon the accelerated proton current. As a result of theoretical and experimental research, the chosen aperture of the focusing electrode is equal to the aperture of the dee. In view of the need for a stable installation for long periods of work, 30-mm gaps were established between the screens and the electrodes and a 170-mm

Card 1/2

SHESTOV, B. S.

Fuel Abstracts
May 1954
Natural Solid
Fuels: Winning

(2)

3366. RADICAL IMPROVEMENT REQUIRED IN PREPARATION OF STANDARD PLANES IN COAL INDUSTRY. Stugarev, A.S. and Shestov, B.S. (Ugol (Coal), Nov. 1953, 7-12). Planning problems are discussed, particularly those connected with pit head buildings, preparation plants and underground layouts. (L).

Glavshakhtoproyekt.

SHESTOV, B. S.

USSR.

1031. TYPE DESIGNS FOR PIT HEADS OF COAL MINES. (TIPIVAYA OGVERKHNOSTI UGOL'NYKH SHAKHT). Stugarev, A.S., Shestov, B.S. and Butyr, V.A. (Moscow: Ugletekhizdat, 1954, 188ppsr mstr. in Ugol (Coal), Mar. 1955, 48). Experience in producing type designs for the mechanical and structural units at a pit head is summarized. Designs for mines with outputs of 600 to 1500 tons/day are described and explained. (L).

2

Shestov, B.S.

(1).

96. STANDARD DESIGNS FOR BUILDINGS AND INSTALLATIONS AT SURFACE OF MINES AND EQUIPMENT FOR WORKERS' SERVICES IN ADMINISTRATIVE AND WELFARE BLOCKS. Shestov, B.S. (Ugol' (Coal), Feb. 1954, 7-12). The standard plan mentioned in the previous abstract reduces the number of buildings to eight, three of which, two at the head of the two shafts and one administrative and welfare block, occupy 90% of the space. The administrative and welfare block is illustrated and described in detail. It contains changing rooms, showers, laundry, automatic lamp room, electric boot cleaner, radiation treatment room, central vacuum cleaner plant, electric floor washers and offices. A throughput of 720 to 2160 men is provided for according to the number of bays included in the building. (L).

SHESTOV, B.S., inzhener.

Typical designs of buildings and structures on mine surfaces and techniques of servicing the workers of administrative and housing combines. Ugol' 29 no.2:7-12 F '54. (MLRA 7:1)

1. Glavshakhtoproyekt. (Mine buildings)

DROZDOV, P.F., kandidat tekhnicheskikh nauk; SHESTOV, B.S., inzhener

Precast reinforced concrete standard elements for buildings and structures of the coal industry. Bet. i zhel.-bet. no.1:15-20 Ap '55. (Precast concrete construction) (MLRA 8:9)

124-57-2-2294

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 118 (USSR)

AUTHOR: Shestov, B. S.

TITLE: On the Shape, the Static Calculation, and the Graphic Planning of the Foundations of the Rear Bracing of a Mining Shaft Elevator (O forme, staticheskom raschete i graficheskom postroyenii fundamentov ukosiny shakhtnogo kopra)

PERIODICAL: V sb.: Prom. i zhil.-grazhd. str-vo. Nr 2. Moscow, Ugletekhizdat, 1956, pp 62-96

ABSTRACT: Bibliographic entry

1. Mining engineering 2. Underground structures--Design
3. Hoists--Stabilization

Card 1/1

SURMILO, G.V., red.; POKROVSKIY, N.M., red.; GORITSKIY, A.V., red.; SHESTOV, B.S., red.; KRASOVSKIY, I.P., red.izdatel'stva; SAVIN, M.M., red.izdatel'stva; ALADOVA, Ye.I., tekhn.red.

[Coal mine construction work in the U.S.S.R.; on the 40th anniversary of the Great October Socialist Revolution] Stroitel'stvo predpriiatii ugol'noi promyshlennosti SSSR; k 40 letiiu Velikoi Oktiabr'skoi sotsialisticheskoi revoliutsii. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po ugol'noi promyshl., 1957. 478 p. (MIRA 10:12)
(Coal mines and mining)

SHESTOV, B.S., inzhener.

Use of precast reinforced concrete in mine surface structures.
Shakht.stroi. no.1:8-13 Ja '57. (MIRA 10:7)
(Precast concrete) (Mine buildings)

SHESTOV, B.S., inzh.

Reinforced concrete non-ribbed tubings for vertical mine shaft lining. Krepl. gor. vyr. ugol'. shakht no. 1:52-72 '57. (MIRA 11:7)

1. TSentrogiproshakhtostroy.
(Shaft sinking)
(Reinforced concrete construction)

SHESTOV, B.S., inzhener.

Using glass fiber for prestressed reinforcement of concrete.
Shakht.stroi. no.4:28-30 Ap '57. (MLRA 10:7)
(Prestressed concrete) (Glass fibers)

AGALINA, M.S., inzh.; AKUTIN, T.K., inzh.; APRESOV, A.M., inzh.; ARISTOV, S.S., kand. tekhn. nauk,; BELOSTOTSKIY, O.B., inzh.; BERLIN, A.Ya.,inzh.; BESSKIY, K.A., inzh.; BLYUM, A.M., inzh.; BRAUN, I.V., inzh.; BRODSKIY, I.A., inzh.; BURAKAS, A.I.,inzh.; VAYNMAN, I.Z., inzh.; VARSHAVSKIY, I.N.,inzh.; VASIL'YEVA, A.A.,inzh.; VORONIN, S.A.,inzh.; VOYTSEKHOVSKIY, L.K., inzh.; VRUBLEVSKIY, A.A.,inzh.; GERSHMAN, S.G., inzh.; GOLUBYATNIKOV, G.A.,inzh.; GORLIN, M.Yu., inzh.; GRAMMATIKOV, A.N., inzh.; DASHEVSKIY, A.P.,inzh.;DIDKOVSKIY, I.L., inzh.; DOBROVOL'SKIY, N.L.,inzh.; DROZDOV, P.F.,kand. tekhn. nauk,; KOZLOVSKIY,A.A.,inzh.; KIRILENKO, V.G.,inzh.; KOPELYANSKIY, G.D.,kand. tekhn. nauk,; KORETSKIY, M.M.,inzh.; KUKHARCHUK, I.N.,inzh.; KUCHER, M.G.,inzh.; MERZLYAK, M.V.,inzh.; MIRONOV, V.V.,inzh.; NOVITSKIY, G.V.,inzh.; PADUN, N.M.,inzh.; PANKRAT'YEV, N.B., inzh.; PARKHOMENKO, V.I.,kand. biol. nauk,; PINSKIY, Ye.A.,inzh.; POLLUBNYY, S.A., inzh.; PORAZHENKO, F.F.,inzh.; PUZANOV, I.G.,inzh.; REDIN, I.P.inzh.; REZNIK, I.S.,kand. tekhn. nauk,; ROGOVSKIY, L.V.,inzh.; RUDERMAN, A.G.,inzh.; RYBAL'SKIY, V.I.,inzh.; SADOVNIKOV, I.S.,inzh.; SEVER'YANOV, N.N.,kand. tekhn. nauk,; SEMESHKO, A.T.,inzh.; SIMKIN, A.Kh., inzh.; SURDUTOVICH, I.N.,inzh.; TROFIMOV, V.I.,inzh.; FEFER, M.M.,inzh.; FIALKOVSKIY, A.M.,inzh.; FRISHMAN, M.S., inzh.; CHERESHNEV, V.A., inzh.; SHESTOV, B.S., inzh.; SHIFMAN, M.I., inzh.; SHUMYATSKIY, A.F.,inzh.; SHCHERBAKOV, V.I.,inzh.; STANCHENKO, I.K., otv. red.; LISHIN, G.L. inzh.,red.; KRAVTSOV,Ye.P., inzh.,red.; GRIGOR'YEV, G.V.,red.; KAMINSKIY, D.N.,red.; KRASOVSKIY, I.P.,red.; LEYTMAN, L.Z., red.[deceased],; GUREVICH, M.S.,inzh.,red.; DANILEVSKIY, A.S.,inzh.,red.; DEMIN, A.M., inzh.,red.; KAGANOV, S.I.,inzh.,red.; KAUFMAN, B.N., kand. tekhn. nauk, red.; LISTOPADOV, N.P.,inzh.,red.; MENDELEVICH, I.R., inzh.,red.[deceased];

(continued on next card)

AGALINA, M.S.... (continued) Card 2.

PENTKOVSKIY, N.I.,inzh.,red.; ROZENBERG, B.M.,inzh.,red.; SLAVIN, D.S., inzh.,red.; FEDOROV, M.P.,inzh.,red.; TSYMBAL, A.V.,inzh.,red.; SMIRNOV, L.V., red. izd-va,; PROZOROVSKAYA, V.L., tekhn. red.

[Mining ; an encyclopedic handbook] Gornoe delo; entsiklopedicheskii spravochnik. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po ugol'noi' promyshl. Vol. 3.[Organization of planning; Construction of surface buildings and structures] Organizatsiia proektirovaniia; Stroitel'stvo zdanii i sooruzhenii na poverkhnosti shakht. 1958. 497 p. (MIRA 11:12)

(Mining engineering)
(Building)

SHESTOV, B.S., inzh.

Universal ribless reinforced concrete tubing for mine shaft lining.
Shakht. stroi. no.7:10-15 '58. (MIRA 11:9)

1. Gosstroy SSSR.
(Shaft sinking) (Reinforced concrete construction)

SHESTOV, B.S., inzh.

Improving the procedure for working out plans for industrial construction. Prom.stroi. 39 no.8:40-45 '61. (MIRA 14:9)
(Factories—Designs and plans)

SHESTOV, B.S., inzh.

Burning questions of improving planning in industrial construction. (MIRA 15:12)
Prom.stroi. 40 no.11:2-6 '62.
(Construction industry)

DROZDOV, Pavel Filaretovich, dots., kand. tekhn. nauk; SHESTOV, B.S., nauchn. red.; SERGEYEV, D.D., nauchn. sotr., retsenzent; MKRTUMYAN, A.K., nauchn. sotr., retsenzent; BOLOTINA, A.V., red. izd-va; KASIMOV, D.Ya., tekhn. red.

[Large-panel apartment houses from precast reinforced concrete] Krupnoelementnye zhilye zdaniia iz sbornogo zhelezobetona; konstruktsii i raschet. Moskva, Gosstroizdat, 1963. 177 p. (MIRA 16:7)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektno-eksperimental'nyy institut industrial'nykh zhilykh i massovykh kul'turno-bytovykh zdaniy Akademii stroitel'stva i arkhitektury SSSR (for Sergeyev, Mkrtumyan).
(Apartment houses)

SHESTOV, D.B.

Statistical record of diseases requiring outpatient surgical treatment.
Zdrav. Ros. Feder. 6 no.4:23-25 Ap '62. (MIRA 15:4)

1. Iz kafedry organizatsii zdravookhraneniya (zav. - prof. S.Ya. Freydlin) I Leningradskogo meditsinskogo instituta imeni akademika I.P.Pavlova (dir. - dotsent A.I.Ivanov).
(HOSPITALS--OUTPATIENT SERVICES) (OPERATIONS, SURGICAL)

SHESTOV, D.B. (Leningrad)

Some problems in the organization of surgical aid in the home. Sov.zdrav. 21 no.7:27-29 '62. (MIRA 15:8)

1. Iz kafedry organizatsii zdravookhraneniya (zav. - prof. S.Ya. Freydlin) I Leningradskogo meditsinskogo instituta imeni akademika Pavlova (rektor - dotsent A.I.Ivanov).
(SURGERY)

3(3) SOV/[illegible]-1-1[illegible]

AUTHORS: Kropachev, A. M., Kropacheva, T. S., Shestov, P. M.

TITLE: Strontium in Weakly Mineralized Ground Waters of the Middle Pre-Ural Region (Strontsiy v podzemnykh slabomineralizovannykh vodakh srednego Predural'ya)

PERIODICAL: Geokhimiya, 1959, Nr 1, pp 93-96 (USSR)

ABSTRACT: 189 samples from fountains, wells, and drill-holes were investigated. The dry residue was analyzed with the spectrograph ISP-22. A mixture of following substances in mg/l 366.0 HCO_3, 43.4 Cl, 148.0 SO_4, 12.0 Mg, 174.6 Ca, 19.4 Na - K, amounting to a total of 759.4 mg/l was taken as standard sample. 1.0; 0.1, 0.01, 0.001% Sr were added to this mixture. The blackening of the lines 4077.714 Å and 4607.331 Å was compared visually by means of a spectrum projector. The analyses were carried out by A. M. Kropachev. A table summarizes stratigraphical horizon, type of rock, number of samples, total mineralization in mg/l and average strontium content in percent of the dry residue and in mg/l water (Table 1). Waters of the Perm horizons, e.g. P_1^{3ks} and P_1^{2lem} with 1.0% Sr in the dry residue have the highest strontium content. In table 2 18 complete analyses of mineral waters from different geolo-gi-

Card 1/2

Strontium in Weakly Mineralized Ground Waters of the Middle Pre-Ural Region

cal horizons are given. There are 2 tables and 4 Soviet references.

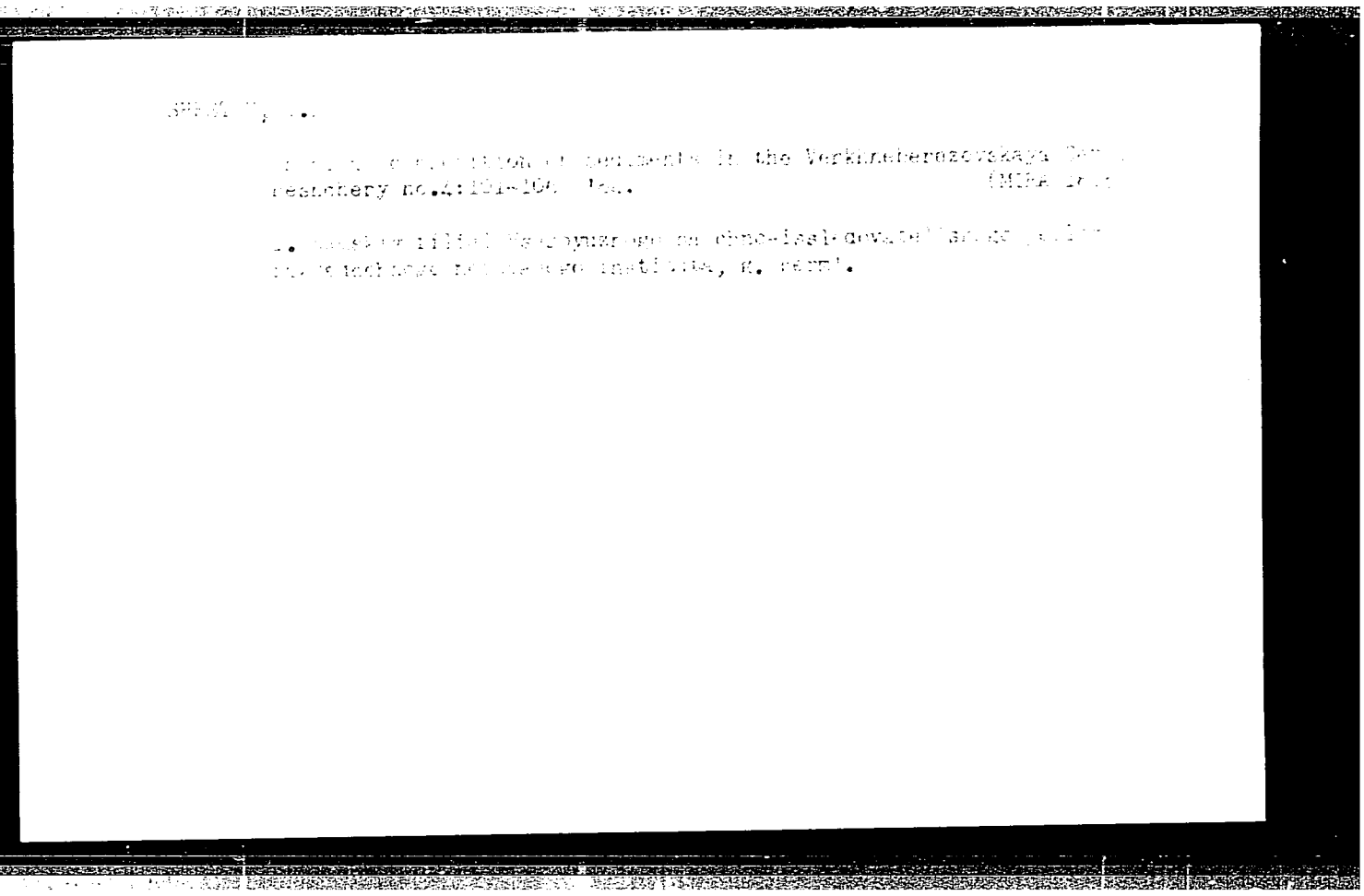
ASSOCIATION: Permskiy gosudarstvennyy universitet im. A. M. Gor'kogo (Perm' State University imeni A. M. Gor'kiy)

SUBMITTED: December 11, 1957

ZALKIND, I. E., (Perm'); OBORIN, A. A. (Perm'); SHESTOV, I. N. (Perm')

Healing springs in the cis-Ural region. Priroda 52 no.1: 117-118 '63. (MIRA 16:1)

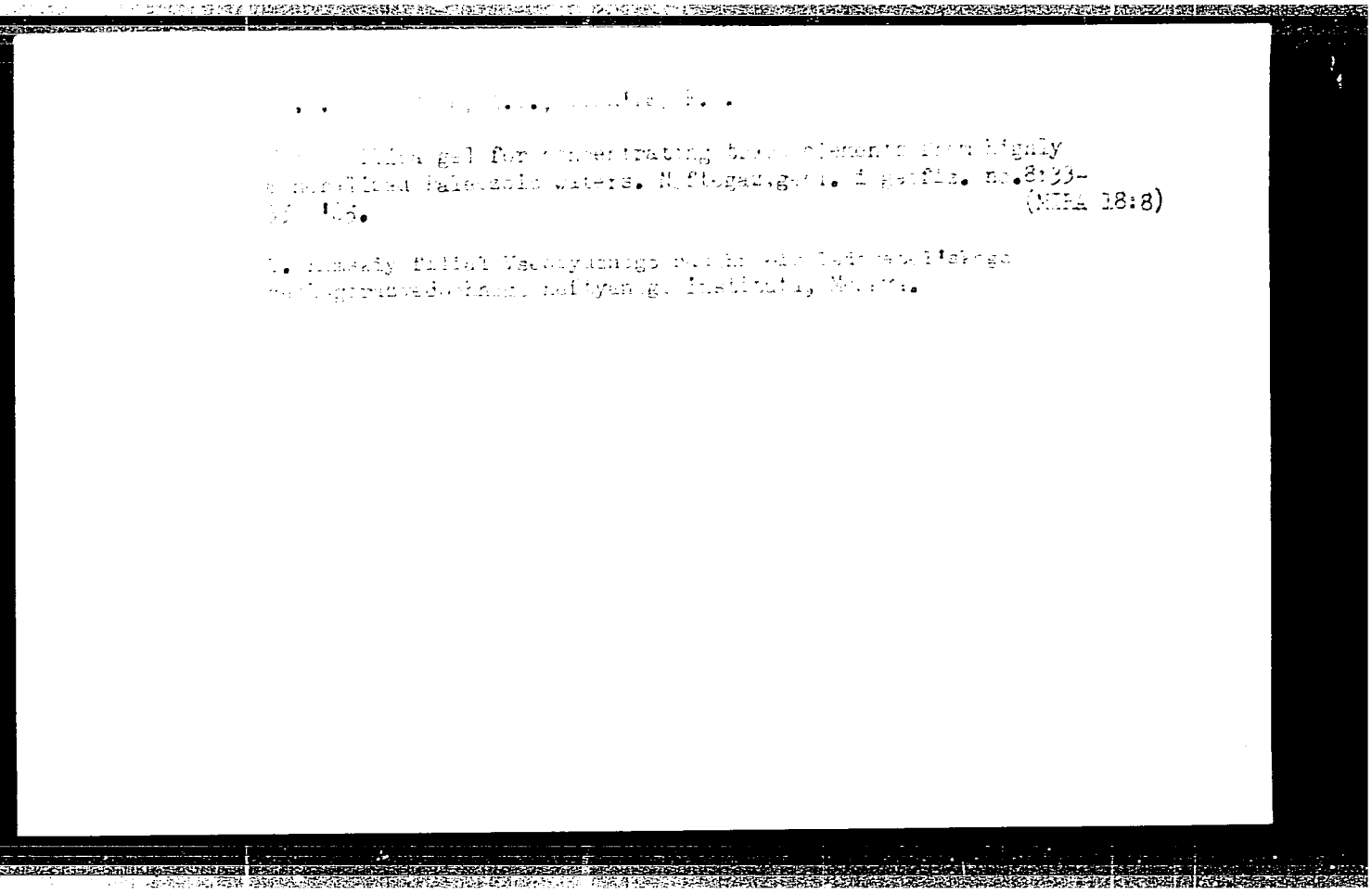
(Cherdyn' District—Mineral waters)



SHESTOV, I.N.; IVANOV, V.N.

Trace elements in the underground waters of Perm Province. Sov. geol. 7 no.2:143-146 F '64. (MIRA 17:3)

1. Kamskiy filial Vsesoyuznogo nauchno-issledovatel'skogo geologo-razvedochnogo neftyanogo instituta.



SHESTOV, I.N.; [illegible] A.A.

Prospects for finding native sulfur on the territory of Perm Province. Sov. geol. 8 no.2:138-140 F '65.
(MIRA 18:12)

1. Kamskiy filial Vsesoyuznogo nauchno-issledovatel'skogo geologorazvedochnogo neftyanogo instituta.

SHESTOV, L.F., remontirovshchik

Upper plates of shuttle boxes with tightening flanges. Tekst.prom. no.2: 54-55 F '63. (MIRA 16:4)

1. Pervaya tkatskaya fabrika "Vozhd' proletariata", g.Yegor'yevsk. (Looms—Maintenance and repair)

SHESTOV, P.I.

Results of testing hinged cap sets. Ugol' 32 no.1:11-15 '57.
(Donets Basin--Mine timbering) (MLRA 10:2)

SHESTOV, P.I., inzh.

Causes of loss and deformation of metallic supports. Ugol' Ukr. 3 no.3:20-21 Mr '59. (MIRA 12:5)
(Mine timbering--Maintenance and repair)

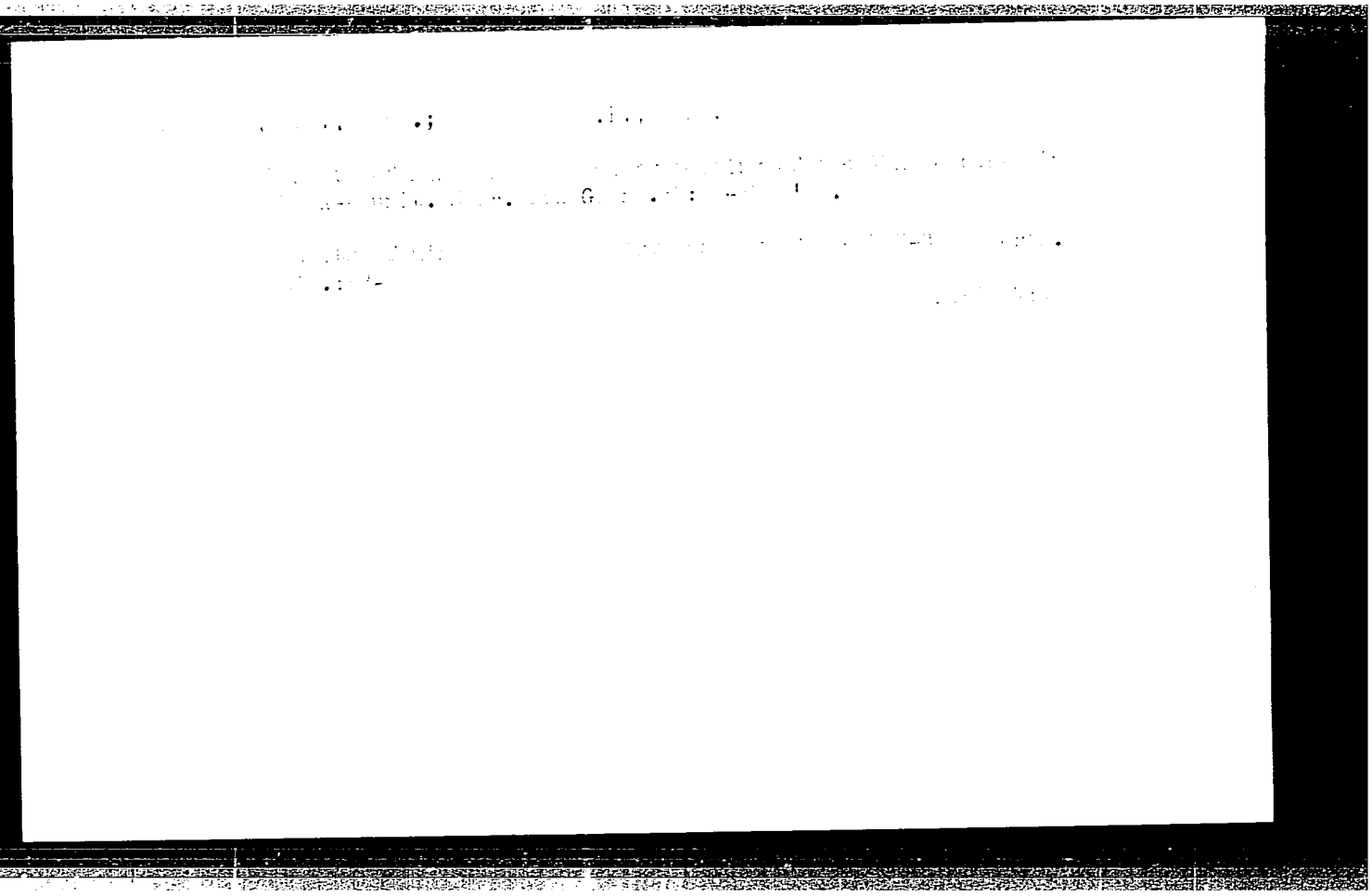
SHESTOV, P.I., inzh.

Test results of hydraulic supports. Ugol' Ukr. 6 no.5:16-17 My '62. (MIRA 15:11)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.
(Donets Basin--Mine timbering)
(Coal mines and mining--Hydraulic equipment)

SHESTOV, P.I., inzh.

Results of tests of new types of metal supports for stopes. Sbor.DonUGI no.26:43-95 '62. (MIRA 16:6)
(Mine timbering--Equipment and supplies)



LAPSHIN, A.; SHESTOV, R.

Using hydrocyclones for extracting fats and separating bones in the production of edible fats. Mias.ind.SSSR 32 no.2:48-50 '61. (MIRA 14:7)

1. Leningradskiy institut kholodil'noy promyshlennosti.
(Oils and fats, Edible) (Separators (Machines))

ACC NR: AP6006552 (A) SOURCE CODE: UR/0335/65/000/005/0006/0007

AUTHOR: Lapshin, A. (Doctor of technical sciences, Professor); Shestov, R. (Candidate of technical sciences)

ORG: Leningrad Technologic Institute for the Refrigeration Industry (Leningradskiy tekhnologicheskiy institut kholodil'noy promushlennosti)

TITLE: Optimum conditions for the hydromechanical degreasing of bones

SOURCE: Myasnaya industriya SSSR, no. 5, 1965, 6-7

TOPIC TAGS: food product machinery, food processing equipment

ABSTRACT: The investigation was carried out in a semiworks hydromechanical machine which had a design capacity of 600 kg of mixed bones per hour, and a peripheral velocity of 40 meters/sec. The bono feed (whose properties are shown in a table) was previously ground in a ball mill. The construction of the machine is shown in a detailed drawing. It was provided with means for changing the number of agitators, to vary the degree of pulverization of the bones and to increase the efficiency of the extraction. The amount of cold water fed into the machine was controlled by a rotometer, and the consumption of electric power was measured with a Type KIP instrument. Determinations were made of the following parameters: the degree of extraction of grease from the bones as a function of the fineness of the grinding;

Card 1/2 UDC: 591.471.3;532.677.825.4

S/146/61/004/006/012/020
D235/D301

13.2570

AUTHORS: Nikitin, Ye. A. and Shestov, S. A.

TITLE: A magnetic suspension for float instruments

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, v. 4, no. 6, 1961, 87-96

TEXT: The authors consider the problem of utilizing a 12-pole magnetic transmitter for suspension for float gyroscopes and accelerometers. The transmitter is a combination of four 3-pole differential transformers. The principle of operation of the transmitter is explained and basic conditions for the parameters are deduced. A numerical example of approximate design of the suspension is given, with determination of the rigidity of the latter. There are 6 figures and 2 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: P. Gilin[illegible], W. Denhard and R. Frazier, Magnetic support for floated inertial instruments. Published by Instrumentation Laboratory, Massachusetts Institute of Technology. April 1960. This article

Card 1/2

A magnetic suspension ...

S/146/61/004/006/012/020
D235/D301

was recommended by the Kafedra giroskopicheskikh priborov (Department of Gyroscopic Instruments).

ASSOCIATION: Moskovskoye vysshoye tekhnicheskoye uchilishche im. Baumana (Moscow Higher Technical School im. Bauman)

SUBMITTED: May 29, 1961

Card 2/2

ODINTSOV, Anatoliy Alekseyevich; RYABOV, B.A., prof., retsenzent; NIKITIN, Ye.A., dots., retsenzent; SHESTOV, S.A., assist., retsenzent; SAYDOV, P.I., prof., red.; KHRUSTALEVA, N.I., red. izd-va; MURASHOVA, V.A., tekhn. red.

[Desgin of electrical elements of gyroscopic devices]Proektirovanie elektroelementov giroskopicheskikh ustroistv. Moskva, Vysshaia shkola, 1962. 190 p. (MIRA 15:12)
(Gyroscope)

SHESTOV, S.A., prepodavatel'; TIMOFEYEVA, Z.N., red.

[Physical fundamentals of inertial navigation; manual for students of the subject "Gyroscopic instruments and devices"] Fizicheskie osnovy inertsial'noi navigatsii; posobie dlia studentov spetsial'nosti "Giroskopicheskie pribory i ustroistva" Perm'. Pt.1. 1963. 30 p. (MIRA 17:5)

1. Perm. Politekhnicheskiy institut. Kafedra giroskopicheskikh priborov i ustroystv. 2. Moskovskoye vysshoye tekhnicheskoye uchilishche im. Baumana (for Shestov).

SHESTOV, S.M.

Encourage radio as a hobby in schools. Politekh.obuch. no.2:86-89 F '59. (MIRA 12:3)

1. Pedagogicheskiy institut, g. Voronezh.
(Radio clubs)

VASIL'KOVSKIY, N.A., SVINUKHIN, Yu.G., KROPKIN, Ye.F., SHESTOV, S.N.

Industrial testing of three-roller bits in strip mines of the "Karakubakoye" Mining Administration. Met. i gornorud. prom. no.3:70-71 My-Je '64. (MIRA 17:10)

SHESTOV, V. I.

"Admiral P. S. Nakhimov's Concern About the Military Naval Medicine," Voyenno-Med. Zhur. p. 79, No. 9, 1955.

SHESTOV, V.I., kandidat meditsinskikh nauk

Admiral P.S.Nakhimov's attention to naval medicine. Voen.-med. zhur. no.9:79-83 S '55. (MLRA 9:9)
(NAKHIMOV, PAVEL STEPANOVICH, 1802-1855)
(MEDICINE, NAVAL--HISTORY)

SHESTOV, V.I., kandidat meditsinskikh nauk.

Some problems in compiling a history of military and naval medicine. Voen-med. zhur. no.2:83-87 F '56 (MLRA 10:5)
(MEDICINE, MILITARY AND NAVAL, history, in Russia) (Rus)

SHESTOV, V.I. (Leningrad)

Military medical museum and its role in the training and improvement of medical personnel. Sov.zdrav. 21 no.12:68-70 '62.
(MIRA 15:12)

(MEDICAL MUSEUMS) (MEDICAL PERSONNEL)

SHESTOV, V.P.

Some data on the selectivity of trawls as related to scorpion fishes. Trudy VNIRO no.47:46-51 '62.

(MIRA 18:4)

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(Germany, East--Politics and government)
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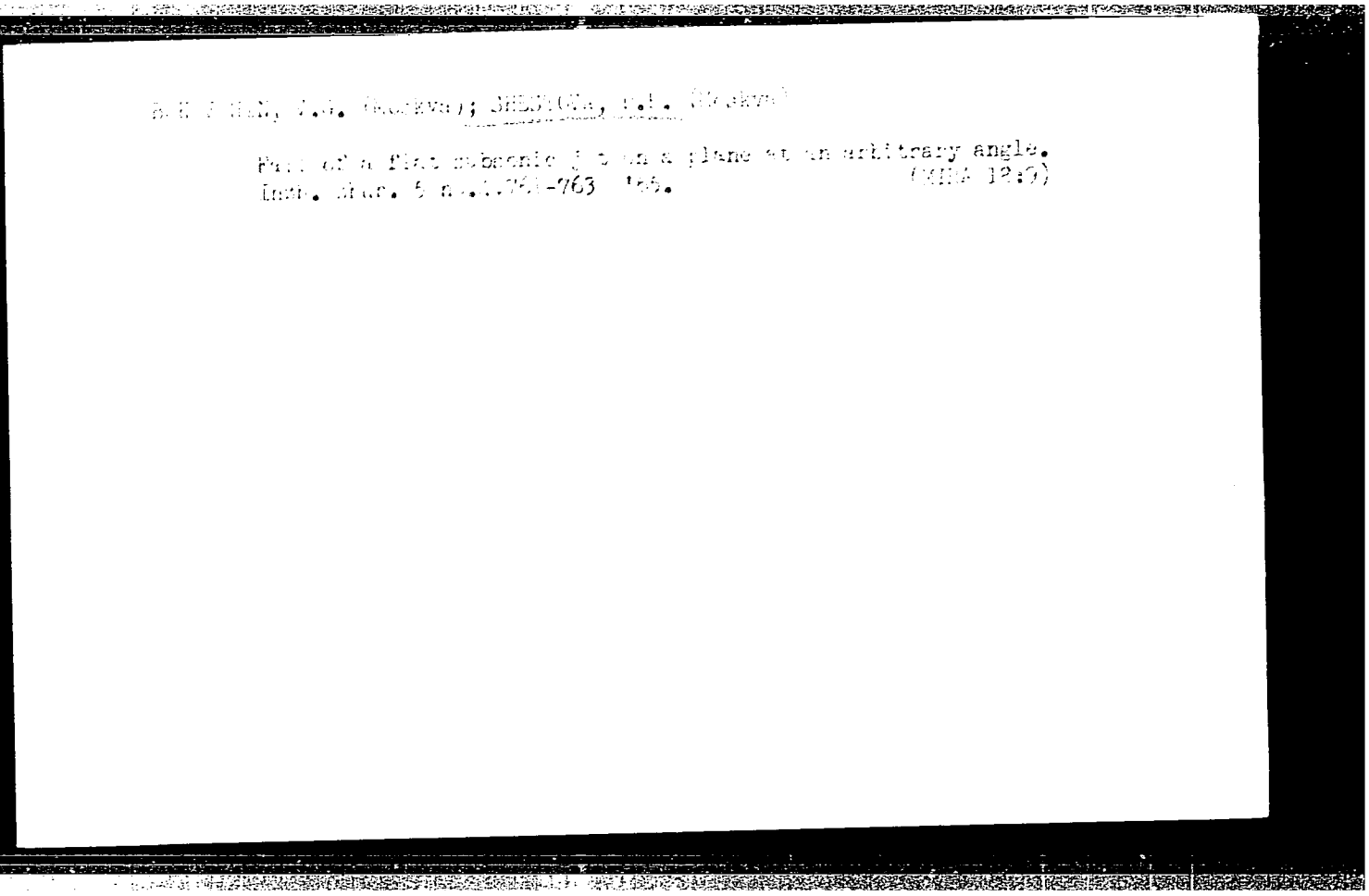
1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo i Nauchno-issledovatel'skiy institut khimii.



S/262/62/000/002/011/017
1008/1208

AUTHOR: Aronov, D., Koltypin, S and Shestukhin, V

TITLE: Effect on engine performance upon removal of scum from the cooli g system

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk 42. Silovyye ustanovki, no 2, 1962, 56, abstract 42 2.318. "Avtomob. transport", no. 4, 1961, 14–16

TEXT: Test have shown that the removal of scum from the cooling system of an engine by flushing it with acids improves, due to an increase in the packing factor and a decrease in detonation, the mechanical and economic efficiencies by 4%. The composition of a scum-removing solution of hydrochloric acid and a method of flushing the cooling system are given. There are 4 figures.

[Abstracter's note: Complete translation.]

Card 1/1

SHESTUKHIN, V.I., inzh.

Investigating the operation of the D-38 diesel engine during the acceleration of tractor-driven machinery. Trudy MIMESKH 12:343-388 '60. (MIRA 13:9)
(Diesel engines)

FOMIN, A.V., kand. tekhn. nauk; MANUSADZHYANTS, O.I., inzh.;
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[Operational characteristics of motor vehicle diesel engines] Ekspluatatsionnye kachestva avtomobil'nykh dizel'nykh dvigatelei. Moskva, Avtotransizdat. No.2. 1963. 42 p.
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[Methods for determining the technical condition of the cylinder-piston unit of motor-vehicle carburetor engines]Metody opredeleniia tekhnicheskogo sostoianiia tsilindro-porshnevoi gruppy avtomobil'nykh karbiuratornykh dvigatelei. Moskva,Avtotransizdat. No.2.[Investigating the method for determining the technical condition of the cylinder-piston unit of a motor-vehicle carburetor engine by cutting off cylinders] Issledovanie metoda opredeleniia sostoianiia tsilindro-porshnevoi gruppy avtomibil'nogo karbiuratornogo dvigatelia putem vykliucheniia tsilindrov iz raboty. 1961. 22 p. (MIRA 15:1)
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Increasing dynamic and economic indices of tractor engines under unsteady load. Trakt. i sel'khozmash. 31 no.7:9-11 Jl '61. (MIRA 14:6)

1. Moskovskiy institut mehanizatsii i elektrifikatsii sel'skogo khozyaystva.

(Tractors--Engines)

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[Operation of the IAMZ engines] Ekspluatatsiia dvigatelei IAMZ. Moskva, Transport, 1964. 72 p. (MIRA 18:3)

KRUZHALOV, B.D.; SHESTUKHIN, Yu.S.; GARNISH, A.M.

Catalytic oxidation of propylene to acrolein in the presence of selenium. Kin.i kat. 3 no.2:247-251 Mr-Ap '62. (MIRA 15:11)

1. Novokuybyshevskiy filial Nauchno-issledovatel'skogo instituta sinteticheskogo spirta.
(Propene) (Acrolein) (Catalysts)

USSR/Physics - Secondary Electrons Aug 52

"Knocking Out of Electrons and Reflection of Potassium Ions From Tungsten and Tantalum," M. A. Yeremeyev, V. V. Shestukhina

"Zhur Tekh Fiz" Vol 22, No 8, pp 1262-1267

Subject was studied by shooting potassium ions of engeries of 2 - 6 kev against targets of tungsten and tantalum. Electron emission was studied in a temp range of targets of 293 - 1,200° K and reflection of ions at a temp of 293 to 200 - 2,500° K.

226T89

Analysis confirmed assumption that electron emission depends on the adsorptive layer of the target.
Received 28 Apr 52.

226T89

SHESTUKHINA, V. V.

USSR/Physics - Secondary Electrons Aug 52

"Knocking Out of Electrons and Reflection of Lithium Ions from Tungsten and Tantalum" M. A. Yeremeyev, V. V. Shestukhina

"Zhur Tekh Fiz" Vol 22, No 8, pp 1268-1270

Continuation of the preceding article [see 226T97] in order to investigate whether the laws found hold for ions of other elements. Measurements were performed with lithium ions of engery varying from 2 to 6 kev. States that at high temp of

226T90

target, the emission of secondary electrons under impact of lithium ions exceeds that produced by potassium ions, probably due to higher adsorption of lithium atoms by the target. Received 28 Apr 51.

226T90

SHESTUKHINA, V. V.

SIGALOV, D.L. [Syhalov, D.L.], dotsent; SHESTUN, L.I.

Role of hormonal treatment in the general compound treatment of pneumonia in children mainly of the nursing age. Ped., akush. i gin. 23 no.5:7-10 '61. (MIRA 14:12)

1. Kafedra pediatrii No.1 (zav. - dotsent D.L.Sigalov) Kiivs'kogo institutu udoskonalennya likariv (rektor - dotsent M.N.Umovist) i spetializovana dityacha likarnya (golovniy likar - T.P.Novikova).
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(INFANTS (NEWBORN)--DISEASES)

SHESTUN, O., inzh. [deceased]

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