L 16485-65
ACCESSION NR AM4045079

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Ch. I. Amplifiers of automatic components -- 7
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SUB CODE: DP, EC SUBMITTED: 10Dec63 NR REF SOV: 000

OTHER: 000

Card 2/2

LEVIT, N.B.; PODGAYNYY, V.K.; KRIVITSKIY, B.Kh., inzh.-polkovnik, red.; SHAROGORODSKIY, S.G., inzh.-podpolkovnik, red.

[Automatic control] Avtomatika. Moskva, Voenizdat, 1964. 400 p. (MIRA 17:5)

KAZNACHEY, B.Ya.; PODGAYSKAYA, L.N.; PONOMAREVA, O.V.; SEMENCHUK, O.V.

Observations on the phonorecord error "displacement of grooves."
Trudy VNAIZ no.5:110-115 '59. (MIRA 15:4)
(Phonorecords)

SOV/16-59-9-9/47

17(2)

AUTHOR: Podgayskaya, M.O.

TITLE: The Rate of Isolation of the Different Phases of Haemophilus Pertussis

PERIODICAL: Zhurnal mikrobiologii, epidemiologii i immunobiologii, 1959, Nr 9, pp 43-46 (USSR)

ABSTRACT: Soviet researchers such as Kandyba, Davydova (quoted by G.V. Vygodchikov), Shveyger, Fel'dman, Tereza, Ye.F. Trushina and Ye.A. Mamayeva have observed a pronounced polymorphism in Haemophilus pertussis and it is now commonly accepted that the bacillus has 4 separate phases. The purpose of subject work was to study the serological differentiation of the phases of H. pertussis strains isolated from children with whooping cough cases. The survey was carried out among children in day nurseries and kindergartens. Four phases of H. pertussis were isolated from the children. Whooping cough cases mostly gave phase I strains whereas the contacts mostly gave phase III strains. Some phase I strains were, however, isolated from healthy contact children. Serologically, both phase I and phase II strains cross agglutinated with their respective sera. Exhaustion of the sera with homologous strains led to the disappearance of the fraction specific to phase I. The

Card 1/2

remaining antibodies agglutinated all the H. pertussis strains in low titers (1:5 - 1:10) irrespective of their phase. The results go to prove the serological uniformity of H. pertussis strains. There are 6 references, 3 of which are Soviet and 3 English

ASSOCIATION: Permskiy institut vaktsin i syvorotok (Institute of Vaccines and Sera, Perm')

SUBMITTED: September 26, 1958

PODGAYSKAYA, M.O.; YEL'KINA, A.P.

Accelerated diagnosis of diphtheria by means of fluorescence microscopy. Lab. delo 7 no.5:51-53 My '61. (MIRA 14:5)

1. Permskiy institut vaktsin i syvorotok.
(FLUORESCENCE MICROSCOPY) (DIPHTHERIA)

PRINS, A. [Prince, A.]; PODGAYSKAYA, Z.I. [translator]

On the history of the study of phase diagrams. Zhur. neorg. khim. 4 no.4:950-952 Ap '59. (MIRA 12:5)
(Phase rule and equilibrium)

PODGAYSKAYA, Z.I.

Conference on the Analysis of Rare and Semiconducting Elements.
Zhur.anal.khim. 15 no.3:383-384 My-Je '60. (MIRA 13:7)

(Semiconductors--Congresses)
(Chemistry, Analytical--Congresses)

TERENT'YEV, A.P., otv.red.; ALIMARIN, I.P., red.; GEL'MAN, N.E., red.; KLIMOVA, V.A., red.; KRESHKOV, A.P., red.; KUZNETSOV, V.I., red.; LEVIN, E.S., red.; PODGAYSKAYA, Z.I., red.; RUKHADZE, Ye.G., red.; TAL'ROZE, V.L., red.; TSUKERMAN, A.M., red.; SHEMYAKIN, F.M., red.; SHEYNKER, Yu.N., red.; YERMAKOV, M.S., tekhn.red.

[Conference on organic analysis] Soveshchanie po organicheskomu analizu. Tezisy dokladov. Moskva, Izd-vo Mosk.univ., 1961. 170 p. (MIRA 14:4)

1. Soveshchaniye po organicheskomu analizu. 1961.
(Chemistry, Analytical--Congresses)
(Chemistry, Organic--Congresses)

PODGAYSKAYA, Z.I.; RUKHADZE, Ye. G.

Conference on organic analysis. Zhur. anal.khim. 16 no.3:383-384 My-Je '61. (MIRA 14:6)
(Chemistry, Organic—Congresses)
(Chemistry, Analytical)

BOGOSIOV, Ya.I., inzh.; PODGAYSKIY, V.A., inzh.

Mastic for under decks based on ethyl alcohol paint. Sudostroenie 27 no.7:64-65 Jl '61. (MIRA 14:11)
(Shipbuilding--Equipment & supplies)
(Ships--Painting)

PODGAYSKIY, K.R., inzh.

Improving lumber kilns. Biul. tekhn.inform. 4 no.9:20-21 S '58. (MIRA 11:10)
(Lumber--Drying)

PODGAYSKIY, Leonid Iosifovich, kombaynar; ALIKEYEV, Ye., red.

[Improve skills and raise productivity] Sovershenstvovat' masterstvo - povyshat' proizvoditel'nost'. Smolensk, Smolenskoe knizhnoe izd-vo, 1963. 35 p. (MIRA 17:7)

PODGAYSKIY, N.N.

Amateur meteorologist. Meteor. i gidrol. no.12:56 D '63.
(MIRA 17:3)

POPGLODEK, T.

COUNTRY : Poland
CATEGORY : H-33

ABS. JOUR. : RZKhim., No. 20 1959, No. 73457

AUTHOR : Piela, W.; Podgloack, T.; Winczaziewicz, A.
INST. :
TITLE : Determination of Beta- and Gamma-Cellulose in Cellulose Intended for Synthetic Fiber

ORIG. PUB. : Chem. analit., 1958, 3, No 3-4, 693-697

ABSTRACT : A comparison is made of four methods of determination of beta- and gamma-cellulose: the classical method of Cross-Bevan, Swedish Standard CCA-10-1941, the Czech Standard CSN-50-0281-1955, and the Swedish modified method. Advantages and disadvantages of these methods are noted. The Swedish method, which has its advantages, is recommended for quality control of cellulose intended for synthetic fiber. The experiments were conducted with three different specimens of cellulose having different analytic characteristics.

CARD: 1/1

PODGOL, I.A.

Landscaping of industrial shops. Biol. v shkole no.1:72-73 Ja-F '63. (MIRA 16:6)

1. Shkola No. 12, Rostov-na-Donu.
(Landscape gardening)

PODGORAYA, L. N.

"A study of certain procedures for increasing the productivity of winter wheat." Min Higher Education Ukrainian SSR. Khar'kov Order of Labor Red Banner Agricultural Inst imeni V. V. Dokuchayev. Khar8kov, 1956. (Dissertations for the Degree of Doctor of Agricultural Science)

So: Knizhnaya letopis', NO. 16, 1956

L 52359-65 EWI(m)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) Pf-4 MJW/JD/HM

ACCESSION NR: AP5009781 UR/0133/65/000/004/0362/0363

AUTHOR: Dunayev, F. N.; Malev, N. S.; Podgorbunskikh, A. A.

TITLE: The effect of thermomagnetic and thermomechanical magnetic treatment on specific losses, coercive force and magnetostriction of transformer steel

SOURCE: Stal', no. 4, 1965, 362-363

TOPIC TAGS: transformer steel, thermomechanical treatment, magnetic treatment, magnetostriction, magnetic field, anisotropy

ABSTRACT: Tests were made for improving the functional properties of E330 transformer steel. Thermomagnetic treatment (annealing in the presence of a magnetic field) and especially thermomechanical magnetic treatment (the same annealing process with the application of tension) were studied with regard to their effect on specific losses $P_{10/50}$, coercive force H_c and magnetostriction λ. The samples studied were cut lengthwise from rolled steel in the form of strips 320 × 30 × 0.35 mm. These samples were reannealed at 800°C in liquid hydrogen for two hours and subsequent-cooled at the rate of 100° per hour (0.03° per second). Another set of specimens was tested without reannealing. Before the magnetic treatment, the samples

Card 1/4 *Obviously an error in translation.

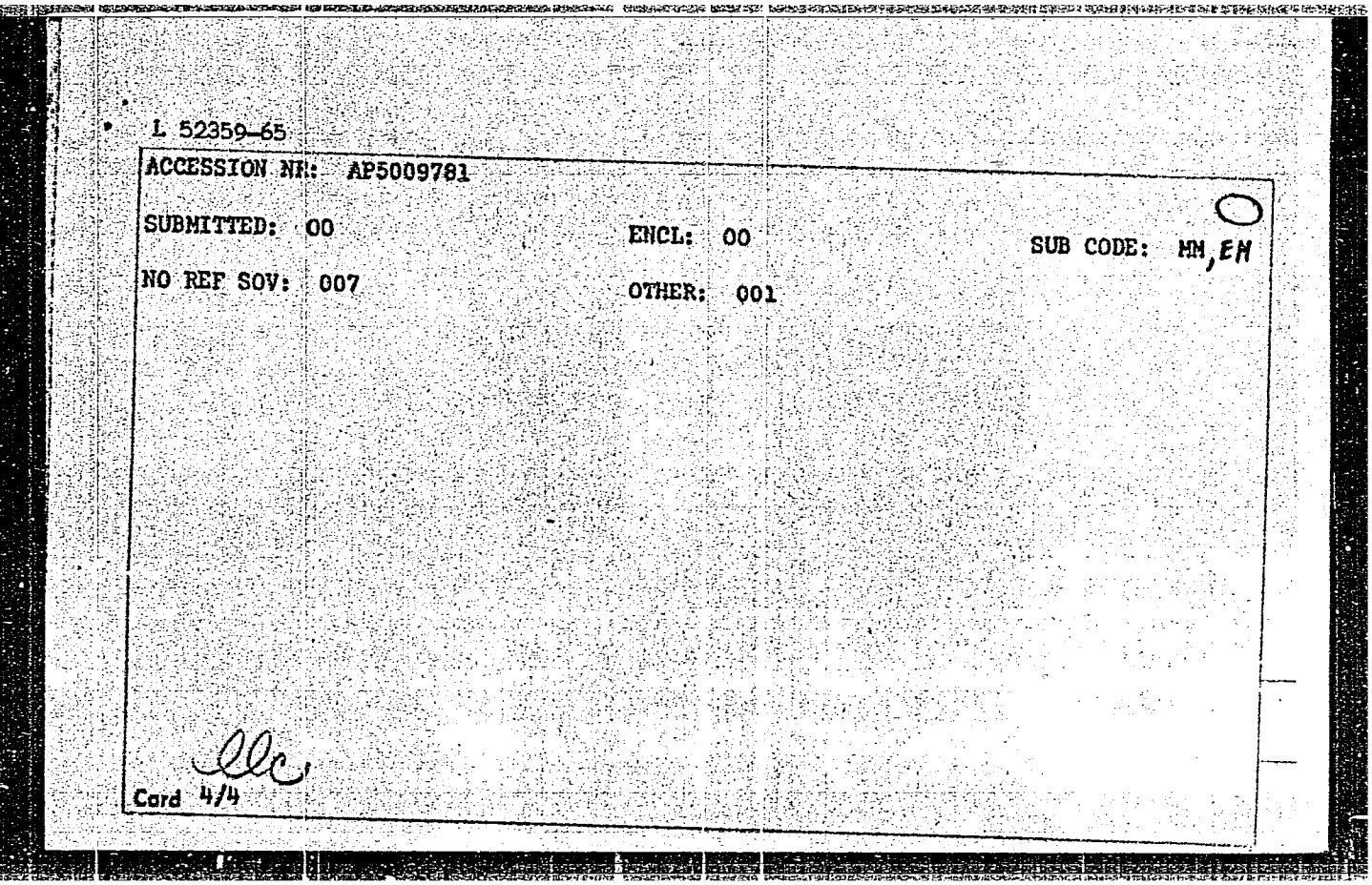
were subjected to the same thermal treatment in the same furnace. Thus any possible effects due to the thermal treatment itself were eliminated. A magnetic field of 75 oersted was applied together with tension at room temperature and then the samples were heated at a rate of 700° per hour to temperature T_a where they were held for 5-10 minutes. They were then cooled at a rate of 100° per hour in the presence of the original magnetic field and tension, because the thermomechanical magnetic effect takes place at temperature T_a, and also during cooling of the sample under tension. Specific losses $P_{10/50}$ were measured in two of the strips by the watt-meter method [see V. V. Druzhinin, "Magnetic Properties of Transformer Steel," *Gosenergoizdat*, M.-L., 1962, p. 288], while an optical method was used to measure magnetostriction. Coercive force was measured by the displacement of a flip coil from the sample. Specific losses $P_{10/50}$ were reduced in the reannealed samples for both types of magnetic treatment only when the tension was increased to a certain optimum which depends on temperature; if the charge exceeded this optimum, then specific losses again increased. Coercive force and magnetostriction were also reduced in the case of thermomechanical magnetic treatment, in samples which were reannealed at 800°C. After being cut from the rolled metal, the magnetostriction of the samples was about $20 \cdot 10^{-6}$. After thermomagnetic treatment, the magneto-

L 52359-65
ACCESSION NR: AP5009781

striction was reduced to $5 \cdot 10^{-6}$ at 700°C, while thermomechanical magnetic treatment reduced the magnetostriction still more when the tension was increased to a certain optimum value. The magnetic field combined with tension is more effective than the ordinary thermomechanical process without the magnetic field. The reduction in magnetostriction as a result of thermomagnetic treatment indicates that there is an increase in magnetic orientation with preferred alignment of the vectors of spontaneous magnetization of domains being close to the direction of the applied field. The mechanism of dissipation of magnetostriction stresses at high temperatures is apparently very important in forming the magnetic orientation during thermomagnetic treatment. The rather high degree of natural anisotropy in this type of transformer steel cannot be changed to any great extent by magnetic treatment. Therefore after this type of treatment it is apparently possible to produce magnetic orientation only where the domain magnetization is directed along the axes of preferential magnetization for the crystallites which lie close to the direction of the magnetic field which was applied during thermomagnetic treatment. Orig. art. has: 1 figure.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet (Ural State University)

Card 3/4



L 52359-65

ACCESSION NR: AP5009781

SUBMITTED: 00 ENCL: 00 SUB CODE: MM, EH

NO REF SOV: 007 OTHER: 001

Card 4/4

ACC NR: AP6029018 SOURCE CODE: UR/0413/66/000/014/0021/0021

INVENTOR: Chalykh, S. N.; Kafarov, V. V.; Vigdorov, A. S.; Savost'yanov, N. I.; Gromova, I. I.; Podgorbunskikh, M. T.; Kolesnikov, A. S.; Luferov, V. Ye.

ORG: none

TITLE: Preparation of salts of dithiocarbamic acid derivatives. Class 12, No. 183735. [announced by Scientific Research Institute of Organic Intermediates and Dyestuffs (Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley)]

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 21

TOPIC TAGS: sodium dithiocarbamate, alkyl dithiocarbamate, dialkyl dithiocarbamate, carbamic acid, organic salt

ABSTRACT: Usually, salts of dithiocarbamic acid derivatives of the general formula:
(where R_1 and R_2 are CH_3 or C_2H_5; Me is Na) are obtained by the reaction of carbon disulfide with a solution of an amine in the presence of alkalies. To improve the technological process and to increase the yield and quality of the final product, the process is carried out in dilute solutions of amines with a 5% excess of CS_2

Card 1/2 UDC: 547.496.2.07

ACC NR: AP6029018

at 25—45°C in the presence of surfactants with subsequent removal of CS_2 in vacuo (350 mm Hg). [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 21Jun65/

Card 2/2

PODGORBUNSKIY, A. (Petrozavdsk)

Truck-mounted water sprinklers used for fire extinction.
Pozh. delo 7 no. 1:24-25 Ja '60. (MIRA 14:2)
(Fire extinction) (Lumbering--Equipment and supplies)

DUNAYEV, F.N.; MALEV, N.S.; PODGORBUNSKIKH, A.A.

Effect of thermomagnetic and thermomechanical magnetic treatment on the specific losses, coercive force, and [illegible]striction of transformer steel. Stal' 25 no.4:362-363 Ap '65. (MIRA 18:11)

1. Ural'skiy gosudarstvennyy universitet.

FEDOCHENKOVSKIY, M.A.; MIRAYEV, T.I.

Primary tumors of the spleen; 3 observations. Vop. onk. 11 no.5:100-104 '65. (MIRA 18:8)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (nach. - zasluzhennyy vrach RSFSR M.A.Fedochenkovskiy) Kemerovskogo meditsinskogo instituta (rektor - dotsent V.Yu.Fervushin).

PODGORBUNSKIY, M.A.

Intercostal anesthesis in thoracic surgery; preliminary communication. Khirurgiia, Moskva no.10:41-44 Oct 1953. (CLML 25:5)

1. Honored Physician RSFSR. 2. Of the Surgery Division of Kemerovo Oblast Hospital (Head Physician — S. V. Belyayev).

PODGORBUNSKIY, M.A., zasluzhennyy vrach RSFSR.

Intracostal anesthesia as an analgesic method in surgery of thoracic organs. Preliminary report. Khirurgiia no.10:41-44 O '53. (MLRA 6:11)

1. Iz khirurgicheskogo otdeleniya Kemerovskoy oblastnoy bol'nitsy (glavnyy vrach S.V.Belyayev). (Anesthesia) (Chest--Surgery)

PODGORBUNSKIY S. L.

[illegible]

AUTHORS: Vasil'yev, Yu. M., Zvyag[illegible], [illegible], Podgo[illegible]

TITLE: The Chelkar Saline Massif in the Northern Caspian Region (Chelkarskiy solyanoy massiv v Severnom Prikaspii)

PERIODICAL: Doklady Akademii nauk [illegible]R, 1958, Vol 121, Nr 6, pp 1065-1067 (USSR)

ABSTRACT: Among the great salt massifs of the Caspian depression only the
massif mentioned in the title has remained uninvestigated. In
1942 it was gravimetrically discovered. Only since 1952 system-
atic investigations of the Chelkar massif have been carried
out: thus informations for the identification of its geologi-
cal structure were gained on large scale. The mentioned massif
lies 85 km south-east of the city of Ural'sk. In the surface
relief the mountain of [illegible]say, south of the Chelkar sea corre-
sponds to it. At this place also the greatest gravimetric
minimum of the entire Caspian region (Prikaspiy) was found.
First of all the extraordinary size of the massif is recog-
nized: a surface of more than 4 500 km². Thus this massif is by
80 - 100 times bigger than a normal salt dome as it is typical
for this region. The core of the massif consists of a thick

Card 1/3

[illegible]

The Chelkar [illegible] Massif in the Northern Caspian Region

salt-bearing mass which has Kungur age. The salt [illegible] pale-pink, yellowish or light-gray. It is either massive [illegible] and coarsely crystalline, respectively. At some [illegible] the salt is impure with sand and loam. The main mass consists of halite, in some places, however, it has intermediate strata of anhydrite. Frequently intermediate strata and lenses of pink and orange spotted sylvinite occur. On its apex the saline core is covered by a stone cap (kamennaya [illegible]) which [illegible] - 200 m thick and consists of white light-gray gypsum, bluish anhydrite and dark-gray loam. Lime and dolomite lenses occur rarely. The whole mass is considerably kneaded and on some places changed to breccia. Figure 1 gives a survey on the [illegible] tectonic of the massif. From investigations and comparison of the cross sections basic features the [illegible] development of the massif in the Meso-Cenozoic may be derived. The most characteristic features are repeated [illegible] rising tectonic movements of great intensity and [illegible]. Thus the Middle Jurassic abrasion [illegible] and Triassic mass on the apex of the massif [illegible] this [illegible] destruction [illegible]

The Chelkar saline dome in the Northern Caspian region

1 figure.

ASSOCIATION: Moskovskiy neftyanoy institut im. I. M. Gubkina (Moscow Institute of Petroleum imeni I. M. Gubkin)

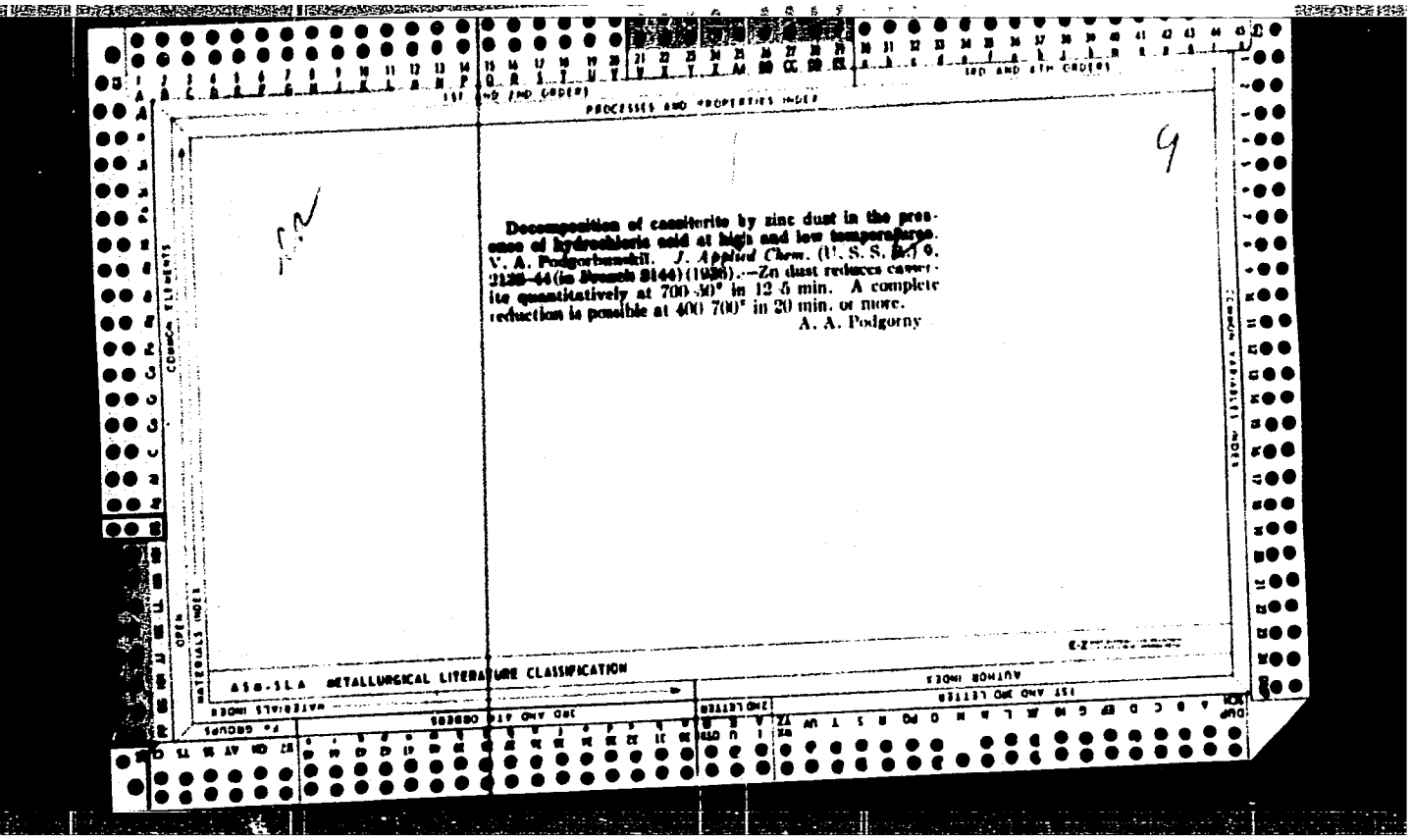
PRESENTED: April 26, 1958, by N. I. Mironov, Member, Academy of Sciences, USSR

SUBMITTED: April 21, 1958

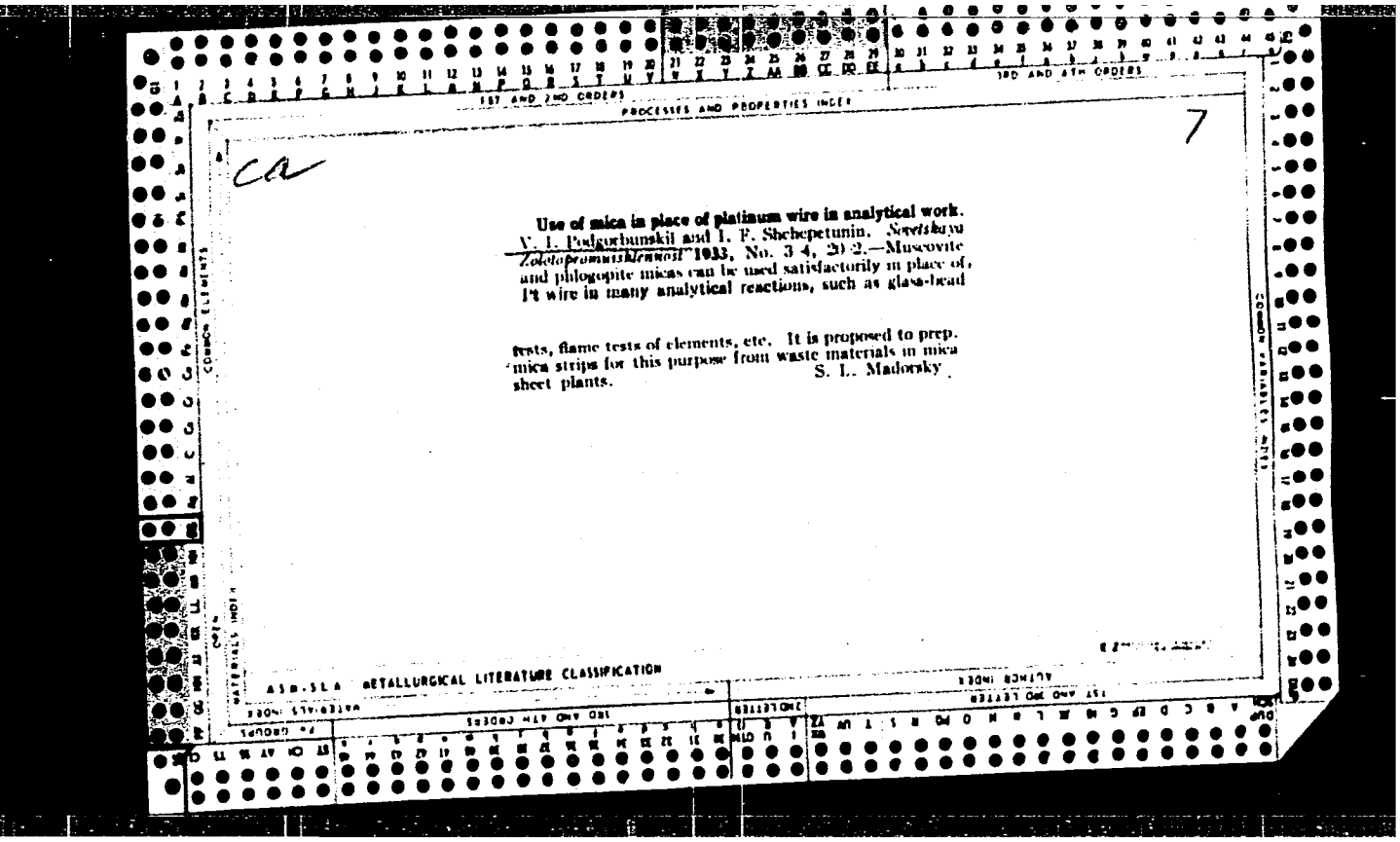
Card 5/5

Displacement of zinc and cadmium from their sulfides with copper sulfate. V. A. Podgorbunskii. *Sbornik Trudov Tbilisk. Gorno-Metallurg. Inst.*, 1940, No. 2, pp. 65-69; *Khim. Referat. Zhur.*, 4 [3] 52 (1941).—ZnS and CdS, precipitated as usual, are filtered and washed. The filtrate is heated in a solution of $CuSO_4 \cdot 5H_2O$ taken fourfold. The excess Cu is determined iodometrically. From the amount of Cu spent, Cd or Zn is determined. This reaction between $CuSO_4$ and ZnS or CdS is quantitative.

M. Ho.



Decomposition of cassiterite by zinc dust in the presence of hydrochloric acid at high and low temperatures. V. A. Podgorbunskii. *J. Applied Chem.* (U. S. S. R.) 9, 2128–44 (in Russian 2144) (1936).—Zn dust reduces cassiterite quantitatively at 700–30° in 12.5 min. A complete reduction is possible at 400–700° in 20 min. or more.
A. A. Podgorny



PROCESSES AND PROPERTIES INDEX

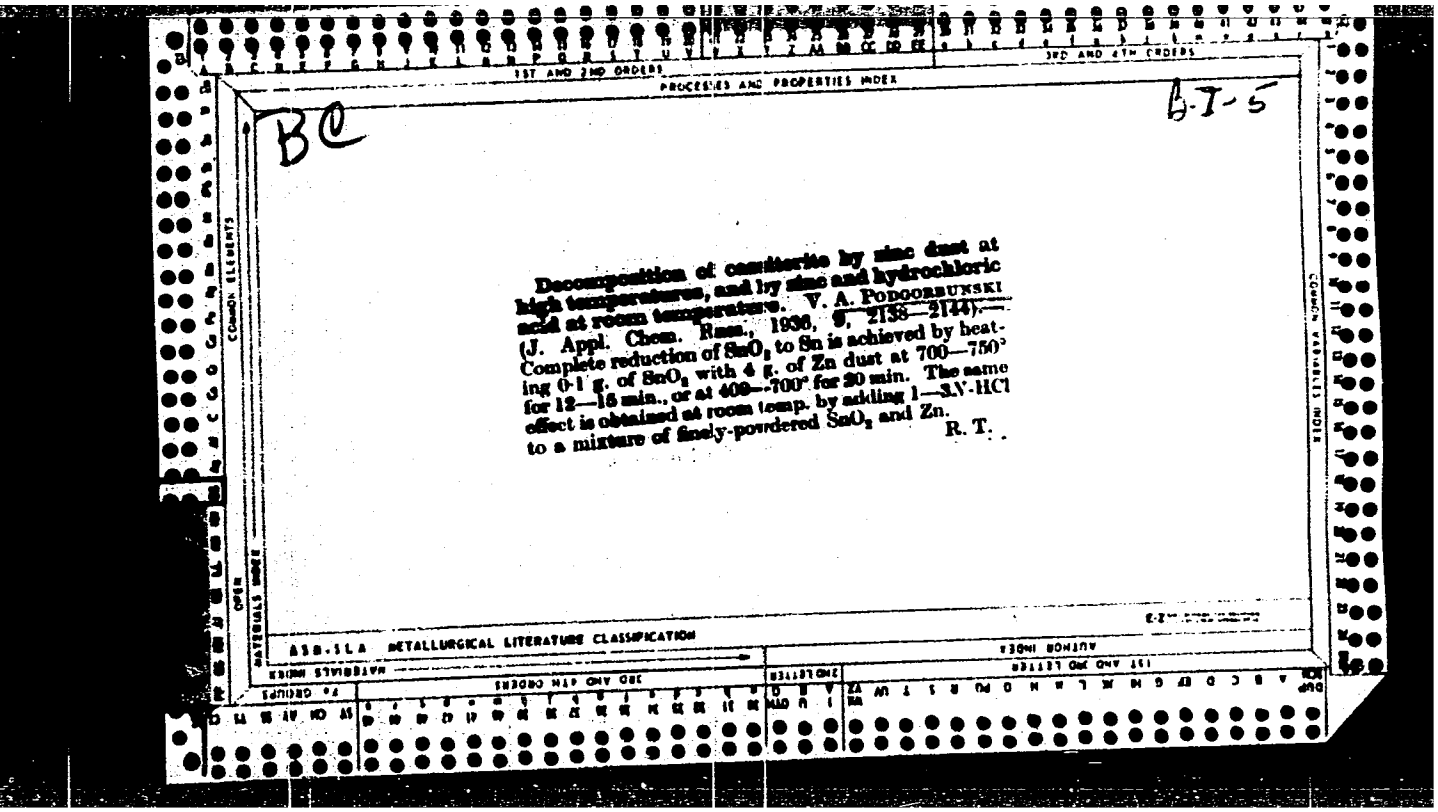
7

CA

Use of mica in place of platinum wire in analytical work. V. I. Polgorbunskii and I. F. Shchepetunin. *Sovetskaya Zolotopromyshlennost'* 1933, No. 3-4, 20-2.—Muscovite and phlogopite micas can be used satisfactorily in place of Pt wire in many analytical reactions, such as glass-bead tests, flame tests of elements, etc. It is proposed to prep. mica strips for this purpose from waste materials in mica sheet plants.

S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

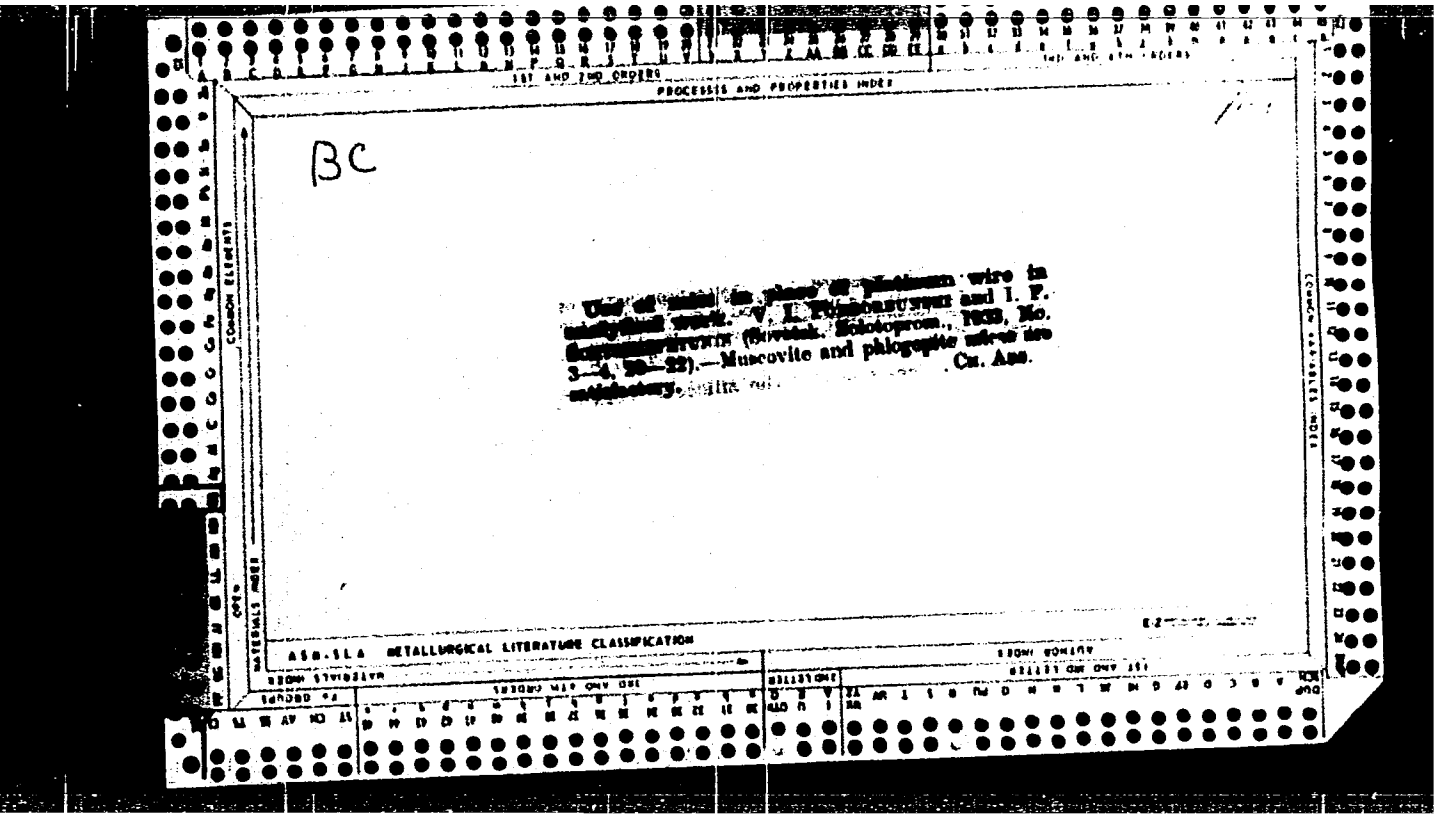


1ST AND 2ND GROUPS

PROCESSES AND PROPERTIES INDEX

Use of mica in place of platinum wire in analytical work. C. L. Pulaalhumbit and I. F. Shchepetunin. *Sovetskaya Zolotopromyshlennost'* 1933, No. 3-4, 20-2. Muscovite and phlogopite micas can be used satisfactorily in place of Pt wire in many analytical reactions, such as glass-bead tests, flame tests of elements, etc. It is proposed to prep. mica strips for this purpose from waste materials in mica sheet plants. S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PODGORBUNSKIY, Ye.A.

Manufacture of the cross piece of planet wheels of vehicular rear axles in workshops. Suggested by E.A.Podgorbunskii. Stroi. truboprov. 7 no.4:27 Ap '62. (MIRA 15:5)

1. Glavnyy inzh. avtotransportnoy kontory Stroitel'no-montazhnogo upravleniya No.1 tresta Soyuzprovodmekhanizatsiya, Ufa.
(Vehicles—Equipment and supplies)

MODLINSKI, Eugeniusz; PODGORECKI, Adam

Social workers' courts in the Breslau voivodeship. Praca zabezp spol 4 no.2:20-33 '62.

1. Czlonek komisji programowej miesiecznika "Praca i zabezpieczenie spoleczne.

BAND P.K.; BORODETSKAYA, V.K.

New type of paper from fibers covered with polyester. [illegible] ter. prom. no.1:49-50 Ja-Mr '64.

Rayon centricleaner. Ibid.:52 (MIRA 17:6)

KOROLEV, A.I.; BLINOV, S.T.; LUBENETS, I.A.; KOBURNEYEV, I.M.; TURUBINER, A.L.; VASIL'YEV, S.V.; CHERNENKO, M.A.; BELOV, I.V.; TELESOV, S.A.; MAZOV, V.F.; MEDVEDEV, V.A.; MAL'KOV, V.G.; BUL'SKIY, M.T.; TRUBETSKOV, K.M.; SHNEYEROV, Ya.A.; SLADKOSHTEYEV, V.T.; PALANT, V.I.; KUROCHKIN, B.N.; ZHDANOV, A.M.; BELIKOV, K.N.; SABIYEV, M.P.; GARBUZ, G.A.; PODGORETSKIY, A.A.; AL'FEROV, K.S.; NOVOLODSKIY, P.I.; MOROZOV, A.N.; VASIL'YEV, A.N.; MARAKHOVSKIY, I.S.; MALAKH, A.V.; VERKHOVTSEV, E.V.; AGAPOV, V.F.; VECHER, N.A.; PASTUKHOV, A.I.; BORODULIN, A.I.; VAYNSHTEYN, O.Ya.; ZHIGULIN, V.I.; DIKSHTEYN, Ye.I.; KLIMASENKO, L.S.; KOTIN, A.S.; MOLOTKOV, N.A.; SIVERSKIY, M.V.; ZHIDETSKIY, D.P.; MIKHAYLETS, N.S.; SLEPKANEV, P.N.; ZAVODCHIKOV, N.G.; GUDEMCHUK, V.A.; NAZAROV, P.M.; SAVOS'KIN, M.Ye.; NIKOLAYEV, A.S.

Reports (brief annotations). Biul. TSNIICHM no.18/19:36-39 '57. (MIRA 11:4)

1. Magnitogorskiy metallurgicheskiy kombinat (for Korolev, Belikov, Agapov, Dikshteyn). 2. Kuznetskiy metallurgicheskiy kombinat (for Blinov, Vasil'yev, A.N., Borodulin, Klimasenko). 3. Chelyabinskiy metallurgicheskiy zavod (for Lubenets, Vaynshteyn). 4. Zavod im. Dzherzhinskogo (for Koburneyev). 5. Zavod "Zaporozhstal'" (for Turubiner, Mazov, Podgoretskiy, Marakhovskiy, Savos'kin). 6. Makeyevskiy metallurgicheskiy zavod (for Vasil'yev, S.V., Mal'kov, Zhidetskiy, Al'ferov). 7. Stal'proyekt (for Chernenko, Zhdanov, Zavodchikov). 8. VNIIT (for Belov). 9. Stalinskiy metallurgicheskiy zavod (for Telesov, Malakh).

(Continued on next card)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001341420013-2"

KOROLEV, A.I.---(continued) Card 2.

10. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Medvedev, Novolodskiy, Vecher). 11. Zavod "Azovstal'" (for Bul'skiy, Slepkanev). 12. TSentral'nyy nauchno-issledovatel'skiy institit chernoy metallurgii (for Trubetskov). 13. Ukrainskiy institut metallov (for Shneyerov, Sladkoshteyev, Kotin). 14. Zavod "Krasnyy Oktyabr'" (for Palant). 15. Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki (for Kurochkin). 16. Zavod im. Voroshilova (for Sabiyev). 17. Chelyabinskiy politekhnicheskiy institut (for Morozov). 18. Giprostal' (for Garbuz). 19. Ural'skiy institut chernykh metallov (for Pastukhov). 20. Zavod im. Petrovskogo (for Zhigulin). 21. Ministerstvo chernoy metallurgii USSR (for Molochkov, Siverskiy). 22. Glavspetsstal' Ministerstva chernoy metallurgii SSSR (for Nikolayev).

(Open-hearth process)

PODGORETSKIY, A.A.

FILONOV, V.A., inzh.; PODGORETSKIY, A.A., inzh.; KSENZUK, F.A., inzh.; LOLA, V.N., inzh.

Production of two-layer ingots and slabs. Stal' 18 no.2:188-191 F '58. (MIRA 11:3)

1. Zavod "Zaporozhstal'." (Metal cladding)

PODGORETSKIY, A.A.

18

Experiment in production of low-alloy steel at Zaporozh-stal plant. I. M. Lelkin, I. S. [illegible]ovskil, and A. A. Podgorodetskil. *Metallurg* 1956, No. 4, 15-16.—Steel 14KhGS, a low-C steel contg. Mn 1, Si 0.6, and Cr 0.65%, has an optimum pouring temp. of 1605-1620°; 0.20-0.25% C/hr. is the optimum oxidation rate. In deoxidation, addn. of 0.5 ton satd. Fe improved quality. Final deoxidation was in the ladle with Al. Ferrosilicon was thoroughly calcined to eliminate H. V. N. Bednarski

3

SAMARIN, A.M.; YEFIMOV, L.M.; VESELKOV, N.G.; ORMAN, R.Z.; SHABANOV, A.N.; MOROZENSKIY, L.I.; GRANAT, I.Ya.; TOCHINSKIY, A.S.; ALYAVDIN, V.A.; DANILOV, P.M.; PETRIKEYEV, V.I.; POPOV, B.N.; BOBKOV, T.M.; ROSTKOVSKIY, S.Ye.; GAVRISH, D.I.; D'YAKONOV, N.S.; TIMOSHPOL'SKIY, M.N.; ROMANOV, V.D.; POCHTMAN, A.M.; MELESHKO, A.M.; PODGORETSKIY, A.A.; OFENGENDEN, A.M.; BRONSHTEYN, V.M.; PRIDANTSEV, M.V.; LIVSHITS, G.L.; ROZHKOV, V.A.; RUTES, V.S.

Reports (brief annotations). Biul. TSNIICHM no.18/19:15-16 '57. (MIRA 11:4)

1. Chlen-korrespondent AN SSSR (for Samarin). 2. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii (for Rutes, Rostkovskiy, Pridantsev, Livshits, Rozhkov). 3. Stal'proyekt (for Shabanov). 4. Kuznetskiy metallurgicheskiy kombinat (for Alyavdin, Danilov, Petrikeyev). 5. Zavod "Elektrostal'" (for Popov). 6. "Dneprospetsstal'" (for Bobkov). 7. Glavogneupor Ministerstva chernoy metallurgii SSSR (for Gavrish). 8. Planovoye upravleniye Ministerstva chernoy metallurgii SSSR (for D'yakonov). 9. Otdel rabochikh kadrov, truda i zarplaty Ministerstva chernoy metallurgii SSSR (for Timoshpol'skiy). 10. Glavvtorchermet Ministerstva chernoy metallurgii SSSR (for Romanov). 11. Giprostal' (for Pochtman). 12. Zavod im. Voroshilova (for Meleshko). 13. Zavod "Zaporozhstal'" (for Podgoretskiy). 14. Stalinskiy metallurgicheskiy zavod (for Ofengenden). 15. Nizhne-Tagil'skiy metallurgicheskiy kombinat (for Bronshteyn).

(Steel—Metallurgy)

PODGORETSKIY, E.G.

Method of combined anesthesia in children. Sov.med. 22 no.5:108 My '58 (MIRA 11:7)

(ANESTHESIA,
in pediatric surg. (Rus))

PODGORODETSKIY, I.A., prof.

Telecommunication service and its planning. Vest. sviazi 22 no.10:29-31 O '62. (MIRA 15:11)
(Telecommunication)

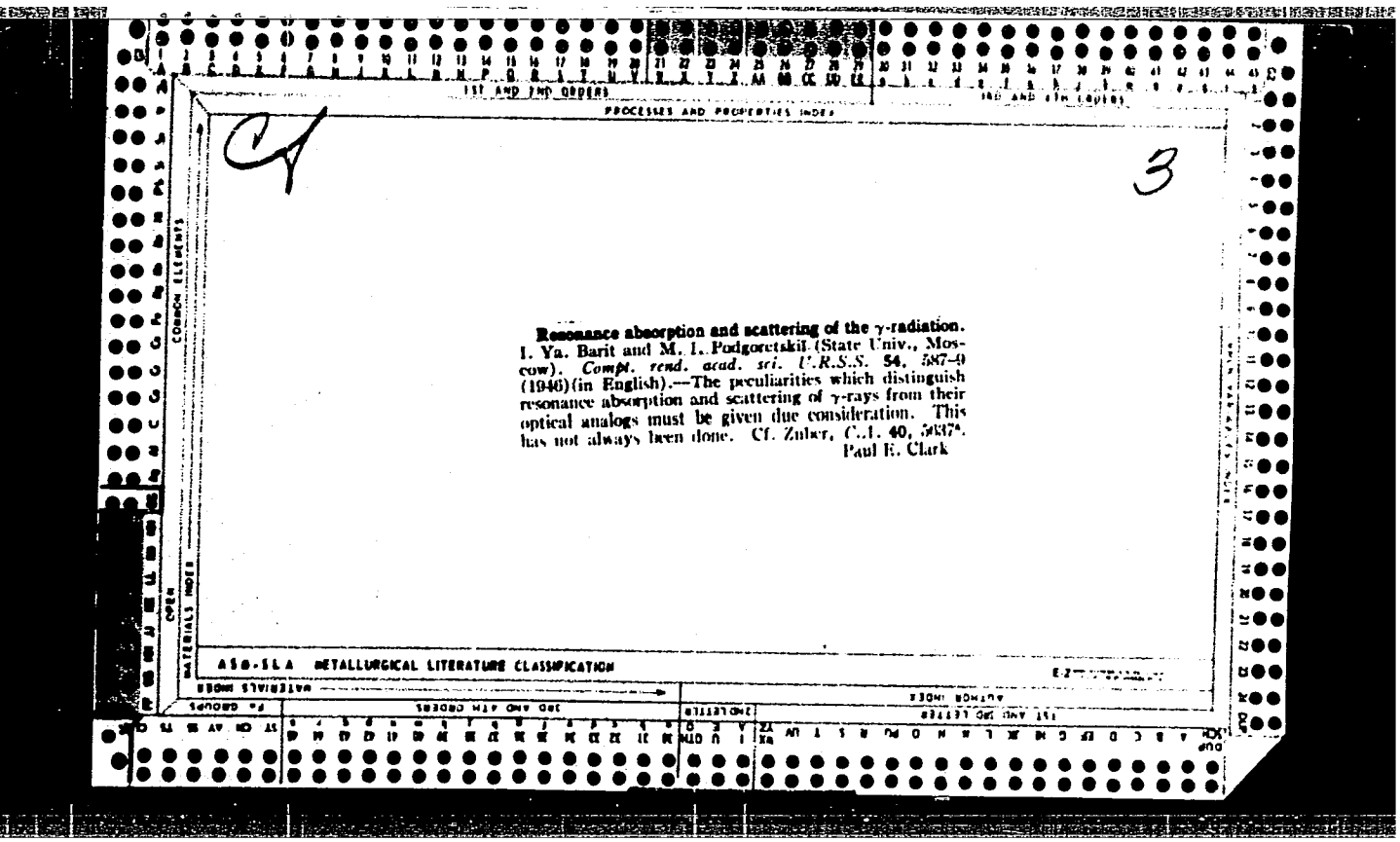
PODGORETSKIY, I.A., kand.ekon.nauk, dots.

Telecommunication as a branch of physical production. Vest.sviazi 18 no.10:16-18 O '58. (MIRA 11:11)
(Telecommunication)

ZASTAVENKO, L.; PODGORETSKIY, M.

Effect of external fields on angular correlations in consecutive electromagnetic transitions. Zhur. eksp. i teor. fiz. 45 no.3: 706-708 S '63. (MIRA 16:10)

1. Ob"yedinennyy institut yadernykh issledovaniy.
(Angular momentum (Nuclear physics))
(Quantum theory)



Resonance absorption and scattering of the γ-radiation. I. Ya. Barit and M. I. Podgoretskiĭ (State Univ., Moscow). *Compt. rend. acad. sci. U.R.S.S.* **54**, 587–9 (1946)(in English).—The peculiarities which distinguish resonance absorption and scattering of γ-rays from their optical analogs must be given due consideration. This has not always been done. Cf. Zuber, *C.I.* **40**, 5937ª.

Paul E. Clark

PODGORETSKIY, M.

Nov 1947

USSR/Physics
Gamma Rays
Nuclear Physics - Theory

"Possible Method for Investigating the Selective Absorption of GAmma Rays by Atom Nuclei," I. Barit, L. Groshev, M. Podgoretskiy, Physics Institute imeni P. N. Lebedev, Academy of Sciences of the USSR, 2 pp

"Dok Ak Nauk" Vol LVIII, No 6

An investigation of the selective absorption of gamma rays can give worth-while information on the plane of the atomic nucleus. Authors attempt to show that it is possible to study the selective absorption of gamma rays by the so-called self-indicator method, widely used in nuclear physics. Authors also explain the possibility of measurements of the width of lines for the resonance transfer G_2. Submitted by S. I. Vavilov 5 Jun 1947

PA 36T81

PODGORETSKIY, M. I.

PA 60T35

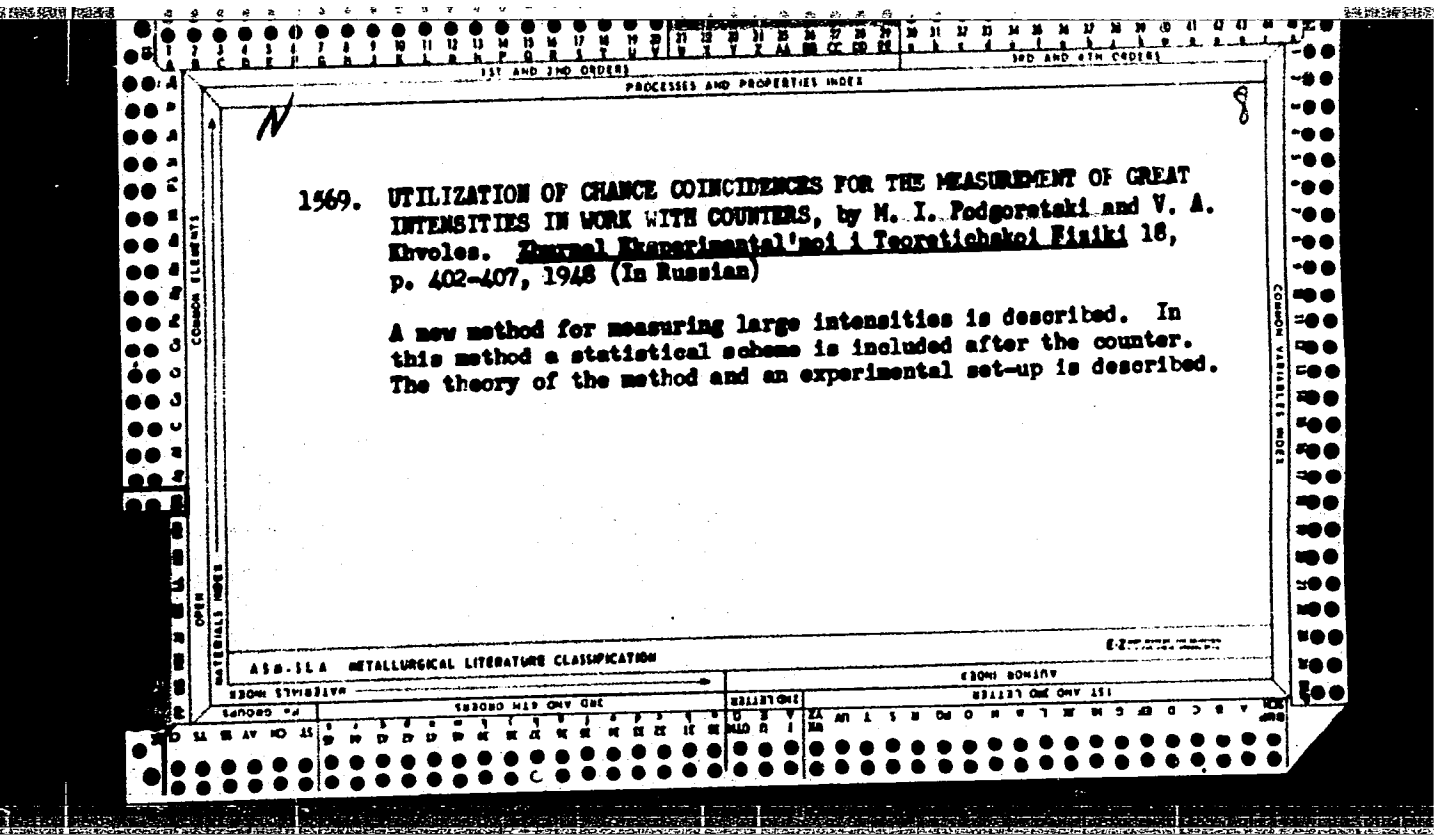
USSR/Mathematics - Calculators Dec 1947

"Study of Accidental Coincidences for Measuring High Intensity With Counters," M. I. Podgoretskiy, V. A. Khvoles, 2½ pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 7

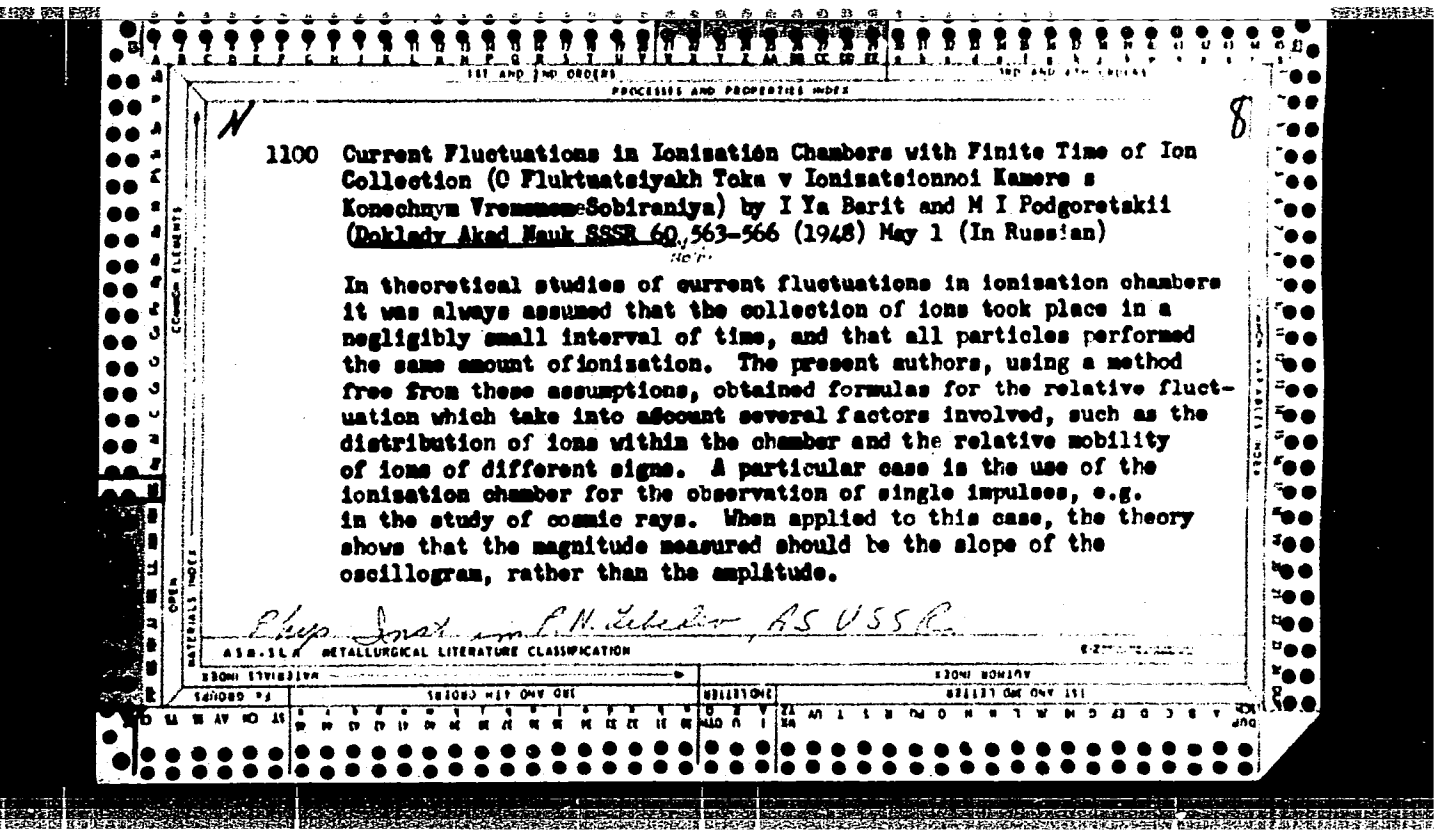
"In cases where too many numbers are registered, system becomes overloaded with result that only each n-th impulse effects output. Principle discussed assumes that calculating machine is free from this fault; therefore it is possible to obtain any coefficient of translation, without difficulty, in apparatus. Submitted by Academician S. I. Vavilov, 24 Jun 1947.

60T35



1569. UTILIZATION OF CHANCE COINCIDENCES FOR THE MEASUREMENT OF GREAT INTENSITIES IN WORK WITH COUNTERS, by M. I. Podgoretski and V. A. Khvoles. Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki 18, p. 402-407, 1948 (In Russian)

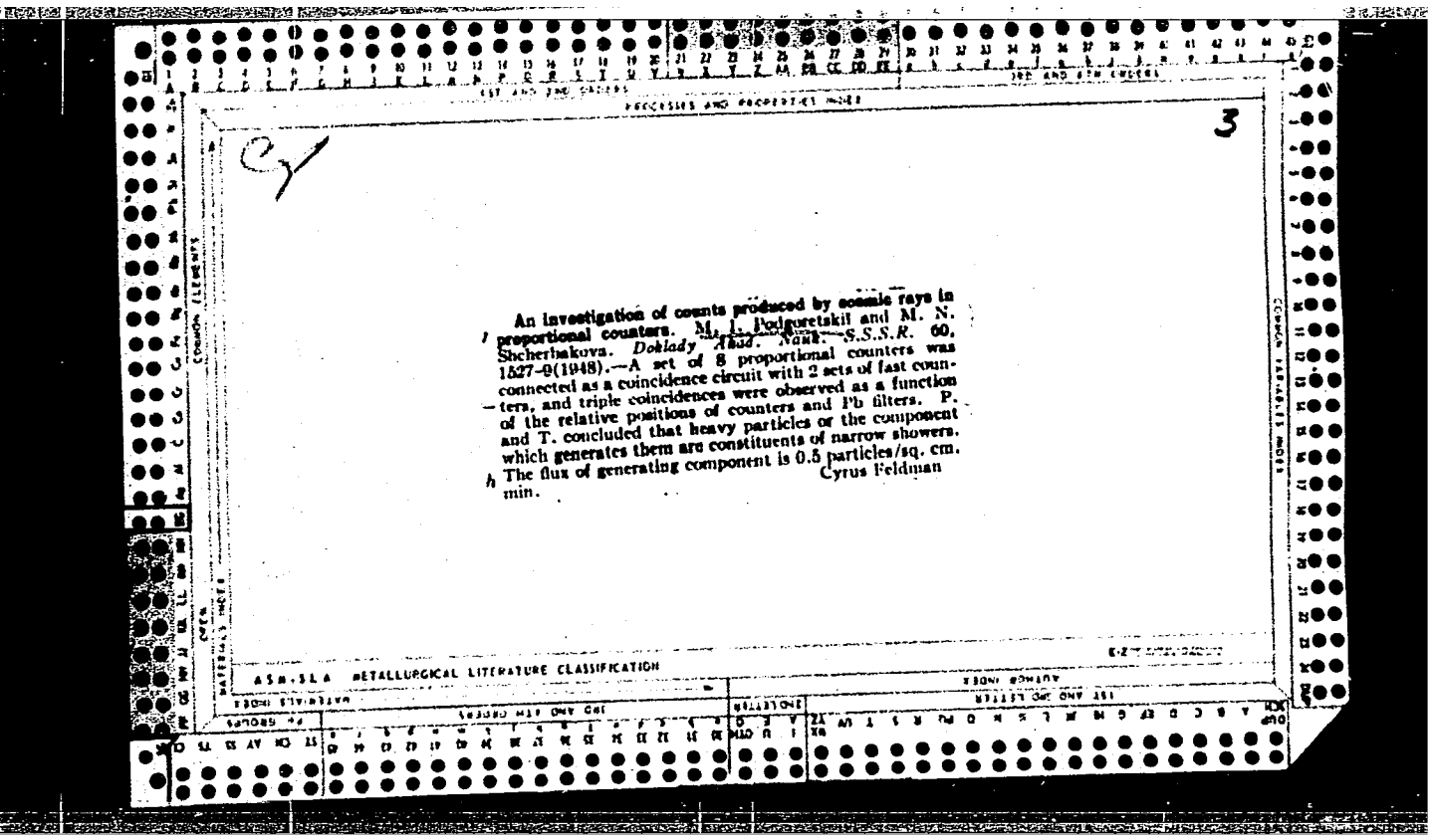
A new method for measuring large intensities is described. In this method a statistical scheme is included after the counter. The theory of the method and an experimental set-up is described.



1100 Current Fluctuations in Ionisation Chambers with Finite Time of Ion Collection (O Fluktuatsiyakh Toka v Ionisatsionnoi Kamere s Konechnym Vremenem Sobiraniya) by I Ya Barit and M I Podgoretskii (Doklady Akad Nauk SSSR 60, 563-566 (1948) May 1 (In Russian)

In theoretical studies of current fluctuations in ionisation chambers it was always assumed that the collection of ions took place in a negligibly small interval of time, and that all particles performed the same amount of ionisation. The present authors, using a method free from these assumptions, obtained formulas for the relative fluctuation which take into account several factors involved, such as the distribution of ions within the chamber and the relative mobility of ions of different signs. A particular case is the use of the ionisation chamber for the observation of single impulses, e.g. in the study of cosmic rays. When applied to this case, the theory shows that the magnitude measured should be the slope of the oscillogram, rather than the amplitude.

Phys Inst im P N Lebedev, AS USSR



3

An investigation of counts produced by cosmic rays in proportional counters. M. I. Podgoretskiĭ and M. N. Shcherbakova. *Doklady Akad. Nauk S.S.S.R.* 60, 1527–9(1948).—A set of 8 proportional counters was connected as a coincidence circuit with 2 sets of fast counters, and triple coincidences were observed as a function of the relative positions of counters and Pb filters. P. and T. concluded that heavy particles or the component which generates them are constituents of narrow showers. The flux of generating component is 0.5 particles/sq. cm. min.

Cyrus Feldman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PODGORETSKIY, M. I. PA 46/49T50

USSR/Mathematics- Statistics Jun 49
Nuclear Physics- Ionization Chambers

"Statistical Theory of Errors in Measurements With an Ionization Chamber, " I. Ya. Barit M. I. Podgoretskiy, 13 pp

"Zhur Tekh Fiz" Vol XIX, No 6

Statistical regularities in an ionization chamber are studied with the aid of kinetic equations. Calculates moments and functions of distribution for current in the chamber. Studies the treatment of resutls of consecutive measurements. Studies case when an inertial measuring instrument is included in the chamber circuit separately. Submitted 18 Jun 48.

PA 46/49T50

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001341420013-2"

PODGORETSKIY, M. I.

PA 152T81

USSR/Nuclear Physics - Cosmic Rays Dec 49
Spatial Distribution

"Applicability of Poisson's Law to the Spatial Distribution of Particles, and the Density Spectrum of Wide Atmospheric Showers," M. I. Podgoretskiy, I. L. Rozental', S. A. Slavatinskiy, Phys Inst imeni Lebedev, Acad Sci USSR, 6 pp.

"Zhur Eksper i Teoret Fiz" Vol XIX, No 12

Experimentally shows that spatial distribution of particles in wide atmospheric showers of mean densities can be described in the first approximation by Poisson's law. Spectrum of wide atmospheric showers is measured. Submitted 18 Jul 49.

152T81

PODGORETSKIY, M. I.

Jun 49

USSR/Mathematics-Statistics
Nuclear Physics-Proportional Counters

"Statistics of Errors in Operations With Counting Devices," I.Ya. Barit, M. I. Podgoretskiy, A. Ye. Chudakov, Phys Inst imeni P. N. Lebedev, Acad Sci USSR, 8pp

"Zhur Tekh Fiz" Vol XIX, No 6

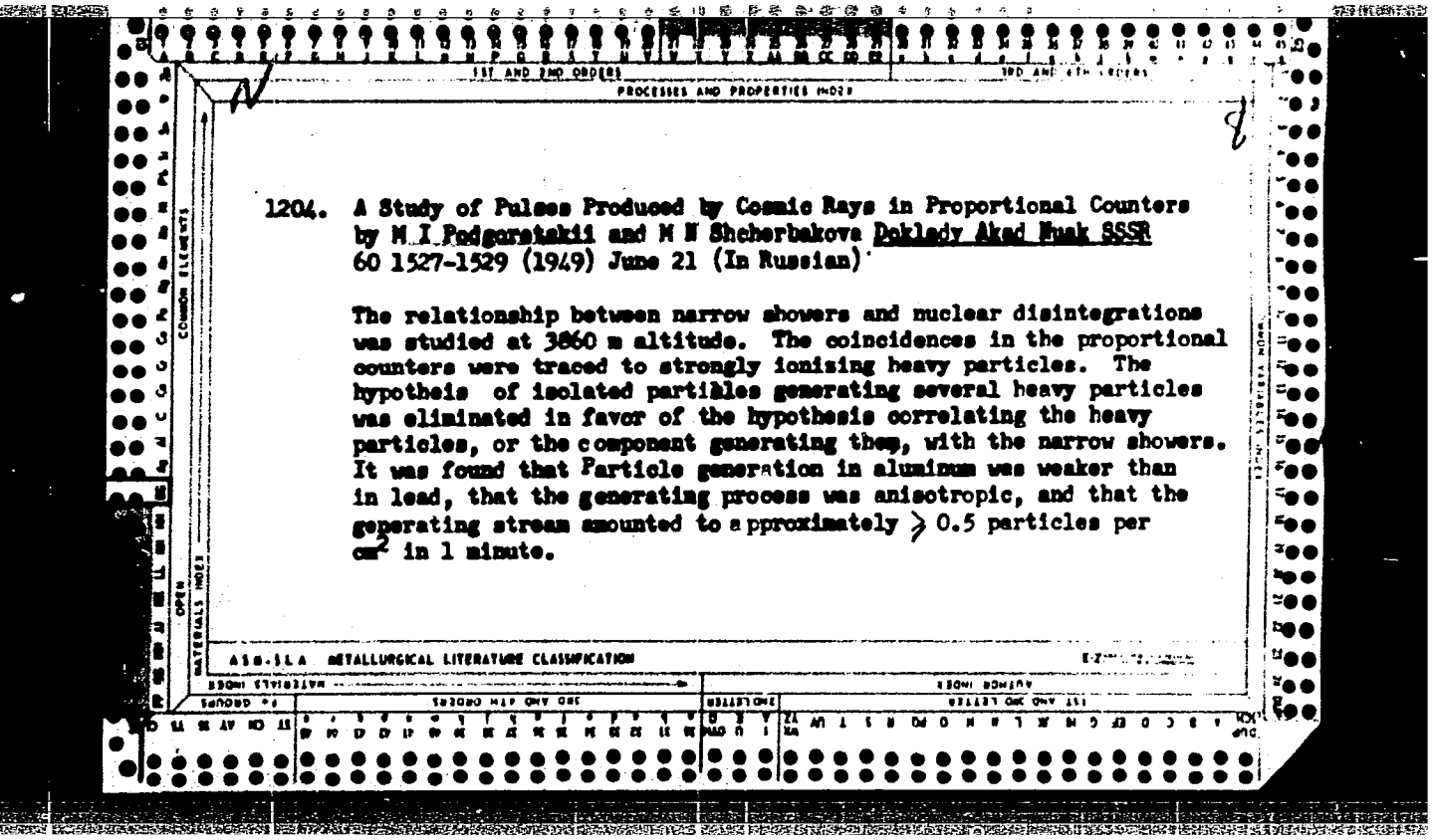
Derives formula to calculate errors in operations with counting devices (Geiger counter) for various assumptions relative to the "dead" time of the registering unit. Gives corresponding curves. Submitted 18 Jun 48

PA 46/49T51

[redacted] and BARIT, I.Ya.

Several statistical correlations by Academican D.v. Skobeltsyn* 23 June 1949).

Reports of the Academy of Sciences USSR. Vol. 57, No1, 23 Sept 1949/



1204. A Study of Pulses Produced by Cosmic Rays in Proportional Counters by M I Podgoretskii and M N Shcherbakova Doklady Akad Nauk SSSR 60 1527-1529 (1949) June 21 (In Russian)

The relationship between narrow showers and nuclear disintegrations was studied at 3860 m altitude. The coincidences in the proportional counters were traced to strongly ionizing heavy particles. The hypothesis of isolated particles generating several heavy particles was eliminated in favor of the hypothesis correlating the heavy particles, or the component generating them, with the narrow showers. It was found that particle generation in aluminum was weaker than in lead, that the generating process was anisotropic, and that the generating stream amounted to approximately ≥ 0.5 particles per cm^2 in 1 minute.

PODGORETSKIY, M. I.

PA 3/50T77

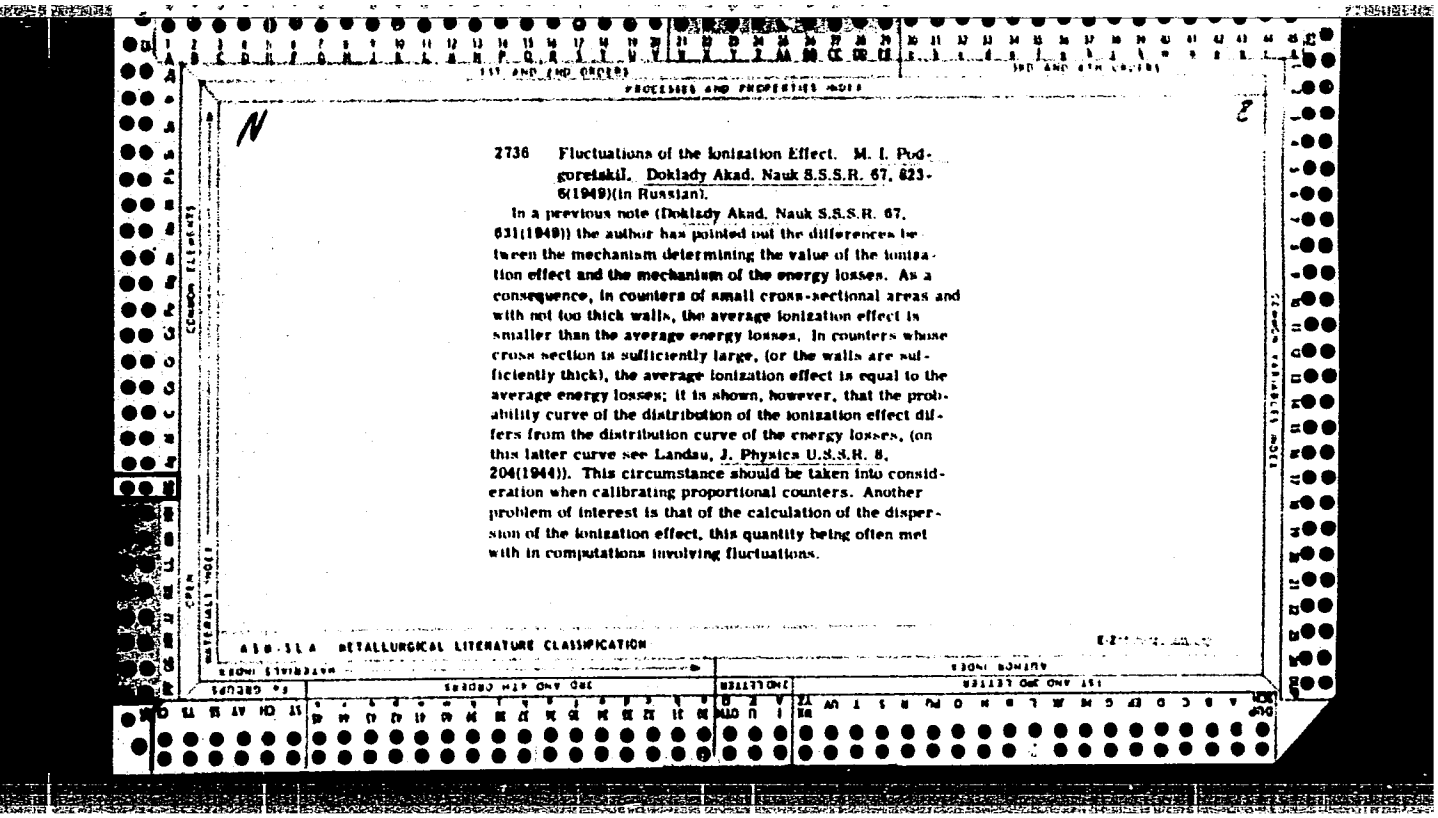
USSR/Nuclear Physics - Counters 1 Aug 49
Ionization

"Note on the Amount of Ionization Created by a Rapidly Ionizing Particle Within a Proportional Counter or an Ionization Chamber," M. I. Podgoretskiy, Phys Inst imeni P. N. Lebedev, Acad Sci USSR, 3 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 4, pp 631-3

Ionization effect is usually identified with energy losses in the working space, e.g., in the gas of an ionization chamber or proportional counter. Simple consideration, however, shows the error of this identification. Energy losses are connected with formation of delta-electrons only within the counter. Ionization effect is also connected with those delta-electrons which have formed in front of the counters but have energies sufficient to fly into the working space of the counter. Submitted by Acad D. V. Skobel'tsyn 20 May 49.

3/50T77



2736 Fluctuations of the Ionization Effect. M. I. Podgoretskiĭ. Doklady Akad. Nauk S.S.S.R. 67, 623-6(1949)(in Russian).

In a previous note (Doklady Akad. Nauk S.S.S.R. 67, 631(1949)) the author has pointed out the differences between the mechanism determining the value of the ionization effect and the mechanism of the energy losses. As a consequence, in counters of small cross-sectional areas and with not too thick walls, the average ionization effect is smaller than the average energy losses. In counters whose cross section is sufficiently large, (or the walls are sufficiently thick), the average ionization effect is equal to the average energy losses; it is shown, however, that the probability curve of the distribution of the ionization effect differs from the distribution curve of the energy losses, (on this latter curve see Landau, J. Physics U.S.S.R. 8, 204(1944)). This circumstance should be taken into consideration when calibrating proportional counters. Another problem of interest is that of the calculation of the dispersion of the ionization effect, this quantity being often met with in computations involving fluctuations.

PODGORETSKIY, M. I.

PA 1/50T81

USSR/Nuclear Physics - Cosmic Radiation Density Spectrum Aug 49

"Measuring the Density Spectrum of Wide Atmospheric Showers by the Ionization Chamber," M. I. Podgoretskiy, Phys Inst imeni P. N. Lebedev, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 6 p. 1005-08

If a shower passes through a Wilson cloud chamber, the value of the pulse x is proportional to the density of the shower. Therefore, the experimentally determined distribution of pulses according to magnitude

1/50T81

USSR/Nuclear Physics - Cosmic Radiation (Contd) Aug 49

characterizes the distribution of showers according to densities. However, the spectrum of pulses cannot be directly identified with the spectrum of densities since the pulse magnitude may fluctuate even for a constant shower density. It is qualitatively clear that the difference between the pulse spectrum and the density spectrum will be smaller, the greater the density of the showers being registered. Attempts to derive the quantitative relation for this action. Submitted by Acad D. V. Skobel'tsyn 23 Jun 49.

1/50T81

PODGORSKIY, Ye.N.

Requirements of planning and accounting units for the improvement of cost estimating and accounting operations in shipbuilding. Trudy NTO sud.prom. 8 no.2:9-14 '59. (MIRA 13:5)
(Shipbuilding--Accounting)

PODGORETSKIY, M. I.

USSR/Nuclear Physics - Cosmic Radiation Cascade Theory Sep 49

"Some Statistical Relations Connected With the Observation of Wide Atmospheric Showers," I. Ya. Barit, M. I. Podgoretskiy, Phys, Inst, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 1

Attempts to obtain certain relations which must be fulfilled if wide showers are streams of relativistic particles whose spatial distribution is governed by Poisson's law. Experimental testing of these relations can be used to test validity of cascade theory. Submitted by Acad D. V. Skobel'tsyn 23 Jun 49.

PA 2/50T97

PODGORETSKIY, M. I.

USSR/Nuclear Physics - Ionization Chambers Dec 49
Showers

"Form of the Pulse in Ionization Chambers," A. I. Petrukhin, M. I. Podgoretskiy, N. D. Fedorov, L. N. Shtarkov, M. N. Shcherbakova, 3 pp

"Dok Ak Nauk SSSR" Vol LXIX, No 4

Bridge, Hazen, Rossi, and Williams, making use of fact that collection time for electrons is 2-3 orders less than that for positive ions (electrons are negative ions when chamber is filled with carefully purified noble gas), used high-frequency amplifier to obtain on its output a pulse connected

155T51

USSR/Nuclear Physics - Ionization Chambers Dec 49
(Contd)

solely with movement of electrons. Authors used amplifier passing both high and low frequencies to register form of pulse provided by positive ions.

Submitted by Acad D. V. Skobel'tsyn 3 Sep 49.

155T51

PODGORETSKIY, M. I.

PA 169T76

USSR/Nuclear Physics - Showers Oct 50

"Statistical Handling of Experimental Data on the Absorption of Shower Particles," M. I. Podgoretskiy, Phys Inst imeni Lebedev, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol XX, No 10, pp 959-960

Solves problem of distinguishing the cases: (a) particles within filter are merely absorbed, and (b) new particles are generated within filter, by statistical formulas. Submitted 26 Jun 50.

169T76

PODGORETSKIY, M. I.

176T104

USSR/Physics - Cosmic Rays 1 Aug 50

"Transitional Effect of Density in Electron-Nuclear Showers," M. I. Podgoretskiy, A. I. Barchukov, D. F Rakitin, Phys Inst imeni Lebedev, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXIII, No 4, pp 685-688

Reveals "transitional effect of density". Appearance of difference between (a) the probability of recording simultaneous creation of 2 showers generated by 2 particles formed in previous shower and (b) the sum of the probabilities ($2q_1$) of recording 2 successive acts of shower formation created by these 2 particles but separately. This

176T104

USSR/Physics - Cosmic Rays (Contd) 1 Aug 50

effect has also been considered by N. G. Birger, V. I. Veksler, N. A. Dobrotin, G. T. Zatsepin, L. V. Kurnosova, A. L. Lyubimov, I. L. Rozental', and L. Kh. Eydus (see "Zhur Eksper i Teoret Fiz" No 19, 826, 1949). Submitted 3 Jun 50 by Acad D. V. Skobel'tsyn.

176T104

PODGORETSKIY, M. I.

USSR/Nuclear Physics - Showers 1 Nov 50
Cosmic Rays

"Decay of Particles Generating the Electron-Nuclear Showers," M. I. Podgoretskiy, A. L. Lyubimov, M. M. Shcherbakova, L. Kh. Eydus, Phys Inst imeni Lebedev, Acad Sci USSR

"Dok Ak Nauk SSSR" Vol LXXV, No 1, pp 15-17

Authors were assisted by Prof N. A. Dobrotin, G. B. Zhdanov, I. L. Rozental', and L. V. Kurnosova. Discusses compensation expt conducted, in 1947-1949 in the Pamirs, on presence of unstable particles composing component that generates subject electron-nuclear

178T89

USSR/Nuclear Physics - Showers (Contd) 1 Nov 50

showers. Describes particular arrangements of lead shields and counters employed; also triple and quadruple coincidences obtained. Submitted 6 Sep 50 by Acad D. V. Skobel'tsyn.

178T89

1 GOMETSKII, M. I.

"Some Statistical Problems Connected With the Operation of the Ionization Chamber and Proportional Counter." Sub 16 Jun 51, Physics Inst imeni P. N. Lebedev, Acad Sci USSR.

Dissertations presented for science and engineering degrees in Moscow 1951.

SO: Sum. No. 410, 9 May 55.

USSR/Nuclear Physics - Cosmic Rays May 51

"Nonelectromagnetic Cascade Process in Cosmic Ray Showers," S. A. Azimov, M. I. Podgoretskiy, I. L. Rozental', K. P. Ryzhskova, Phys Inst imeni Lebedev, Acad Sci USSR, and Physicotech Inst, Acad Sci Uzbek SSR

"Zhur Eksper i Teoret Fiz" Vol XXI, No 5, pp 574-9

Shows particles able to generate secondary showers enter compn of nonelectromagnetic showers of cosmic rays. Submitted 10 Jun 50.

LC 183T80

PA 197T92

PODGORETSKIY, M. I.

USSR/Nuclear Physics - Cosmic Showers Oct 51

"Non-Electromagnetic Cascade Process in Cosmic Ray Showers," M. I. Podgoretskiy, Phys Inst imeni Lebedev, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol XXI, No 10, pp 1097-1108

Author explains cascade processes by existence of transient density effect, connected with generation of secondary electron nuclear showers. He concludes that secondary active particles are able to generate secondary electron nuclear showers. Author acknowledges the helpful discussions of

LC 197T92

USSR/Nuclear Physics - Cosmic Showers Oct 51 (Contd)

S. N. Vernov, N. A. Dobrotin, G. B. Zhdanov, G.T. Zatsepin, A. L. Lyubimov, I. L. Rozental, Ye. L. Feynberg and cooperation of L. V. Kurnosova and L. I. Sarycheva. Submitted 25 Sep 50.

LC 197T92

USSR/Nuclear Physics - Ionization Recording Feb 52

"Statistical Correlations Connected With Recording of Ionization Pulses," M.I. Podgoretskiy, Phys Inst imeni Lebedev, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol XXII, No 2, pp 152-159

Considers problem concerning the number of false pulses connected with background in an ionization chamber and also the problem concerning the influence of backgrcund on observed magnitude of operating pulses. Obtains formulas for basic methods

207T100

USSR/Nuclear Physics - Ionization Recording (Contd) Feb 52

of ionization chamber use such as: threshold method, continuous oscillograph, convection-current measurement (RC<<T, where T is collection time).

Received 15 May 51.

207T100

PODGORETSKIY, M. I.

PODGORETSKIY, M. I.

USSR/Nuclear Physics - Cosmic Rays Feb 52

"Fluctuations in the Amplitudes of Electron and Ionic Pulses Produced by the Passage of Relativistic-Particle Shower Through an Ionization Chamber," M.I. Podgoretskiy, Phys Inst imeni Lebedev, Acad Sci USSR

"Zhur Eksper i Teoret Fiz" Vol XXII, No 2, pp 160-163

Computes fluctuations in the amplitudes of electron and ionic pulses in an ionization chamber and fluctuations in the ratio of the indicated amplitudes. Fluctuations are found to be considerable. Author acknowledges V. I. Zatsepin's assistance. Received 1 Jun 51.

207T101

PODGORETSKIY, M. I.

USSR/Nuclear Physics - Reviews Jan 52

"Review of Current Literature," M. I. Podgoretskiy, G.I., M.D., R.G., V.F., R. Rozenberg

"Uspekh Fiz Nauk" Vol XLVI, No 1, pp 107-133

Following subjects were reviewed: "Mechanism of Capture of Negative π-Mesons"; "Reaction $\pi + d \rightleftarrows p + p$ and Spin of π-Mesons"; "Nuclear Interaction of π-Mesons"; "K- and τ-Particles"; "Direct Measurement of Acceleration of Free Falling Neutrons"; "Magnetic-Hydrodynamic Waves in Gases"; and "Experimental Proof of Existence of Electric Currents in the Ionosphere."

209T90

PODGORETSKIY, M. I.

21Feb52

USSR/Nuclear Physics - Impulses, Ioni- 21 Feb 52
zation Counters

"The Number of Pseudo-Pulses," M. I. Podgoretskiy

"Dok Ak Nauk SSSR" Vol LXXXII, No 6, pp 881-884

Ionization chambers frequently use the threshold method in which a certain reading is recorded only when the oscillogram intersects below an upward-fixed threshold level x. In most cases there are, however, background pulses (cosmic rays, radioactive impurities in the chamber walls, shot effect in the amplifier tubes) whose mutual superposition can lead to recording of false pulses. The purpose of this work is to det the number of such

21Feb52

pseudo-pulses. Acknowledges the helpful council of Acad M. A. Leontovich. Submitted 28 Dec 1951 by Acad M. A. Leontovich.

PODGORETSKIY, M. I.

Chemical Abstracts
May 25, 1954
Nuclear Phenomena

20

Mesic atoms. M. I. Podgoretskiĭ. *Uspekhi Fiz. Nauk* 51, 253-70(1953).—A survey is given of phenomena ascribed to the formation and decay of mesic atoms. The theory is outlined and the exptl. data are discussed for the formation of mesic atoms by capture of a slow μ- or π-meson in the Coulomb field of a nucleus. P. explains why a π-meson will always be absorbed in the nucleus, while a μ-meson is absorbed in heavy nuclei only, and is more likely to decay in the usual way in atoms of low at. no. Estimates are given for the probability of radiative transitions and of internal conversion. An original contribution of P. appears to be a discussion of the possibility of detecting the formation of π-mesic atoms. While the tracks of the π-mesons, into which a pos. π-meson decays, are always coplanar, this is no longer the case if a neg. π-meson has been captured in the Coulomb field of a nucleus. The deviation from coplanarity should hardly be noticeable in π-mesic H, while, on the contrary, no coplanarity should be observed in π-mesic bromine or silver. Effects of this type should be detectable in photographic emulsions. E. Gora

PODGORETSKIY, M. I.

USSR/Physics - Magnetic Field FD-613

Card 1/1 : Pub. 146-3/18

Author : Adirovich, E. I. and Podgoretskiy, M. I.

Title : The interaction of microsystems with null oscillations of an electromagnetic field

Periodical : Zhur. eksp. i teor. fiz. 26, No 2, 150-152, February 1954

Abstract : Examine the interaction of null electromagnetic oscillations with the simplest classical systems. Cite as reference V. Heitler's "Quantum Theory of Radiation", which was translated into Russian and published by the State Technical Press in 1940.

Institution : Physics Institute imeni P. N. Lebedev, Acad Sci USSR

Submitted : April 23, 1953

PODGORETSKIY, M.I.

USSR/Nuclear Physics - Mesons

FD-788

Card 1/1 Pub. 146-1/21

Author : Podgoretskiy, M. I. and Rozental, I. L.

Title : Some laws governing the decay of mesons into three particles

Periodical : Zhur. eksp. i teor. fiz., 27, 129-134, Aug 1954

Abstract : Results obtained by L. Michel (Proc. Phys. Soc. 63A (1950)) are generalized for a coordinate system bound to the primary particles. In relativistic and in extreme nonrelativistic cases the energy and the angular distribution of secondary particles are computed in laboratory coordinate system. The characteristics of angular distribution of noncomplanarity of pi-meson traces formed at decay of bound tau-particles are evaluated. Indebted to Ye. L. Feynberg. 4 references including 3 foreign.

Institution : Physics Institute imeni Lebedev, Acad Sci USSR

Submitted : November 4, 1953

USSR/Physics - Mesons stopped in photoemulsions FD-628

Card 1/1 : Pub. 146-18/18

Author : Podgoretskiy, M. I.

Title : Stopping of heavy negative mesons in photoemulsion

Periodical : Zhur. eksp. i teor. fiz. 26, 255-256, February 1954

Abstract : Letter to the editor concerning the disintegration of mesons. Some effects of this process are discussed in a purely theoretical manner.

Institution : Physics Institute imeni P. N. Lebedev, Acad Sci USSR

Submitted : July 13, 53

FD-1496

USSR/Physics - Photography

Card 1/1 : Pub. 146-19/20

Author : Gramenitskiy, I. M. and Podgoretskiy, M. I.

Title : Determination of time of regression and of the shrinkage coefficient of thick-layer photo emulsions

Periodical : Zhur. eksp. i teor. fiz, 27, 389-390, Sep 1954

Abstract : Measures the shrinking coefficient for 30 traces of alpha particles from radioactive stars and obtains $k = 2.7 \pm 0.3$ and corrects the errors in alpha traces. Indebted to M. F. Solov'yeva and R. M. Gryzunova for measurements. Three foreign references.

Institution : Physics Institute imeni Lebedev, Acad Sci USSR

Submitted : February 18, 1954

PODGORETSKIY, M.I

USSR/Physics - Cosmic rays

FD-995

Card 1/1 Pub. 146 - 19/20

Author : Gramenitskiy, I. M.; Yemel'yanova, G. S.; and Podgoretskiy, M. I.

Title : Problem of the effect of connected fissions in cosmic rays

Periodical : Zhur. eksp. i teor. fiz., 27, No 5 (11), 654-655, Nov 1954

Abstract : The authors analyze 820 "stars" found during an examination of 380 cm^2 of emulsion 200 microns thick exposed at an altitude of about 15 km, and discuss the observed effect of connected "stars" for distances less than 0.5 mm. They note that the effect turns out to be approximately the same as found by Leprince-Renguet and Heidman (Nature, 161, 1948) and by Li and Perkins (Nature, 161, 1948). Here the authors consider not only "binaries" but also "trinaries", in contrast to previous investigators. The authors note Zh. S. Takibayev's suggestion (Zhur. eksp. i teor. fiz., 24, 636, 1953) that pairs of photoplates moving relatively to each other be employed to determine the moment of time corresponding to the flight of charged particles through the emulsion, which would also determine the simultaneity of two events and formations of nuclear fissions spatially close. The authors believe that Zh. S. Takibayev's method would solve the problem of the effect of connected fissions. Thirteen references, 11 Western and 2 USSR.

Institution : Physics Institute imeni P. N. Lebedev, Academy of Sciences USSR

Submitted : February 18, 1954

PODGORETSKIY, M.I.

Some statistical problems related to the work of the ionization chamber and the proportional counter. Trudy Fiz.inst. 6:3-120 '55. (MLRA 9:5)

(Ionization chambers) (Nuclear counters)

PODGORETSKIY, M.I.; ROZENTAL', I.L.; CHERNAVSKIY, D.S.

Fluctuations in high-energy particle interactions. Izv.AN SSSR. Ser.fiz.19 no.6:663 N-D '55. (MLRA 9:4)

1.Fizicheskiy institut imeni P.N.Lebedeva Akademii nauk SSSR.
(Cosmic rays) (Nuclear physics)

PODGORETSKIY, M.I.

USSR/Nuclear Physics - Fission

FD-2210

Card 1/1 Pub. 146-15/25

Author : Gramenitskiy, I. M.; Zamchalova, Ye. A.; Podgoretskiy, M. I.; Tret'yakova, M. I.; and Shcherbakova, M. N.;

Title : Nuclear fissions connected with heavy unstable particles

Periodical : Zhur. eksp. i teor. fiz. 28, 616-617, May 1955

Abstract : The authors remark that, by means of the method of thick-layered photo-emulsions, nuclear physicists have up to the present time found more than 100 nuclear fissions in which hyperons (charged hyperons Y± and Λ° particles) and heavy mesons with mass about 1000 me (K and tau mesons) are produced; also observed are about 30 secondary nuclear fissions caused by nuclear capture of residual negative heavy mesons. In this short note the authors briefly expound certain results of a statistical analysis of these fissions. Seven references, all non-USSR.

Institution : Physics Institute im. P. N. Lebedev, Academy of Sciences USSR

Submitted : February 8, 1955

USSR/Nuclear Physics - Pi meson decay FD-2212

Card 1/1 Pub. 146-17/25

Author : Gol'danskiy, V. I., and Podgoretskiy, M. I.

Title : Problem of the disintegration of slow negative pi-mesons

Periodical : Zhur, eksp. i teor. fiz. 28, 620, May 1955

Abstract : The authors discuss the very interesting conclusion from the report of W. Fry and R. George (Phys. Rev., 93, 1427, 1954) on the observation of 18 cases of $\pi\mu$ decay in the radiation of a photoemulsion by slow negative pi-mesons at the ends of tracks of negative pi-mesons. Five references.

Institution : Physics Institute im. P. N. Lebedev, Academy of Sciences

Submitted : January 22, 1955

PODGORETSKIY, M.I.

FD-2965

USSR/Nuclear Physics - Fluctuations during collisions

Card 1/2 Pub. 146 - 6/28

Author : Podgoretskiy, M. I.; Rozental', I. L.; Chernavskiy, D. S.

Title : Fluctuations during collision of particles of high energy

Periodical : Zhur. eksp. i teor. fiz., 29, September 1955, 296-303

Abstract : On the basis of the representations of the Fermi-Landau theory the authors calculate the fluctuations in the energy and number of particles during collision of nuclear-active particles of high energy. They conclude that the fluctuations in the number of particles are proportional to the square root of the number of particles and are quite considerable in absolute quantity; the coefficient of proportionality differs essentially for Fermi particles (nucleons-antinucleons) and for Bose particles (pi mesons). They show that the energy fluctuations able to be carried by one particle are very large and play a great role in the interpretation of the altitudinal behavior of wide atmospheric showers. The theoretical value of the coefficient of absorption thanks to taking into account fluctuations decreases, which improves the agreement between theory and experience. The authors thank S. Z. Belen'kiy. Four references: e.g. I. L. Rozental',

Card 2/2 Pub. 146 - 6/28 FD-2965

Abstract : Usp. fiz. nauk, 54, 405, 1954; G. T. Zatsepin, L. I. Sarycheva, DAN SSSR, 99, 951, 1954.

Institution : Physical Institute im. P. N. Lebedev, Academy of Sciences USSR

Submitted : May 26, 1954

PODGORETSKIY, M.I.

FD-2976

USSR/Nuclear Physics - Meso-atoms

Card 1/1 Pub. 146 - 17/28

Author : Podgoretskiy, M. I.

Title : Comment on successive transitions in meso-atoms

Periodical : Zhur. eksp. i teor. fiz., 29, September 1955, 374-375

Abstract : Many experimental studies have been made on gamma quanta emitted during various meso-atomic transitions, and great accuracy has been attained in the measurement of the energy of these gamma quanta; here certain of the considered transitions, e.g. 3d--2p and 2p--1s, are successive, but the actual possible connection between them has not been experimentally investigated. Meanwhile in the case of successive radiational transitions in meso-atoms a remarkable angular correlation between directions of emission of gamma quanta should be observed in a number of cases. The present writer considers by way of an illustration the case of mu-mesons. He thanks I. S. Shapiro. Two references: L. V. Groshev, I. S. Shapiro, Spektroskopiya atomnykh yader (Spectroscopy of atomic nuclei), GITTL, Moscow, 1952; J. Wheeler, Rev. Mod. Phys., 21, 133, 1949.

Institution : Physical Institute im. P. N. Lebedev, Academy of Sciences USSR

Submitted : January 20, 1955

Podgoretskiy, M. I.

Category : USSR/Nuclear Physics - Nuclear Reactions C-5

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 6007

Author : Gol'danskiy, V.I., Podgoretskiy, M.I.
Inst : Physics Institute, Academy of Sciences, USSR
Title : On the Correlation Method of Determining the Absolute Yield of Nuclear Reactions.

Orig Pub : Zh. eksperim. i teor. fiziki, 1955, 29, No 5, 559-571

Abstract : A new method is proposed for the study of nuclear transformations, based on the investigation of the time correlation of the genetically-related radiation emitted simultaneously or in sequence by the nucleus. The total duration T of the experiment should be broken up into a set of intervals of durations , during which one records the number of the particles of the l'th and k'th type (r_l and r_k) and their products ($r_l r_k$). The characteristic of the time correlation is the correlation function $\tilde{\Gamma}_{lk} = \overline{r_l r_k} - \bar{r}_l \bar{r}_k = g_l g_k \bar{m}_{lk}$, where g_l and g_k are the efficiencies at which the particles of the l'th and k'th type are recorded, and $\bar{m}_{lk}$ is the average number of occurrences of genetically-

Card : 1/2

PODGORETSKIY, M.I.

USSR/Nuclear Physics p Nuclear transformations

Cardl/2 Pub. 22 - 11/52

Authors : Gol'donskiy, V. I., and Podgoretskiy, M. I.

Title : About the possibility of application of function of corralation to the study of nuclear transformations

Periodical : Dok. AN SSSR 100/2, 237-240, Jan 11, 1955

Abstract : The methods "of functions of correlation" is outlined. This method is a statistical method in which a correlation function

$$\Phi_{\ell k} = \overline{n_\ell n_k} - \overline{n_\ell}\,\overline{n_k}$$

expressing a corralation between two types of decomposing particles (ℓ, k) is registered,

Institution : Acad. of Scs. of the USSR, P. N. Lebedev Physical Institute

Presented by : Academician L. D. Landau, October 9, 1954

Periodical : Dok. AN SSSR 100/2, 237-240, Jan 11, 1954

Card 2/2 Pub. 22 - 11/52

Abstract : instead of counting the number of coincidences of such decompositions, as has been done by the method of coincidences. The correlation function method is considered as a more generalized method then the latter. It takes care of possible errors due to a bad counting and of expected as well of accidental coincidences of the formation of two, e. g., β and γ, particles. By this method, the determination of the cross section of a nuclear reaction and identification of the products of various reactions, especially of new isotopes, can be done very easily and it is possible to determine the half-periods of decomposition without liberation of isotopes from balanced compounds. One USA reference (1948).

PODGORETSKIY, M.I.

Fluctuations in the collisions of high-energy particles. M. I. Podgoretskiĭ, I. L. Rozental', and D. S. Chernavskiĭ. *Soviet Phys., JETP* 2, 211-16(1956)(Engl. translation).—See *C.A.* 50, 2307c. B. M. R.

3

PODGORETSKIY, M.I. Podgoretskiy, M.I.

3990

TWO τ-MESONS DETECTED BY PHOTOGRAPHIC EMUL-

SIONS. I. M. Gramenitskii, E. A. Zamchalova, M. I.

Podgoretskii, M. I. Tret'iakova a[illegible] M. G. Shafranova

(P. N. Lebedev Physical Inst., Academy of Sciences,

USSR). Soviet Phys. JETP 5, [illegible], Dec.

Characteristics of τ mesons found in a stack, consisting of 126 layers of unbacked electron-sensitive emulsions of type R, exposed for 7 hours at a height of 27 km were studied. The comparatively small energy of one of the τ mesons produced by a τ meson supports the hypothesis that the τ and χ mesons are different [illegible]

PODGORETSKIY, M.I.

5 Sq. Rmk

3

6195. INVESTIGATION OF THE "ASSOCIATED STAR" EFFECT BY MEANS OF MOVING PHOTOGRAPHIC PLATES. 537.591.1 : 778.34

I.M.Gramenitskil, M.I.Podgoretskil and Yu.F.Sharapova. Zh. éksper. teor. Fiz., Vol. 30, No. 2, 277-81 (1956). In Russian.

The moving photographic plate method was used to study the problem of simultaneity of formation of "associated stars" in nuclear tracks. It is shown that the so-called "associated stars" are formed at various times. A.

Root

PODGORETSKIY, M.I.

USSR/Nuclear Physics - Elementary Particles. C-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8648

Author : Gramenitskiy, I.M., Zamchalova, Ye.A., Podgoretskiy, M.I. Tret'yakova, M.I., Shcherbakova, M.N.

Inst :

Title : Two τ -Mesons Detected in Photographic Emulsions.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 5, 967-969.

Abstract : A description of two decays of τ -mesons, detected in a type R photo emulsion (450 microns), exposed at an altitude of 27 km. In one case all three pions terminate their range within the emulsion pile, and with this one of the secondary pions has a small energy (9.5 0.2 Mev). This, according to Dalitz, is evidence of the assumption that the τ^- and χ^- mesons are different particles, and not different types of decay of the same particle.

Card 1/1

PODGORETSKIY, M.I.

USSR/Nuclear Physics - Elementary Particles. C-3

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8641

Author : Varfolomeyev, A.A., Gerasimova, R.I., Zamchalova, Ye.A., Podgoretskiy, M.I., Shcherbakova, M.N.

Inst : Academy of Sciences, USSR.

Title : Energy Spectrum of Negative Pions, Formed by Cosmic Rays in a Photo Emulsion.

Orig Pub : Zh. eksperim. i teor. fiziki, 1956, 30, No 6, 1164-1166.

Abstract : The authors give the energy spectra obtained for 195 positive and 328 negative pions, generated in the R-5 emulsion (emulsions 330 and 450 mecrons thick, 10 cm in diameter), exposed to cosmic rays in the stratosphere. Corrections are made to the obtained data to take into account the finite dimensions of the emulsion blocks.. The author believes ti possible that in the negative pion spectrum, in the range of 10 -- 30 Mev, there is a small maximum which in their opinion can be interpreted as the decay of Λ^0

Card 1/2

PODGORETSKIY, M.I.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1769
AUTHOR AZIMOV,S.A., GULJAMOV,U.G., ZAMČALOVA,E.A., NIZAMENDINOVA, M. PODGORECKIJ,M.I., JULDAŠEV,A.
TITLE The Investigation of σ-Stars Produced by Negative Pions.
PERIODICAL Žurn.eksp.i teor.fis,31,fasc.5,756-761 (1956)
Issued: 1 / 1957

These σ-stars were produced by negative pions which had come to a standstill in an emulsion chamber. This emulsion chamber consists of a large number of layers without carrier and permits the exact measuring of the energy of the secondary particles by determination of the range of ionization. The emulsion chamber used in this case consisted of 126 emulsion layers of 450 μ thickness each. The chamber was exposed in the stratosphere for a period of 7 hours. When looking through it was observed that light negative mesons got stuck, and those stars were selected which contained at least one secondary charged particle. Furthermore, the true length of the traces of all secondary particles was measured and, if necessary, followed from layer to layer. When looking through, in particular those σ-stars were investigated from the center of which traces of slow electrons could be followed. Such electrons are essentially connected with the mesoatomic stage of the capture of a negative pion, and they are usually created on the occasion of the capture of a negative pion by the heavy nuclei of the photoemulsion (Ag and Br). The traces of the very slow electrons take the form of thickenings, and the σ-stars corresponding to them were brought into connection with the spallation of Ag- and Br-nuclei.

Zurn.eksp.i teor.fis,31,fasc.5,756-761 (1956) CARD 2 / 2 PA - 1769

Three tables illustrate the distribution (over the number of rays) of the σ-stars, of σ-stars without slow electrons and "thickenings", of σ-stars with slow electrons and thickenings. On the occasion of the capture of negative pions by heavy nuclei, σ-stars are often produced which have few rays. Further tables contain data concerning the number of secondary particles with different energies which belong to the stars with different numbers of rays. The number of σ-stars with secondary particles of more than 30 MeV amounts to 20,1±1,3%. The percentage of stars with secondary particles with E ≫ 30 MeV is nearly the same both in the case of heavy and light nuclei. Also the average values of energy which were computed for particles with E ≫ 30 MeV are in all cases nearly equal. It is interesting to compare the energy spectra obtained here with the data for the K^- -mesons which were produced by σ-stars. On the average the stars originating from K^- - mesons have secondary particles with higher energy (and this more often) than the stars originating from negative pions. Among the stars originating from K^- - mesons (which contain no traces of pions) from 65,4 +10,0% have secondary particles with more than E ≫ 30 MeV. The average value of energy computed for such particles is 79,2 ± 8,5 MeV.

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Academy of Science of the Uzbekian SSR.

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