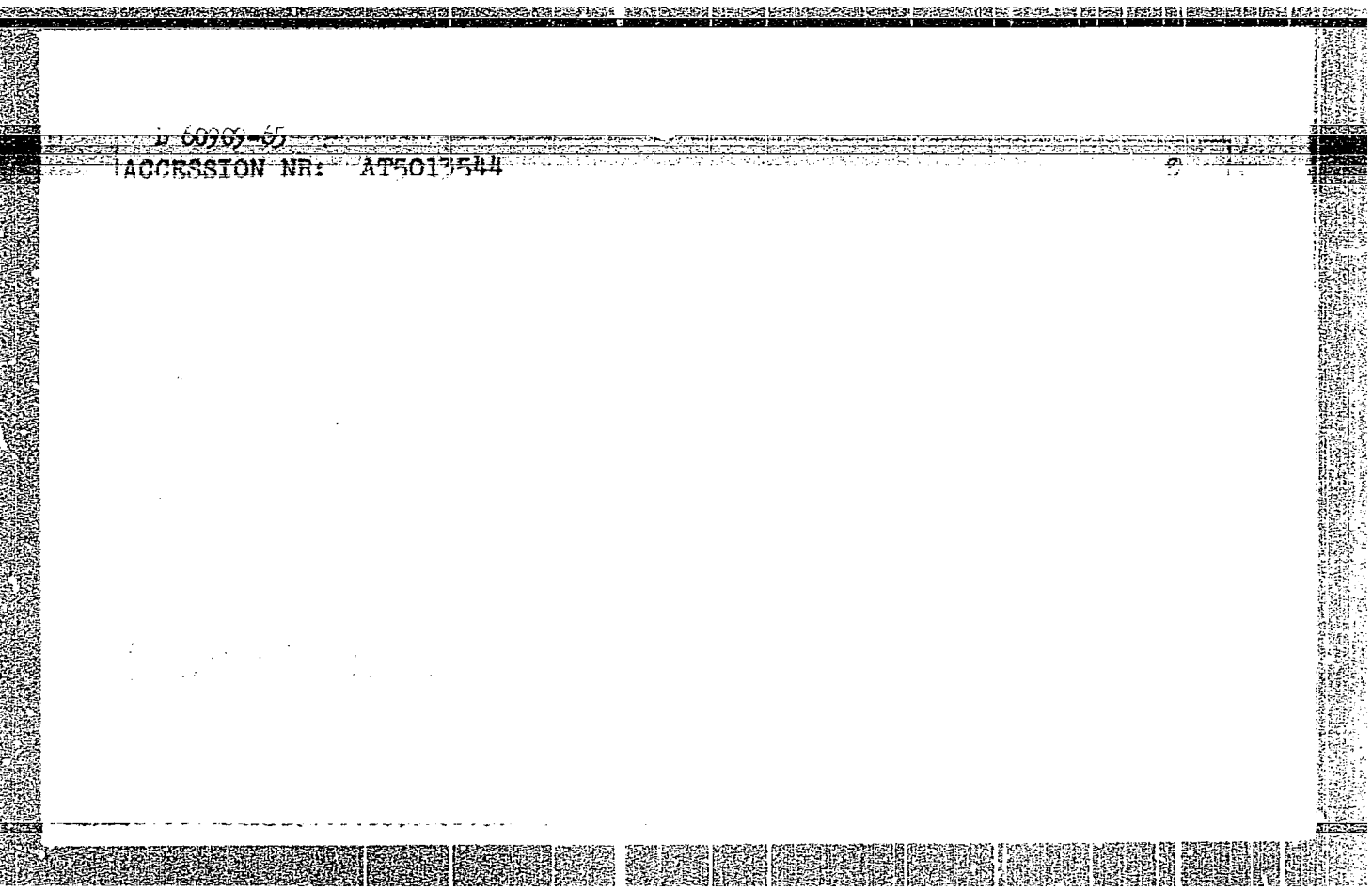
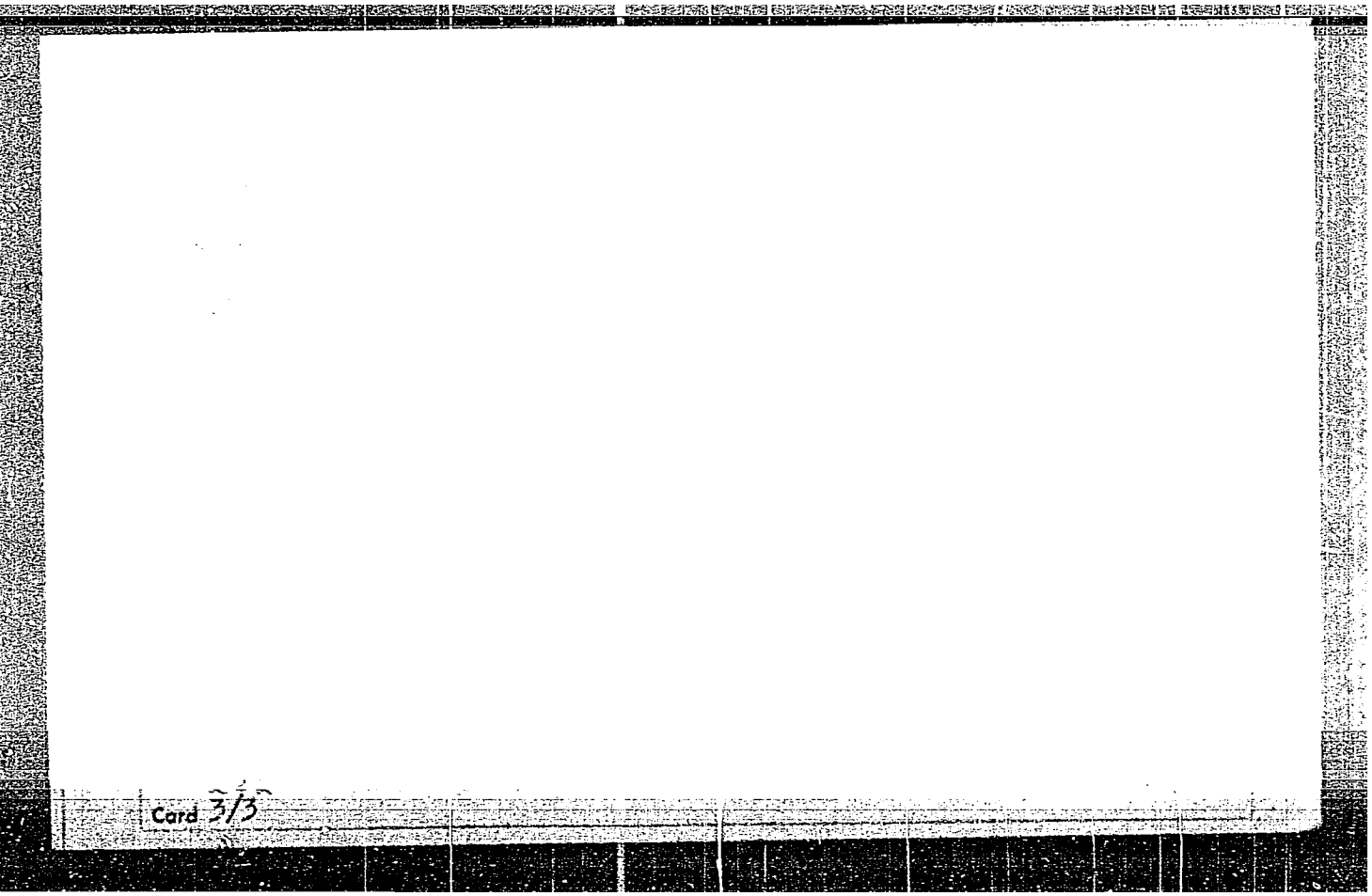




S/613/61/000/017/009/011
D051/D113

AUTHORS: Kiis, V.I. Nõmm, U.H., Pae, A.J., Reeben, V.A.

TITLE: An automatic spectrograph based on a UM-2 monochromator.

SOURCE: Akademiya nauk Estonskoy SSR. Institut fiziki i astronomii. Trudy, no. 17, 1961. Issledovaniya po lyuminestsentsii, 120-134

TEXT: Some problems connected with methods of recording emission spectra are discussed. An apparatus is described which permits automatically recording spectra and introducing indispensable corrections for the spectral sensitivity of a ФЭУ-17 (FEU-17) (spectral range 400-600 mμ) or ФЭУ-22 (FEU-22) (spectral range 450-1000 mμ) photomultiplier and for the dispersion of the УМ-2 (UM-2) monochromator. For controlling amplification, ФСК-М1 (FSK-M1) CdS single crystal photocells are used. The recording devices are an electronic ПЕР-1 (PSR-1) potentiometer and an electronic ЭНО-1 (ENO-1) oscillograph. Spectra of ZnS·CdS-Cu mixed phosphors are discussed

Card 1/2

PAE, A. Ya.

USSR/Crystals. B-5

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18334

Author : A.Ya. Pac.
Inst : Institute of Physics and Astronomy of Estonian SSR.
Title : X-Ray Study of Crystal Phosphors.

Orig Pub : Tr. In-ta fiz. i astron. AN EstSSR, 1956, No 4, 26-35

Abstract : The phosphors were prepared by grinding mixtures of NH_4Cl with TlCl or NH_4Br with TlBr containing 0 to 100 mol. % of the activator. The luminescence is observed immediately after the preparation of the mixture, and after the storage of the mixture at an indoor temperature, the radiation spectrum is displaced towards the lesser wave length, which is ascribed to the diffusion of Tl^+ into the base. A heating of the ground mixture at 150° for 4 hours is not enough for a complete homogenization - some of TlBr preserves its own lattice. At this occasion, the lattice parameter of the NH_4Br-TlBr phase decreases

Card 1/2

PAE, A. Ya.

"Emission spectra of NH_4Cl and NH_4Br activated with thallium."

p. 169 (Uurimused. Trudy) No. 6, 1957
Tartu, Estonia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

PAE, A.Ya.

48-5-43/56

SUBJECT: USSR/Luminescence

AUTHOR: Pae A.Ya.

TITLE: Roentgenographic Investigation of Crystallophosphors NH_4Cl-Tl and NH_4Br-Tl (Rentgenograficheskoye issledovaniye kristallofosforov NH_4Cl-Tl i NH_4Br-Tl)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #5, pp 749-751 (USSR)

ABSTRACT: The phosphors NH_4Cl-Tl and NH_4Br-Tl were produced by mixing the initial powder-like materials and subsequent heating the mixture. The luminescence at excitation by ultraviolet radiation arose immediately as a result of the mere mixing.

It was found that the heating of the NH_4Br-Tl phosphor during 4 hours at a temperature of 160°C did not result in the formation of a mixed crystal. A part of TlBr retained its crystalline lattice.

When NH_4Cl-Tl or NH_4Br-Tl were heated during 20 hours at a temperature of 200°C in vacuum, mixed crystals were formed at

Card 1/2

PAE, A. YA., Cand Phys- Math Sci — (diss) "Structure and spectra of ammonium-haloid crystalline phosphorus," Tartu, 1960, 10 pp, 200 cop. (Tartu State U.) (KL, 42-60, 111)

20825

S/048/61/025/003/013/047
B104/B214

24.3500 (1137, 1138, 1395)

AUTHORS: Pae, A. Ya. and Uybo, L. Ya.

TITLE: Luminescence of ammonium halide crystal phosphors

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, v. 25, no. 3, 1961, 347-348

TEXT: This paper was read at the Ninth Conference on Luminescence (Crystal Phosphors) held in Kiyev from June 20 to June 25, 1960. As is already known, ammonium halide crystal phosphors have properties similar to those of alkali halide crystal phosphors. Ammonium halide crystals activated by Tl^+ and Sn^{++} were studied. Studies of X-ray diffraction showed that NH_4Cl and NH_4Br form with TlCl and TlBr a continuous series of solid solutions, the Tl^+ ions replacing the NH_4^+ ions in the lattice. The NH_4I + TlI phosphors form a much more complicated system. The Tl^+ and Sn^{++} ions are the luminescence centers. The bands in the excitation spectra and the luminescence spectra are produced by certain electron -

Card 1/3

S/048/61/025/003/013/047
B104/B214

Luminescence of ammonium ...

vibration transitions ($^1S_o \longrightarrow {}^3P_{o,1,2}$ and $^1S_o \longrightarrow {}^1P_1$) in the activator ions. The transitions ${}^3P \longrightarrow {}^1S_o$ occur during emission. The excitation and luminescence spectra of the phosphors studied here agree with those of alkali halide crystal phosphors to a very great extent. More complicated spectra are observed at thallium concentration of up to 70%. New long-wave bands appear in the luminescence spectrum, and a displacement in the direction of longer wavelengths is observed in the excitation spectrum. There exist two types of luminescence spectra which differ from each other in the arrangement of the lattice round the Tl^+ ion. In the case of activation by Sn^{++}, the spectra are not found to become more complicated as the activator concentration increases. The most intensive luminescence is excited in the excitation bands of the activators. Less intensive luminescence is observed on excitation in the exciton absorption band and on excitation in the absorption bands with shorter wavelengths corresponding to band-to-band transitions. This shows that the energy is transferred from the basic substance to the luminescence centers by exciton and electron-hole processes. The large value of the

Card 2/3

S/048/61/025/003/013/047
B104/B214

half-width of the main peak of excitation absorption, the temperature dependence of its position and other details of the characteristics of ammonium halide crystal phosphors lead to the relationship with the specific properties of the NH_4^+ ion. The change from ammonium halide crystal phosphors to some possible polymorphic modifications leads to essential alterations in the characteristics of luminescence. On a polymorphic transition at low temperatures, a change in the characteristic of the trapping centers is observed. In the case of NH_4Cl-Tl, a discontinuous change in the energy of thermal ionization of the capture centers was established at $-30.8^{\circ}C$, which is clearly related to "cold scintillations". An effect of polymorphic transformations on the electron-hole relaxation processes has also been established. The results are summarized as follows: The characteristics and the formation of activated luminescence centers in alkali halide and ammonium halide crystals are similar; the electronic color centers (F-centers) of the two phosphors are different; the characteristics of the exciton centers in the two are similar; the exciton processes are also analogous. F. D. Klement and N. I. Ivanova are mentioned. There are 18 references: 16 Soviet-bloc.

Card 3/3

KIYS, V.I.; NYMM, U.Kh.; PAE, A.Ya.; REEBEN, V.A.

Automatic spectrograph based on the UM-2 monochromator. Prib. i tekh.eksp. no.4:145-146 Jl-Ag '60. (MIRA 13:9)

1. Tartusskiy gosudarstvennyy universitet.
(Spectrograph)

PAEGLE, A.

Working peasants fight for the Soviet power in Latvia.

P. 5. (Padomju Latvijas Kolochozneks. Vol. 9, no. 10, Oct. 1957, Riga, Latvia)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

YAVORKOVSKIY, L.I.; SANDLER, G.P.; SOLOVEY, D.Ya.; PAEGLE, A.G.

Problem of cryoglobulinemia. Terap.arkh. 33 no.1:96-101 '61.
(MIRA 14:3)

1. Iz gematologicheskogo otdeleniya (zav. - kand.med.nauk L.I. Yavorkovskiy) Respublikanskoy klinicheskoy bol'nitsy imeni P. Stradynya.
(GLOBULIN)

Aut. PAEGLE, A.K.

24(7) PHASE I BOOK EXPLOITATION SOV/2700

Prov. Universitet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956.
Materials of the 10th All-Union Conference on Spectroscopy) (Materialy X Vsesoyuznogo soveshchaniya po spektroskopii, 1956. Vol 2: Atomic Spectroscopy) Tom II: Atomnaya spektroskopiya. (Series: Its: Trudy, Ind-vo L'vovskogo univ., 1958. 568 p. 3,000 copies printed.
Nauchnyy sbornik, vyp.8(9))

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

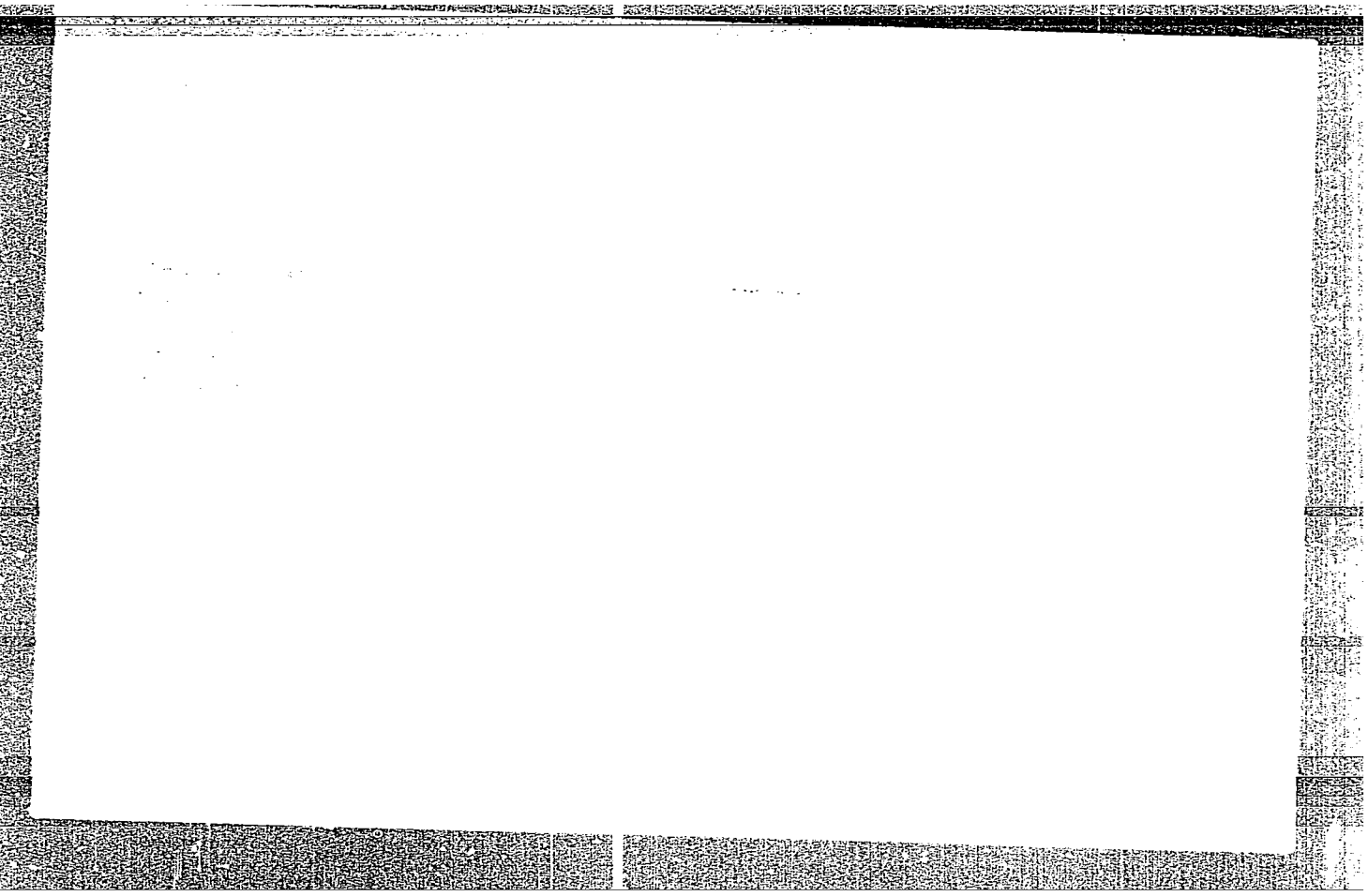
Editorial Board: G.S. Landsberg, Academician, (Resp. Ed.); B.S. Neporent, Doctor of Physical and Mathematical Sciences; I.A. Fabelinskiy, Doctor of Physical and Mathematical Sciences; V.A. Fabrikant, Doctor of Physical Sciences; S.M. Ryvkin, V.G. Koritskiy, Candidate of Technical Sciences; L.K. Klimovskaya, Candidate of Physical and Technical Sciences; V.S. Milyanchuk Candidate of Physical and Mathematical Sciences; A.Ye. (Deceased), Doctor of Physical and Mathematical Sciences; Glemberman, Doctor of Physical and Mathematical Sciences; F.V. Saranyuk, Ed.: S.L. Gasev, Tech. Ed.: F.V. Saranyuk.

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

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

Card 2/31

Card 29/31



PAEGLE, K.

Temperature graphs of the water of central heating systems.
Izv. AN Latv.SSR no.9:43-48 '63. (MIRA 16:12)

1. Institut energetiki AN Latviyskoy SSR.

PAEGLE, K.

Heat radiation of the central water-heating radiators by increased temperatures of the heating medium.

p. 21 (Voprosy Energetiki) Vol. 4, 1956, Riga, Latvia

SO: MONTHLY INDEX OF EAST EUROPEAN ACCESSIONS (EEAI) LC, VOL. 7, NO. 1, JAN. 1958

PAEGLE, K.

Baltic Conference on Heating from Central Stations [in Latvian]
Vestis Latv ak no.1:143 '62.

PAEGLE, K.K. (Riga); PLAUDE, K.K. (Riga)

Intensification of heat exchange of radiators. Vod. i san. tekh. no.9:28-29 S '58. (MIRA 11:10)
(Radiators)

PAEGLE, O.

Technical and economic parameters of low voltage networks in rural settlements. Vestis Latv ak no.1:59-67 '62.

1. Institut energetiki i elektrotekhniki AN Latviyskoy SSR

DALE, Voldemar; KRISHAN, Zigurd [Krisan, Zigurd]; PAEGLE, Omar; SAVEL'YEVA, Ye., red.

[Optimization of electrical networks with load increase] Optimizatsiia elektricheskikh setei pri roste nagruzok. Riga, AN Latv.SSR, 1964. 362 p. (MIRA 17:10)

PAEGLIS, Ya.S.[Paeglis, Janis]; PEYLE, Ye.Ya.[Peile, Eizenija], red.; SHKLENNIKS, Ch.[Sklenniks,C.], red.; PILADZE, Zh.[Piladze, Z.], tekhn. red.

[Academician Gustavs Vanags; a biobibliography] Akademikis Gustavs Vanags; biobibliografija. Riga, Latvijas PSR Zinatnu akademijas izdevnieciba, 1961. 110 p. (MIRA 15:3)

1. Latvijas Padomju Socialistiskas Republikas Zinatnu akademija. Fundamentala biblioteka.
(Bibliography--Vanags, Gustavs, 1891-)

PÄEGLITIS, fnu

USSR

Chairman, Metal Worker's Union

On-trade union movement in Latvia after German retreat

N: Moscow News, No. 3, 10 Jan. '45
Source: USSR
Abstracted in USAF "Treasure Island" Report No. 8729 on file in Library of Congress, Air Information Division.

PAESLACK, V.

Contributions to the pathogenesis of arterial diseases in diabetics.
Acta med. acad. sci. Hung. 18 no.1:131-134 '62.

(DIABETES MELLITUS compl)
(CARDIOVASCULAR DISEASES etiol)

PAEVICH

YUGOSLAVIA / Chemical Technology. Corrosion & Its Prevention. H

Abs Jour: Ref Zhur-Khimiya, No 12, 1958, 39950.

Author : Paevich.
Inst : Not given.
Title : Metals and Alloys which are Acid Resistant at High Temperatures.

Orig Pub: Zast. mater., 1957, 5, No 7, 243-247.

Abstract: The problems of corrosion resistance of oxide films on metals and the effect of alloying elements upon the formation of those films were investigated. The behavior of the protective films is described (at high temperatures and in the atmosphere of

The Texture of Deformation of Tubes from Stainless and Heat-Resistant Steel. Ya. N. Pafalovich. (*Zhur. Tekh. F...* 1954, 24, (7), 1282-[287] (In Russian) The texture of deformation of tubes from steels X18 (C 0.12%, Mn ... Cr 2... Si 0.6%, and EI-... Ni 9.0... Ti 0.3%, was studied. M... of deformation used were consistent with present methods of production of thin-walled tubes -- V. G.

PAFF, M.M.

BAKHAR, N. P., KARPINSKAYA, A. M., Krasil'nikova, N. A. , PAFF, M. M.

"K Differentsial'noy Diagnostike Mezhdu Sosudistymi Zabolevaniyami i Opukholyami Golovnogo Mozga."

p. 94 V kn: ob Aktual'nykh Problemy Nevropatologii i Psikhiatrii, Kuybyshev 1957.

Iz kafedry nervnykh bolezney i kafedry psikhiatrii, Kuybyshev State Med Inst.

PAFFENGOL'TS, K, M.

The Seismotectonics of Armenia and the adjoining part of the Little Caucasus. Academy of Sciences of the Armenian SSR. Erivan, 1946.

1. PAFFENGOL'TS, K. N.

2. USSR (600)

4. Daralagez Range - Geology

7. Geological map of the Caucasus. Scale 1:200,000. Sheet I-38-IV (Daralagez). (Abstract) Izv. Glav. upr. geol. fon. no. 3, 1947.

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

PAFFENGEL'TS, K.N.

Age of the effusive rocks of Central Caucasus, of the laccoliths of Pyatigor'e and of the granite of the "Main Ridge." Dokl. AN SSSR 96 no.6:1221-1224 Je '54. (MLRA 7:8)

1. Vsesoiuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad. Predstavleno akademikom A.G.Betekhtinym.
(Caucasus--Geology) (Geology--Caucasus)

1. RENGARTEN, V.P.; PAFFENGOL'TS, K.

2. USSR (600)

4. Geology, Stratigraphic - Caucasus

7. Short answer to V.P. Rengarten's remarks, K. Paffengol'ts, Izv.AN SSSR.Ser.geol. no. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

1. PAFFENGOL'TS, K.N.

2. USSR (600)

4. Geology, Stratigraphic - Anatolia

7. Stratigraphy of Tertiary deposits of eastern Anatolia and northwestern Iran. Izv.AN SSSR.Ser.geol. no. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

PAFFENGOL'TS, K. N.

USSR (600)

Caucasus - Geology, Stratigraphic

"Stratigraphy of Cretaceous deposits of the eastern part of the Little Caucasus." reviewed by L N. Leont'yev. Biul. MOIP. Otd. geol. 27 no. 2, 1952.

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

PAVLENGOL'TS, K.N., deystvitel'nyy chlen; SOLOV'YEV, S.P., deystvitel'nyy chlen.

A.P.Gerasimov and his geological and petrographic works. Zap.Vses.min.ob-va 82 no.3:207-213 '53. (MLRA 6:11)
(Gerasimov, Aleksandr Pavlovich, 1869-1942)

PAFFENGOL'TS, K. N.

USSR/Geology

Card : 1/1

Authors : Paffengol'ts, K. N.

Title : Growth of effusions in Central Caucasus, Pyatigorsk laccolith and granits of the main ridge.

Periodical : Dokl. AN SSSR, 96, Ed. 6, 1221 - 1224, June 1954

Abstract : Exploration work was conducted at the Central Caucasus region of Pyatigorsk to determine the absolute reason for the growth of various intrusions with consideration of all possible geological conditions of their appearance and genesis. Seventeen references. Graph.

Institution : All-Union Scient - Research Geological Institute, Leningrad

Presented by: Academician A. G. Betekhtin, March 31, 1954

3(2);14(5) PHASE I BOOK EXPLOITATION SOV/2840

USSR. Ministerstvo geologii i okhrany nedr

Instruktsiya po sostavleniyu i podgotovke k izdaniyu geologicheskoy karty i karty poleznykh iskopayemykh masshtaba 1:200,000; obyazatel'na dlya geologicheskikh organizatsiy ministerstv i vedomstv SSSR (Instructions for the Compilation and Preparation of Geological Maps and Maps of Mineral Resources at a Scale of 1:200,000; Mandatory for Geological Organizations of Ministries and Agencies of the USSR) Moscow, Gosgeoltekhizdat, 1955. 46 p., 2 fold maps. 10,000 copies printed.

Compilers: S. A. Muzylev, and K. N. Paffengol'ts; Editorial Board: Ye. T. Shatalov (Chief Ed.), V. I. Krasnikov, G. A. Mirlin, S. A. Muzylev, and B. S. Rusanov; Ed.: N. I. Babintsev; Tech. Ed.: O. A. Gurova.

PURPOSE: This book is intended for personnel concerned with the compilation of geological maps.

COVERAGE: This manual gives complete instructions and specifications for compiling geological maps and maps of mineral deposits. About a third of the book is devoted to [illegible] instructions of a fairly generalized nature. The

Card 1/4

15-57-5-5712

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5, p 4 (USSR)

AUTHOR: Paffengol'ts, K. N.

TITLE: Yuliya Irinarkhovna Polovinkina (On Her Sixtieth Birthday) /Yuliya Irinarkhovna Polovinkina (K 60-letiyu so dnya rozhdeniya)/

PERIODICAL: Inform. sb. Vses. n.-i. geol. in-t, 1956, Nr 4, pp 163-166.

ABSTRACT: Bibliographic entry

Card 1/1

PAFFENGOL'TS, K.N.

15-1957-7-8895

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 3 (USSR)

AUTHOR: Paffengol'ts, K. N.

TITLE: Vladimir Dmitriyevich Golubyatnikov (Obituary) [Vladimir Dmitriyevich Golubyatnikov (Nekrolog)]

PERIODICAL: Materialy Vses. n.-i. geol. in-ta, 1956, Nr 18, pp 3-5

ABSTRACT: The scientific activity of the famous Soviet geologist V. D. Golubyatnikov (1892-1955) was basically connected with the Caucasus. He was the first to establish a detailed stratigraphic section of the Paleogene deposits in Dagestan, to work out the tectonic peculiarities of this region, to clarify the involved facies relationships in various complexes of Tertiary deposits and to determine the geological features of the Dagestan oil and gas deposits. Golubyatnikov also

Card 1/2

15-1957-7-8895

Vladimir Dmitriyevich Golubyatnikov (Obituary) (Cont.)

studied the hydrogeology of the Donbass, paleogeography and facies analysis, the methods of prospecting, the Quaternary terraces of the Caspian and the materials of construction.

Card 2/2 G. I. Denisova

PAFFENGOL'TS, K.N.

New data on the stratigraphy of lavas of the Kazbek region and the Keli volcanic plateau (central Caucasus) and their ancient glaciation. Sov.geol. 1 no.12:115-139 D '58. (MIRA 12:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.
(Caucasus--Lava) (Caucasus--Glaciers)

SVYATLOVSKIY, A.Ye.; KELL', N.G., otv.red.; PIYP, B.I., otv.red.; PAFFENGOL'TS, K.N., red.; RENGARTEN, V.P., red.; SOLOV'YEV, S.P., doktor geol.-min.nauk, red.; LADYCHUK, L.P., red. izd-va; STRELETSKIY, I.A., tekhn.red.; POLENOVA, T.P., tekhn.red.

[Atlas of the volcanoes of the S.S.S.R.] Atlas vulkanov SSSR. Sostavitel' i avtor teksta A.E.Sviatlovskii. Moskva, 1959. 173 p. (MIRA 12:8)

1. Akademiya nauk SSSR. Laboratoriya vulkanologii. 2. Chlen-korrespondent AN SSSR; Laboratoriya aerometodov AN SSSR (for Kell'). 2. Chlen-korrespondent AN SSSR; Laboratoriya vulkanologii AN SSSR (for Piyp). 3. Deystvitel'nyy chlen Akademii nauk Armyanskoy SSR (for Paffengol'ts). 4. Chlen-korrespondent AN SSSR (for Rengarten).

(Volcanoes)

SOV/11-59-2-1/14

AUTHOR: Paffengol'ts, K.N.

TITLE: The Elbrus (A Geological Survey). (El'brus. Geologicheskiy ocherk)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya Geologicheskaya, 1959, Nr 2, pp 3-23 (USSR)

ABSTRACT: The author gives a detailed description of different effusive rocks which form the Elbrus massif. He divides the whole massif into two strata of different age: 1) the lower stratum, 2 km thick, formed in the Oligocene epoch; 2) the upper stratum, formed in the Pliocene epoch. The geological development of the Elbrus region was very complicated. The massif is composed of rocks belonging to all periods from the Pre-Cambrian up to Upper-Tertiary periods. In the Pre-Cambrian period the region formed part of a large geosyncline, where strata of sedimentary and volcanic rock have accumulated. Under the influence of the regional and contact metamorphism, these rocks were transformed into various crystalline schists. During the Lower and Middle Devonian periods occured the sinking and the accumulation of open sea sediments as well as an intensive effusive

Card 1/3

The Elbrus (A Geological Survey)

activity and the rocks were submitted to the dynamometamorphism. The Carboniferous period was characterized by the accumulation of continental sedimentation. Continental-lagoon sedimentation occurred during the Lower Permian period with the admixture of volcanogenous formations. A stratum of variegated conglomerates was formed during that period. During the Upper Permian and Triassic periods the region was already an elevation, and only at the Toarcian stage was the northern part of the region again immersed. After that the whole region formed an intensely eroded elevation. Only in the Oligocene epoch was the volcanic action conditioned by the Pre-Oligocene orogenic phase. As a result, a 2 km thick stratum of volcanogenous rocks covered the eroded surface of ancient rocks. Various block dislocations occurred during the Neogene, and the Alpean type relief was formed. Finally the Elbrus volcano arose in the highest central region during the Pliocene epoch. The glaciation process and an intensive fluvial erosion developed in the Quaternary period. The author cites the following geologists, with some of whom he completely

Card 2/3

disagrees: S.P. Solov'yev, M.V. Muratov, M.V. Gzovskiy, Ye.Ye. Milanovskiy, V.P. Rengarten, A.L. Lunev, D.S. Belyankin, A.N. Zavaritskiy, G.D. Afanas'yev, Yu.P. Masurenkov, G.M. Zaridze, N.P. Luparev, N.I. Nikolayev, N.A. Bush and K.I. Podozerskiy. There are 2 photos, 1 diagram, 1 map, 2 tables and 1 profile and 37 references, of which 30 are Soviet and 7 German.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (VSEGEI), Leningrad (The All-Union Geological Scientific Research Institute (VSEGEI), Leningrad

SUBMITTED: July 6th, 1958

MKRTCHYAN, S.S., akademik, glav. red.; VARDANYANTS, L.A., red.; GABRIYELYAN, A.A., red.; MAGAK'YAN, I.G., akademik, red.; PAFFENGOL'TS, K.N., akademik, red.; AZARYAN, N.R., kand. geol.-miner. nauk, red.; AKOPYAN, V.T., kand. geol.-miner. nauk, red.; ARAKELYAN, R.A., kand. geol.-miner. nauk, red.; MESROPYAN, A.I., kand. geol.-min. nauk, red.[deceased]

[Geology of the Armenian S.S.R.] Geologiia Armianskoi SSR. Izd-vo AN Arm.SSR. Vol. 2. [Stratigraphy] Stratigrafiia. 1964. 432 p. (MIRA 17:7)

1. Akademiya nauk Armyanskoy SSR, Erivan. Institut geologicheskikh nauk. 2. AN Armyanskoy SSR (for Mkrtchyan, Magak'yan, Paffengol'ts). 3. Chlen-korrespondent AN Armyanskoy SSR (for Vardanyants, Gabriyelyan).

ALEKSEYEV, Alekseĭ Karpovich, prof.[deceased]; PAFFENGOL'TS, K.N., otv. red.; MINASYAN, M.A., tekhn. red.

[Paleogene fauna of mollusks of the northern Aral Sea region] Paleogenovaia fauna molliuskov Severnogo Priaral'ia. Erevan, Izd-vo AN Arm.SSR, 1963. 229 p. (MIRA 17:2)

ALYAVDIN, V.F.; VASIL'YEVA, L.F.; VITOSHINSKAYA, M.I.; GRIGOR'YEVA, L.N.; GODLEVSKIY, M.N.; ZHERBINA, K.M.; ZHEZEZKOVA, V.N.; KISELEVA, A.N.; KOZYREVA, Yu.A.; KULIKOV, K.V.; PAFFENGOL'TS, K.N.; POLEVOY, B.F.; SOLOV'YEV, S.P.; STULOV, N.N.; SHAFRANOVSKIY, I.I.

In memory of A.V.Nemilovoi. Zap.Vses.min.ob-va 90 no.6:756-757 '61. (MIRA 15:2)

(Nemilova, Aleksandra Vasil'evna, 1892-1961)

MKRTCHYAN, S.S., akademik, glav. red.; VARDANYANTS, L.A., red.; GABRIYELYAN, A.A., red.; MAGAK'YAN, I.G., akademik, red.; PAFFENGOL'TS, K.N., akademik, red.; DUMITRASHKO, N.V., doktor geogr. nauk, otv. red.; BAGDASARYAN, A.G., doktor geogr. nauk, red.; BAL'YAN, S.P., kand. geogr. nauk, red.; ZOGRABYAN, L.N., kand. geogr. naukKHACHATRYAN, E.A., red. izd-va; KAPLANYAN, M.A., tekhn. red.

[Geology of the Armenian S.S.R.]Geologiia Armainskoi SSR. Glav.red.S.S.Mkrtchian (glav.red.) i dr. Erevan, Izd-vo AN Armianskoi SSR. Vol.1. [Geomorphology]Geomorfologiia. 1962. 430 p. map. (MIRA 15:10)

1. Akademiya nauk Armyanskoy SSR, Erivan. Institut geologicheskikh nauk. 2. Akademiya nauk Armyanskoy SSR (for Mkrtchyan, Magak'yan, Paffengol'ts). 3. Chlen-korrespondent Akademii nauk Armyanskoy SSR (for Vardanyants, Gabriyelyan). (Armenia—Geomorphology)

IVANOVA, Taisiya Nikolayevna; STANKEVICH, Ye.K., mladshiy nauchnyy sotr.; TARASOVA, L.I., laborant; BARSUKOVA, I.F., laborant; PETROVA, M.I., tekhnik-kartograf; BERSENEVA, R.M., star. tekhnik-kartograf; PAFFENGOL'TS, K.N., nauchn. red.; SHMAKOVA, T.M., tekhn. red.

[Characteristics of the development of Early Paleozoic igneous activity in various structures of Tuva] Zakonomernosti razvitiia rannepaleozoiskogo magmatizma v razlichnykh strukturakh Tuvy. Moskva, Gosgeoltekhizdat, 1963. 165 p. (MIRA 17:1)

1. Otdel petrografii Vsesoyuznogo nauchno-issledovatel'skogo geologicheskogo instituta (for all except Paffengol'ts, Shmakova).
(Tuva A.S.S.R.—Rocks, Igneous)

KHOREVA, Bella Yakovlevna; PAFFENGOL'TS, K.N., nauchn. red.; SAMARCHYAN, L.M., red. izd-va; SHMAKOVA, T.M., tekhn. red.

[Geology, intrusive igneous activity and metamorphism in the Irtysh shear zone] Geologicheskoe stroenie, intruzivnyi magmatizm i metamorfizm Irtyshskoi zony smiatiia. Moskva, Gosgeoltekhizdat, 1963. 206 p. (MIRA 17:1)

NIKOLAYEV, V.A. [deceased]; PAFFENGOL'TS, K.N.; YELISEYEV, N.A.; YEGOROVA-FURSENKO, Ye.N., kand.geologo-mineralogicheskikh nauk

Sergei Pavlovich Solov'ev; on his 60th birthday. Min. sbor. no.15:378-382 '61. (MIRA 15:6)

1. Chleny-korrespondenty AN SSSR (for Nikolayev, Yeliseyev).
2. Deystvitel'nyy chlen AN Armyanskoy SSR (for Paffengol'ts).
(Solov'ev, Sergei Pavlovich, 1900-)

ZARIDZE, Georgiy Mikhaylovich; PAFFENGOL'TS, K.N., red.; OVCHINNIKOVA, S.V., red. izd-va; BYKOVA, V.V., tekhn. red.

[Petrography of igneous and metamorphic rocks in Georgia] Petrografiia magmaticheskikh i metamorficheskikh porod Gruzii. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1961. 381 p. (MIRA 15:3)

(Georgia--Petrology)

ABOVYAN, Stepan Barsegovich; PAFFENGOL'TS, K.N., otv. red.; VARTANESOVAA, A.A., red.izd-va; SAROYAN, P.A., tekhn. red.

[Geology and minerals of the northeastern shore of Lake Sevan] Geologiia i poleznye iskopaemye severo-vostochnogo poberezh'ia ozera Sevan. Erevan, Izd-vo Akad. nauk Armianskoi SSR, 1961. 260 p. (MIRA 15:3)

(Sevan Lake region--Ore deposits)

PAFFENGOL'TS, K.N.; MALKHASYAN, E.G.; AVAKYAN, L.A.; BAKHCHISARAYTSEV, A.N.

In memory of O.S. Stepanian. Izv. AN Arm. SSR. Geol. i geog. nauki 13 no.3/4:137-139 '60. (MIRA 13:9)
(Stepanian, Oganes Stpanovich, 1902-1950)

PAFFENGOL'TS, Konstantin Nikolayevich. Prinimali uchastiye: GAMKRELIDZE, P.D.; YEFREMOVA, G.M.; MIKLUKHO-MAKLAY, K.V.; RODZYANKO, G.N.; SAFRONOVA, I.N.; ARAKELYAN, R.A., otv.red.; SHTIBEN, R.A., red.izd-va; MINASYAN, M.A., tekhn.red.

[Outline geology of the Caucasus] Geologicheskii ocherk Kavkaza. Sost. P.D.Gamkrelidze i dr. Erevan, Izd-vo Akad.nauk Armianskoi SSR, 1959. 505 p. (MIRA 12:8)

(Caucasus--Geology)

PAFFENGOL'TS, Konstantin Nikolayevich; TER-MESROPYAN, Grigoriy Tatevosovich; MKRTCHYAN, S.S., otv. red.

[Aragats; geological outline of the Aragats volcanic massif] Aragats; geologicheskii ocherk Aragatskogo vulkanicheskogo massiva. Erevan, Izd-vo AN Arm.SSR, 1964. 78 p. (MIRA 17:6)

KISSIN, I.G.; KULIBABA, F.V.; PAFFENGOL'TS, N.K.; POPOV, I.V., doktor geol.-mineral.nauk; SLAVYANOV, V.N.; SOKOVICH, L.M.; FANDEYEVA, V.I.; BOGOMOLOV, G.V., retsenzent; KOTLOV, F.V., retsenzent; PANYUKOV, P.N., retsenzent; PRIKLONSKIY, V.A., retsenzent; SOKOLOV, N.I., retsenzent

[Conditions in the area of the Kursk Magnetic Anomaly from the point of view of engineering geology and hydrogeology; data on the development of deposits using the open-pit mining method] Inzhenerno-geologicheskie i gidrogeologicheskiy usloviia raiona kurskoi magnitnoi anomalii. Moskva, Izd-vo Akad. nauk SSSR, 1960, 165 p. (Akademiia nauk SSSR. Laboratoriia gidrogeologicheskikh problem. Trudy, no.28)
(Kursk Magnetic Anomaly--Mining geology)

PAFFENGOL'TS, N.K.

Features of the formation of the sedimentary (supra-ore) layer in the Kursk Magnetic Anomaly. Izv.AN Arm.SSR.Geol.i geog.nauki 14 no.6:17-32 '61. (MIRA 15:3)

1. Laboratoriya gidrogeologicheskikh problem imeni akademika F.P.Savarenskogo AN SSSR.
(Kursk Magnetic Anomaly--Rocks, Sedimentary)

PAFFENGOL'TS, N.K.

Quaternary sediments and geomorphology of the area of the Kursk Magnetic Anomaly. Izv. AN Arm. SSR. Geol. i geog. nauki 14 no.3:3-24 '61. (MIRA 14:8)

1. Laboratoriya gidrogeologicheskikh problem imeni F.P.Savarenskogo AN SSSR, Moskva.
(Kursk magnetic anomaly--Geomorphology)

Author, Given Names: PAFNOTE, MARIA

Country: Rumania

(2)

Academic Degrees:

Affiliation: *)

Source: Bucharest, Igiena, Vol IX, No 4, Sep-Oct 1961, pp 305-311.

Data: "Thermolysis Changes in the Course of Prolonged Exposure of the Body to High Temperatures."

Authors:

~~BERDAN, C., Dr.-~~
PAFNOTE, Maria, Dr.-

*) Work performed at the Labor Hygiene Section of the RPR Institute of Hygiene and Public Health(Institutul de Igiena si Sanatate Publica RPR, Doctia de Igiena a Muncii).

GPO 981643

GRADINA, C., Dr.; BERDAN, C., Dr.; POSTELNICESCU, M., Dr.; PAPHOTE, Maria, dr.; TANEV, A., dr.; POPESCU, M., dr.

Clinical and statistical study of morbidity in a metallurgical plant. Rev. igiena microb. epidem., Bucur. Vol. 4:31-47 Oct-Dec 55.

1. Institutul de igiena muncii si boli profesionale, Bucuresti.
(OCCUPATIONAL DISEASES
in metal workers, clin. & statist. study, in Rumania.
(BACKACHE
in metal workers in Rumania, clin. & statist. study.
(ENTERITIS
(SAME)
(SKIN, dis.
(SAME)
(LUNGS, dis.
(SAME)
(METALS
metal workers, occup. dis. in Rumania.

PAPIUTE, MARIA (Mrs)

2

Country: Rumania

Academic Degrees: Dr.

Affiliation: *)

Source: Bucharest, Igiena, No 3, Jul-Aug 61, pp 235-241.

Data: "Modifications of Thermoproduction During Prolonged Exposure of the Body to High Temperatures."

Co-author:

PAPIUTE, Maria, Dr.

*) Work performed at the RPR Institute of Hygiene and Public Health (Institutul de Igiena si Sanatate Publica RPR).

PALLADE, Sulamit; GOL'DSHTEYN, I. [Goldstein, I.]; POPOVICH, Karmen [Popovici, C.]; PAFNOTE, Mariya

Effect of chlorpromazine (aminazine) in experimental nitrobenzene poisoning. Farm. i toks. 25 no.1:103-108 Ja-F '62. (MIRA 15:4)

1. Otdel gigiyeny truda Instituta obshchestvennogo zdravookhraneniya i gigiyeny Rumynskoy Narodnoy Respubliki.
(CHLORPROMAZINE) (BENZENE--TOXICOLOGY)

1. YEVDOKIMOVA, T. I.: PAFNUTOVA, T. S.

2. USSR (600)

4. Tingutin - Afforestation

7. Dark soils of oak and elm groves of the Tingutin forest range. Vest. Mosk. un. 7 no. 9, 1952.

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

PAFNUTOVA, T. S.

"The Forestation Quality of the Soil of Don River Sand Terraces." Cand Biol Sci, Moscow Order of Lenin State U imen M. V. Lomonosov, 29 Oct 54. (VM, 19 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

So: Sum. No. 461, 5 May 55

PAFNUT'YEVA, G.V.

Immunological characteristics of Flexner's bacilli isolated in Dnepropetrovsk. Zhur.mikrobiol.epid. i immun. no.1:69-70 Ja '58. (MIRA 11:4)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(SHIGELLA,
paradysenteriae, immunol. of strains isolated in Dnepropetrovsk (Rus)

PAFNUT'YEVA, G.V.

GROMOV, A.S.; SIL'CHENKO, T.S.; PAFNUT'YEVA, G.V.

Immunological characteristics of Shigella dysenteriae strains isolated at the onset and in the terminal stages of disease; author's abstract. Zhur.mikrobiol.epid. i immun. 29 no.4:93-94 Ap '58. (MIRA 11:4)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(SHIGELLA DYSENTERIAE,
immunol. aspects of strains isolated in early & late phases of dis. (Rus)

PAFNUT'YEVA, G.V.

GROMOV, A.S.; SIL'CHENKO, T.S.; PAFNUT'YEVA, G.V.

Vaccines and vaccination in control of dysentery. Zhur.mikrobiol. epid.i immun. no.5:14-17 My '55. (MLRA 8:7)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigiyeny.

(DYSENTERY, BACILLIARY, prevention and control, vacc.)
(VACCINES AND VACCINATION, dysentery)

TRUKHMANOV, B.G.; PAFNUT'YEVA, G.V.

Diphtheria-tetanus beanatoxin in immunity studies. Zhur.mikrlbiol. epid.i immun. no.5:44-48 My '55. (MLRA 8:7)

1. Iz Dnepropetrovskogo instituta epidemiologii, mikrobiologii i gigieny (dir. -kandidat meditsinskikh nauk B.G.Trukhmanov.

(DIPHTHERIA,
anatoxin combined diphtheria-tetanus anatoxin)
(TETANUS,
anatoxin, combined diphtheria-tetanus anatoxin)

PAFOMOV, G.A.

Evaluation of aortal atherosclerosis by determining the traveling rate of the pulse wave in patients with coronary insufficiency. Trudy Inst. im. N.V. Sklif. 5 no.2:43-49 '62.
(MIRA 18:6)

PAFOMOV, G.A.; SABUROVA-DANILOVA, I.V.

A new installation for collecting blood from cadavera. Probl. gemat. i perel.krovi 1 no.2:60-61 Mr-Ap '56. (MLRA 10:1)

1. Iz Nauchno-issledovatel'skogo instituta neotlozhnoy pomoshchi imeni N.V.Sklifosovskogo (dir. - M.M.Tarasov, glavnyy khirurg - professor B.A.Petrov)

(BLOOD
from corpses, installation for prep.)
(HEMATOLOGY, appar. and instruments
installation for prep. of blood from corpses)

PAFOMOV, G.A.; MASKHULIYA, A.Ye. (Moskva).

Apparatus for repeated venous pressure measurements during surgery.
Eksp. khir. 3 no.6:55 N-D '58. (MIRA 12:1)
(SPHYGMOMANOMETER)

PAFOMOV, G.A., kand.med.nauk; SERGEYEV, A.V., (Moskva)

Use of nitrous oxide in stenocardia. Klin.med. 36 no.1:24-29 Ja '58.
(MIRA 11:3)

1. Iz laboratorii funktsional'noy diagnostiki i terapevticheskoy kliniki (rukovoditel'-prof. P.L.Sukhinin) Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta skoroy pomoshchi imeni Sklifosovskogo (dir.-zasluzhennyy vrach USSR M.M.Tarasov).
(ANGINA PECTORIS, ther.
nitrous oxide (Rus)
(NITROUS OXIDE, ther. use
angina pectoris (Rus)

PAPOMOV, G.A.; PETROVA, L.I.

Fourth (auricular) tone of the heart and its importance from the clinical point of view. Trudy Inst. im. N.V. Sklif. 5 no.2:90-100 '62. (MIRA 18:6)

PAFOMOV, G.A.

Stand for collecting fibrinolyzed blood in flasks. Probl.gemat. i perel.krovi no.9:56-58 '62. (MIRA 15:12)

1. Iz laboratorii perelivaniya krovi i konservatsii tkaney Instituta skoroy pomoshchi imeni N.V. Sklifosovskogo (dir. M.M. Tarasov).
(BLOOD—COLLECTION AND PRESERVATION) (CADAVER)

PAFOMOV, G.A., kand. med. nauk; PETROVA, L.I.

Diagnostic significance of the interval Q—I tone in phonocardiography. Kardiologiia 3 no.5:70 S-O '63. (MIRA 17:9)

1. Iz terapevticheskoy kliniki (rukovoditel' - prof. P.L. Sukhinin) Instituta imeni N.V. Sklifosovskogo (dir. - zasluzhennyy vrach UkrSSR M.M. Tarasov).

PAPOMOV, G.A. (Moskva)

Gaseous state of the blood and gas metabolism in traumatic shock. Pat. fiziol. i eksp. terap. 7 no.4:34-39 Jl-Ag '63. (MIRA 17:9)

1. Iz Instituta skoroy pomoshchi imeni N.V. Sklifosovskogo (dir.- zasluzhennyy vrach UkrSSR M.M. Tarasov).

ACCESSION NR: AP4031847 S/0286/64/000/007/0037/0037

AUTHOR: Pafomov, G. V.

TITLE: Magnetic corrector of magnetic flux. Class 21, No. 161406

SOURCE: Byulleten' izobreteniy i tovarny*kh znakov, no. 7, 1964, 37

TOPIC TAGS: magnetic flux corrector, magnetic corrector

ABSTRACT: 1. A magnetic corrector of magnetic flux. The distinguishing feature is providing a significant increase or decrease of flux for regulation. One or several permanent magnets are placed on the magnetic flux path in the yoke of the magnetic conductor. These magnets have only one degree of free travel - rotation - and are magnetized so that for a turn of 180° the flux of these magnets is added or subtracted from the basic flux.

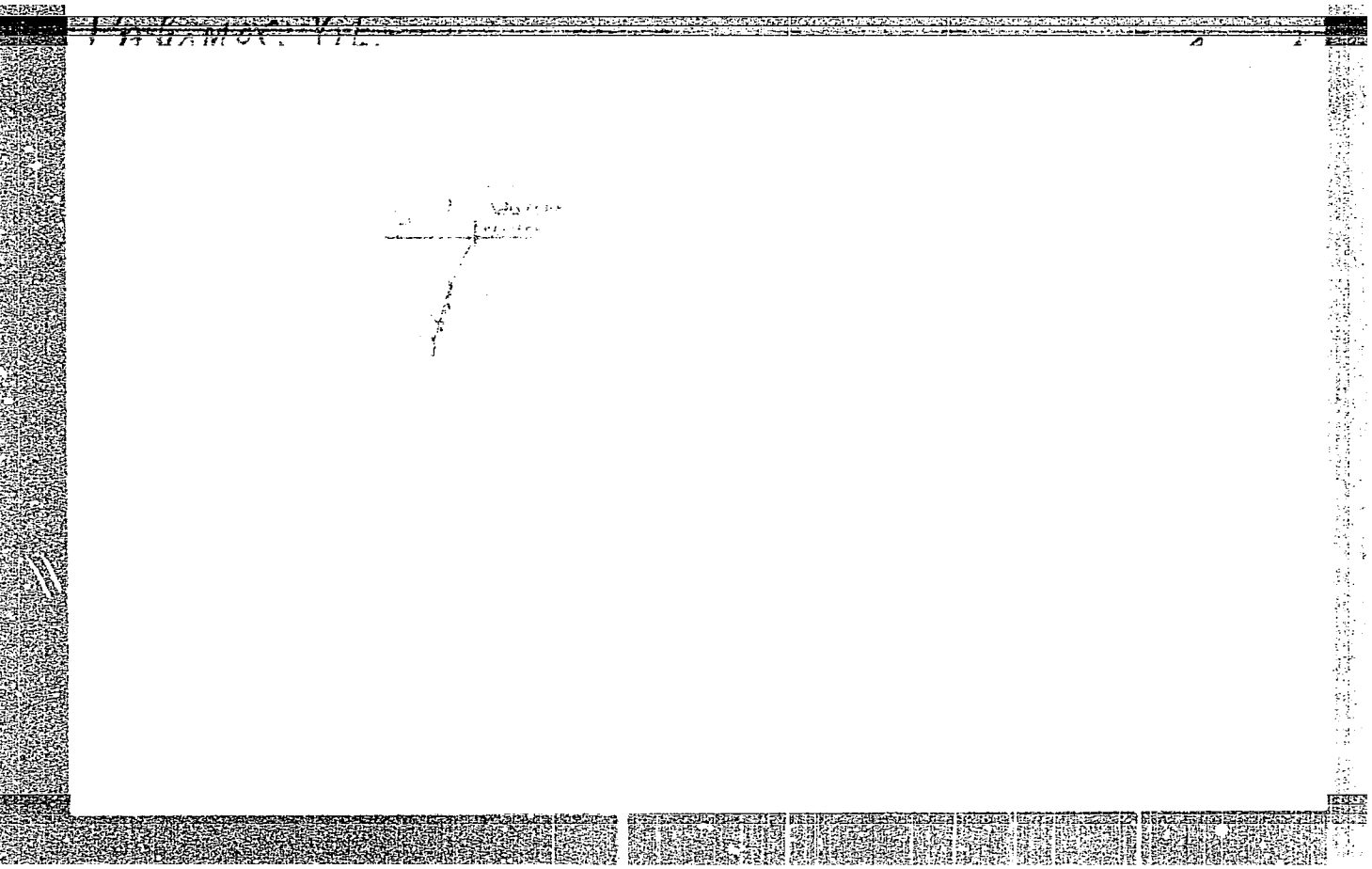
2. The magnetic corrector of magnetic flux of Par. 1, with the distinguishing feature of regulation or variation of the zone of regulation of flux. An additional magnet or magnets have a second level of free travel - along the axis of revolution.

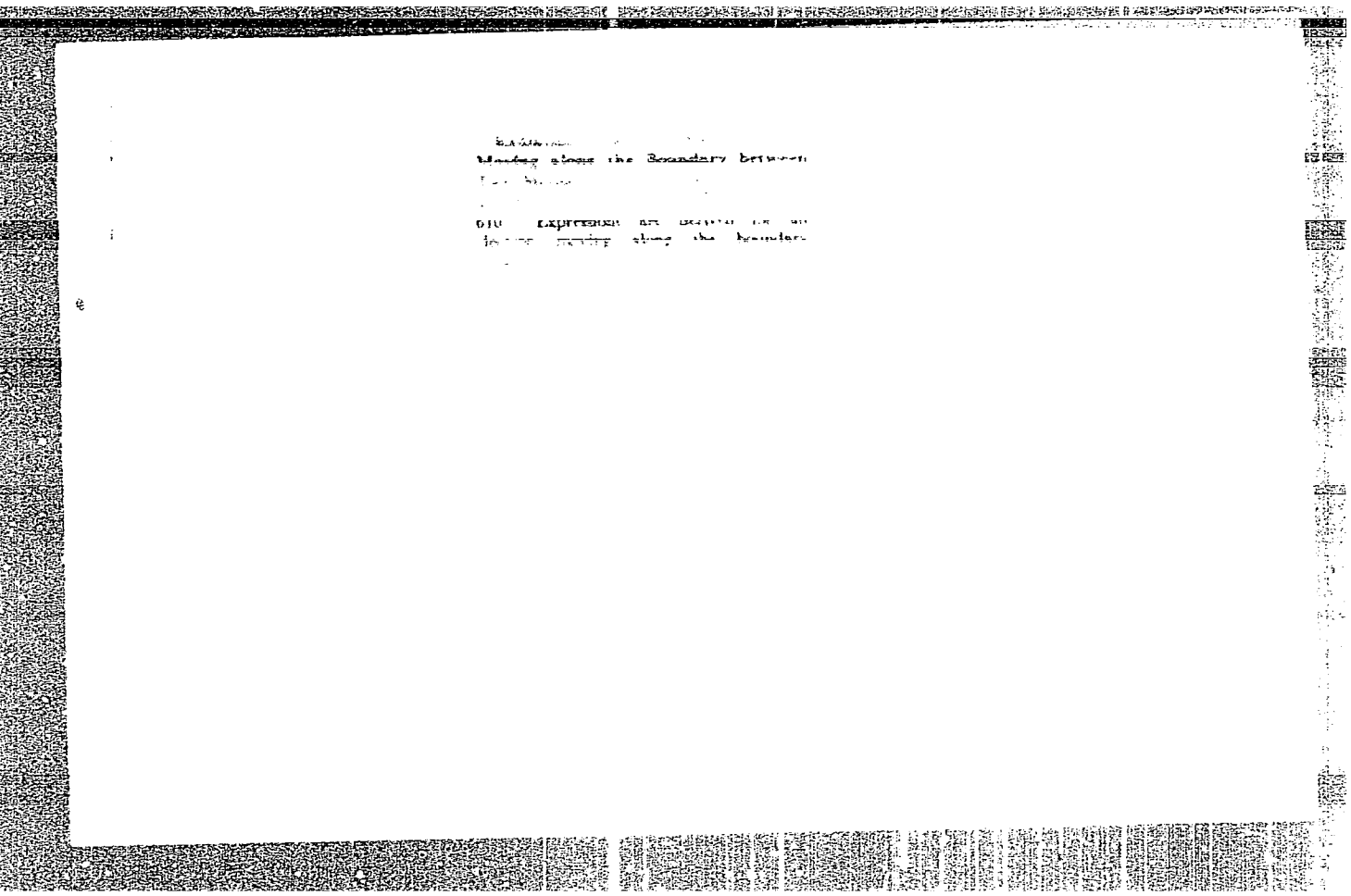
Card 1/3

MICHALAK, Stanislaw; ~~PAFOMOW, Wladyslaw~~ E. [Pafomov, Vladislav]

Remarks concerning the transistion radiation in the visible part of the spectrum. Nauki matem przyrod Lodz no.17:53-57 '64.

1. Department of Experimental Physics, University, Lodz (for Michalak). 2. Institute of Physics of the Academy of Sciences of the U.S.S.R., Moscow (for Pafomov).





PA - 2688

AUTHOR PAFOMOV, V.E.

TITLE On Some Particularities of the VAVILOV-CHERENKOV Radiation in Anisotropical Media
(O nekotorykh osobennostyakh izlucheniya Vavilova-Cherenkova v anizotropnykh sredakh - Russian)

PERIODICAL Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 32, Nr 2, pp 366-367 (USSR)
Received 5/1957 Reviewed 6/1957

ABSTRACT First of all reference is made to some relevant previous papers. The paper under review deals with the particularities which have not been treated to a sufficiently great extent in these previous papers. For purposes of simplicity, the motion of a charge along the optical axis of an unaxial dielectrical crystal is used as an example. A formula is written down for the Fourier component of the vector potential in large distances from the path of the particle ($|\sigma r| \gg 1$). This choice is independent from the sign of σ. If there is no damping, we also have to set the requirement that the Poynting vector is turned away from the radiating system. To this case there corresponds the positive component of the group velocity W_r. In anisotropical media there exists a frequency range where there correspond to the flow-away of energy from the charge in motion advanced potentials. Also these advanced potentials have to be used as solution. We have an analogous situation if we consider the refraction of a plane wave which travels from the vacuum into the dielectric. These boundary conditions can be satisfied by two refracted waves. Usually we take that wave vector of which forms an acute angle with the normal (to the

Card 1/2

PA - 2983

AUTHOR: PAFOMOV,V.E.

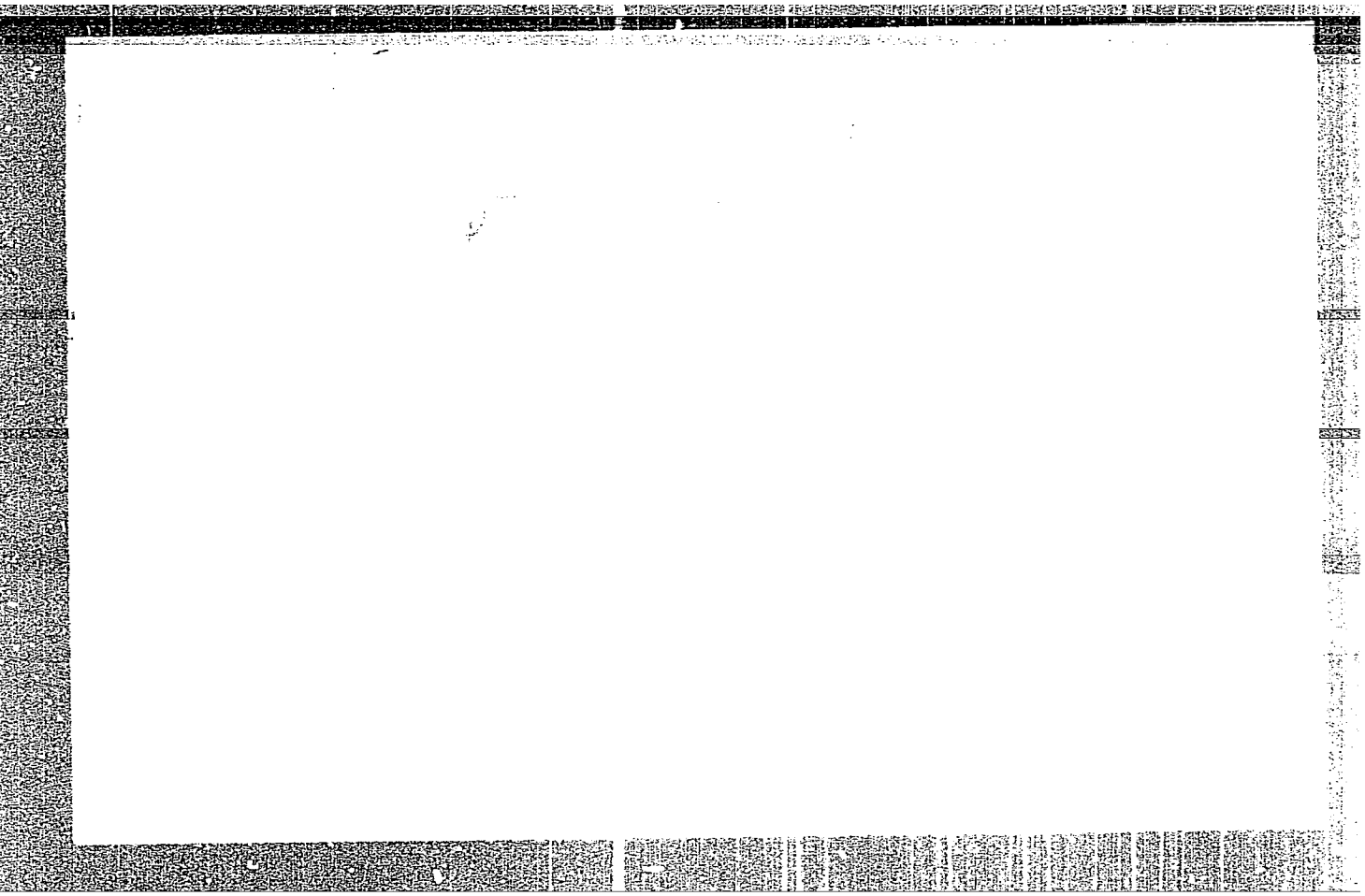
TITLE: The Radiation of a Point Charge Flying along the Boundary Separating two Media. (Izlucheniye tochechnogo zaryada, letyashchego vdol'granitsy razdela doukh sred, Russian)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 32, Nr 3, pp 610 - 610 (U.S.S.R.)

Received: 6 / 1957 Reviewed: 7 / 1957

ABSTRACT: The present paper determines the angular distribution of radiation energy for the case that the electron moves above the boundary separating two dielectrics. The electron is assumed to move uniformly and in a straight line with the velocity v at the distance d along the boundary line separating two media with the real dielectricity constants ε_1 and ε_2. That medium in which the electron moves is assumed to have the dielectricity constant ε_1. If the condition of CHERENKOV radiation is satisfied only in the case of the second medium ($\varepsilon_1\beta^2 < 1$, $\varepsilon_2\beta^2 < 1$), the entire energy is radiated into the second medium. For the distribution of intensity over the generatrices of the CHERENKOV cone a formula is written down. The cone of CHERENKOV radiation is defined, like in the case of the homogeneous problem, by the condition $n\beta\cos\delta = 1$, and because this condition is satisfied only below the separating boundary, the

Card 1/2



PAFOMOV, V.N., gornyy inzh.

Increasing the service life of shale-dust barrier. Ugol' 34 no.11: 44 N '59 (MIRA 13:3)
(Coal mines and mining--Safety measures)

30515
S/504/61/016/000/003/003
D051/D113

24.6720

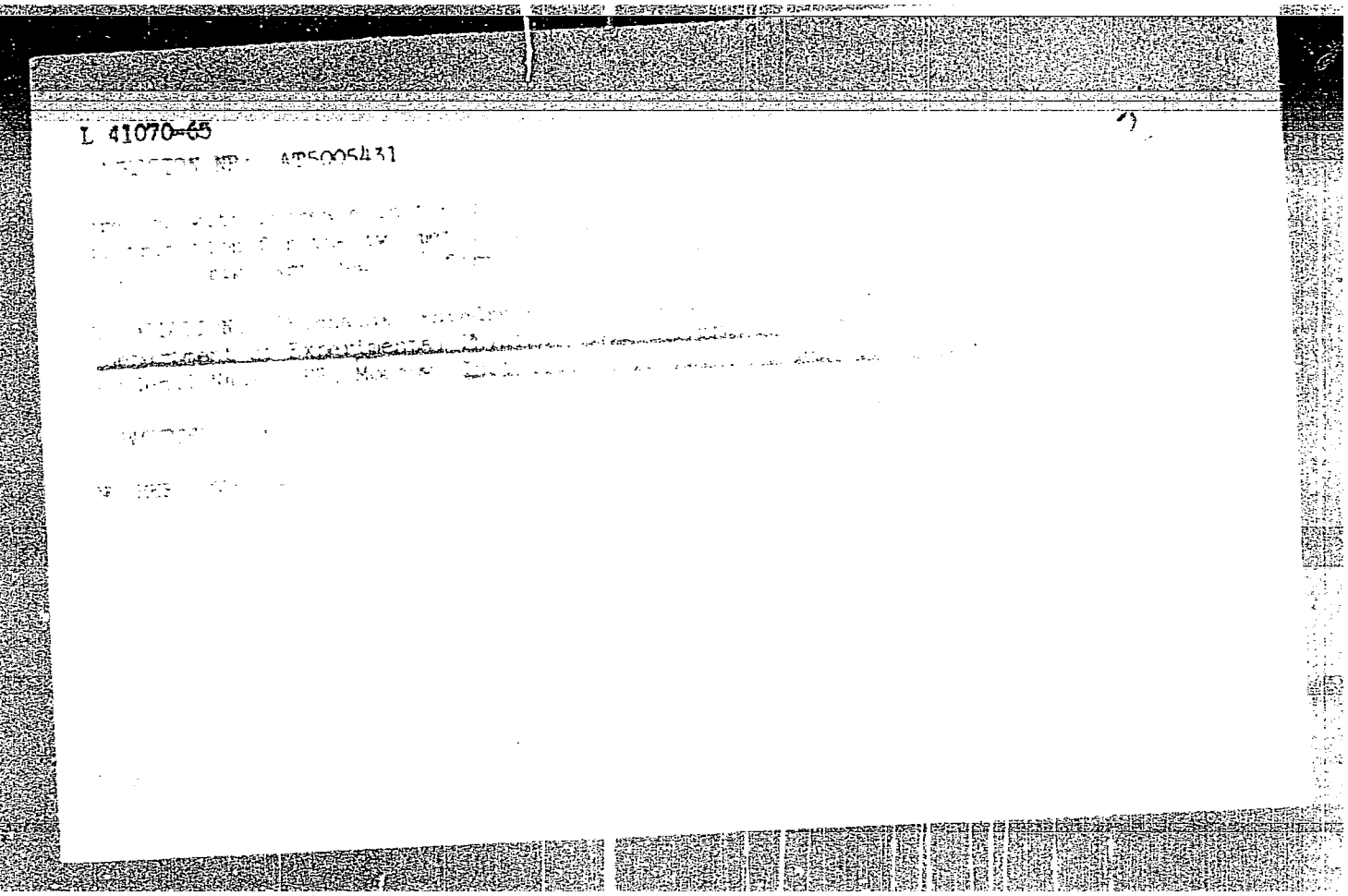
AUTHOR: Pafomov, V.Ye.

TITLE: Contribution to the theory of Cherenkov radiation in anisotropic media and in the presence of interfaces

SOURCE: Akademiya nauk SSSR. Fizicheskiy institut. Trudy, v. 16, 1961. Nekotoryye voprosy teoreticheskoy fiziki, 94-139

TEXT: A number of problems connected with the Cherenkov effect in anisotropic media and in the presence of interfaces are examined and discussed. A short introductory summary of previous research in this field is given. The study falls into four chapters followed by three appendices. In the first chapter, the investigation of Cherenkov radiation in different anisotropic media is described. On the basis of the generalized Hamiltonian method, a formula was obtained for the radiation energy in an isotropic medium whose permeability and dielectric constant differ from unity. Formulae were derived for radiation energy distribution in uniaxial dielectric

Card 1/3



PAFOMOV, V.Ye.

Effect of multiple scattering on transient radiation. Zhur. eksp. i teor. fiz. 47 no.2:530-536 Ag '64. (MIRA 17:10)

1. Fizicheskiy institut imeni P.N.Lebedeva AN SSSR.

L 12781-66 EWT(m) DIAAP

ACC NR: AP5026616 SOURCE CODE: UR/0056/65/049/004/1222/1227

55 40

AUTHOR: Pafomov, V. Ye. 55 B

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Concerning bremsstrahlung 19, 55

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 4, 1965, 1222-1227

TOPIC TAGS: bremsstrahlung, charged particle, relativistic particle

ABSTRACT: The author calculates the angular distribution and the degree of ionization of bremsstrahlung from a relativistic charged particle moving through a layer of matter thinner than the radiation length unit. The quanta emitted are assumed to have much lower energy than the particle, so that classical theory can be employed. The frequencies of the emitted quanta are much higher than optical. The case of very thick layers is also considered and the resultant equations are shown to be simpler. The formulas derived are complicated functions of the layer thickness and also of the parameters characterizing multiple scattering and polarization of the radiation in the medium, so that concrete re-

Card 1/2

L 12781-66
ACC NR: AP5026616

sults can be obtained only with the aid of electronic computers.
Orig. art. has: 22 formulas

SUB CODE: 20/ SUBM DATE: 26Apr65/ NR REF SOV: 009

Card 2/2 HW

84717

S/056/60/039/001/037/041/XX
B006/B056

17.1400
24.2500 (1143, 1144, 1482)

AUTHOR: Pafomov, V. Ye.

TITLE: Radiation From a Charged Particle Moving Through a Plate

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 1(7), pp. 134-137

TEXT: Following two earlier papers (Refs. 1, 2), the author gives a theoretical investigation of the angular distribution of the radiation energy emitted by a charged particle flying through a plate. In the introduction, the previously obtained formulas for $dW_\omega/d\Omega$ a) behind a plate of a ferrodielectric (1) and b) behind a plate of a uniaxial crystal perpendicular to the optical axis (2) are written down and briefly discussed. In the derivation of the formulas it had been assumed that the particle moves with constant velocity perpendicular to the plane of the plate. The formulas hold at such a distance from the plate, where radiation is propagated in the form of a spherical wave. These results are now investigated with respect to the Cherenkov effect [Abstracter's note: This effect is always called Vavilov-Cherenkov effect in Russian

Card 1/4

84717

Radiation From a Charged Particle Moving Through a Plate

S/056/60/039/001/037/041/XX
B006/B056

publications], where, for reasons of simplicity, an absolutely transparent plate is considered. For a plate, whose thickness is large as compared to the wave length, one obtains for the ratio of the energies of Cherenkov radiation emitted backward (W_b) and forward (W_f):

a) $W_b/W_f = (1-\varepsilon\beta\cos\vartheta_r)^2/(1+\varepsilon\beta\cos\vartheta_r)^2$; b) $W_b/W_f = (1-\varepsilon_o\beta\cos\vartheta_r)^2/(1+\varepsilon_o\beta\cos\vartheta_r)^2$, where ϑ is the angle between the direction of observation and the perpendicular to the plate, ϑ_r - the Cherenkov refraction angle, $\beta = v/c$ in the vacuum, ε - dielectric constant, ε_o - the component of the tensor ε perpendicular to the crystal axis. In a radiation below the Brewster angle, W_f vanishes. For a thin dielectric plate ($|\sqrt{\varepsilon}|\omega d/c \ll 1$ and $\omega d/v \ll 1$) the following holds for the space in front of and behind the plate:

$$\frac{dW_\omega(1)}{d\Omega} = \frac{e^2\omega^2 d^2}{4\pi^2 c^3}|\varepsilon - 1|^2 \frac{\sin^2\vartheta\cos^2\vartheta}{(1-\beta^2\cos^2\vartheta)^2}$$ (otherwise β has to be replaced

Card 2/4

84717

Radiation From a Charged Particle Moving Through a Plate

S/056/60/039/001/037/041/XX
B006/B056

by $-\beta$, if the formula given for the space behind the plate, that of the space in front of it is to be obtained). The spectral energy density is given by $W_\omega(1) = \frac{e^2\omega^2 d^2}{4\pi c^3}|\varepsilon - 1|^2\left[\ln\frac{4}{1-\beta^2} - 3\right]$. If a set of thin plates is considered, the radiation energy is proportional to the square of the number of plates if the set as a whole may be regarded as thin. If the distance l between the individual plates is large, the energy is proportional to the number of plates. Finally, the author investigates the coherence conditions for a set consisting of m thin plates. With $\omega c^{-1}\left[l(Mc^2/E)^2+d\right]m \ll 1$, the radiation is coherent and $W_\omega(m)=m^2W_\omega(1)$ and with $\omega c^{-1}\left[l(Mc^2/E)^2+d\right] \gg 1$, the coherence is disturbed and $W_\omega(m)=mW_\omega(1)$; (M - mass of the plates, E - their total energy). G. M. Garibyan and G. A. Chalikyan are mentioned in the course of this paper. There are 6 Soviet references.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Institute of Physics imeni P. N. Lebedev of the Academy of Sciences, USSR)

Card 3/4

45623

S/141/62/005/006/004/023
E032/E114

24.672

AUTHOR: Pafomov, V.Ye.

TITLE: Energy losses of a charged particle in a plate

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.5, no.6, 1962, 1072-1077

TEXT: A theoretical calculation is reported of the spectral distribution of the energy losses experienced by a relativistic charged particle passing through a thin dielectric plate. The calculation is based on the solution for the field obtained by the author in a previous paper (Trudy FIAN, v.16, 1961, 94). It is shown that the energy is lost at frequencies corresponding to the absorption bands of the plate. For relativistic particles the energy losses are almost exclusively due to the work done by retarding forces while the particle is outside the plate. This is due to the fact that since the normal component of the electric induction is continuous, the normal component of the electric field which tends to retard the particle is greater outside the plate than inside it (near the boundary).

Card 1/2

45623

S/141/62/005/006/004/023
E032/E114

24.6712

AUTHOR: Pafomov, V.Ye.

TITLE: Energy losses of a charged particle in a plate

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.5, no.6, 1962, 1072-1077

TEXT: A theoretical calculation is reported of the spectral distribution of the energy losses experienced by a relativistic charged particle passing through a thin dielectric plate. The calculation is based on the solution for the field obtained by the author in a previous paper (Trudy FIAN, v.16, 1961, 94). It is shown that the energy is lost at frequencies corresponding to the absorption bands of the plate. For relativistic particles the energy losses are almost exclusively due to the work done by retarding forces while the particle is outside the plate. This is due to the fact that since the normal component of the electric induction is continuous, the normal component of the electric field which tends to retard the particle is greater outside the plate than inside it (near the boundary).

Card 1/2

L 9917-63 EPF(n)-2/EWT(l)/BDS/ES(w)-2--AFFTC/ASD/ESD-3/
AFWL/SSD--Pab-4/Pu-4--AR/IJP(C)

ACCESSION NR: AP3000010 S/0057/63/033/005/0557/0560

AUTHOR: Pafomov, V. Ye.

TITLE: Interference effects of radiation in laminar media.

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 33, no. 5, 1963, 557-560

TOPIC TAGS: radiation of moving electrons, laminated media, dispersion, interference

ABSTRACT: The angular distribution of the radiation from an electron moving through a stack of dielectric, ferrodielectric and crystal plates is calculated. The calculation was undertaken because of the relative paucity of investigations of the radiation from a charged particle moving through an inhomogeneous medium in which the inhomogeneities are large compared with the wavelength of the radiation. The radiation field beyond a finite stack of dielectric plates separated by intervals of empty space obtained by Garibyan, G. M. (ZhETF, 35, 1435, 1958) was integrated so as to obtain the angular distribution of the radiant intensity. The result is given. It is asserted that the previous

Card 1/2

L 9917-63

ACCESSION NR: AP3000010

results of the author (ZhETF, 39, 134, 1960) regarding the radiation from an electron passing through a crystal or a ferrodielectric plate can be used to show that the angular distribution so obtained is valid, with certain modifications, which are given, for these cases also. The angular distribution shows interference maxima and minima. An expression for the positions of these maxima is given. The expressions for the positions of the interference maxima, as well as that for the angular distribution, are much simpler in the vicinity of Brewster's angle because of the absence of multiple reflection effects. These simplified expressions are obtained from the general expressions, and it is pointed out that they can be obtained more easily by other means. It is pointed out that the results obtained are applicable to the case in which the group velocity changes sign from layer to layer. Orig. art. has: 10 equations.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 27Jul61 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: PH NR REF SOV: 010 OTHER: 001

Card 1m/2c 2/2

PAFOMOV, V.Ye.

Interference effects of radiation in stratified media. Zhur.tekh. fiz. 33 no.5:557-560 My '63. (MIRA 16:6)

1. Fizicheskiy institut imeni P.N.Lebedeva AN SSSR, Moskva. (Radiation)

PAFOMOV, V.Ye.

Energy losses of a charged particle in a dielectric slab. Izv.vys. ucheb.zav.; radiofiz. 5 no.6:1072-1077 '62. (MIRA 16:2)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR.
(Electrons) (Dielectrics)