GARGOV, K.
Surname (in caps); Given Names

Country: Bulgaria

Academic Degrees: Docent

Affiliation: Co-editor of Khigiena, Editing Director: Dr L. STOYANOV

Source: Sofia, Khigiena, No 2, Mar/Apr 61, pp 49-53

Data: "Ambulatory Polyclinical Treatment of the Population."

BRATANOV, Br.TS.; GARGOV, K.

Specialization and postgraduate training of physicians in Europe. Suvr. med. (Sofiia) 15 no.6:43-49 '64

GARGOV, K., doc. (Sofia)

Apropos of the study of the need for physicians. Some international aspects. Cesk. zdrav. 13 no.2:49-52 F'65.

GARGOV, K.

Bulgaria

Institute for Specialization and Advanced Study for Physicians, Department of Social Hygiene (ISUL-Katedra po sotsialna khigiena), Sofia; Director: Prof K. GARGOV.

Sofia, Khigiena i Zdraveopazvane, No 4, 1966, pp 309-314.

"The Public Helath Care and the New Manner of Planning of the National Economy."

Co-authors:

CHOLAKOV, V.
BORISOV, D.

GARGOV, Kosta

Bulgarian commercial air transportation. Letecky obzor 8 no.1:22-23 Ja '64.

1. Zastupce nacelnika spravy TABSO.

GARGULA, J.

Lost time of smelting furnaces and planning their repairs.

P. 266, (Hutnik) Vol. 7, no. 8, Aug. 1957, Praha, Czechoslovakia

SO: Monthly Index of East European Acessions (EEAI) Vol. 6, No. 11 November 1957

GARGULAK, M , B. Korda , I. Novak

Prirucka statistiky pro pracovniky v uhelnem prumyslu (A Statistical Handbook for Workers in the Coal Industry). p. 38.
(Uhli, Vol. 7, no.1. Jan. 1957, Praha, Czechoslovakia.)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, no. 12, Dec. 1957. Uncl.

GARGULAK, Miroslav, inz., CSc.

Some urgent problems of the development of labor productivity in the Ostrava-Karvina coalfield. Uhli 5 no. 12: 401-405 D '63.

1. Sdruzeni ostravsko-karvinskych dolu, Ostrava.

GARGULAK, Miroslav, inz.

Problem of economic research in the coal industry. Uhli 5 no.4: 132-133 Ap '63.

1. Sdruzeni Ostravsko-Karvinskych dolu, Ostrava.

GARGULAK, Miroslav, Inz., CSc.

Present problems of the mining output development in the Ostrava-Karvina coalfield. [illegible] 6 no.1:[illegible] Ja'6[illegible].

1. Sdruzeni Ostravsko-karvinskych dolu, Ostrava.

DARMIAK, Z.; GREGOR, J.

DARMIAK, Z.; GREGOR, J. Methods of teaching goniometric equations in secondary schools. (Conclusion) p. 739.

Vol. 5, no. 5, 1955
SOVETSKA VEDA: MATEMATIKA-FYSIKA-ASTRONOMIE
SCIENCE
Praha, Czechoslovakia

So: East European Accessions, Vol. 5, no. 5, May 1956

GARGULAK, Z.; FROLIK, J.

Simulated operation of casting cranes for determining the most economical organization of a foundry. Hut listy 17 no.5:338-343 My '62.

1. Vyzkumny ustav hutnictvi zeleza, Praha.

GARGULAK, Z.; SEFC, J.

Modeling the casting bay operation on an automatic computer.
Hut listy 19 no. 4: 239-244 Ap '64.

1. Research Institute of Iron Metallurgy, Prague.

GARGULAK, Zdenek

Gasting room control system. Automatizace 6 no.10:245-248 O '63.

1. Vyzkumny ustav hutnictvi zeleza.

Gergye L.

HUNGARY/Optics -- Luminescence K-6

Abs Jour : Ref Zhur - Fizika, No 11, 1958, No 26210

Author : Kotskemety I., Gergye L., Slakovits F.
Inst : The University, Szeged, Hungary
Title : On a New Photoelectric Measuring Setup for the Investigation of Polarization of Luminescence.

Orig Pub : Acta phys. et chem. Szeged, 1957, 3, No 1-4, 16-20

Abstract : Description of a setup for the measurement of the degree of polarization of the fluorescence of solutions, based on the principle of electric compensation using two photoelectric multipliers. This differs from the setup constructed by Weber (Referat Zhur Fizika, 1957, No 9, 23958) in that it makes it possible to investigate the fluorescence light in a direction parallel to the direction of the exciting light. This makes it possible to exclude the effect of depolarization of the secondary fluorescence (Referat Zhur Fizika, 1958, No 4, 9291). A method is given for taking into account the systematic errors that are introduced by the passing light and by the luminescence of the crossed filters of the setup.

Card : 1/1

46

L. GARGYA

HUNGARY/Physical Chemistry. Molecule. Chemical Bond. B

Abs Jour: Ref Zhur-Khimiya, No 22, 1958, 72969.

Author : A. Budó, I. Ketskeméty, E. Salkovits, L. Gargya.
Inst : Academy of Sciences of Hungary.
Title : Upon the Determination of the True Polarization Degree of the Fluorescence of Solutions.

Orig Pub: Acta phys. Acad. sci. hung., 1957, 8, No 1-2, 181-193.

Abstract: The relation between the true and the measured polarization degree of the fluorescence of an optically inactive and isotrope solution was computed taking into consideration the depolarizing action of the secondary fluorescence. The computation was carried out for a cylindrical vessel and the excitation with a bundle of

Card : 1/2

124-57-1-810

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 1, p 107 (USSR)

AUTHORS: Gari, K.A., Zakharov, Yu. G.

TITLE: A Hot-wire Microanemometer for Small Airflow Velocities (Mikrotermoanemometr dlya malykh skorostey dvizheniya vozdukha)

PERIODICAL: Sb. rabot Nauch. in-ta po udobr. i insektofungisidam, 1955, Nr 156, pp 210-214

ABSTRACT: The instrument is intended for the measurement of flow velocities in the 0-2 m/sec range in wind tunnels. It consists of a bridge fed by a direct current obtained from an alternating current via a rectifier. The design parameters of the gage and the bridge are not adduced. In order to improve the accuracy of the reading in the narrow velocity interval, a null method is used in conjunction with a galvanometer shunt for sensitivity control. The hot-wire microanemometer can be employed not only for visual observations, but likewise for recorded measurements by means of a mirror galvanometer and a recording drum.

Card 1/1 1. Hot wire anemometer--Applications 2. Air --Velocity--Measurement 3. Wind tunnels--Equipment

S.I.Krechmer

GARIADI, L.

H-13

RUMANIA/Chemical Technology. Chemical Products and Their Application. Ceramics. Glass. Binding Materials. Concrete.

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5513.

Author : Cioara, Aurel; Cariadi, Lelia.
Inst :
Title : Polarographic Determination of Selenium in Signalization Glass.

Orig Pub: Studii si cercetari chim., 1958, 6, No 1, 7-24.

Abstract: The conditions of using the buffer solution ammonia - ammonium chloride as an electrolyte indifferent to the cathode reduction of selenious acid are investigated. It is shown that reproducible and easily measurable steps are obtained at 0.2 N concentration of ammonium chloride and at the concentration of ammonia

Card : 1/2

BRUCKNER, Silvia, conf.; TEODORESCU, Tatiana, dr.; IOANESI, Iulia, dr.; TEODORESCU, G., dr.; CONSTANTINESCU, S., dr.; COTARCEA, S., dr.; ISBASESCU, C., chimiste; GARIBALDI, A.

The role of bacterial superinfection in the evolution of epidemic hepatitis. Med. intern. 14 no.4:423-432 Ap '62.

1. Lucrare efectuata in Clinica de boli infectioase nr. 1, I.M.F. (director: prof. M. Voiculescu).
(HEPATITIS, INFECTIOUS) (STAPHYLOCOCCAL INFECTIONS) (STREPTOCOCCAL INFECTIONS) (PNEUMONIA) (OTITIS MEDIA)

BRUCKNER, Silvia, conf.; TEODORESCU, Tatiana, dr.; TEODORESCU, Geta, dr.; IOANESI, Iulia, dr.; CONSTANTINESCU, Sanda, dr.; COTARCEA, Sofia, dr.; IZBASESCU, Aretia, chimist; GARIBALDI, Anastasia, chimist

Investigations concerning the factors determining the evolution of epidemic hepatitis in children. The role of viral superinfections. Med. intern. 15 no.2:179-184 F '63.

1. Lucrare afectuata in Clinica de boli contagioase I.M.F., Bucuresti.
(HEPATITIS, INFECTIOUS) (MEASLES) (MEASLES, GERMAN)
(CHICKENPOX) (MUMPS) (RESPIRATORY TRACT INFECTIONS)
(VIRUS DISEASES)

ACC NR: AT6025062 SOURCE CODE: UR/3204/65/000/001/0105/0109

AUTHOR: Garibashvili, D. I.; Grigalashvili, T. S.; Kakhidze, G. P.; Chikovani, G. Ye.; Shravshteyn, S. A.

ORG: none

TITLE: Multichannel pulse analyzer for an ionization calorimeter using capacitive memory cells and an information readout system

SOURCE: AN GruzSSR. Institut fiziki. Fizika chastits vysokikh energii, no. 1, 1965, 105-109

TOPIC TAGS: multichannel analyzer, calorimeter, computer memory, data readout, ionization chamber

ABSTRACT: The authors describe a multichannel system intended for the memorization of information obtained from an ionization calorimeter and for printing out the output data in digital form. The multichannel analyzer is used with the ionization calorimeter of the Bakuriani High-Mountain Station of the Physics Institute of AN GruzSSR, which contains approximately one hundred ionization chambers. The ionization chamber records events in excess of a given threshold (amplitudes 0.1 - 100 v), which are then stored and printed. The memory system, the gating circuit, the pulse stretching system, and the auxiliary apparatus are described. The readout system consists of a timing pulse, master generator, selector switch, digital voltmeter, printer unit, and auxiliary equipment. The path of the signal from the ionization

Card 1/2

ACC NR: AT6025062

chamber to the printer is traced in detail. The authors thank senior scientist R. Ye. Kazarov and technicians A. I. Kongolidi, G. B. Stepanov, and P. V. Dzhavrov for help in the construction and adjustment of the apparatus. Orig. art. has: 4 figures.

SUB CODE: 20, 09/ SUBM DATE: 00/ ORIG REF: 001

Card 2/2

ACC NR: AT6025063 SOURCE CODE: UR/3204/65/000/001/0111/0116

AUTHOR: Berger, A. R.; Garibashvili, D. I.; Kakhidze, G. P.; Kakauridze, D. B.; Chikovani, G. Ye.

ORG: none

TITLE: Multichannel system for the analysis of pulses from an ionization calorimeter

SOURCE: AN GruzSSR. Institut fiziki. Fizika chastits vysokikh energii, no. 1, 1965, 111-116

TOPIC TAGS: calorimeter, ionization chamber, multichannel analyzer, magnetic core storage, transistorized amplifier

ABSTRACT: The authors describe a multichannel system capable of reliably handling the signal from the approximately five hundred channels of the Tskhra-tskaro ionization calorimeter. To increase the reliability, the number of vacuum tubes has been reduced to a minimum of three per channel, which is approximately half that used in similar installations. Each channel consists of a preamplifier, final amplifier, gating circuit, and magnetic memory. All channels feed into a common commutator and regulating unit. The remaining circuit elements are transistors and magnetic core devices. The magnetic core devices are used in the memory. A block diagram of the system and detailed descriptions of the preamplifier, final amplifier, gating circuits, and memory cells are given. Orig. art. has: 5 figures and 1 formula.

SUB CODE: 20, 09/ SUBM DATE: 00

Card 1/1

GARIBASHVILI, D.I.; GRIGALASHVILI, T.S.; KAKHIDZE, G.P.; CHIKOVANI, G.Ye.; SHRABSHTEYN, S.A.

Multichannel pulse analyzer for an ionization calorimeter on capacitive memory cells and a system of information output. Fiz. chast. vys. energ. no.1:105-109 '65.

(MIRA 18:12)

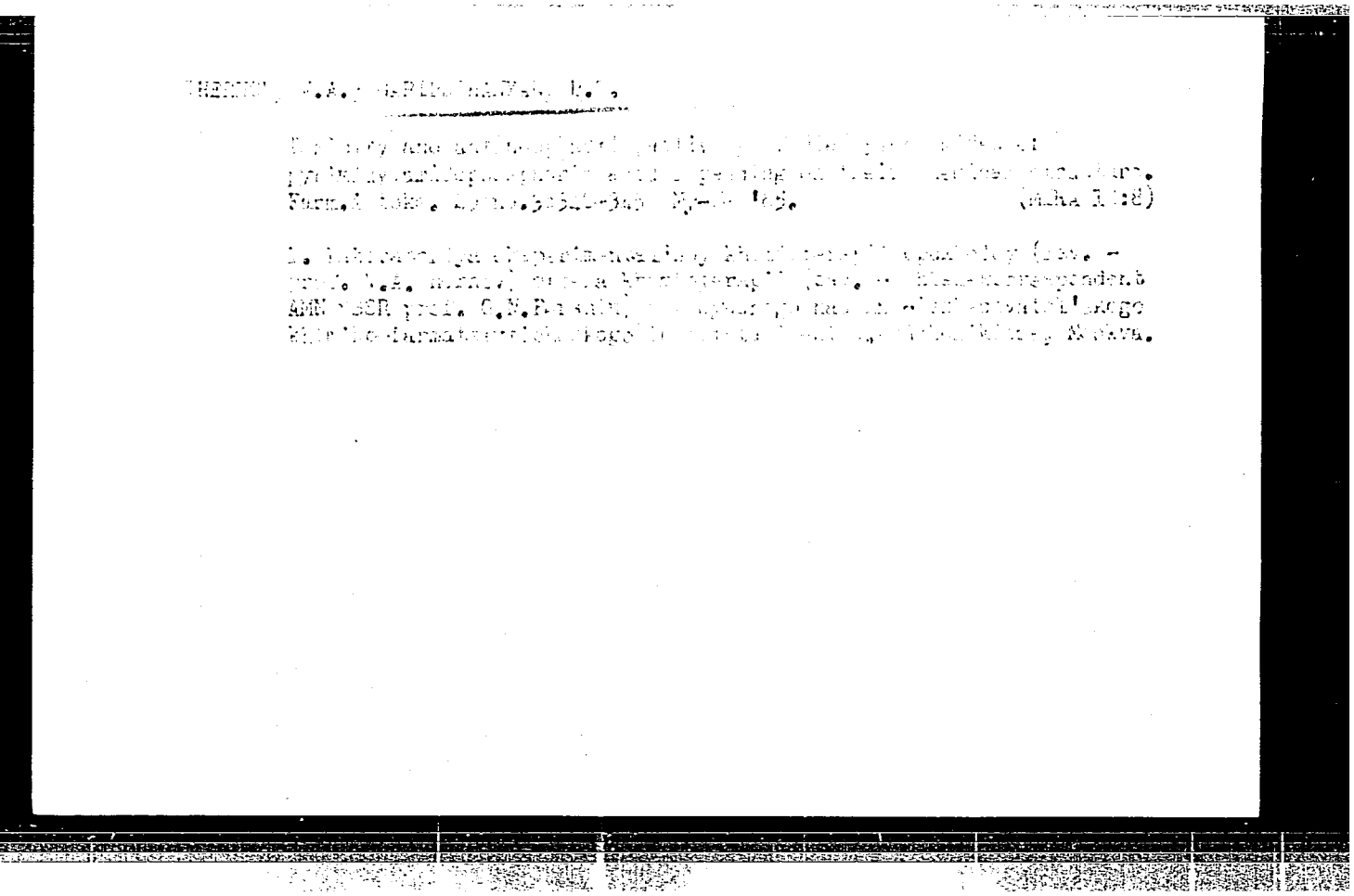
BERGER, A.R.; GARIBASHVILI, D.I.; KAKHIDZE, G.P.; KAKAURIDZE, D.B.; CHIKOVANI, G.Ye.

Multichannel system for analyzing pulses from an ionization calorimeter. Fiz. chast. vys. energ. no.1:111-116 '65.
(MIRA 18:12)

GARIBDZHANYAN, B.T.

Effect of thio-TEPA on the phagocytic activity of blood leucocytes; an experimental study. Vop. onk. 10 no.12:49-52 '64.
(MIRA 18:6)

1. Iz laboratorii eksperimental'noy khimioterapii opukholey (rukovoditel' - prof. V.A. Chernov) Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni Ordzhonikidze. Adres avtorov: Moskva, G-21, Zubovskaya, 7, Vsesoyuznyy khimiko-farmatsevticheskiy institut.



GARIBDZHANYAN, G.A.

Penicillin therapy of exacerbated chronic osteomyelitis. Vest. khir. 71 no.3:74 1951. (CLML 20:11)

GARIBDZHANYAN, G.A., professor, (kv. 36, Leningrad bul'var Profsoyuzov, d. 11) DEN'YANOV, V.M., kandidat meditsinskikh nauk.

Penicillin and surgery in the prevention of infections in compound fractures: experimental research [with summary in English, p.157-158] Vest. khir. 77 no.2:31-41 F '56 (MLRA 9:6)

1. Iz kafedry ortopedii (nach. prof. I.L. Krupko) Voyenno-meditsinskoy ordena Lenina akademii imeni. S.M. Kirova.
(FRACTURES, ther.
penicillin & surg. in open fract.)
(PENICILLIN, ther. use
open fract.)

GARIBDZHANYAN, G.A., prof.

Features of the course of intra-articular bone injuries under aseptic conditions in experimental ionizing radiation injuries. Ortop., travm. protez. 19 no.1:17-20 Ja-F '58. (MIRA 11:4)

1. Iz kafedry otropedii i travmatologii (nach. - prof. I.L.Krupko) Voyenno-meditsinskoy ordena Lenina akademii im. S.M.Kirova.

(RADIATIONS, inj. eff.
aseptic intra-articular bone inj. in rabbits (Rus))
(BONE AND BONES, eff. of radiations on
aseptic intra-articular bone inj. in rabbits (Rus))

L 11531-66 EWT(d)/EWT(m)/EPF(n)-2/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(b)/EWP(l)
ACC NR: AP6005278 IJP(c) JD/WW/HW/JG/DJ SOURCE CODE: UR/0413/66/000/001/0017/0017

INVENTOR: Moskalenko, N. D.; Novikov, O. K.; Pavlov, V. V.; Garibov, G. S.; Makhnovskiy, V. S.; Zhizhina, T. S.; Rakhinskiy, G. N.; Shur, I. A.

ORG: none

TITLE: Continuous mill for rolling aluminum strips from liquid metal. Class 7, No. 177395

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 7

TOPIC TAGS: aluminum, aluminum strip, aluminum strip rolling, continuous rolling, rolling mill, liquid metal rolling

ABSTRACT: This Author Certificate introduces a continuous mill for rolling aluminum strips from liquid metal. The mill comprises a continuous casting machine with a mold formed by a metal belt and a wheel, a raw strip guiding stand, a planetary mill and a finishing stand. In order to synchronize the casting and rolling rates, the

Card 1/2 UDC: [669.716:621.746.27] 621.771.237.064

L 14531-66

ACC NR: AP6005278

continuous casting machine is driven by the lower roll of the guiding stand by means

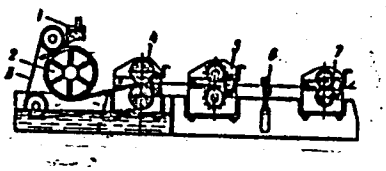


Fig. 1. Continuous mill

1 - Ladle for molten aluminum; 2 - mold wheel; 3 - metal belt; 4 - guiding stand; 5 - planetary stand; 6 - loop former; 7 - finishing stand.

of a metal belt (see Fig. 1). Orig. art. has: 1 figure. [WW]

SUB CODE: 11, 13/ SUBM DATE: 06May63/ ATD PRESS: 4198

Card 2/2

L 17484-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JW

ACCESSION NR: AP3004611 S/0233/63/000/002/0053/0054

AUTHORS: Sharifov, K. A.; Gadzhiyev, S. N.; Garibov, I. M. 58

TITLE: The enthalpy of formation of indium arsenide 27 27

SOURCE: AN AzerbSSR. Izv. Ser. fiziko-matem. i tekhn. nauk, no. 2, 1963, 53-54

TOPIC TAGS: enthalpy, indium arsenide

ABSTRACT: The determination of the enthalpy of formation of indium arsenide is accomplished by direct synthesis of the substance from the elements in the calorimetric bomb described by the authors in a previous article (DAN SSSR, 136, no. 6, 1961, 1339). InAs has a melting temperature of 942C. The reaction was carried with 4g of 99.999% pure indium and a slight excess of arsenic of 99.99% purity. The degree of conversion was tested through distillation of the unreacted arsenic residue in vacuum at 0.1 mm Hg and 600-650C. X-ray analysis shows that InAs is present only in cubic modification. The enthalpy results agree with the data given by Gutbier but disagrees with other results given in the literature. Orig. art. has: 1 table.

ASSOCIATION: none

SUBMITTED:	00	DATE ACQ:	15Aug63	ENCL:	00
SUB CODE:	PH,CH	NO REF SOV:	004	OTHER:	004

Card 1/1

GARIBOV, M.A.

Small hydraulic bit-feed controller with a minimum variation factor for movable drilling rigs. Azerb.neft.khoz. 41 no.5: 42-46 My '62. (MIRA 16:2)
(Oil well drilling rigs)

GARIBOV, M.A.

Determination of the basic parameters of a small hydraulic feed controller with a minimum variation coefficient for movable rigs. Azerb.neft.khoz. 41 no.7:43-45 Jl '62. (MIRA 16:2)
(Feed mechanisms—Hydraulic driving) (Oil well drilling rigs)

ACC NR: AR6035221 (AN) SOURCE CODE: UR/0081/66/000/016/P016/P016

AUTHOR: Garibov, Sh. M.

TITLE: Investigation of the penetrability of a protective coating from thiokol material

SOURCE: Ref. zh. Khimiya, Part II, Abs. 16P144

REF SOURCE: Sb. Tr. Vses. n.-i. in-ta novykh stroit. materialov, vyp. 1(9), 1965, 62-65

TOPIC TAGS: protective coating, reinforced concrete, petroleum product, petroleum storage, Thiokol coating, Thiokol material/ZU-30M Thiokol material

ABSTRACT: As a result of theoretical and experimental investigations, it was established that ZU-30M thiokol material, obtained from U-30 paste (the components of ZU-30M by wt is: 100 U-30 hermetic paste; 6—9 No. 9 vulcanized paste; 0.3—0.5 diphenylguanidine accelerant; 10—15 ethyl acetate thinner) may be used as a protective coating for the interior surfaces of the reinforced concrete tank designed for storing petroleum and petroleum products. [Translation of abstract] [NT]

SUB CODE: 11/

Card 1/1

GARIBOVA, L.V.

Physiology of nutrition of the cultivated mushroom Agaricus bisporus Lange. Report No.1: Carbon nutrition. Nauch. dokl. vys. shkoly; biol. nauki no.4:137-140 '63 (MIRA 16:11)

1. Rekomendovana kafedroy nizshikh rasteniy Moskovskogo gosudarstvennogo universitete im. M.V.Lomonosova.

GARIBOVA, L.V.

Nutrition physiology of the cultivated champignon Agaricus bisporus Lange. Report No. 1. Nitrogen nutrition. Nauch. dokl. vys. shkoly; biol. nauki no. 2:137-141 '64.
(MIRA 17:5)

1. Rekomendovana kafedroy nizshikh rasteniy Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

GARIBOVA, L.V.

Selecting monosporous strains of the common mushroom (Agaricus bisporus (Lange) Treschow). Vest. Mosk un. Ser. 6; Biol., pochv. 19 no.2:44-51 Mr-Ap '64. (MIRA 17:9)

1. Kafedra nizshikh rasteniy Moskovskogo universiteta.

GARIBOVA, L.V.

Strains of the cultivated mushroom Agaricus bisporus (Lange) Treschow and possible ways of their origin. Biul. MOIP. Otd. biol. 69 no.4: 118-125 Jl-Ag '64. (MIRA 17:11)

TATUR, Sergey Kuz'mich; GARIBOVA, M.V., redaktor; MIKHAYLOVA, T.A., tekhnicheskiy redaktor

[Organization of the national economy accounting in a socialist society] Organizatsiia narodno-khoziaistvennogo ucheta v sotsialisticheskom obshchestve. Moskva, Izd-vo Moskovskogo universiteta. 1955. 35 p. (MIRA 8:6)
(Accounting)

GARIBOV, N.M

Sixtieth anniversary of the Surakhany oil field. Neftepron. delo no.10:11-14 '64. (MIRA 17:12)

1. Neftepromyslovoye upravleniye "Ordzhonikidzeneft'"

ACCESSION NR: AP4010025 S/0022/63/016/006/0101/0112

AUTHORS: Amatuni, A. Ts.; Garibyai, G. M.; Elbakyan, S. S.

TITLE: Radiation from time varying charge moving in a medium at constant speed

SOURCE: AN ArmSSR. Izvestiya. Ser. fiz. -matem. nauk, v. 16, no. 6, 1963, 101-112

TOPIC TAGS: line charge, angular intensity, point charge, photon cascade, electron gas, plasma

ABSTRACT: The radiation from a charge moving at constant speed in a homogeneous medium with a time-dependent charge magnitude has been studied. The charge itself remains constant in all space but changes by getting out of the moving state into the medium (similar to excess electron disappearance in electron-photon cascades). Expressions are obtained for the intensity of a point charge over its motion-time duration and for angular intensities and spectral distributions for two special cases expressed by the excess charge distribution

$$n(t) = \begin{cases} 0 & \text{at } t > |t_0|, \\ 1 & \text{at } t < |t_0|. \end{cases}$$

Card 1/3

or

$$n(t) = \theta(t + t_0) - \theta(t - t_0).$$

and

$$n(t) = e^{-\omega_0^2 t^2}.$$

where ω_0 - frequency of field variation. The conditions satisfying a point charge are specified by

$$\rho_0 \frac{|\omega|}{c} \sqrt{\varepsilon\mu}\sin\theta \ll 1.$$

Also calculated are the radiation intensity from a line charge of density $q^{\sigma}(z)$ and a charge cluster in the form of a disk of radius

$$\rho_0 = \sqrt{x^2 + y^2}$$

The authors express their gratitude to Professor A. I. Alikhanyan, and to V. A. Tumanyan and E. M. Lasiyev for evaluating this work." Orig. art. has: 28 equa-

ACCESSION NR: AP4010025

tions.

ASSOCIATION: none

SUBMITTED: 10Mar63 DATE ACQ: 03Feb64 ENCL: 00

SUB CODE: GP NO REF SOV: 005 OTHER: 000

Card 3/3

GAMBARYAN, L. S.; GEZALYAN, L. S.; GARIBYAN, A. A.; AYRAPETYAN, S. A.

Role of the cortical section of the vestibular analysor in the mechanisms of statokinetic coordination. Izv. AN Arm. SSR. Biol. nauki 15 no.4:59-65 Ap '62. (MIRA 15:7)

1. Fiziologicheskaya laboratoriya Nauchno-issledovatel'skogo instituta akusherstva i ginekologii Ministerstva zdravookhraneniya Armyanskoy SSR i fiziologicheskaya gruppa Sektora radiobiologii AN Armyanskoy SSR.

(LABYRINTH(EAR))

GAMBARYAN, L.S.; GARIBYAN, A.A.

Role of the vestibular analyzer in the mechanisms of static and kinetic coordination. Izv. AN Arm. SSR. Biol. nauki 16 no.4:27-32 '63. (MIRA 16:6)

1. Otdel biofiziki i bioniki Instituta fiziologii imeni L.A. Orbeli AN ArmSSR.
(VESTIBULAR APPARATUS)

GARIBYAN, A.A.; GAMBARYAN, L.S.

Interaction of motor and vestibular analyzors in the mechanisms of statokinetic coordination. Izv. AN Arm. SSR. Biol. nauki 16 no.11: 65-71 N '63. (MIRA 17:4)

1. Otdel biofiziki i bioniki instituta fiziologii imeni akademika L.A.Orbeli AN Armyanskoy SSR.

GAMBARYAN, L.S.; GARIBYAN, A.A.; OGANESYAN, S.S.

Method of sectioning the pyramidal tracts in dogs. Izv. AN Arm. SSR. Biol. nauki 17 no.9:23-27 S '64 (MIRA 18:1)

1. Laboratoriya neyrobioniki Instituta fiziologii imeni L.A. Orbeli AN Armyanskoy SSR i Neyrokhirurgicheskaya klinika Instituta travmatologii i ortopedii imeni Kh.A.Petrosyana Ministerstva zdravookhraneniya Armyanskoy SSR.

MIKELADZE, A.I.; GARIBYAN, A.A.

Study of nerve fibers of the denticulate ligaments of the spinal cord. Izv. AN Arm. SSR. Biol. nauki 18 no.6:74-79 Je '65.
(MIRA 18:9)

1. Laboratoriya neyrogistologii Instituta fiziologii AN GruzSSR i Laboratoriya neyrobioniki AN Armyanskoy SSR.

L 05195-67 ENT(1) SCTB DD

ACC NR: AP7000747 SOURCE CODE: UR/0427/66/019/002/0043/0047

GARIBYAN, A. A., Laboratory of Neurobionics, Academy of Sciences, Armenian SSR (Laboratoriya neyrobioniki AN ArmSSR)

9 B

"Certain Problems of the Physiology of the Vestibular Apparatus" 2

Yerevan, Izvestiya Akademii Nauk Armyanskoy SSR -- Biologiya, Vol 19, No 2, Feb 66, pp 43-47

Abstract: This brief review article sums up results of the Soviet and non-Soviet literature as late as 1964 on problems of localizing the effects of the vestibular analysor and in determining its participation in various mechanisms of statokinetic coordination. In particular, the author notes the contradictory findings concerning localization of the central portion of the vestibular analysor. [JPRS]

TOPIC TAGS: vestibular function, animal physiology

SUB CODE: 06 / SUBM DATE: 04 Sep65 / ORIG REF: 010 / OTH REF: 009

Card 1/1 vmb

0923 1917

30(6) SOV/30-59-2-52/60

AUTHORS: Avanesov, R. I., Corresponding Member, Academy of Sciences, USSR, Garibyan, A. S., Corresponding Member, Academy of Sciences, Armyanskaya SSR, Pokrovskaya, L.A., Candidate of Philological Sciences

TITLE: Discussion of Problems of Dialectology (Obsuzhdeniye problem dialektologii)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 2, pp 112-115 (USSR)

ABSTRACT: The 4th Coordination Conference on Problems of the Dialectology of Languages of the Peoples of the USSR took place at Yerevan from September 27 to 29, 1958. Representatives of the Akademiya nauk SSSR (Academy of Sciences, USSR), the Academies of Sciences of the Azerbaydzhanskaya SSR, the Armyanskaya SSR, the Belorusskaya SSR, the Gruzinskaya SSR, the Kirgizskaya SSR, the Litovskaya SSR, the Ukrainskaya SSR, the Turkmenskaya SSR, the Estonskaya SSR, of the Societies of Native Language of the Akademiya nauk Estonskoy SSR (AS of the Estonskaya SSR), of the Bashkirskaya, Dagestanskaya, Kazanskaya and Moldavskaya Branches of the AS USSR, of Tbilisi University were present.

Card 1/4

At the Conference problems of the dialectological division of languages, of linguistic geography, the principles of the compilation of dialectological dictionaries and the writing down of dialectal texts were discussed. A general characteristics of these problems was given by R. I. Avanesov, Chairman of the koordinatsionnaya komissiya po izucheniyu dialektov yazykov SSSR (Coordination Commission for the Study of Dialects of the USSR) in his opening speech. Furthermore, the following reports are mentioned:
A. S. Garibyan, Director of the Institut yazyka Akademii nauk Armyanskoy SSR (Philological Institute of the AS, Armyanskaya SSR), discussed the linguistic characteristic features of Armenian dialects.
A. Ya. Univere spoke of the technical means of philologists in the AS Estonskaya SSR.
V. M. Zhirmunskiy spoke about the problem of mapping some phenomena on the territory of Turkish languages in the USSR.
A. S. Chikobava, Academician of the AS Gruzinskaya SSR, emphasized the necessity of continuing the monographic investigation of the individual dialects.
V. G. Orlova, Institut russkogo yazyka Akademii nauk SSSR

(Institute of Russian Language, AS USSR), dealt with the principles of the publication of dialectological dictionaries for Russian dialects.

The 2nd Regional Conference on Problems of the Dialectology of Turkish Languages took place in Kazan' from November 11 to 14, 1958. It was convened by the Kazanskiy filial Akademii nauk SSSR (Kazan' Branch of the AS USSR) together with the komissiya po koordinatsii dialektologicheskoy raboty v Sovetskom Soyuze (Commission for the Coordination of Dialectological Investigations in the Soviet Union). Dialectologists from many towns of the country were present at the Conference. Academician A. Ye. Arbuzov, President of the Prezidium Filiala (Presidium of the Branch), underlined in his opening speech the tradition of the development of orientalism and philology in Kazan'. Furthermore, the following reports were mentioned:

N. A. Baskakov, Institut yazykoznaniya (Institute of Philology), reported on the phonetic transliteration of Turkish languages.

Ye. I. Ubryatova, Institute of Philology, reported on the attempt of applying the Russian and international terminology for the description of dialects of the Yakut language.

M. Sh. Shiraliyev (Baku), L. Z. Zalyay, N. B. Burganova (both from Kazan') discussed problems in the compilation of dialectological atlases.
R. A. Rustamov (Baku), Sh. Sh. Sarybayev (Alma-Ata), L. T. Makhmutova (Kazan') reported on the publication of dialectological dictionaries of the Azerbaydzhan, Kasakh and Tartar languages.
D. G. Tumasheva (Kazan') spoke of the east-dialect of the Tartar language and its relation to the literary language and other dialects of the Tartar language.
G. A. Akhatov (Ufa) reported on problems of teaching methods of the Tartar language under the conditions of the east-dialect.
A. G. Veliyev (Baku), A. Sh. Afletunov (Kazan') reported on the method of investigating the dialects of the Azerbaydzhan and Tartar language.
Ali Nedret, student (Kazan') reported on the characteristic features of the language of the Rumanian Tartars.
It was found at the Conference that the relations between dialectologists and experts in Turkish languages should be strengthened.

VLASENKO, S.P., kand. med. nauk; GARIBYAN, D.Kh., mladshiy nauchnyy sotrudnik

Effect of cortisone and adrenocorticotropic hormone on oxygen consumption by irradiated rats. Vop. radiobiol. [AN Arm. SSR] 3/4:145-150 '63.

Participation of the adrenal cortex in some manifestations of radiation sickness. Ibid.:253-259 (MIRA 17:6)

STOLETOV, V.N.; ZHEVNER, V.D.; GARIBYAN, D.V.; SHESTAKOV, S.V.

Nitrosomethylurea induced pigment mutations in Anacystis nidulans. (MIRA 19:1)
Genetika no. 6:61-66 D '65

1. Moskovskiy gosudarstvennyy universitet, kafedra genetiki i selektsii.

GARIBYAN, G. M.

GARIBYAN, G. M. - "Bremsstrahlung and Pair Production in the Field of an Electron." Sub 2 Feb 52, Inst of Physical Problems imeni S. I. Vavilov, Acad Sci USSR. (Dissertation for the Degree of Candidate in Physicomathematical Sciences).

SO: Vechernaya Moskva January-December 1952

GARIBYAN, G.M.

Bremsstrahlung and pair generation in an electron field (general case). Izv.AN Arm.SSR.Ser.FMET nauk 5 no.3:1-9 '52. (MLRA 9:8)

1. Fizicheskiy institut AN Armyanskoy SSR.
(Electrons)

GARIBYAN, G.M.

Determination of particle mass from impulse variations. Izv.AN Arm.SSR.Ser.FMET nauk 5 no.5:25-28 '52. (MLRA 9:8)

1. Fizicheskiy institut Akademii nauk Armyanskoy SSR.
(Particle size determination)

GARIBYAN, G.M.

Inner conversion of gamma rays with pair generation. Dokl. AN Arm. SSR 15 no.5:129-133 '52. (MLRA 9:10)

1. Fizicheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno A.I. Alikhanyanom.

(Gamma rays)

GARIBYAN, G. M.

62 **Retarding radiation and pair formation in the field of an electron.** G. M. Garibyan. *Zhur. Eksptl. i Teoret. Fiz.* 24, 617-21(1953).—The following 3 reactions are studied as limiting cases for low and high energies: the collision of an electron with a positron, the collision of an electron with an electron, and pair formation by γ-quanta in the field of an electron. Precise expressions are given for the differential cross sections. J. Rovtar Leach

GARIBYAN, G. M.

GARIBYAN, G. M., AND GOLDMAN, I. I.

Polarization of Radiation of Relativistic Electrons in Motion in Magnetic Fields of Nebulae and Stars
Izv. AN ArmSSR, ser. fiz.-mat., yestestv. i tekhn. n., 7, No 2, 1954, pp 31-42

The polarization of light of stars and nebulae is tentatively explained on basis of analysis of radiation emitted by relativistic electrons on circular orbits in magnetic fields. Formulas expressing polarization of electron radiation and the degree of polarization are found. Numerical examples for particular cases are given. The polarization degree shows a maximum at a 90° inclination of the magnetic moment of the star to the line of sight and vanishes at 0°. (RZhAstr, No 5, 1955)

SO: Sum. No. 639, 2 Sep 55

FD-1356

USSR/Physics - Cosmic rays, mesons

GARIBYAN, G. M.

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

Author : Garibyan, G. M., and Gol'dman, I. I.

Title : Spectra of pi and mu mesons in cosmic rays

Periodical : Zhur. eksp. i teor. fiz., 26, pp 257-262, Mar 1954

Abstract : The authors analyze the spectra of mu-mesons, on the basis of which they consider the spectra of generation and the atmospheric spectra of pi-mesons; i.e. they treat the problem of the connection between pi and mu mesons. The intensity and energy spectra of pi-mesons are obtained. The authors thank Prof. A. I. Alikhanyan, who posed the problem, and Academicians A. I. Alikhanov and L. D. Landau and Prof. A. B. Migdal, I. Ya. Pomeranchuk and Ye. L. Feynberg, who clarified some difficult points.

Institution : Physics Institute, Acad. Sci. Armenian SSR

Submitted : August 24, 1953

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R000514320011-4"

Garibyan, G. M.

USSR/Nuclear Physics - Penetration of Charged and Neutral Particles Through Matter, C-6

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34103

Author: Garibyan, G. M.

Institution: Institute of Physics, Academy of Sciences Armenian SSR

Title: On the Microscopic Derivation of the Fermi Equation

Original Periodical: Izv. AN ArmSSR Fiz.-matem., yestestv. i tekhn. n., 1956, 9, No 1, 45-48; Armenian resumé

Abstract: The microscopic derivation proposed by Budini is corrected and refined. Introducing the factor $\sqrt{\varepsilon}$ into the value of the magnetic field of the pseudophotons leads to the appearance of a coefficient $\mathrm{Re}\sqrt{\varepsilon(w)}$ in the denominator of the expression for the number of the pseudophotons, which cancels out with the same factor appearing in the classical absorption coefficient of photons for the case of a solid medium. As a result, the author arrives at the well-known Fermi equation, obtained, unlike the Budini derivation, for the case of a medium with finite density.

1 of 1

GARIBYAN, G. M.

AUTHOR: Afrik'yan, L. M., Garibyan, G. M.

TITLE: On Some Electromagnetic Effects Involving Strongly Interacting Particles (O nekotorykh elektromagnitnykh effektakh s uchastiyem sil'no vzaimodeystvuyushchikh chastits)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol 33, Nr 2(8), pp. 425-429, (USSR)

ABSTRACT: The present paper investigates the process of production and annihilation of pairs of pions and nukleon-nukleon pairs in the case of purely electromagnetic effects, i.e. at the absence of atomic nuclei and other real objects with a strong interaction in the initial states. Furthermore the effects of electromagnetic pion-pion scattering is investigated. The production of pion pairs and of nucleon-antinucleon pairs on the annihilation of highly energetic positrons. In this case quantum-electrodynamics is considered to be applicable up to the energy $E_{kr} < M$ (in the center of mass system), M denoting the rest mass of the nucleon. (Here always $\hbar = c = 1$). The possible deviations from the quantum-electrodynamical formulae can be ascribed to the "anomalous" electromagnetic properties of the strongly interacting particles. So, f ex. in the case of pions the energy of a strong interaction with the nucleon background must lead to effective electromagnetic dimensions (form factor of the meson). In the case of nucleons the interaction with the physical vacuum (disregarding the smearing out) leads to an

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On Some Electromagnetic Effects Involving Strongly Interacting Particles. 56-2-17/47

additional dynamical moment. Another possible cause for the deviations could be the strong interaction within the pairs of the produced particles. The cross section for the production of a pion pair or a nucleon-antinucleon pair respectively is given. The anomalous magnetic moment provides the principal part to the cross section of the pair production. In this case the form factor is essentially dependent upon the strong interaction between the nucleon and the antinucleon of the pair and apparently much less upon the elctromagnetic dimensions of the particle (as different from pions and K-mesons). If the energies are not too high, the form factor is distinctly determined by the effective electromagnetic properties of the pion. On the electromagnetical interaction of the pions: Experimental results whatsoever in this respect can only be obtained by crossed pion rays. Therefore the portion caused by electromagnetic effects should be separated from the total interactions of the pions. For this purpose the authors consider the effects of scattering of charged pions with each ohter or the annihilation of positive or negative mesons into two quanta into a pair of ligth charged fermions. The cross section of these processes are given. At the end the properties of an atomic system consisting of positive and negative pions (π-mesonium) are shortly considered

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On Some Electromagnetic Effects Involving Strongly Interacting Particles

There are 4 Slavic references and no [illegible].

ASSOCIATION: Institute of Physics of the AN of the [illegible] SSR
(Fizicheskiy institut AN Armyanskoy [illegible])

SUBMITTED: February 11, 1957

AVAILABLE: Library of Congress

Card 3/3

GARIBYAN, G. M.

56-6-13/47

AUTHOR: Garibyan, G. M.

TITLE: On the Theory of Transition Radiation (K teorii perekhodnogo izlucheniya)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957, Vol. 33, Nr 6, pp. 1403 - 1410 (USSR)

ABSTRACT: Transition - and Cherenkov radiations, which occur when charged particles pass, one after another, through 2 media having different dielectric and magnetic properties, are dealt with theoretically. In particular those cases are dealt with in which the particles a) enter from a vacuum into a medium, and b) from a medium into the vacuum. There are 4 figures and 7 references, 6 of which are Slavic.

Card 1/2

56-6-13/47

On the Theory of Transition Radiation

ASSOCIATION: Institute of Physics AN Armenian SSR.
(Fizicheskiy institut Akademii nauk Armyanskoy SSR)

SUBMITTED: May 25, 1957

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Garibyan, G.M. SOV/22-11-4-2/11

TITLE: On the Theory of the Transition Effects in Electrodynamics (K teorii perekhodnykh effektov v elektrodinamike)

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR, Seriya fiziko-matematicheskikh nauk, 1958, Vol. 11, Nr 4, pp 7-12 (USSR)

ABSTRACT: The author considers the electromagnetic radiation which arises during the transition of a charged particle from one medium into another. Extending his former investigations [Ref 1 - 3] the author now considers the case in which the particle path is inclined to the boundary of the two media. After having solved a system of equations the author obtains explicit expressions for the components of the resulting radiation fields. The obtained formulas are used 1.) in order to calculate the radiation which arises during the entrance of a particle from the vacuum into an ideal conductor, and 2.) in order to determine the attraction which a charged particle suffers by induced charges during the movement parallel with the surface of an ideal conductor.
There are 3 Soviet references.

Card 1/2

On the Theory of the Transition Effects in Electrodynamics SOV/22-11-4-2/11

ASSOCIATION: Fizicheskiy institut A.N. Armyanskoy SSR (Physical Institute, AS Armenian SSR)

SUBMITTED: June 23, 1958

Card 2/2

21(7) SOV/56-35-5-34/56

AUTHORS: Garib'yan, G. M., Chalikyan, G. A.

TITLE: The Radiation of a Charged Particle Which Flies Through a Plate (Izlucheniye zaryazhennoy chastitsy, proletayushchey cherez plastinku)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 5, pp 1282-1283 (USSR)

ABSTRACT: Let it be assumed that a particle, when moving along the positive z-zone, penetrates a plate located in a vacuum, which has the thickness a of a substance with the dielectric constant ε. The authors deal with this problem in a manner similar to that employed in an earlier paper by Garibyan (Ref 1). The expressions thus obtained for the Fourier components of the radiation fields in the space before and behind the plate are described. For the ultrarelativistic case, also a formula for transition radiation emitted to the rear is given. After omitting a factor, this formula also describes radiation emitted to the front. In the case $a \ll \lambda$ no Cherenkov radiation occurs; here λ denotes the radiation wavelength divided by 2π. However, in the case $\lambda < a \lesssim R$ bands of Cherenkov

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The Radiation of a Charged Particle Which Flies Through a Plate

frequencies occur. At $a \ll R$ Cherenkov radiation intensity tends towards zero. The authors thank A. Ts. Amatuni and I. I. Gol'dman for interesting discussions. There are 2 Soviet references.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR
(Physics Institute of the Academy of Sciences, Armyanskaya SSR)

SUBMITTED: June 12, 1958

Card 2/2

24(5) SOV/56-35-6-17/44

AUTHOR: Garibyan, G. M.

TITLE: The Radiation of a Charged Particle Which Flies Through a Laminar Medium (Izlucheniye zaryazhennoy chastitsy, proletayushchey cherez sloistuyu sredu)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 6, pp 1435-1439 (USSR)

ABSTRACT: The present paper is a continuation of a number of earlier ones. V. L. Ginzburg and I. M. Frank (Ref 1) as well as the author himself (Ref 2) have already investigated the transition radiation for a charged particle flying from a medium filling the half space into another. V. Ye. Pafomov (Ref 3) and the author together with G. A. Chalikyan (Ref 4) investigated the radiation of a charged particle flying through a layer of material. The present paper deals with the next step: The radiation of charged particles flying through an arbitrary number of material strata is investigated on the assumption that the said strata are separated from one another by vacua. In reference 1 it was already shown that the transition relation increases logarithmically with particle energy. This effect would be suited for the determination of

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particle energy if it were not so weak. In this connection, the author intends to find out to what extent it is possible to increase the intensity of transition radiation by causing the particles to fly through a multiple of material strata. Treatment of the problem is purely theoretical. The notation system is the same as in reference 4. For $a = 10^{-3}$ and $b = 10^{-1}$ cm (a and b are the thickness of the strata and the thickness of the vacuum intermediate stratum, respectively) and for a particle energy of up to $E/\mu = 10^3$ the amount 145 was found for the number of quanta within the wave range of $(1 \div 3).10^{-8}$cm; ($m = 10^3$, the number of strata). For $E/\mu = 10^2$ in the wave range $(1 \div 3).10^{-6}$ cm the quantum number 95 is given for the same number of strata. In conclusion, the author thanks A. Ts. Amatuni and I. I. Gol'dman for discussions. The idea to employ the calculation system used in this paper was conceived by Gol'dman. There are 6 Soviet references.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR
(Physics Institute of the Academy of Sciences, Armyanskaya SSR)

AFRIKYAN, Levon Melkonovich; GINZBURG, V.L., red.; GARIBYAN, G.M., kand.fiz.-mat.nauk, red.; AZIZBEKYAN, L.A., tekhn.red.

[Works on theoretical physics] Raboty po teoreticheskoi fizike. Pod red. V.L.Ginzburga i G.M.Garibiana. Erevan, Izd-vo Akad. nauk Armianskoi SSR, 1959. 74 p. (MIRA 12:12)

1. Chlen-korrespondent AN SSSR (for Ginzburg).
(Physics)

21(8) 5

AUTHORS: Garibyan, G.M., and Chalikyan, G.A. SOV/22-12-3-5/9

TITLE: Cherenkov Radiation and Transition Radiation of a Particle Flying Through a Plate

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko - matematicheskikh nauk, 1959, Vol 12, Nr 3, pp 49-56 (USSR)

ABSTRACT: The results of the paper are already published [Ref 4]. The authors thank A.Ts.Amatuni, I.I.Gol'dman, B.M.Bolotovskiy, and V.Ye.Pafomov for discussions of the results. There are 4 Soviet references.

ASSOCIATION: Fizicheskiy institut AN Armyanskoy SSR (Physics Institute, AS Armenian SSR)

SUBMITTED: October 22, 1958

Card 1/1

SOV/56-37-2-29/56

21(8)
AUTHOR: Garibyan, G. M.

TITLE: On the Theory of Transition Radiation and of Ionization Energy Losses of a Particle

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 2(8), pp 527-533 (USSR)

ABSTRACT: This is a calculation of the energy loss of a particle during the passage through a slab of matter with finite thickness. The problem of the overall energy losses of a particle in passing through the interface between different media appears to be also of interest. This problem is first investigated for two adjacent semi-infinite media and is afterwards solved for a finite slab. The energy losses are calculated according to a method due to L. D. Landau (Ref 1). First expressions for the longitudinal components (in the direction of motion of the particle) of the Fourier components of the radiation fields in the first and in the second medium are given. The work generated by the field in the second medium is calculated. The energy losses are exclusively caused by the transition radiation. In spite of the classical nature of the effect the emission of the transition quanta is a rare occurrence with

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a particle with simple charge. This phenomenon is subjected to large fluctuations and it may be considered exclusively classical if the number of emitted quanta is increased. This may be effected, for example, by a charged particle or by having it pass through many interfaces between different media. All results of the first section apply to vacuum-medium- or medium-vacuum transitions but are still qualitatively correct for medium-medium transitions, differing from the above relationships only by a numerical factor. In the second part the case of a finite slab is investigated, in which a distinction must be made between "thick" and "thin" slabs. In thin slabs there is no "bulk" effect. The ionization losses in a slab increase logarithmically "after the plateau is reached", from a certain particle energy on, if the slab is placed into a vacuum. If, however, the slab is placed into a medium with a smaller electron density than the slab, the ionization losses will at a certain energy again lead to the level which corresponds to the energy density of the

On the Theory of Transition Radiation and of Ionization Energy Losses of a Particle

SOV/56-37-2-29/56

medium surrounding the slab. The authors express their gratitude to Professor V. L. Ginzburg, L. D. Landau and I. Ya. Pomeranchuk for helpful discussion and to A. Ts. Amatuni, B. M. Bolotovskiy, I. I. Gol'dman and G. S. Saakyan. There are 9 Soviet references.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR (Institute of Physics of the Academy of Sciences, Armyanskaya SSR)

SUBMITTED: March 19, 1959 (initially) and April 29, 1959 (after revision)

Card 3/3

24.6800,16.8300,16.8100

77012
SOV/56-37-6-52/55

AUTHORS: Garibyan, G. M., and Pomeranchuk, I. Ya.

TITLE: Letter to the Editor. Limits in the Adaptation Theory of Transitional Radiation

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 37, Nr 6, pp 1828-1831 (USSR)

ABSTRACT: A retuning of the particle field takes place during the passage of a charged particle from one medium into another. As a result of this a part of the field is separated from the particle, thus forming a transitional emission (cf., V. L. Ginzburg, I. M. Frank, Zhur. eksp. i teoret. fiz., 16, 15, 1946). In an extreme relativistic case, the main part of this radiation is emitted forward in the direction of the particle motion (cf., G. M. Garibyan, Zhur. eksp. i teoret. fiz., 37, 527, 1959). If the particle, for example, passes from a vacuum into a medium, then the spectral distribution of the intensity of the transitional emission is approximately constant in the

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interval from the optical frequencies to the limiting frequency $\omega_{lim.} = (\sqrt{\sigma}/2)E/\mu c^2$ (where, $\sigma = 4\pi Ne^2/m$; E and μ are total energy and the mass of the particle at rest, respectively). This means that if the polarization properties of the medium result in the appearance of transitional emission, then the consideration of multiple scattering will indicate that the usual mechanism of the emission is nullified. It was shown that the multiple scattering will have no effect on the formation of quanta with frequences satisfying the relation

$$\omega < (8\sigma L/c)(\mu c^2/E_1)^3$$

and independent of the particle energy. The compensation for the effect of multiple scattering, roughly speaking, results in the absence in the transitional radiation spectrum of frequencies greater than ω_1, while the number of transitional quanta remains practically unchanged. There are 6 Soviet references.

Letter to the Editor. Limits in the Adaptation Theory of Transitional Radiation

77012
SOV/56-37-6-52/55

ASSOCIATION: Phys. Inst. Acad. Sciences Arm. SSR, USSR (Fizicheskiy institut Akademii nauk Armyanskoy SSR, SSSR)

SUBMITTED: September 4, 1959

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9.3100 (1031, 1144, 1331)

84296
S/022/60/013/002/005/007
C 111/ C 333

AUTHORS: Garibyan, G. M., Mergelyan, O. S.

TITLE: The Radiation of a Charge Which Moves in Parallel With the Boundary of two Media

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko-matematicheskikh nauk, 1960, Vol.13, No.2, pp.123-130

TEXT: The method proposed by Garibyan (Ref.5,6) is used for determining the radiation of a charge flying in parallel with the boundary of two media.

At first the authors consider general radiation fields as solutions of the Maxwell equations according to (Ref.5,7,8). By integration then the components of the electric and magnetic fields are obtained at first in the second medium. The formulas of Pafomov (Ref.3) are obtained for the energy flow. From the formulas it appears: a.) The first medium is not a Cherenkov medium, the second is a Cherenkov medium. Then for the Poynting vector there holds a formula which describes the Cherenkov radiation which is generated by the particle in the second medium (effect of Ginzburg and Frank (Ref.8)). b.) Both media are Cherenkov media. It exists a Cherenkov radiation which originated in the first medium and entered into the

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84296

S/022/60/013/002/005/007
C 111/ C 333

The Radiation of a Charge Which Moves in Parallel With the Boundary of two Media

second medium. Furthermore it exists a radiation which originated in the second medium. Both flows move under Cherenkov angles which are characteristic for the second medium.

Then the authors determine the components of the fields and of the energy flow for the first medium. If the second medium is an ideal conductor ($\varepsilon_2 = \infty$), then from the formula for the energy flow it follows that there are frequencies, the intensity of which is quadrupled compared with the intensity in the homogeneous medium. Simultaneously there exist frequencies, to which the intensity 0 corresponds because of interference.
There are 8 references: 6 Soviet and 2 American.
ASSOCIATION: Fizicheskiy institut AN Armyanskoy SSR (Physical Institute, AS Armyanskaya SSR) Institut matematiki i mekhaniki AN Armyanskoy SSR (Institute of Mathematics and Mechanics, AS Armyanskaya SSR)

SUBMITTED: January 5, 1960

Card 2/2

GARIBYAN, G.M.; GOL'DMAN, I.I.

Particle emission in a laminar medium. Dokl. AN Arm. SSR 31 no. 4:219-225 '60. (MIRA 13:12)

1. Fizicheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno akademikom AN Armyanskoy SSR A.I. Alikhanyanom.
(Radiation) (Particles (Nuclear physics))

S/056/60/038/006/030/049/XX
B006/B070

24.2500

AUTHOR: Garibyan, G. M.

TITLE: Transition Radiation on Oblique Incidence of a Charge

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 38, No. 6, pp. 1814-1816

TEXT: A theoretical study is made of the transition radiation emitted forward by a charge incident obliquely on the interface of two media. The total intensity of the transition radiation emitted forward by a relativistic particle passing through an interface is proportional to the energy of the particle. The object of the present work was to study the dependence of the transition radiation on the angle of incidence of the charged particle on the interface. The problem was treated in Ref. 2 from the general point of view. In this paper, the amount of energy imparted by an ultra-relativistic particle to the transition radiation emitted forward is calculated. The calculation is made by a method suggested by L. D. Landau, as well as directly from the energy flux. The two media are

Transition Radiation on Oblique Incidence of a Charge

S/056/60/038/006/030/049/XX
B006/B070

characterized by the dielectric constants ε_1 and ε_2. Using the equations obtained in Ref. 2 for the Fourier components of the electric vector of the radiation field in the second medium, expressions are derived for the force exercised by the radiation field on the particle and for Poynting's vector in the second medium. It can be shown that the radiation intensity is practically independent of the angle of incidence of the particle unless this angle is about 90°. Analogous results were obtained by N. A. Korkhmazyan. There are 5 Soviet references.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR (Institute of Physics of the Academy of Sciences Armyanskaya SSR)

SUBMITTED: January 6, 1960

Card 2/2

83183

S/056/60/039/002/020/044
B006/B056

24.2500
21.1100

AUTHOR: Carıbyan, G. M.

TITLE: The Radiation of a Particle Passing Through the Interface of Two Media in Consideration of the Effect of Multiple Scattering

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 2(8), pp. 332-336

TEXT: In the present paper, the author investigates the effect of multiple scattering upon bremsstrahlung by employing a method developed by I. I. Gol'dman (Ref. 2). He obtains formulas for calculating the intensity of the radiation emitted by particles penetrating into or leaving the medium, respectively. The author first describes a simple way of deriving the formulas for the spectral intensity distribution of the transition radiation in some special cases. A particle moving rectilinearly and uniformly from one medium to another (direction of motion: z-axis; interface of the media: z = 0) is first investigated. In z = 0, part of the radiation is reflected, while the other part penetrates into the other

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medium. For ultrarelativistic particles, convenient solutions may be obtained under these conditions. The case in which the second medium is the vacuum, that in which the first medium is the vacuum, and the case of two real media (characterized by ε_1 and ε_2) are considered by the author to be concrete cases. Only then does he begin dealing with the actual problem of the paper, i.e., the investigation of the effect of multiple scattering. Already in an earlier paper, the author, collaborating with I. Ya. Pomeranchuk, had shown that multiple scattering at particle velocities near the velocity of light influenced only radiation emitted in forward direction at frequencies $\omega \gg \sqrt{\sigma}$; ($\sigma = 4\pi Ne^2/m$, $\varepsilon = 1 - \sigma/\omega^2$). The author studies the special case in which a particle moves from the vacuum into a medium, i.e., the particle cannot undergo scattering before passing through the boundary surface. Also in this case, the author investigates only the case in which $\omega \gg \sqrt{\sigma}$. A number of relations are obtained for the transition radiation E_ω occurring here. These relations also hold for a particle moving from the medium into the vacuum. Finally, the author thanks I. I. Gol'dman for discussions.

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According to a comment made by the editorial office to this article, V. Ye. Pafomov independently obtained analogous qualitative results in a paper submitted on February 18, 1960. V. L. Ginzburg, I. M. Frank, and Ye. L. Feynberg are mentioned. There are 11 Soviet references.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR (Institute of Physics of the Academy of Sciences Armyanskaya SSR)

SUBMITTED: February 2, 1960

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AUTHOR: Garibyan, G. M.

TITLE: Phenomenological Quantum Electrodynamics in the Presence of Two Media

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 6(12), pp. 1630 - 1636

TEXT: The present paper deals with the quantum theory of transition radiation. Quantum-theoretical investigations of Cherenkov radiation (B. M. Bolotovskiy and M. I. Ryazanov) furnished small corrections to the classical formulas; thus, it may generally be expected that the quantum theory of transition radiation for high frequencies changes the results obtained by the classical theory. Besides, the quantum-theoretical formalism permits also the calculation of other effects occurring in the transition of a charge or of a photon from one medium to another, which have no classical analogs. As an example for this, the author investigates the probability for the conversion of a photon into an electron-positron pair on the passage of the interface between two media. A general

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scheme of the theory is first set up, using the results of second quantization, i.e., a general solution of a wave equation in the presence of two media is sought. The theory obtained is macroscopic, i.e., the volumes in which the processes investigated by means of it occur, must contain a large number of particles. The theory is applied for calculating the transition radiation emitted by a charged particle incident perpendicular on to the interface of two media; as second effect of first order the production of an electron-positron pair by a gamma quantum incident perpendicular to the interface between two media is investigated. The author thanks I. I. Gol'dman, A. Ts. Amatuni, and G. S. Saakyan for discussions. There are 4 figures and 10 Soviet references.

ASSOCIATION: Fizicheskiy institut Akademii nauk Armyanskoy SSR (Institute of Physics of the Academy of Sciences Armyanskaya SSR)

SUBMITTED: April 7, 1960

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GARIBYAN, G.M.; MERGELYAN, O.S.

Emission of charged particle travelling parallel to the boundary separating the media. Izv. AN Arm. SSR. fiz.-mat. nauk 13 no.2:123-130 '60. (MIRA 13:10)

1. Fizicheskiy institut AN Armyanskoy SSR i Institut matematiki i mekhaniki AN Armyanskoy SSR.
(Electrons) (Radiation)

GARIBYAN, G.M.

Radiation of the charge flying perpendicularly through an infinite heterogeneity of the medium. Dokl. AN Arm. SSR 33 no.4:151-154 '61. (MIRA 15:1)

1. Fizicheskiy institut Akademii nauk Armyanskoy SSR. Predstavleno akademikom AN Armyanskoy SSR A.I.Alikhanyanom.
(Radiation)

38966

S/048/62/026/006/012/020
B125/B102

AUTHOR: Garibyan, G. M.

TITLE: Passage of fast particles through a plate

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 6, 1962, 754-757

TEXT: The author calculates the radiation of an ultrarelativistic particle on its perpendicular flight through a plate of thickness a under vacuum. The spectral density of forward-emitted transition radiation in the frequency range with $\varepsilon(\omega) = 1 - \sigma/\omega^2$ (ε - dielectric constant of the medium, $\sigma = 4\pi Ne^2/m$) is given by

$$\frac{dW}{d\omega} = \frac{2e^2}{\pi c}\left\{\left[\left(1+\frac{2(1-\beta^2)\omega^2}{\sigma}\right)\ln\left(1+\frac{\sigma}{\omega^2(1-\beta^2)}\right)-2\right]+\right.$$
$$+\left(1+\frac{2(1-\beta^2)\omega^2}{\sigma}\right)\left[-\operatorname{ci}\left(\frac{a\sigma}{2v\omega}+\frac{a\omega}{2v}(1-\beta^2)\right)+\cos\left(\frac{a\sigma}{2v\omega}\right)\operatorname{ci}\left(\frac{a\omega}{2v}(1-\beta^2)\right)-\right.$$
$$\left.\left.-\sin\left(\frac{a\sigma}{2v\omega}\right)\operatorname{si}\left(\frac{a\omega}{2v}(1-\beta^2)\right)\right]+2\cos\left(\frac{a\sigma}{2v\omega}+\frac{a\omega}{2v}(1-\beta^2)\right)+\right.$$

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$$+\left(\frac{a\sigma}{2v\omega}+\frac{a\omega}{2v}(1-\beta^2)\right)\mathrm{si}\left(\frac{a\sigma}{2v\omega}+\frac{a\omega}{2v}(1-\beta^2)\right)+$$
$$+\frac{a\omega}{2v}(1-\beta^2)\left[\cos\left(\frac{a\sigma}{2v\omega}\right)\mathrm{si}\left(\frac{a\omega}{2v}(1-\beta^2)\right)+\sin\left(\frac{a\sigma}{2v\omega}\right)\mathrm{ci}\left(\frac{a\omega}{2v}(1-\beta^2)\right)\right]\Bigg\}, \quad (2)$$

wherein si denotes the integral sine and co the integral cosine. The first term in (2) is equal to the double transition radiation along a line separating the medium from the vacuum. The other terms are of oscillatory character and are due to interferences which arise on the surface of the plate. The following special cases are discussed:

1) $\frac{a\sqrt{\sigma}}{2v}\sqrt{1-\beta^2} \equiv F \gg 1$. $\omega_1 \ll \omega_{bound} = \sqrt{\sigma}/\sqrt{1-\beta^2} \ll \omega_2$ holds for the frequencies $\omega_1 = 2v/a(1-\beta^2)$ and $\omega_2 = a\sigma/2v$. If $\omega \ll \omega_1$, the principal of the interference terms of (2) has the form

$$\frac{2e^2}{nc}\ln\left(\frac{a\omega}{2v}(1-\beta^2)\right)\cdot\cos\left(\frac{a\sigma}{2v\omega}\right); \quad (3).$$

If $\omega \gg \omega_2$, no radiation is emitted. 2) $F \sim 1$. If $\omega \ll \omega_{bound}$, the case

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agrees with case 1). If $\omega \gg \omega_{bound}$, no radiation is emitted. 3) $F \ll 1$. This case equals case 1) if $\omega \ll 1$, and if $\omega_2' = 2v/a(1-\beta^2) \ll \omega$ the radiation intensity is equal to zero. At sufficiently high energies, ionization losses cannot tend toward saturation if the substance responsible for them is subdivided into sufficiently thin layers. The condition for the absence of a density effect in a medium subdivided into layers reads

$$b \gg \frac{2v\Omega}{\sigma} \ln \frac{v\varkappa_0}{\sqrt{1-\beta^2}\Omega_-'} \qquad (4).$$

Here b denotes the distance between the plates. There are 4 figures.

ASSOCIATION: Fizicheskiy institut Akademii nauk ArmSSR
(Physics Institute of the Academy of Sciences ArSSR)

GARIBYAN, G.M.

Passage of fast particles through a plate of matter. Dokl. AN Arm. SSR 33 no.3:105-109 '61. (MIRA 14:12)

1. Fizicheskiy institut AN Armyanskoy SSR. Predstavleno akademikom AN Armyanskoy SSR A.I. Alikhanyanom.
(Particles(Nuclear physics))