

S/503/62/014/000/004/007
I023/I223

Low latitude filament and...

prominences and the line 5303\AA are given. The phenomena observed are explained by the presence of the magnetic field of the spot and the field of the prominences. There are 4 figures and 2 tables.

Card 2/2

S/503/62/014/000/006/007
I023/I223

AUTHORS: Karimov, M.G., Zubtsov, A.S., Antushevich, M.I.
and Dosybayev, S.K.

TITLE: Photometry of solar flares

PERIODICAL: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy
institut. Izvestiya. v.14. 1962, 93-106

TEXT: Results concerning the photometry of flares of
intensity ≥ 2 , observed from October 1957 till the end of 1959,
are presented. The observation were done at a height of 2600 m
by means of a chromospheric-photospheric telescope of type A Φ P-2
(AFR-2). The line H α was photographed through an interference-
polarization filter with bandwidth of 0.6A on a standart, 35-mm

Card 1/2

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I023/I223

Photometry of solar flares

panchromatic film (sensitivity 1000-1200 GOST [Soviet state standard] units). The rate was 2 frames per minute, sometimes 8 or 4. Several typical photographs are given. A table, containing all 17 flares, is also given. The table gives the time, position and intensity of each flare. Each flare is analyzed in detail: intensity and area dependence on time are given in a graphical form. There are 18 figures and 1 table. ✓

Card 2/2

S/503/62/015/000/002/003
A001/A101

AUTHORS: Karimov, M. G., Antushevich, M. I., Berlikenova, K. M., Dosybayov,
S. K., Zubtsov, A. S.

TITLE: Photometry of solar flares according to observations of the coronal
station near Alma-Ata during 1960 - 1961

SOURCE: Akademiya nauk Kazakhskoy SSR. Astrofizicheskiy institut.
Izvestiya. v. 15, 1962, 77 - 110

TEXT: The present article is a continuation of the study of the same
authors published in 1962 in the v. 14 of the same source. Film frames were
taken in intervals of 30 sec, sometimes 15 sec and one minute. Prior to photo-
metrical processing all frames of the flares were preliminarily examined, and
flares were selected which had characteristic peculiarities in some features. ✓
During two years 63 flare photographs were selected, carefully processed and
the data are tabulated. For individual, most pronounced knots are plotted curves
of flare development. The graphs in the article contain information on intensi-
ty of individual knots, expressed in terms of intensity of undisturbed places of

Card 1/2

Photometry of solar flares according to...

S/503/62/015/000/002/003
A001/A101

the solar disk, versus time of flare development and changes in the area of flares. Both quantities, ratios of intensities and areas are plotted on ordinates, the first on the left-hand side and the second on the right-hand side; abscissa serves as time coordinate for both quantities. The upper right-hand corner of figures contains a sketch of the flare with all its details, sunspots, flocculi, foci of flares, etc. The photometric study of the flares shows that their existence strongly depends on the center of activity. They have a special relation to sunspots and flocculi fields. Curves of variations of brightness and area have a series of characteristic features where this relation is close. There are 62 figures and 1 table.

Card 2/2

KOZHEVNIKOV, P.V.; DOSYCHEV, Ya.A.

Tasks of dermatology in connection with the chemicalization of
the national economy. Vest. dermat. i ven. 38 no.12:3-8 D '64.
(MIRA 18:8)

KOZHEVNIKOV, P.V., prof.; DOSYCHEV, Ye.A.

Current state and aspects of further development of function
tests in dermatology. Vest. dermat. 1 vol. no.5:3-9 '65.

(MIRA 18:11)

1. Chlen-korrespondent AMN SSSR (for Kozhevnikov).

MUSAPIROVA, N.A.; DOSYMBETOVA, M.K.; DIDYAYEVA, M.V.

Diagnosis of pathologic changes in the cervix uteri by the
compound method (colposcopy, cytology, biopsy). Zdravookhr.
Kazakh. 23 no.1:23-26 '63 (MIRA 17:2)

1. 1. Iz Kazakhskogo instituta onkologii i radiologii.

Received
DZHMUKHADZE, A.P.; DZHEYRANISHVILI, V.V.; DOSYCHEV, A.A. [deceased]

Role of conditioned reflexes in antibody formation. Zhur. vys.
nerv. deiat 10 no. 4:599-604 J1-Ag '60. (MIRA 14:2)

1. The Georgian Zootechnical and Veterinary Institute.
(CONDITIONED RESPONSE) (ANTIGENS AND ANTIBODIES)

DOSYCHEV, Ye.A., kand.med.nauk; LENARTOVICH, V.A. (Leningrad)

Sensitization to novocaine traced for ten years. Vrach.
delo no.11:137-139 N'63 (MIRA 16:12)

1. Dermatologicheskaya gruppa otдела klinicheskoy meditsiny
AMN SSSR (nauchnyy rukovoditel' - chlen-korrespondent AMN
SSSR P.V.Kozhevnikov).

DOSYCHEV, A.V.; LOPATIN, S.A.; MYASNIKOV, L.M.; PLEKHANOV, N.A.; KONUKH, G.D.

Redesigning of the electric power supply network for carbide furnaces.
Prom.energ. 16 no.5:15-16 My '61. (MIRA 14:7)
(Electric furnaces)

DOSYCHEV Ye. A.

GORBOVITSKIY, S.Ye., prof.; IVANOV, N.A.; DOSYCHEV, Ye.A. (Leningrad)

Functional state of the nervous system in eczema and psoriasis and its significance in the treatment of these diseases [with summary in English]. Vest.derm. i ven. 31 no.6:3-6 N-D '57. (MIRA 11:3)

(PSORIASIS, physiol.

NS, thermoregulation & optic choroxy funct. test)

(ECZEMA, physiol.

same)

(NERVOUS SYSTEM, in various dis.

eczema & psoriasis, thermoregulation & optic choroxy funct. test)

DOSYCHEV E.A.

EXCERPTA MEDICA Sec 13 Vol 13/2 Dermatology Feb 59

737. ADEQUATE OPTICAL CHRONAXY PERFORMED ON SYPHILITIC PATIENTS DURING TREATMENT (Russian text) - Dosychev E. A. - VESTN. DERM. VENER. 1958, 32/2 (47-53) Graphs 2 Tables 4

The state of excitability of the cerebral cortex was examined in 32 patients with early syphilis by using 'adequate optical chronaxy' with parallel control in 8 healthy persons. The method was elaborated by Makarov in 1930. The change of the functional state of the optical analyser due to an adequate irritant (light) is a suitable index for the excitability of the cerebral cortex and thus of the functional state of the CNS. The normal index of the adequate optical chronaxy varies between 70 and 80 msec. In most patients with primary and secondary syphilis a lengthened 'adequate optical chronaxy' was revealed before the treatment started, therefore, the excitability of the cerebral cortex is decreased in these patients. Treatment with penicillin has a normalizing effect. Subsequent combined administration of salvarsan and bismuth lengthens the 'adequate optical chronaxy' in most patients. This lengthening is more persistent in patients in whom combined treatment with salvarsan and bismuth produced therapeutical side-effects.

Kraus - Hradec Králové

1. Iz Kliniki Kozhnykh i venereicheskikh bolezni ey (Zav. prof. S. Ye. Garbovitskiy) Voenno-morskoy meditsinskoy akademii.

DOSYCHEV, Ye.A., kand.med.nauk; GORBOVITSKIY, S.Ye., prof., nauchnyy
rukovoditel'

Unconditioned vascular reflexes in patients with early stages
of syphilis. Vest.derm.i ven. [35] no.2:53-59 F '61.

(MIRA 14:3)

(SYPHILIS) (BLOOD VESSELS) (REFLEXES)

DOSYCHEV, Ye.A., kand.med.nauk; PRONIN, O.V., kand.med.nauk

Functional state of the small and minute vessels in endarteritis
obliterans. Sov.med. no.3:42-48 '62. (MIRA 15:5)

1. Nauchnyy rukovoditel' - chlen-korrespondent AMN S SSR prof.
P.V. Kozhevnikov, Leningrad.
(ARTERIES--DISEASES) (NERVOUS SYSTEM)

DOSYMBEKOV, Sultan Nazarovich; KIM, V.A., doktor yurid. nauk,
otv. red.; LEVIN, M.L., red.

[State administration of industry in the Kazakh S.S.R.]
Gosudarstvennoe upravlenie promyshlennost'iu v Kazakhskoi
SSR. Alma-Ata, Izd-vo AN Kazakh.SSR, 1964. 253 p.
(MIRA 17:9)

DOSYULEV, S.G.

DOSYULEV, S.G.; SVICHKAROV, V.D.; CHERNYAK, I., redaktor; STEPANOVA, N.,
tehnicheskii redaktor;

[Efficiency promoters of the Minsk Automobile Plant in the struggle
for technical progress] Ratsionalisatory Minskogo avtosavoda v
bor'be za tehnichestkii progress. Minsk, Gos.izd-vo BSSR, 1956.
44 p. (MIRA 10:4)

(Minsk--Automobile industry)

25(1)

PHASE I BOOK EXPLOITATION

SOV/3318

Dosyulev, S. G., A. S. Solonskiy, and M. V. Smirnov

Spravochnoye posobiye konstrukturu-mashinostroitelyu (Machine Designer's Handbook)
Minsk, Gos. izd-vo BSSR, 1959. 258 p. 20,000 copies printed.

Ed.: F. Kashtanov; Tech. Ed.: N. Stepana.

PURPOSE: This handbook is intended for machine designers and for process engineering personnel, as well as for students of schools of higher technical education.

COVERAGE: The handbook is based on the GOST and OST departmental and plant standards, and on other pertinent reference materials. To save space no explanatory text is given. The tables are extracts from GOST and OST standards and from reference material of primary importance to design practice. No personalities are mentioned. There are no references.

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AVAILABLE: Library of Congress

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4-27-60

Card 8/8

DCSYULEV, Sergey Grigor'yevich; SOLONSKIY, Aleksandr Stepanovich;
KASPER, M., red.; NOVIKOVA, V., tekhn. red.

[Manual for machinery designers] Spravochnoe posobie kon-
struktoru-mashinostroiteliu. Izd.2., perer. i dop. Minsk,
izd-vo BSSR, 1962. 402 p. (MIRA 16:7)
(Machinery—Design and construction)

DOSZ, Julian (Wroclaw); HAUS, B. (Wroclaw)

Effects of production concentration in the meat industry; on the
Example of the Meat Plants in Glatz. Gosp miesna 14 no.2:
21-23 F '62.

EGOROV, V.

"Standardization of Measuring Apparatus and Instruments", P. 136,
(SZABVÁLYSÍTÁS, Vol. 5, No. 9, September 1953, Budapest, Hungary)

SC: Monthly List of East European Accessions (EPAI), LC, Vol. 4, No. 3,
March 1955, Encl.

DOSZHANOV, T. N.

DOSZHANOV, T. N. --"Biological Foundations of the Struggle Against Subcutaneous Gadfly of Beef under the Conditions of Southern Kazakhstan." * (Dissertations for Degree in Science and Engineering Defended at USSR Higher Educational Institutions) Acad Sci Kazakhstan USSR, Inst of Biology, Alma-Ata, 1955

SO: Knizhnaya Letopis', No. 25, 18 Jun 55

* For Degree of Doctor of Biological Sciences

GRUNIN, K.Ya.; DOSZHANOV, T.N.

Individual census of the development period of the cattle warble fly larva in the scirrhus [with English summary in insert]. Zoel.shur.35 no.3:400-405 Mr '56. (MIRA 9:7)

1. Zoologicheskiy institut AN SSSR i Institut zoologii AN Kazakhskoy SSR. (Warble flies)

COUNTRY : USSR G
CATEGORY : Zooparasitology. Acarids and Insects as Vectors
of Disease. Insects
RES. JOUR. : RZhEiol., No. 4 1959, No. 15047
AUTHOR : Doszhanov, T. N.
INST. : Kazakh Scientific Research Institute
TITLE : Peculiarities of the Biology of Hypodermatidae
of Cattle under Conditions of Southern Kazakh-
stan
ORIG. PUB. : Tr. Kazakhsk. n.-i. in-ta, 1957, 9, 523-534
ABSTRACT : Under mountain conditions during seasonal pastu-
ring of animals, the cattle are exposed to ovi-
position of warble flies twice: in the foothills
on the spring pastures and high in the mountains
on the summer pastures. In the walls of the eso-
phagus, the larvae (L) of the first stage were
registered from June through March, and in the
spinal cord channel in December-April. To estab-
lish

CARD: 1/4

DOSZHANOV, T. N.

"Zonal Characteristics of the Biology of Subcutaneous Gadflies in Southern Kazakhstan."

Tenth Conference on Parasitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Institute of Zoology, Academy of Sciences, Kazakh SSR, (Alma-Ata)

GATI, Istvan, dr.; LAJOS, László, dr.; DOSZPOD, József, dr.; HISZEK, Nándor,
dr.; ARNOLD, Istvan, dr.; BUCS, Gábor, dr.

Changes in maternal mortality at the maternity clinic of Pécs
during 40 years with special respect to puerperal fever. Orv.
hetil. 106 no.33:1563-1567 15 Ag'65.

1. Pécsi Orvostudományi Egyetem Szülészeti és Nőgyógyászati
Klinika (igazgató: Lajos, László, dr.).

ANTOVA, V.; DOTCHEV, D.

On some index changes of the alkali acid equilibrium in chronic pneumonia of children from 3 to 14 years of age. *Cesk. pediat.* 20 no.3:431-433 Mr '65

1. Department of Pediatrics, University of Sofia, Bulgaria.

BIRYUKOV, P., insh.; DO'LIBOV, A., insh.; EPSHTEYN, V., insh.

Mass production of reinforced concrete bathrooms. Zhil. stroi.
no.12:21-22 '62. (MIRA 16:1)

(Dnepropetrovsk—Precast concrete) (Bathrooms)

BIRYUKOV, Pavel Fedorovich; DOTLIBOV, Arkadiy Mikhaylovich; ROMANETS,
Tat'yana Yaropolkovna; EPSHTEYN, Vladimir L'evich;
VISHNEVYY, V., red.; YEREMINA, I., tekhn.red.

[Free-standing reinforced-concrete bathrooms; their manufacture
and use] Nenesushchie zhelezobetonnye prostranstvennye sanitarno-
tekhnicheskie kabiny; opyt izgotovleniya i primeneniya. Kiev,
Gosstroizdat, 1963. 37 p. (MIRA 16:6)
(Bathrooms)

BIRYUKOV, P., inzh.; DOTLIBOV, D., inzh.; EPSHTEYN, V., inzh.

Reinforced concrete three-dimensional bathrooms. Zhil. stroi.
no.12:17-18 '61. (MIRA 15:2)

(Bathrooms)

(Dnepropetrovsk Province--Precast concrete construction)

DOTI, M.

Analysis of data on primary production gathered during the
joint methodological work of scientists of various countries in
the region of the Hawaiian Islands. Okeanologia 2 no.3:543-
553 '62, (MIRA 15:7)
(Phytoplankton)

DETROIT, MICH., P.R.

USSR

Pyrolytic decomposition in the reciprocal system of
iodine and silver sulfate and molybdate. I. N. Bogdanov
and A. K. Doroshenko. *J. Gen. Chem. U.S.S.R.* 24, 406-9
(1951) (English translation).—See *C.A.* 48, 87085g.

II. 1. 10. 1.

DOTSCH, K.

TECHNOLOGY

PERIODICAL: EPULETGEPESET. Vol. 4, no. 6, 1955

Dotsch, K. Problems of installing central heating equipment. p. 104.

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2,
February 1959, unclass.

DOTSCH, Karoly

"Preparation, processing and use of polyvinyl chloride" by
Arpad Jakab, Thurzo and Zinoz. Reviewed by Karoly Dotsch.
Epuletgepeszet 6 no.4:123-124 '57.

1. "Epuletgepeszet" szerkeszto bizottsagi tagja.

DOTSCH, Karoly

Mihály Gyulay. Épületgépészet 6 no.4:136 '57.

1. "Épületgépészet" szerkesztő bizottsági tagja.

DOTSCH, Maroly

The 2d Warsaw Congress of Polish Domestic Engineers.
Epuletgepeszet 8 no.2:81-86 '59.

1. "Epuletgepeszet" szerkeszto bizottsagi tagja.

DOTSCH, Karoly

Assuring materials and fittings in the second five-year plan.
Epuletgepeszet 9 no.5:175-178 '60.

1. "Epuletgepeszet" szerkeszto bizottsagi tagja.

DOTSCH, Karoly

"Handbook on heating and ventilation technology" by H. Rietschels. Reviewed by Karoly Dotsch. *Epuletgepeszet* 9 no.6:234-235 '60.

1. "Epuletgepeszet" szerkeszto bizottsagi tagja.

DOTSCH, Karoly

"Catalog." Reviewed by Karoly Dotsch. Epuletgepeszet 11
no.4:135 S '62.

1. "Epuletgepeszet" szerkeszto bizottsagi tagja.

DOTSCH, Karoly

Comparison of the material consumption of long-distance heating stations. *Épületgépészet* 12 no.6:202-203 D'63.

1. "Épületgépészet" szerkeszto bizottsagi tagja.

PUCHEV, Al. dr.; POPOV, K. dr.; ASTRUG, A., dr.; DOTSCHEV, D., dr.;
PETRINSKA-WENKOVSKA, S. dr.

Endemic nephropathy in Bulgaria. Orv. hetil. 105 no.35:1642-1647
Ag 30 '64.

1. Szofiai Belklinika (igazgato: Al. Puchlev dr.) es Korbonctani
Intezet (igazgato: B. Kardshiev dr.).

DOTSENKO, A.

M-2 truck tractor. Voen.snan. 31 no.5:12-13 My '55. (MLRA 8:9)
(Vehicles, Military) (Motor trucks)

DOTSENKO, A., inzhener

Scale formation in engine cooling systems and ways of preventing
it. Avt. transp. 33 no.4:20-22 Ap '55. (MIRA 8:7)
(Automobiles--Engines--Cooling)

DOTSENKO, A.; BYKHOVSKIY, Ya.

In these momentous days. Prom.koop. 13 no.1:17 Ja '59.

(MIRA 12:2)

(Moscow--Leather industry)

DOTSHKO, A.A.

Considering wind-driven waves in predicting malarial conditions of reservoirs under construction. Med.paraz. i paraz.bol.supplement to no.1:12 '57. (MIRA 11:1)

1. In Instituta malyarii i meditsinskoy parazitologii Ministerstva zdavookhraneniya RSFSR.
(RESERVOIRS) (WIND) (MOSQUITOES)

DOTSENKO, A.A.

Republic conference of specialists in water aspects of sanitary
and epidemiological control stations. Med.paraz. i paraz.bol. 26
no.3:379-380 My-Je '57. (MIRA 10:11)
(HYDROLOGOY)

Dot SENAKO R/R
POKROVSKIY, S.N.; DOTSENKO, A.A.

"Reservoir construction and problems of malaria." Reviewed by
S.E.Pokrovskii, A.A.Dotsenko. Med.paraz. i paraz.bol. 27 no.1:
117-114 Jan-F '58. (MIRA 11:4)
(MALARIA)

DOTSENKO, A.A.

Sanitary antimalarial operations in the R.S.F.S.R. during the
postwar years (1946-1955) and their effectiveness. Med. paras.
i parasit. bol. 29 no. 1:79-82 Ja-F '60. (MIRA 13:10)
(MALARIA)

POLOVODOVA, V.P.; DOTSENKO, A.A.

Conference of Entomologists of the Sanitary and Epidemiological
Stations of the European Part of the R.S.F.S.R. Med. paraz. i
paraz. bol. 32 no.5:633-634 S-0'63 (MIRA 16:12)

NOISENKO, A.A.

Changes in the water factor and in sanitary and epidemiological conditions in the lower Don region after the construction of the Taimlyansk Reservoir. Med.paraz.i paraz.bol. 33 no.4:484-485 J1-Ag '64. (MIRA 18:3)

1. Rostovskiy nauchno-issledovatel'skiy institut meditsinskoy parazitologii.

L 1732-66 EWT(d)/EPF(n)-2/EMP(v)/EMP(k)/EMP(h)/EMP(l) IJP(c) WW/BC

ACCESSION NR: AP5014211

UR/0102/65/000/002/0008/0016

AUTHOR: Dotsenko, O. I. (Dotsenko, A. I.) (Sevastopol') ⁵⁵ 42

TITLE: Engineering locus-of roots method of synthesizing an automatic controller

SOURCE: Avtomatyka, no. 2, 1954, 8-16 ^{9.55}

TOPIC TAGS: automatic control design, optimal control, automatic control theory ¹⁴

ABSTRACT: A method of synthesis of an optimal controller is considered based on the theoretical proposition as to the expediency of approximation of zeroes and poles of the transfer function of the system. The necessity and practical sufficiency of approximating only two minimum poles is proved. Concrete methods for solving the problem are indicated and an introduction of simple equations for the calculations of the optimal dynamic parameters of the controller is attempted. The proposed method is used to calculate a control system for the speed of a DC motor. It is concluded that the laborious method of succes-

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L 1732-66

ACCESSION NR: AP5014211

sive approach to the optimal solution can be avoided by the use of the simple formulas for calculating the dynamic parameters of the controller. The order of magnitude of the transmission coefficient of the second derivative of the control law, required for the further improvement of the dynamic characteristics of systems, can be obtained from an empirical formula, and subsequently refined. Introduction of the second derivative in the control law requires a correction of the previously chosen parameter of the first derivative. A simple relation between the dynamic parameters allows one to go over from the calculation of the dynamic parameters to a choice of components of the correcting networks and to a calculation of their structural parameters. Orig. art. has: 2 tables, 24 formulas, and 5 figures.

ASSOCIATION: None

SUBMITTED: 17 June 63

ENCL: 00

SUB CODE: IE, DP

NR REF SOV: 006

OTHER: 000

Card 2/2

KUSAKIN, N.D.; SIGAREV, A.M.; ZVIAGINA, Ye.V.; Primalni uchastiye:
DOTSENKO, A.M.; NOKOREVA, M.A.; LYUBIMOVA, E.M.; SEMENOVA, L.V.

Investigating the gaseous medium surrounding carbon-graphite blanks
during their baking in a multiple compartment ring kiln. TSvet. met.
37 no.10:51-54 0 '64. (MIRA 18:7)

I. 44193-66 ENT(r)/EWP(w)/T/EWP(t)/ETI JD

ACC NR: AP6015699 (N) SOURCE CODE: UR/0413/66/000/009/0097/0098

38
B

INVENTOR: Balashov, V. A.; Dotsenko, A. M.; Kornilov, A. V.

ORG: none

TITLE: Method of studying the development of fatigue cracks. Class 42, No. 181361

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 97-98

TOPIC TAGS: cracking, crack propagation, fatigue crack

ABSTRACT: This Author Certificate introduces a method of studying the development of fatigue cracks by applying a sensing element to the area of possible cracking. The sensing element consists of several parallel conductors with a given law of variation of space between them. The conductors are arranged perpendicular to the possible direction of crack propagation. (In order to obtain diagrams showing the relationship between the length of the propagating crack and the number of load-

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UDC: 620.178.3

1 44193-66

ACC NR: AP6015699

ing cycles automatically, electric signals proportional to the spaces between the conductors of the sensing element are arranged to be transmitted to the recorder which simultaneously receives the periodic sequence of electric pulses from the cycle counter. The time between these pulses is proportional to a specific number of loading cycles of the test piece (see Fig. 1). Orig. art. has: 1 figure. [Translation] [LD]

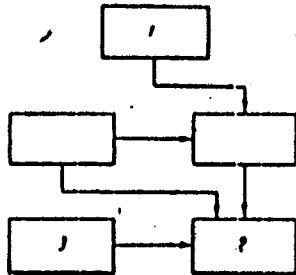


Fig. 1. Device for studying the propagation of fatigue cracks.
1—Sensing element;
2—automatic recorder; 3—cycle counter

SUB CODE: 20/ SUBM DATE: 27Mar65/

Card 2/2

ACC NR: AP6028194

SOURCE CODE: UR/0032/66/032/006/0733/0736

AUTHOR: Vorob'yev, A. Z.; Gavrilova, Ye. A.; Dotserko, A. M.

ORG: None

TITLE: The effect of rarely occurring compression cycles upon the endurance of a structural member

SOURCE: Zavodskaya laboratoriya, v. 32, no. 6, 1966, 733-736

TOPIC TAGS: *METAL TUBE, COMPRESSIVE STRESS,*
mechanical fatigue, fatigue strength, fatigue test, alloy steel, duralumin / 30KhGSA alloy steel, D16T duralumin

ABSTRACT: The fatigue tests applied to the samples of tubes made of D16T duralumin and 30KhGSA alloy steel are discussed. The samples are shown in a figure and their mechanical properties are given in a footnote. The specimen were subjected to repeated cyclic loads with an intervention of rarely occurring compression cycles, as shown in a diagram. The cycles causing tensile stresses were of 0.1 - 0.25 and 22 cps, while the frequency of the compression cycle was 0.1 cps. The results of endurance tests are reflected in the graphs. The first graph represents a set of curves demonstrating that the rarely intervening compressive stresses considerably lower the endurance limits of tested samples. Another set of curves shows that a more frequent repetition of compression cycles causes a greater fatigue of material. The tests conducted with D16T samples proved that the

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UDC: 620.178.3

ACC NR: AP6028194

effect of compression is greater if each cycle consisted of a series of repeated variable tensile and compressive stresses. In general, the endurance of material is lowered with the increase of compressive stress and probably with the decrease of basic tensile stress. Orig. art. has: 5 diagrams.

SUB CODE: 11, 13/ SUBM DATE: None / OTH REF: 002

Card 2/2

AUTHOR: Dotsenko, A.P. 26-58-4-9/45

TITLE: Why the Severskiy Donets Becomes Shallow and Loses Fish
(Pochemu meleyet i bedneyet ryboy Severskiy Donets)

PERIODICAL: Priroda, 1958, Nr 4, p 48 (USSR)

ABSTRACT: The Severskiy Donets is the main watercourse in the important Khar'kov - Donbass industrial area. Summer cottages and health resorts, surrounded by parks and forests, cover its banks, but the river is neglected. It is choked with silt and driftwood, and where years ago ships could sail, the river can now be forded in numerous places. The industrial enterprises located in the neighborhood use huge quantities of water, others dump all kinds of waste or discharge spent hot water into the river, thereby destroying the remaining fish resources. The author suggests that quick measures be taken to protect the flora and fauna of the river and to correct the numerous other deficiencies.

ASSOCIATION: Skripayevskiy nauchno-opytnyy leskhoz (Khar'kovskaya Oblast', UkrSSR), (Skripayevskiy Training and Experimental Leskhoz) (Khar'kov Oblast, UkrSSR)

AVAILABLE: Library of Congress
Card 1/1 1. Ichthyology-USSR 2. Severskiy Donets River 3. Fishes-USSR

DOTSINKO, A.P.

Goiter of a supernumerary thyroid body located in the posterior
mediastinum. Vrach.delo no.10:1089 0 '57. (MIRA 10:12)

1. Kafedra propedevticheskoy khirurgii (zav. - prof. I.Ya.Deyneka)
Odesskogo meditsinskogo instituta.
(MEDIASTINUM--TUMORS)
(THYROID GLAND--ABNORMALITIES AND DEFORMITIES)

AUTHOR: Dotsenko, A. P. SOV/20-120-3-65/67

TITLE: Changes in the Permeability of the Hematoencephalic Barrier, in the Case of a Closed Skull and Brain Injury (Izmeneniya pronitsayemosti gemato-entsefalicheskogo bar'yera pri zakrytoy cherepno-mozgovoy travme)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 120, Nr 3, pp. 673-676 (USSR)

ABSTRACT: Thanks to the works of Mrs. L. S. Shtern and her students it was found out that the mentioned barrier (HEB) plays an important part in the activity of the central nervous system (references 1, 2). In this connection it was also proved that a number of pathological processes the permeability of the HEB is changed. This process is bound to have an effect on the activity of the central nervous system and the clinical picture of the disease (references 3 - 6). From publications (references 7, 11) we learn that the brain injury is accompanied by an increase of the permeability of the HEB. This explains to some extent the serious clinical manifestations of the disease. It was the

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Changes in the Permeability of the Hematoencephalic SOV/20-120-3-65/67
Barrier, in the Case of a Closed Skull and Brain Injury

task of the discussed investigation to investigate the permeability of the HEB in animals (dogs, rabbits) after different periods after the injury. For this purpose the animals were given dosed hits. A typical contusion-commotion-syndrome was observed. 24 hours later the symptoms vanished or became weaker. A serious inhibition of the central nervous system was, however, of several days duration. At the autopsy a hyperemia of the cerebral meninges, during the first hours after the injury, an increased blood-supply of the brain, sometimes fine hemorrhages of the size of a punct were proved in the cortex and in the stem part of the head brain. As indicators of the permeability radioactive phosphorus and radioactive calcium were used. The animals that suffered from the mentioned injury were investigated in the 2nd series of experiments. On table 1 can be seen that the permeability of the HEB is in all cases considerably increased after the injury. That is proved by the increased amount of p^{32} in the brain as well as in the fluid of the

Card 2/4

Changes in the Permeability of the Hematoencephalic Barrier, in the Case of a Closed Skull and Brain Injury SOV/20-120-3-65/67

spinal cord. The effect of the traumatizing factor was not the same in the different portions of the cortex. Ca^{45} penetrates into the brain-tissue in a very small quantity. After the injury the amount of the isotope in the brain is considerably increased (table 2). Further, the permeability of the hemato-ophthalmic barrier was studied. It was proved that the effect of the mentioned injury is of similar kind as that in the brain. The heaviest lesions of both barriers agree to a certain extent with the most intensive manifestation of the disease. It is possible that the penetration of toxic substances and of substances, altogether foreign to the brain-metabolism, (among them also of antigen nature) is one of the factors which explain the serious consequences of the skull and brain injury. There are 1 figure, 2 tables, and 14 references, 9 of which are Soviet.

Odesskiy meditsinskiy institut im. N. I. Pirogova
(Odessa Medical Institute imeni N. I. Pirogov)

ASSOCIATION:
Card 3/4

Changes in the Permeability of the Hematoencephalic Barrier, in the Case of a Closed Skull and Brain Injury SOV/20-120-3-65/67

PRESENTED: February 12, 1958, by L. S. Shtern, Member, Academy of Sciences, USSR

SUBMITTED: February 11, 1958

1. Head injuries--Analysis 2. Brain--Pathology 3. Nervous system--Pathology

Card 4/4

DOMENKO, A.P., Cand Med Sci -- (dis) "Change of permeability of
the hemo-encephalic barrier in closed cerebral-²cranial trauma."
Odessa, 1959. 16 pp (Odessa State Med Inst in I.I. Piragov) .
200 copies (BU 40-59, 106)

53

DOTSENKO, A.P., kand.med.nauk; CHINCHENKO, Ye.I., kand.med.nauk

Clinical and therapeutic aspects of insufficient suture after
gastric resection. Nov.khir.arkh. no.11:60-64 '61. (MIRA 14:12)

1. Kafedra obshchay khirurgii pediatricheskogo i sanitarno-
gigiyenicheskogo fakul'teta Odeskogo meditsinskogo instituta.
(STOMACH--SURGERY) (SUTURES)

DOTSENKO, A.P., kand. sel'khoz. nauk; TKACHENKO, A.A.; DOSTIN,
Yu.V.; YURGENSON, Ye.I., kand. sel'khoz. nauk;
YABLONSKIY, L.I.; GARMASH, P., red.

[Forest reserves of the Crimea] V zapovednykh lesakh Kryma.
Simferopol', Krymizdat, 1963. 1 v. (MIRA 17:6)

DOTSENKO, A. P.

"Economic Effect of Wide Row Planting in Nurseries," Les. khoz., 5, No.2,

1952

1. DOTSSENKO, A.P.
2. USSR (600)
4. Agricultural Machinery
7. Chuguev mechanizers are ready for spring, Les i step' 5 no. 3, 1953.

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

1. DOPSENKO, A. P.
2. USSR (600)
4. Arboriculture
7. Broader introduction of wide-row sowing in nur-series. Les. khoz. 6, No. 3, 1953.

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

COUNTRY : USSR
CATEGORY : Forestry. Forest Cultures. K
ABS. JOUR. : RZhBiol., No. 14, 1959, No. 63232
AUTHOR : Dotsenko, A. P.
INSP. : ~~Kharkov Agricultural Institute~~
TITLE : Growth of Pine Seedlings with Wide-Trench Sowing
ORIG. PUB. : Zap. khar'kovsk. s.-kh. in-ta, 1957, 16(53), 243-272
ABSTRACT : In nurseries of the Alinovskoye and Skripayevskoye Forestries of Kharkov (blast in 1954-1956, experimental sowings of pine, oak, sharp-leaved maple, narrow-leaved oleaster and forest apple were carried out on podzolized sandy-loam chernozems, the trench width being about 3-20 cm. From the pine example it appears that the sowing in trenches of ~10 cm in width with normal sowing density is silviculturally more effective. In this case, the yield of good-quality planting material is 2 $\frac{1}{2}$ - 3 times greater. For nurseries in the non-arid part of the steppe and forest steppe, the seeds of light-loving species which are demanding of moisture
CARD: 1/2

COUNTRY :
CATEGORY :

k

ABS. JOUR. | RZhBiol., No. 14 1959, No. 63232

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : and soil fertility are recommended for sowing in narrower
(8-12 cm) trenches, using denser ($1\frac{1}{2}$ times greater
than the norm) seeding for xerophyte species, with
small seeds and developed stalky root in soils inclined
to silting.--D. I. Beryabin

Card: 2/2

DOTSENKO, A.P., Cand Agr Sci -- (diss) ^{Cultivation} "Raising of
~~seedlings~~ ^{species by means of} ~~small plants~~ of tree and shrub varieties ~~with~~
bread-furrow sowing." Khar'kov, 1958, 14 pp (Min
of Agr USSR. Khar'kov Order of Labor Red Banner
Agr Inst im V.V. Dokuchayev. Chair of Agro-forest
Improvement) 150 copies (KL, 21-58, 92)

CHINCHENKO, Ye.I.; DOTSENKO, A.P.

Some problems in the clinical aspects and treatment of mixed tumors of the salivary glands. Vrach. delo no. 1:88-90 '61. (MERA 14:4)

L. 'Kafedra obshohey khirurgii (zav. - zasluzhennyy deyatel' nauki prof. I.Ya. Deyneka) pediatricheskogo i stomatologicheskogo fakul'tetov Odesskogo meditsinskogo instituta.
(SALIVARY GLANDS--TUMORS)

DOTSENKO, A.P., kand.med.nauk (Odessa)

Two cases of bronchogenic cysts of the mediastinum. Klin.med.
no.4:142-144 '62. (MIRA 15:5)

1. Iz kafedry obshchey khirurgii (zav. - zasluzhennyy deyatel'
nauki prof. I.Ya. Deyneka) pediatricheskogo i stomatologicheskogo
fakul'tetov Odesskogo meditsinskogo instituta imeni N.I. Pirogova
(dir. - prof. I.Ya. Deyneka).
(MEDIASTINUM---TUMORS) (CYSTS)

DOTSENKO, A.P., kand. med. nauk

Single-stage echinococectomy in bilateral echinococcosis of
the lungs. Khirurgiia no.1:117-118 '63. (MIRA 17:5)

1. Iz kafed, obshchey khirurgii pediatricheskogo i stomatolo-
gicheskogo fakul'teta (zav.-zasluzhennyy deyatel' nauki prof. I.
Ya. Deyneka) Odesskogo meditsinskogo instituta imeni N.I. Pirogova.

DOTSENKO, A.P., kand.med.nauk

Cancer cells in circulating blood; a survey of foreign literature. Vrach. delo no.7:86-92 J1'63. (MIRA 16:10)

1. Klinika obshchey khirurgii pediatricheskogo i stomatologicheskogo fakul'tetov (zav. - sasluzhennyi deyatel'nauki prof. I.Ya.Deyneka) Odesskogo meditsinskogo instituta.
(CANCER) (BLOOD—EXAMINATION)

DOTSENKO, A.P. (Odessa)

Disorders of the ophthalmo-encephalic barrier mechanisms
in closed cranio-cerebral injuries. Arkh. pat. 25 no.5:
13-18 '63. (MIRA 17:2)

1. Iz kafedry obshchey khirurgii pediatricheskogo i stoma-
tologicheskogo fakul'teta (zav. - zasluzhennyy deyatel'
nauki prof. I.Ya. Deyneka) i kafedry patologicheskoy fizio-
logii (zav. - prof. N.N. Zayko) Odesskogo meditsinskogo
instituta imeni N.I. Pirogova.

DOTSENKO, A.P., kand. med. nauk; ZHARDETSKIY, A.S., dotsent

Clinical aspects and surgical treatment of primary pleural tumors.
Vest. khir. 94 no.2:61-67 F '65. (MIRA 18:5)

1. Iz kafedry obshchey khirurgii (zav. - prof. I.Ya. Deyneka)
pediatricheskogo i stomatologicheskogo fakul'tetov Odesskogo
meditsinskogo instituta imeni Pirogova.

DOTSENKO, B. B.

Dissertation: -- "A Calculation of Kinetic and Statistical Parameters in Hydrodynamics."
Cand Phys-Math Sci, Moscow Order of Lenin State U. (Lenin N. V. University), 23
Jun 54. (Vosternyyaya Moskva, Moscow, 14 Jun 54)

SO: Sun 317, 23 Dec. 1954

BOSVORT, R. Ch. L. [Boamorth, R.C.L.],; DOTSENKO, B.B., [translator],;
SURINOV, Yu.A., red.; RYDNIK, V.I., red.; NEZHIMOVSKAYA, R.A., tekhn. red.

[Heat transfer phenomena] Protseessy teplovogo perenosa. Moskva,
Gos. izd-vo tekhniko-teoret. lit-ry, 1957. 275 p. [Translated from
the English]. (MIRA 11:12)

(Heat--Transmission)

20-119-3-17/65

AUTHOR: Dotsenko, B. B.

TITEL: On the Problem of the Proton Structure (K voprosu o strukture protona)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 3, pp. 466 - 469 (USSR)

ABSTRACT: E. E. Chambers (Chambers) and R. Hofstadter (Khofstadter) (Reference 1) experimentally investigated the electromagnetic structure of the proton. Of the 6 possible functions of the density distribution $d(r)$ of the charge in the proton the authors prefer the function $d(r) = d_0 r \exp(-r)$. Here d_0 is the distance to the center of the proton, expressed in corresponding units. The theoretical investigation of the structure of the proton could be performed most consistently on the basis of the rigorous field theory. Because of the earnest difficulties in such an investigation, however, the author here solves this problem approximately, whereby he starts with some phenomenological assumptions. On this occasion the author regards the proton to be a nucleus, which is enveloped by a meson

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20-119-3-17/65

On the Problem of the Proton Structure

cloud. Besides, this cloud is assumed to be formed by one single meson. From the known relativistic equation for the ψ -wave function of a particle with the mass m and the spin 0, which moves in a field with the potential $V(r)$

$$\Delta \psi + (1/\hbar^2 c^2) [(E-V)^2 - (mc^2)^2] \psi = 4\pi D$$
 is obtained. Thereby $E = \hbar \partial/\partial t$ holds and the notation reads: D - density of the source, \hbar and c - known constants. If the emission of a meson is forbidden and if the meson comes into interaction with the nucleus,

$$\Delta \psi + (1/\hbar^2 c^2) [(E-V)^2 - (mc^2)^2] \psi = 0$$
 is obtained. In the determination of the interaction potential V the author applies the hypothesis by I. Ye. Tamm. According to this the meson "dissociates" in the field of the nucleus into a pair of nucleon-antinucleon. Then a potential $V(r)$ of the form of the usual can be used as potential for the interaction of such a pair with the nucleus Yukawa potential. The solution of the last written equation is set up in the form

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20-119-3-17/65

On the Problem of the Proton Structure

of $\phi(\vec{r}, t) = \exp(-i(\epsilon/\hbar)t)\Phi(\vec{r})$.
 Here denotes t the time and ϵ a constant with the dimension of an energy. Thus a steady solution for the system nucleus-meson is looked for and one assumes that the cancellation of the eadyness takes place because of the destruction of the central nucleus by the nucleon, which has formed in the pair production. The process of the computation is pursued step by step. Then the expression

$$\phi(\vec{r}, t) = \exp(-i(\epsilon/\hbar)t) Y_{\ell}^m(\vartheta, \varphi) R(r) \text{ with } R(r) = e^{-\rho/2} \sum_{k=0}^{\infty} \alpha_k \rho^k$$

is obtained for the wave function of a meson with the mass m , which forms a cloud around the nucleus. The lowest state of the here examined system is the P-state. The dependence of the density of the meson cloud on the distance approximately agrees with the experiment in the case of $2j = 1$. Finally the author thanks the member of the Academy, N. N. Bogolyubov for valuable consultations. There are 6 references, 5 of which are Soviet.

Card 3/4

20-119-3-17/65

On the Problem of the Proton Structure

ASSOCIATION: Institut fiziki Akademii nauk USSR (Physics Institute
AS Ukrainian SSR)

PRESENTED: November 28, 1957, by N. N. Bogolyubov, Member, Academy of
Sciences, USSR

SUBMITTED: November 27, 1957

AVAILABLE: Library of Congress

Card 4/4

DOTSENKO, B K

307/2162

PLANE I BOOK EXPLOITATION

10(2)

Академия наук СССР. Энергетический институт.

Planihicheskaya gazdinamika (Physical Gas Dynamics) Moscow, 1959. 167

p. 3,000 copies printed.

Редактор: А.С. Фредрихтлер, Corresponding Member, USSR Academy

of Sciences; Ed. of Publishing House: R.I. Mosyn; Tech. Ed.:

Ye. V. Makuni.

PROPOSE: This collection of articles is intended for scientific work-

ers, instructors, engineers, and advanced vuz students specializ-

ing in the field of gas dynamics and the physics of combustion.

CONTENTS: This collection of articles is concerned with the results

of work performed at the Central Institute, Academy of Sciences and

USSR, during the years 1952-1955. Problems of gas dynamics and

thermodynamic properties of air at high temperatures (up to 12,000°

K) in a wide range of pressures from 0.001 to 1,000 atm. are dis-

cussed. Methods are presented for calculating a normal shock with

consideration of the dissociation and ionization of air. Some

of the papers of the collision deal with hydrodynamic phenomena

associated with electric discharges in water. References follow

most of the papers.

TABLE OF CONTENTS:

Ступоченко, Ye. V., I.P. Stakhanov, Ye. V. Samoylov, A.S. Plashchov,

and I.B. Mozhayevskiy. Thermodynamic Properties of the Air in

the Temperature Range between 1,000 and 12,000° K and the Pressure 3

Quantum-mechanical methods of statistical physics along with

spectroscopic data are used as a basis for the theoretical cal-

culation of the thermodynamic properties of gaseous systems and

mixtures of gases, such as air, which at high temperatures are

divided into two parts: 1) calculation of the thermodynamic

functions of air; 2) calculation of the composition of air and the

thermodynamic functions of the mixture. The paper includes

methods for calculating statistical sums for atoms, molecules, and

their ions. Determination of the effect of ionization, spin-

orb interaction, and the degeneration of the electron gas on the

magnitudes of the thermodynamic functions, calculation formulas

for enthalpy, and other thermodynamic aspects are covered.

Stupochenko, Ye. V., B. B. Dolitskiy, I. P. Stakhanov, and Ye. V. Samoy-

lov. Methods for Calculating the Kinetic Coefficients of Air at 30

High Temperatures: theoretical calculations of the kinetic co-

efficients of air, particularly the viscosity and thermal-conduc-

tivity coefficients, for the temperature range between 2,000 and

9,000° K and pressures between 0.001 and 1,000 atm. In determin-

ing the viscosity of air in connection with the molecular disso-

ciation consideration is given the molecular component of the viscosity of

air and the viscosity of kinetic diameters of atoms and the heat

well as to the gas constant of the air. In studying the thermal heat

the atomic component of the viscosity of air, the heat conductivity

of a binary mixture of chemically reacting gases is calculated

flow is first determined for a binary mixture of gases. Calculated

curves are presented for the coefficients of viscosity and ther-

mal conductivity as functions of the temperature with the pres-

sure as parameter.

DOTSENKO, B.B.

Contribution to the theory of the superfluid state of a system
of Fermi particles with isotopic spin. Part 1. Ukr. fiz. zhur.
4 no.3:300-312 My-Je '59. (MIRA 13:2)

1. Institut fiziki AN USSR.
(Superfluidity)

SOV/48-23-7-28/31

21 (0)
AUTHOR:

Dotsenko, B. B.

TITLE:

On the Theory of Superfluidity of Nuclear Matter (K teorii sverkhtekuchestii yadernoy materii)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
Vol 23, Nr 7, pp 914-917 (USSR)

ABSTRACT:

The assumption of the concentration of nuclear matter has been widely used recently in theoretical investigations of the principal properties of nuclei. From the papers (Refs. 1 and 2), and particularly from the paper (Ref 3), of western scientists it can be seen that - in spite of an intense mutual interaction of the nucleons - the nuclear matter can be regarded as consisting of poorly interacting Fermi particles, the effective mass of these particles being twice as small as that of free particles. From other papers (Refs 4 and 5) it can further be seen that a system of Fermi particles with poor attraction at temperatures near the absolute zero can form a condensate from the vapor of the particles. Further, a hypothesis of N. N. Bogolyubov on the investigation of superfluidity of a Fermi system is indicated with the method suggested by him in the theory of superconductivity, and this method is applied to a system of Fermi particles.

Card 1/2

On the Theory of Superfluidity of Nuclear Matter

SOV/48-23-7-28/31

The equation (1) is used as a basis, and by means of a canonical transformation of the symbols for the energetic excitation (2), a new equation is obtained for (1). The coefficients of this transformation must satisfy special conditions, and the equation system (3) is obtained by which the coefficients of the transformation are determined. Subsequently, the energy of the ground state of the system considered is determined, the difference between the energies of the normal and the superfluid ground states are obtained by equation (12). The energy of the general superfluid state is indicated by equation (14), and it is ascertained that the single-Fermi excitation is separated from the main superfluid state. Finally the author thanks N. N. Bogolyubov for his advice, and A. M. Korolev and A. F. Lubchenko for their interest in the work and the discussions carried on. There are 8 references, 4 of which are Soviet.

ASSOCIATION:

Institut fiziki Akademii nauk USSR (Institute of Physics of the Academy of Sciences, UkrSSR)

Card 2/2

S/185/60/005/003/001/020
D274/D303

26586

24.6610
AUTHOR:

Dotsenko, B.B.

TITLE:

On the pionic and electromagnetic structure of nucleons

PERIODICAL:

Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 3, 1960, 295-306

TEXT: The structure of nucleons on the basis of the Blokhintsev-Yastrov model is considered. A working model for the three-pionic state is suggested. At present, no accurate expressions can be obtained for the quantities involved; the author proposes finding estimates for these quantities and to ascertain the basic characteristics of the three-pionic state. With regard to the model of three-pionic state, it is assumed that the pion is polarized when moving in a field. Such a state of "nucleonic polarization" of the pion is called the Π -state, and the pion in this state - the Π -pion:

$$\Pi^+ \equiv (p \cdot \tilde{n}), \quad \Pi^- \equiv (\tilde{p} \cdot n), \quad \Pi^0 \equiv 2^{-\frac{1}{2}}(p \cdot n + \tilde{p} \cdot \tilde{n}) \quad (6)$$

26586

S/185/60/005/003/001/020
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On the pionic and electromagnetic...

in the first approximation, the interaction between pion and core can be described by the Yukawa potential. It is noted that the Π -state differs from the π -state. The mass of the Π -pion is found to be

$$\frac{M}{2} = \frac{\mu}{2} + \frac{m_{\pi}}{2} = \frac{M}{6.5 \cdot 2} + \frac{m_{\pi}}{2}, \quad (8)$$

i.e.

$$m_{\Pi} = \frac{5.5M}{6.5} \approx 0.84M \approx 5.5\mu.$$

hence its mass is greater than that of the π -pion. The lifetime of the virtual Π -pion is approximately $\Delta t_{\pi}/5.5$; its size approximately $\Delta r_{\pi}/5.5$. Fig. 4 shows a virtual pion which is emitted and then absorbed by the core, whereby it passes into the Π -state and then back to the π -state. The wave function of the pion (in both Π - as well as π -state) can be determined by the Klein-Gordon equation (and the interaction $V(r)$ - the Yukawa potential);

$$\nabla^2 \psi_{\Pi} + \frac{1}{\hbar^2 c^2} [(E - V)^2 - (m_{\Pi} c^2)^2] \psi_{\Pi} = 0 \quad (11)$$

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is obtained; by means of this equation and of the potential $V(r)$, the "averaged" wave function of the three-pionic (or Π^-) state is determined. Eq. (11) was solved by the author (Ref. 16: DAS SSSR, 119, 3, 1958). The estimate of terms due to a three-pionic state is then examined. The dynamical problem is treated in the quasi-classical approximation (as was done by A. Sommerfeld in computing the motion of a proton in the Π^- atom). The distribution densities for the Π^- -pion and the core are

$$G_{\Pi} = R_{\Pi}^2 = \left(\frac{1}{2a_{\Pi}^3}\right) \exp\left(-\frac{r}{a_{\Pi}}\right); \quad G_k = R_k^2 = \left(\frac{1}{2a_k^3}\right) \exp\left(-\frac{r}{a_k}\right). \quad (26)$$

The mean-square radiuses are:

$$\langle r_{\Pi}^2 \rangle = \int_0^{\infty} R_{\Pi}^2 r^4 dr = 12a_{\Pi}^2 \approx (8 \cdot 10^{-14} \text{cm})^2, \quad (27)$$

$$\langle r_k^2 \rangle = \int_0^{\infty} R_k^2 r^4 dr = 12a_k^2 \approx (7 \cdot 10^{-14} \text{cm})^2. \quad (28)$$