

EXCERPTA MEDICA Sec 15 Vol 12/11 Chest Dis. Nov 59

2583. EXPERIMENTAL AND CLINICAL STUDIES OF THE PULMONARY CONCENTRATION OF ANTIBIOTICS AFTER ENDOBRONCHIAL ADMINISTRATION - Cercetări experimentale și clinice asupra concentrației antibioticelor în plămâni după administrare endobronșică - Popper M. and Lorian V. - MED. INTERNA (București) 1959, 11/2 (179-188)

Graphs 6 Tables 3 Illus. 2

Quantitative determinations were carried out in mice, guinea-pigs and rabbits, and in resection fragments from human cases, after endobronchial administration of antibiotics. For erythromycin, isoniazid and cycloserine the method of administration did not influence the concentration after 3 hr.; in the case of streptomycin, neomycin and oxytetracycline, on the other hand, the concentrations after endobronchial administration were much higher (10 times or more) than after another parenteral administration, and persisted longer.

Biophysics

CZECHOSLOVAKIA

POPPER, Mikulas; Chair of Medical Physics, Medical Faculty, Comenius University  
(Katedra Lekarskej Fyziky Lekarskej Fakulty Uverzity Komenskeho)

"Some Remarks Concerning Magnetobiology"

Bratislava, Biologia, Vol 21, No 10, 1966, pp 771-777

Abstract: Magnetic phenomena in biological processes are discussed. Magnetic properties of biological materials, and the influence of magnetic fields on biological objects are described. Theoretical aspects of these problems are evaluated. Some magnetic phenomena common to biological materials are described. 32 Western, 1 Czech, 11 Russian, 1 East German reference.  
(Manuscript received 21 May 66)

1/1

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

POPPER, M., prof.; KAUFMAN, S., dr; CRISTEA, M., dr; VANGOV, T., dr.

The association of tuberculosis with aspergillosis. Med. int.,  
Bucur. 12 no. 2:295-301 F '60.  
(TUBERCULOSIS PULMONARY complications)  
(ASPERGILLOSIS complications)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

POPPER, M.; LORIAN, V.

Effect of cortisone and of hydrocortisone on the microbe-antibiotic relationship. Antibiotiki 3 no.2:67-72 Mr-Ap '58. (MIRA 12:11)

1. Klinika fiziologii Bukharetskogo meditsinskogo fakul'teta.

(CORTISONE, effects,

on bact. reactivity to antibiotics (Rns))

(HYDROCORTISONE, effects,

same)

(ANTIBIOTICS, effects,

eff. of cortisone & hydrocortisone on bact.  
reactivity (Rus))

EXCEPȚA : EDIȚIA Sec. 6 Vol 13/12 Internal med. Dec 59

7017. EXPERIMENTAL AND CLINICAL STUDIES OF THE PULMONARY CONCENTRATION OF ANTIBIOTICS AFTER ENDOBRONCHIAL ADMINISTRATION - Cercetări experimentale și clinice asupra concentrației antibioticelor în plămâni după administrare endobronsică - Popper M. and Lorian V. - MED. INTERNA (București) 1959, 11/2'(179-188) Graphs 6 Tables 3 Illus. 2 Quantitative determinations were carried out in mice, guinea-pigs and rabbits, and in resection fragments from human cases, after endobronchial administration of antibiotics. For erythromycin, isoniazid and cycloserine the method of administration did not influence the concentration after 3 hr.; in the case of streptomycin, neomycin and oxytetracycline, on the other hand, the concentrations after endobronchial administration were much higher (10 times or more), than after other administration, and persisted longer. Nicolaescu - Bucharest (L, 6, 15)

EXCERPTA MEDICA Sec 6 Vol 13/3 Internal Med. Mar 59

1691. THE EARLY DIAGNOSIS OF PRIMARY BRONCHIO-PULMONARY CARCINOMA - Considerații asupra diagnosticului precoce al cancerului bronho-pulmonar primativ - Popper M. and Unteanu Gh. - MED.

INTERNA (București) 1957, 9/12 (1829-1835)

On the basis of the literature and of findings in 100 cases it is asserted that broncho-pulmonary carcinoma in its initial stage has only few, unspecific clinical symptoms. Cough is the most frequent symptom (75%); haemoptoic sputum, sudden chest pains and dyspnoea are early symptoms in only about one-third of the cases. Febricula, asthenia, anorexia and weight loss were present in the initial stage in about half the cases studied. The methods of study employed were radiological exploration in various incidences, penetrating radiography, pneumo-mediastinum etc. Bronchoscopy followed by biopsy and directed bronchography have led to a correct diagnosis in 75% of the cases studied. Exploratory thoracotomy should, in the authors' opinion, be carried out in all cases where doubt remains.

Nicolaeșco - Bucharest (XV, 5, 6, 16)

EYCEPTEA MEDICA Sec 6 Vol 13/3 Internal Med. Mar 59

1666. CORTICOTHERAPY IN BRONCHOPULMONARY SUPPURATIONS - La corticothérapie dans les suppurations broncho-pulmonaires - Popper M., Wolf A. and Jienescu Z. Centre de Pneumol. 'Elena Pavel', Clin. Phtisiol., Bucarest - J.FRANC. MED. CHIR. THORAC. 1957, 11/5 (491-502)  
Illus. 12

This treatment, associated with antibiotics, is indicated in bronchopulmonary suppurations when the expectoration is abundant and the disease has a lingering course.  
Lowys - Roc des Fiz (XV, 6, 9)

RUMANIA/Microbiology. Hemoglobinophilic Bacteria. Pathogenic  
Fungi and Actinomycetes

F-5

Abs Jour : Ref Zhur - Biol., No 14, 1953, No 62514

Author : Popper M., Wolf A., Unteanu Gh.

Inst :

Title : The Problem of Pulmonary Moniliasis

Orig Pub : Ftiziologia, 1957, 6, No 5, 387-395

Abstract : No abstract

Card : 1/1

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EXCERPTA MEDICA Sec 6 Vol 13/1 Internal Med. Jan 59

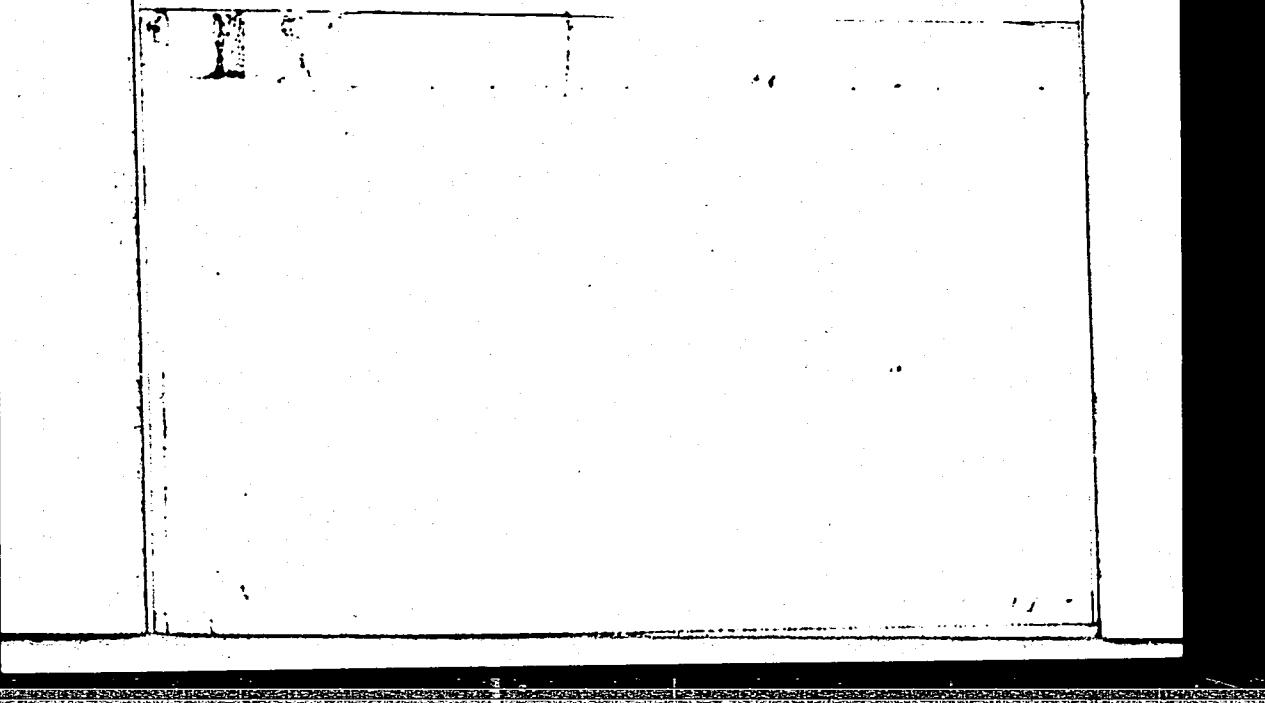
290. CORTICOTHERAPY IN BRONCHIAL-PULMONARY SUPPURATIONS - Corticoterapia în supurăriile bronho-pulmonare - Popper M., Wolf A. and Jienescu Z., Spit. Elena Pavel, Bucureşti - MED. INTERNA (Bucureşti) 1958, 10/1 (107-112) Illus. 4

Corticotherapy was applied in 30 cases of various forms of bronchopulmonary suppurations in association with antibiotics and symptomatic treatment. Hormone treatment was preferably employed when the other treatments produced incomplete results. By the use of corticoids amelioration of the general condition, reduction of the septic reactions, diminution and even drying up of the expectoration and favourable radiological alterations were obtained. It is considered that cortico-

290

therapy is indicated in bronchopulmonary suppurations when the septic focus presents a process of excessive and prolonged exudation.

Nicolaesco - Bucharest (XV, 6, 50)



POPPER, R.

Use of oscillographic polarography for determining small quantities of thallium in the presence of an excess of tin and cadmium. Chem zvesti 18 no.5/6:414-417 '64.

1. Elektropristroj National Enterprise, Research Section, Bachovice.

L 34440-66 EWP(t)/ETI IJP(c) RDW/JD

ACC NR: AP6026226

SOURCE CODE: CZ/0008/65/000/012/1476/1479

AUTHOR: Pepper, Rudolf

42  
B

ORG: Research Institute, "Elektropristroj" n.p., Bechovice (Elektropristroj n.p., vyzkum)

17

TITLE: Use of oscillographic polarography for the determination of tellurium in the presence of selenium

SOURCE: Chemicke listy, no. 12, 1965, 1476-1479

TOPIC TAGS: polarographic analysis, chemical identification, oscillograph, selenium, tellurium, solution concentration

ABSTRACT: The method is important in analytical work concerned with semiconductors, where these two metals are usually found present together. The advantage of the method is due to the fact that it is not necessary to separate Se from Te for the analysis. It is possible to determine Te contained in Se at concentrations of  $8 \cdot 10^{-6}$  M with an accuracy of 10%. Orig. art. has: 1 figure and 1 table. [JPRS: 34,669]

SUB CODE: 07, 20 / SUBM DATE: 19Oct64 / ORIG REF: 002 / SOV REF: 001  
OTH REF: 001

Card 1/1 45

0916

1774

POPPER, Rudolf

Oscillopolarographic determination of small quantity of thallium.  
Chem prum 13 no.10:527-528 O '63.

1. Elektropristroj, n.p., vyzkum Bechovice.



Popper 354359 mna.  
FEKETE, Balazs; POPPER, Zsuzsanna; SZMUK, Imre

Complexon III in the determination of metal ions. I. Determination  
of blood calcium ions. Kiserletes orvostud. 6 no.4:374-377 July 54.

1. A For. Peterfy Sandor-utca 1 Korhazrendelo Laboratoriuma  
(CALCIUM, in blood  
determ., ethylenediaminetetraacetic acid)  
(ACETIC ACID, deriv.  
ethylenediaminetetraacetic acid, determ. of blood calcium)  
(BLOOD  
calcium, determ., ethylenediaminetetraacetic acid)

BACH, Imre, dr.; FELIX, Janos, dr.; GARAS, Zsuzsa, dr.; KOMOR, Karoly, dr.;  
POPPER, Zsuzsa, dr.

Effect of neosteron on creatine excretion in muscular dystrophy.  
Magy. Belorv. arch. 8 no.4:106-108 Aug 55.

1. A Fovarosi Peterfy Sandor utcai korhazz-rendelo (Igazgato:  
Lendvai, Jozsef dr.) B. belosztalyanak (foorvos: Bach, Imre dr.,  
az orvostudomanyok kandidatusa) es laboratoriumnak (foorvos:  
Szmuk, Imre dr.) kozlemenye.

(ANDROGENS, effects,  
on creatine excretion in musc. dystrophy.)

(URINE,  
creatine, eff. of androgens in musc. dystrophy.)

(CREATINE, in brine,  
eff. of androgens in musc. dystrophy.)

(PROGRESSIVE MUSCULAR DYSTROPHY,  
eff. of androgens on urinary creatine in.)

POPPER, Z.

SZMUK, Imre, dr.; BACH, Imre, dr.; DANZIGER, Laszlo, dr.; FEKETE, Balazs, dr.;  
FLEISCHMANN, Laszlo, dr.; JAKO, Geza, dr.; MISSURA, Tibor, dr.;  
POPPER, Szuzsanna, dr.; SZABADOS, Daisy, dr.

Use of radioiodine in localization of inflamed regions (foci,  
abscesses). Orv. hetil. 97 no.34:949-951 19 Aug 56.

1. A Fovarosi Peterfy Sandor u. Korhazrendelo (igazgato:  
Lendvai, Jozsef, dr.) kozlemenye.

(BRAIN, abscess  
exper., localization with radioiodine in dogs (Hun))

(IODINE, radioactive  
in localization of exper. brain abscesses in dogs (Hun))

POPOFF, I.D.; GHEORGHIEV, D.I.

Introduction of substances into plants by the capillary  
method. Studii cerc biochimie 7 no.1:19-22 '64.

1. Department of Biochemistry of the Institute for Plant  
Culture, Academy of Agricultural Sciences, Sofia, Bulgaria.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

LIMANOV, Yu.A., doktor tekhn.nauk, prof.; POPRAVKO, A.K., inzh.

Experimental investigation on a model of methods for carrying out  
the construction of a new type of subway stations in Cambrian  
clay. Sbor. trud. LIIZHT no.225:32-40 '64.

(MIRA 18:8)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

GILIN, O.I.; KLEMINA, N.V. (MIL'KINA, N.V.) ; ROMASHKA, R.Ya. (ROPRUVKA, R.YA.)

Properties of  $\gamma$ - and  $\beta$ -globulins. Ukr.Medzh.zin. 34 no.113-9  
162.

(MIRA 1735)

1. Ukrainian Research Institute of Experimental Veterinary  
Science, Kharkev.

POPPRE, Ferenc, okl.gepeszmernok.

SVOP-type steam trap. Ipari energia 2 no.4:86-89  
Ap '61.

1. Hoenergiagazdasagi es Tervezo Vallalat.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

POPRAVKO, A.K., inzh.

Investigating the static performance of structures of the  
new type stations of deeply laid subways. Sbor. trud. Litrost  
no.209:56-71 '63. (MIRA 17:12)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

POPRAVKO, A. V., Cand. Agri. Sci. (diss) "Selection and Revealing of Varieties of Permanent Fodder Grasses for Flooded Meadows of Forest-Steppe of Central Chernozem Oblasts," Leningrad, 1961, 23 pp. (All-Union Acad. Agri. Sci.) 150 copies (KL Supp 12-61, 280).

POPRAVKO, A. V.

Grasses

Some characteristics of the deveolpmnt of perennial grasses. Agrobiologija, No. 4, 1952.

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

POPRAVKO, K. A., Cand Geol-Min Sci -- (diss) "Petrology of the pre-Cambrian <sup>part of</sup> ~~Basin of the lower course~~ ~~current~~-basin of the River Berdal (Western Azov region)." Khar'kov, 1958. 16 pp (Min of Higher Education UkrSSR. Khar'kov Order of Labor Red Banner State Univ im A. M. Gor'kiy. Chair of Mineralogy), 150 copies (KL, 52-58, 100)

POPRAVKO, K.A.

Boudinage structures in crystalline rocks of the western Azov  
region. Geol.zhur. 19 no.1:104-108 '59. (MIRA 12:2)  
(Azov region--Rocks, Crystalline and metamorphic)

AUTHOR:

Popravko, K. A.

SOV/20-120-6-45/59

TITLE:

Interrelations in the Geological Age of the Crystalline Rocks in the Basin of the Lower Reach of the Berda River (Land Bordering the West Azov Sea) (Vozrastnyye vzaimočnosheniya kristallicheskikh porod basseyna nizhnego techeniya r. Berdy (Zapadnoye Priazov'ye))

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 6, pp. 1326-1329  
(USSR)

ABSTRACT:

These relations have not yet been considered in publications. Among all stratigraphic constructions concerning the Pre-Cambrian of the mentioned area (Refs 2, 3, 5, 12, 13, 17-19, 22, 23) the diagram by I. S. Usenko strikes because of its completeness. However, considerable corrections are necessary as the investigations carried out by the author have shown. This refers especially to the position of the ultra-basites and the metabasites as well as to the size of the old metamorphic formation. According to the opinion of the author Usenko had included also more recent rocks. The author describes the geological development of the mentioned district.

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SOV/2e-120-6-45/59

Interrelations in the Geological Age of the Crystalline Rocks in the Basin  
of the Lower Reach of the Berda River (Land Bordering the West Azov Sea)

Old gneiss layers belong to the Archeozoic era. After the termination of the geosynclinal stage of this oldest structure an orogenic stage followed. The first important folding of the gneiss layers as well as the re-natration of grey granites **of the Kirovograd type** into the gneiss are connected with the latter. The sedimentation of the effusive-sedimentary suite took place at the initial stage of a new Lower Proterozoic geosynclinal zone. The alternation of sedimentary and effusive rocks indicates that the latter apparently belong to a typical syilitic formation. Their formation took place under repeated eruptions of basic and ultra-basic lava. The effusive-sedimentary suite shows a relatively considerable thickness (1.5 - 2 km). This indicates a formation under geosynclinal conditions. The conservation of structural relics in some stones as well as a complete lacking of formations of migmatization indicate a more recent age of the mentioned suite. The author places it to the Lower Proterozoic era. This suite (Refs 10, 24) cannot be found in the mentioned diagrams by Usenko (Refs 18-20, 22). The author is of the opinion that the effusive-sedimentary suite

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SOV/20-12c-6-45/59

Interrelations in the Geological Age of the Crystalline Rocks in the Basin  
of the Lower Reach of the Berda River (Land Bordering the West Azov Sea)

and the old gneisses must not be placed into the same geo-  
logical stage. Moreover, the exclusion of this suite does  
not at all mean its inclusion into the Krivoy-Rog- (kri-  
vorozhskaya) suite. These rocks must occupy the places of  
the greenstone cover (Ref 15) or of the metabasites which  
are stratified below the Krivoy-Rog suite (Refs 10, 12, 15,  
24). In conclusion the intermediate and the most recent  
rocks of the district are discussed. There are 1 table and  
24 references, . . . which are Soviet.

ASSOCIATION: Khar'kovskiy gornyy institut  
(Khar'kov Mining Institute)

PRESENTED: March 20, 1958, by D. S. Korzhinskiy, Member, Academy of  
Sciences, USSR

SUBMITTED: March 18, 1958  
Card 3/4

SOV/ 20-12c-6-45/59  
Interrelations in the Geological Age of the Crystalline Rocks in the Basin  
of the Lower Reach of the Berda River (Land Bordering the West Azov Sea)

1. Rock--Geology    2. Geological time--Determination    3. Geophysics

Card 4/4

PANOV, Boris Semenovich; POPRAVKO, K.A., otv. red.; ALYAB'YEV,  
N.Z., red.

[Fluorite in the Donets Basin] Fliuorit v Donetskem  
Basseine. Khar'kov, Khar'kovskii gos. univ., 1965. 98 p.  
(MIRA 18:12)

POPRAVKO, K.A.

Age relationships of crystalline rocks in the lower Berda Valley  
(western part of the Azov region). Dokl. AN SSSR 120 no.6:1326-1329  
Je '58. (MIRA 11:9)

1. Khar'kovskiy gornyy institut. Predstavлено академиком D.S.  
Korzhinskim.

(Berda Valley--Rocks, Crystalline and metamorphic)

POPRAVKO, K.A.; SAVICH-ZABLOTSKIY, K.N.

Pre-Cambrian crystalline limestones from a newly discovered  
outcrop in the western part of the Azov region. Min.sbor.  
no.12:430-435 '58. (MIRA 13:2)

1. Gosuniversitet imeni A.M.Gor'kogo, Khar'kov.  
(Azov region--Limestone)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

GREBENYUK, N. S.; POPRAVKIN, V. A.

The K-7 and "Mekhanobr 6V" flotation machines. Biul.tekh.-ekon.  
inform. no.10:4-6 '60. (MIRA 13:10)  
(Ore dressing—Equipment and supplies)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

KOTOV, G.; POPRAVKO, L. (Zhitomir); BOYKO, P. (Kiyev); BERG, I. (Simferopol')

They are from the Ukraine. Posh,delo 9 no.11:26-27 N '63.(MFA 17:1)

1. Zamestitel' nachal'nika uchebnogo otdela Khar'kovskogo pozharno-tehnicheskogo uchilishcha (for Kotov).

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

GUREVICH, A.I.; KOLOSOV, M.N.; KOROBKO, V.G.; POPRAVKO, S.A.; SHEMYAKIN, M.M.

Tetracyclines: Part 40: Michael's reaction with derivatives of  $\Delta^2$ -tricycline DCB. Zhur. ob. khim. 35 no.4:652-659 Ap '65.

(NIRPA 16:5)

1. Institut khimii prirodnnykh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

KOLOSOV, M.N.; POPRAVKO, S.A.; SHEMYAKIN, M.M., akademik

Construction of the DCB system of tetracyclines. Dokl. AN SSSR  
150 no.6:1285-1288 Je '63. (MIRA 16:3)

1. Institut khimii prirodnnykh soyedineniy AN SSSR.  
(ANTIBIOTICS) (TRICYCLINE)

YUDIN, L.G.; POPRAVKO, S.A.; KOST, A.N.

Condensed systems with a nitrogen heteroatom. Part 5:  
Formation of the hydroquinolone structure in the  
Fischer reaction involving 1-aminoindolines. Zhur.ob.khim.  
32 no.11:3586-3590 N '62. (MIRA 15:11)

1. Moskovskiy gosudarstvennyy universitet imeni  
M.V. Lomonosova.  
(Quinolone) (Indoline)

KOST, A.N.; YUDIN, L.G.; POPRAVKO, S.A.

Condensed systems with a nitrogen heteroatom. Part 4: Synthesis  
of benzopyrrolizines with functional groups. Zhur. ob. khim. 32  
no.5:1544-1550 My '62. (MIRA 15:5)  
(Pyrrolizine)

KOLOSOV, M.N.; POPRAVKO, S.A.; GUREVICH, A.I.; KOROBKO, V.G.; VASINA, I.V.;  
SHEMYAKIN, M.M.

Tetracyclines. Part 28: Synthesis and reversible isomerization of  
the derivatives of 9-keto-4,5,10-trihydroxy-1,4,4a,9,9a,10-hexahydro-  
anthracene. Zhur. ob. khim. 34 no.8:2534-2539 Ag '64.  
(MIRA 17:9)

1. Institut khimii prirodnnykh soyedineniy AN SSSR.

KOLOSOV, M.N.; POPRAVKO, S.A.; KOROBKO, V.G.; KARAPETYAN, M.G.; SHEMYAKIN, M.M.

Tetracyclines. Part 30: Construction of a tricyclic system DCB  
of tetracycline antibiotic. Zhur. ob. khim. 34 no.8:2547-2553  
Ag '64. (MIRA 17:9)

1. Institut khimii prirodnykh soyedineniy AN SSSR.

SAPRYKIN, L.D.; ORALOV, L.N., inzh.; POFRAVKO, V.I., inzh.

Construction of a subterranean underpass by the graphic work  
schedule method. Transp. stroi. 15 no.9:17-20 S '65.  
(MIRA 18:11)

1. Nachal'nik Upravleniya stroitel'stva Kiyevskogo metropolitena  
(for Saprykin).

ARTSYBASHEV, Vladimir Aleksandrovich; ALEKSEYEV, V.V., otv. red.;  
POPRETINSKIY, I.F., red.; BORUSHKO, T.I., red.izd-va;  
IVANOVA, A.G., tekhn. red.

[Concise manual for determining the density of rocks and  
ores by the method of gamma ray attenuation] Kratkoe ruko-  
vodstvo po opredeleniiu plotnosti porod i rud metodom os-  
lableniya gamma-luchei. Moskva, Gosgeoltekhizdat, 1963.  
(MIRA 16:11)

57 p.

(Rocks--Density) (Ores--Density)  
(Gamma rays--Industrial applications)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

POPRETINSKIY, I.F.

Determining coefficients of diffusion of radon and emanation capacities of rocks from emanation probing curves. Vop.rud. geof. no.2:105-114 '61. (MIRA 15:4)  
(Radon) (Radioactive prospecting)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

Popretinskiy, I. F.

49-6-10/21

AUTHORS: Grammakov, A. G. and Popretinskiy, I. F.

TITLE: Distribution of radon in loose deposits in presence of oreols of radium scattering. (Raspredeleniye radona v rykhlykh otlozhennyakh pri nalichii oreolov rasseyaniya radiya).

PERIODICAL: "Izvestiya Akademii Nauk, Seriya Geofizicheskaya"  
(Bulletin of the Ac.Sc., Geophysics Series), 1957, No.6,  
pp. 789-793 (U.S.S.R.)

ABSTRACT: Some data are given of the study of the dependence between radon concentration in loose deposits of the weathered Earth's crust and of the radio activity of these deposits. Numerous investigations have shown that the distribution concentration of radon in loose deposits depends on the content and character of the radium distribution in these deposits and on their emanation; the character of distribution of radon also depends on the conditions of gas exchange between the loose deposits and the atmosphere. The steady state values of the radon concentration at any point of the cross section of the loose deposits and their relation with available sources of emanation are sought by solving the diffusion equation. It is shown in the graph, Fig.2, that the distribution concentration of radon in the middle part of the layer of loose

Card 1/3

Distribution of radon in loose deposits in presence of  
oreols of radium scattering. (Cont.) 49-6-10/21  
There are four graphs.

SUBMITTED: August 20, 1956.

AVAILABLE: Library of Congress  
Card 3/3

POPRIKOV, St.; DIANKOV, L.

Differential diagnostic difficulties in the interpretation of  
supplementary shadows in the area of the liver cupula. Suvr. med.  
14 no.12:31-35 '63.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

NEVMERZHITSKAYA, E.A.; BELYAYEVA, A.N.; PROPTSKAYA, V.A.; KUDRYAVTSEVA ,N.A.

Studying the composition of gas from methane electrocracking.  
Khim. prom. 41 no. 12:895-896 D '65 (MIRA 19:1)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

KUZ'MIN, S. (Moskva); KOLESNIKOV, V. (g. Lugansk); MARININ, I.; RIMKUS, K.;  
POPRUGA, V.; OGORODNIKOV, K.; IVANOV, G.; YAKOVLEV, K. (g. Che-  
boksary); FERULEV, A.

Reader's letters. Izobr.i rats. no. 7:30-31 J1 '59.  
(MIRA 12:11)

1. Predsedatel' zavodskogo soveta Vsesoyuznogo obshchestva izobre-tateley i ratsionalizatorov teplovozostroitel'nogo ordena Lenina zavoda im. Oktyabr'skoy revolyutsii (for Kolesnikov).
2. Otvetst-venny sekretar' rayonnoy gazety "Borisovskaya komuna", Belgorod-skaya obl. (for Marinin).
3. Nachal'nik Byuro sodeystviya ratsionali-zatsii i izobretatel'stvy (BRIZ), g. Dneprozerzhinsk (for Rimkus).
4. Redaktor gazety "Zhanya Dzerzhinski", g. Dneprozerzhinsk (for Popruga).
5. Direktor Ural'skogo Doma tekhniki, g. Sverdlovsk (for Ogorodnikov).
6. Starshiy inzhener Byuro sodeystviya ratsionalizatsii i izobretatel'stva (BRIZ) Voronezhskogo parovozoremontnogo zavoda imeni Dzerzhinskogo, g. Voronezh (for Ivanov).
7. Predsedatel' zavodskoy organizatsii Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov Lys'venskogo metallurgicheskogo zavoda, g. Lys'va (for Ferulev).

(Efficiency, Industrial)

POPRUGA, V.A.

In the front ranks of the seven-year plan. Metallurg 5  
no. 12:34-35 D '60. (MIRA 13:11)

1. Metallurgicheskiy zavod im. Dzerzhinskogo.  
(Open-hearth furnaces)

FEDOROV, Nikolay Fedorovich, prof., doktor tekhn. nauk; GUSEV, Valerian Mikhaylovich, dozent, kand. tekhn. nauk; POPRUGIN, I.V., inzh., retsenzent; MOROZOV, N.I., inzh., retsenzent; GEFDING, A.K., kand. tekhn. nauk, nauchnyy red.; STEPANOV, D.A., inzh., nauchnyy red.; ZHURAVSKIY, N.A., red.; VOLCHOK, K.M., tekhn. red.; PUL'KINA, Ye.A., tekhn. red.

[Sanitary engineering] Sanitarnaia tekhnika. Leningrad, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 371 p.  
(MIRA 14:6)

(Sanitary engineering)

PopRUGIN, I.V.

AGRANOVICH, Ye.Z., kand.tekhn.nauk; BELOV, A.N., dotsent; GLADKOV, A.M., inzh.; GLUSKIN, S.A., inzh.; IVANOV, L.V., dotsent, kand.tekhn. nauk; LIPKIN, Ye.V., kand.tekhn.nauk; NIKIFOROV, G.N., dotsent, kand.tekhn.nauk; PESENSON, I.B., inzh.; PRINGER, Ye.A., dotsent, kand.tekhn.nauk; PIATOV, Ya.N., inzh.; ROKHCHIN, Ye.Z., inzh.; FEDOROV, N.F., prof., doktor tekhn.nauk; SHVARTS, R.B., inzh.; SHIGORIN, G.G., dotsent, kand.tekhn.nauk; SHIFRIN, S.M., prof., doktor tekhn.nauk; PopRUGIN, I.V., inzh., retsenzent; KATS, K.P., inzh., retsenzent; ROTENBERG, A.S., red.izd-va; VORONETSKAYA, L.V., tekhn.red.

[Manual of water-supply engineering and sewerage] Spravochnik po vodosnabzheniu i kanalizatsii. Pod red. N.F. Fedorova. Lenograd. Gos. izd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 410 p. (MIRA 13:3)

1. Moscow. Gosudarstvennyy proyektnyy institut Vodokanalproyekt.  
Leningradskoye otdeleniye.  
(Water-supply engineering) (Sewerage)

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

RADILOV, S.V., inzh.; POPRUGO, S.M., inzh.; Prinimali uchastiye:  
VASIL'YEV, G.A., inzh.; BUTYRSKIY, S.I., tekhnik

Automatic skip lifting. Mekh. i avtom. proizv. 17 no.8:11-13  
(MIRA 16:10)  
Ag '63.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

ՀԵՂԻՋԻ ԾԱՇԽԱՎՈՐ ԱՆԴԱՐԾ ԱՅՍՏԱՆ

TITLE: Coalfields of the USSR 1959 № 7: pp 84-87 (USSR)

**PERIODICAL:** Tsvetnoye metallo, 1989, no. 4.  
**ABSTRACT:** On 23-26 February 1989 a conference was held in Moscow for summarizing up and coordinating work on autoclave processes in the metallurgy of heavy non-ferrous metals. Conference board reports as follows:

In this connection, Ginstrom, on progress in mining particularly auto-  
D. M. Yukhtanov, Glintsev, on progress in metallurgical, particularly auto-  
matic, methods for the use of hydrometallurgical processes in the  
world on the use of non-ferrous and rare metal production;  
Methods fornickel leaching practice  
G. N. Dobroshchek, Gipronickel, on nickel leaching practice  
G. N. Dobroshchek, G. N. Glintsev, on the selective reduc-  
tion of ore in the presence of organic acids.

separation of an automobile raw material. G. I. Leyzerov, E. Ya. Khar'kov, R. V. Tsvetovych, N. A. Shapiro, M. N. Khaykin, Institute of Inorganic Materials (Institute on the treatment of Non-Metallic Non-Metallic Metals) (Institute on the kinetics of oxidation, electrolytic leaching; A. N. Zel'man and Z. M. Lysikina, Institute on the separation of a sulfide mineral of tungsten or cassiterite alkaline leaching; V. I. Sperdonova, Institute on the treatment of lower oxides of metals with acids). G. I. Sloboda, Yu. I. Gulyayeva, Institute on the treatment of tungsten and molybdenum from their sulfide minerals. G. I. Sloboda, Yu. I. Gulyayeva, Institute on the treatment of molybdenum raw material prepared by autoclave leaching; V. I. Gulyayeva, Institute on the kinetics of oxidation, electrolytic leaching; A. N. Zel'man and Z. M. Lysikina, Institute on the separation of a sulfide mineral of tungsten or cassiterite alkaline leaching; V. I. Sperdonova, Institute on the treatment of lower oxides of metals with acids).

Card 3/5

Card 4/5

5/5

Card 4/5

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

PERLOV, P.M.; POPRUKAYLO, V.M.

Interaction of iron and manganese tungstates with sodium solutions  
in conditions of the autoclave process. Obog. rud 4 no.5:15-19  
(MIRA 14:8)

'59.

(Tungstates) (Hydrometallurgy)

USSR / Human and Animal Physiology. Digestion, Stomach.

T

Abs Jour : Ref Zhur - Biol., No 15, 1958, No. 70259

Author : Poprushnyy, I. I.

Inst : Kishinov Medical Institute

Title : The Influence of Drug-Induced Sleep on the Development  
of Experimental Ulcers and the Secretory Functions of the  
Stomach of Dogs Subjected to the Action of Atophan

Orig Pub : Tr. Kishinovsk. Med. In-ta, 1957, Vol 6, 211-217

Abstract : In dogs with isolated Pavlov stomachs atophan (in doses of  
0.1 gm/kg for a period of 13 days) produced in the larger  
stomach the formation of ulcers, and a considerable  
intensification of gastric secretion from the isolated  
stomach in response to a feeding stimulus in both phases  
of secretion, but it did not influence the quality and  
composition of the gastric juice. With the simultaneous  
administration of atophan and modinal (given twice daily

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"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

POPRYADUKHIN, A.P.

Behavior of the lines of force of a closed stellarator magnetic field in the case of disturbances. Zhur.tekh. fiz. 34 no.4:  
658-665 Ap '64. (MIRA 17:4)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

POPRUZENKO, J. (Lodz)

A property of particularly ordinated sets. Fund math 53 no.1:  
13-19 '63.

A theorem of W. Sierpinski. 51-53

1. Institut Matematyczny, Polska Akademia Nauk, Warszawa.

Popruzenko, J.

Popruzenko, J. Sur la représentation analytique de certaines classes des fonctions additives d'ensemble. Bull. Int. Acad. Polon. Sci. Cl. Sci. Math. Nat. Sér. A. Sci. Math. 1940-1946, 35-49 (1948).

The author's principal result may be formulated as follows. If  $\mu$  is a regular Carathéodory outer measure on a topological space  $K$  having the power of the continuum, and if  $F$  is a real-valued, finitely additive set function defined on the class of all  $\mu$ -measurable sets such that  $F(\{\rho\})=0$  for each  $\rho$  in  $K$  and such that  $F$  is countably additive on the class of all Borel sets in  $K$ , then  $F$  has a unique representation in the form  $F=\varphi+\psi$ , where  $\varphi$  is absolutely continuous with respect to  $\mu$  and where  $\psi$  is singular in the sense that every  $\mu$ -measurable set may be written as a countable disjoint union of sets on which it vanishes identically. The proof uses the continuum hypothesis. As consequences the author deduces several propositions asserting essentially that certain conditions apparently weaker than absolute continuity are in fact equivalent to absolute continuity. P. R. Halmos (Chicago, Ill.).

Source: Mathematical Reviews,

Vol. 10 No. 1

POPRUZENKO, J.

A property of a class of abstract measures. In French. p. 189.  
(COLLOQUIUM MATHEMATICUM. Vol. 4, no. 2, 1957. Warszawa, Poland)

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

POPRUZENKO, J.

On the speed of growth of the infinite series of positive integers. I.  
In French. p. 235.

FUNDAMENTA MATHEMATICAE. (Polska Akademia Nauk) Warszawa, Poland.  
Vol. 46, no. 2, 1959

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2,  
Feb. 1960

Uncl.

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8

VORONOV, G.S.; POPRYADUKHIN, A.P.; SHPIGEL', I.S.

Gas delay line. Prib. i tekhn. eksp. 9 no.3:200-203 My-Je '64  
(MIRA 18:1)

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001342510016-8"

L 107/11-65 EMT(1)/ENG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2 Pi-4/  
Po-4/Pz-6/Pab-24 IJP(c)/ESD(gs)/AEDC(a)/ESD(t)/ASD(p)-3/AFETR/ESD(dp)/ASD(a)-5  
AT

ACCESSION NR: AP4046336

S/0057/64/034/010/1780/1785.

AUTHOR: Voronov, G.S.; Popryadukhin, A.P.

6

TITLE: The influence of toroidal geometry and corrugation on the magnetic surfaces  
of a double helical field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.10, 1964, 1780-1785

TOPIC TAGS: applied mathematics, helical magnetic field, torus, plasma research)

ABSTRACT: The magnetic field due to a multiple helical winding about a torus was calculated to the first order in the ratio of the small to the large radius of the torus, and the result is presented. The differential equations for the lines of force for the case of a double helical field (i.e., a helical field corresponding to a screw with two threads) making 7 turns about the torus were integrated for a number of lines of force. Each line of force was followed for 40 revolutions through the torus, and the points of intersection of each line with each of several perpendicular planes are shown graphically. The accuracy of the numerical work was such that a single line of force could be safely followed for about a thousand revolutions. The 40 points of intersection of a single line of force with a single plane

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L 10741-65

ACCESSION NR: AP4046336

2

lay on a smooth curve, and it is accordingly concluded that the field possesses magnetic surfaces. The effect of the toroidal geometry was to displace the magnetic surfaces toward the center of the torus, to distort their shape, and to decrease the size of the region containing closed magnetic surfaces. A resonance effect of the type discussed by A.Popryadul'kin (ZhTF 34,658,1964) was found. The behavior of the lines of force in the presence of 1.5% and 5% longitudinal corrugation was also calculated, and the regions within which the magnetic surfaces do not intersect the wall are shown graphically. "The authors thank L.M.Kovrizhny\*ys for valuable discussions of the work, and Ye.A.Zubova for performing the calculations on a computer" Orig.art.has: 10 formulas and 8 figures.

ASSOCIATION: none

SUBMITTED: 11Jan64

ENCL: 00

SUB CODE: EM, MA

NR REF SCV: 006

OTHER: 000

2/2

L 10403-67 EWT(1) IJP(c) AT  
ACC NR: AT6033035

SOURCE CODE: UR/2504/66/632/000/0046/0059

54

AUTHOR: Popryadukhin, A. P.

ORG: none

TITLE: Motion of particles and plasma equilibria in a stellarator type magnetic field

SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 32, 1966. Fizika plazmy (Plasma physics), 46-59

TOPIC TAGS: magnetic field, particle motion, magnetohydrodynamics

ABSTRACT: From the point of view of the possibility of equilibrium in a system, the important question arises as to the existence of magnetic surfaces, when taking into account corrections to the null approximation. This question is the main subject of the article. In addition, on the basis of the drift kinetic equation, the author considers the application of magnetohydrodynamics to the question of equilibrium. The article starts with a mathematical treatment of the problem of a helical magnetic field, and then goes on to consider the motion of particles in such a field. The next section is devoted to the question of equilibrium in a helical magnetic field. This is followed by a consideration of perturbation of magnetic surfaces and determination of the conditions for the existence of closed surfaces. The final section treats the effect of toroidal characteristics on the magnetic surfaces of a helical field. It is

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ACC NR: AT6033035

concluded that the magnetohydrodynamic description of a plasma without collisions in a strong stellarator type magnetic field is valid only for the partial case of isotropic injection in a minimum magnetic field on a magnetic surface. Orig. art. has: 37 formulas and 10 figures.

SUB CODE: 20 / SUBM DATE: none / ORIG REF: 013

Card 2/2 5/80

L 10742-65 EWT(1)/ENG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2 Pi-1/  
Po-4/Pz-6/Pab-24 IJP(c)/AEDC(a)/AFTC(p)/AFMD(p)/ASD(p)-3/ESD(t)/ESD(gs)/ESD(dp)/  
AFWL AT

ACCESSION NR: AP4046337

S/0057/64/034/010/1786/1789

AUTHOR: Voronov, G.S.; Popryadukhin, A.P.

B

TITLE: Experimental study of the effect of perturbations on a helical magnetic field

SOURCE: Zhurnal tehnicheskoy fiziki, v.34, no.10, 1964, 1786-1789

TOPIC TAGS: helical magnetic field, model test, perturbation, plasma research

ABSTRACT: The behavior, under the influence of local perturbing fields, of the lines of force of a helical magnetic field of the type employed in stellarators was investigated experimentally in order to assess the effect of similar (but much smaller) perturbations on the operation of a stellarator. A double-thread helical field of 56.5 cm pitch was produced in a 156 cm long, 18 cm diameter right circular cylinder by the discharge of two capacitor banks. The longitudinal component of the field reached its maximum of 1500 Oe in 280 microsec, and the corrugation was less than 3%. The ratio of the helical to the longitudinal component was 0.56. The perturbing field was produced by the discharge of a capacitor bank through a suitably disposed small winding. The duration of the perturbing field was 40 microsec, and it was timed to occur when the main field was at its flat peak. Two types of perturbing

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ACCESSION NR: AP4046337

field were investigated; a dipole field representing the field due to induced currents in the metal flange of the stellarator, and a field representing that of the leads supplying the helical winding. The behavior of the lines of force was observed with the aid of a number of 4 keV electron beams from a specially constructed multiple beam gun, which was triggered just before the perturbing field. After traversing the field the beams impinged on a fluorescent screen, and their traces during the rise of the perturbing field was photographed. The perturbing fields were made relatively much larger than their counterparts in the stellarator so that the perturbation of a particle traversing the field only once could be readily measured, and they were kept sufficiently small so that the perturbation was proportional to the perturbing field. From the model experiments it was concluded that the field of the uncompensated leads to the helical winding and the dipole field due to induced currents in the flange do not jeopardize the operation of the stellarator. "The authors thank I.S.Shpigel' for many discussions of the work." Orig.art.has: 2 formulas and 6 figures.

ASSOCIATION: none

SUBMITTED: 11Jan64

SUB CODE: EM, *LP*

2/2

NR REF Sov: 002

ENCL: 00

OTHER: 000

L 52023-65 EPF(n)-2/EPA(w)-2/EWT(l)/EWG(m) Pi-4/Po-4/Pz-6/Pab-10 IJP(c) AT/WW

ACCESSION NR: AP5012059

UR/0057/65/035/005/0927/0934

59

B

AUTHOR: Popryadukhin, A.P.

TITLE: On the equilibrium of plasma in a magnetic trap

SOURCE: Zhurnal tekhnicheskoy fiziki. v. 35, no. 5, 1965, 927-934

TOPIC TAGS: plasma, magnetic trap, equilibrium condition, kinetic theory, drift approximation

ABSTRACT: The position and velocity distributions of plasma electrons in different types of magnetic trap are discussed on the basis of the drift-approximation kinetic equation given by D.V.Sivukhin (Voprosy teorii plazmy, No. 1, Gosatomizdat, 1963). The effects of collisions and electric fields are neglected. The distribution function is assumed to be independent of the phase angle of the particle in its Larmor orbit, and the remaining two velocity variables are replaced by two constants of motion that are closely related to the Braginskiy variables (S.I.Braginskiy, Ukr. matem. zhurn., 8, 119, 1956). The equilibrium density distribution depends on the distribution of one of these constants of motion, but not on that of the other; this

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ACCESSION NR: AP5012059

is illustrated with several simple specific solutions. The current in the plasma is calculated and the field due to this current is superimposed on the external field to give a self-consistent treatment. In the case of isotropic injection in the minimum field region, the resulting equations reduce, in the lowest order in the ratio of the velocity to the magnetic field strength, to the magnetohydrodynamic equations. The conditions for the existence of a set of closed trajectory surfaces is discussed briefly. Orig. art. has: 49 formulas.

ASSOCIATION: None

SUBMITTED: 04Jul64

ENCL: 00

SUB CODE: ME

NR REF Sov: 009

OTHER: 000

Card 2/2 MB

*3c*

L 35592-65 EEA(w)-2/EWT(1)/EEC(t)/EPA(sp)-2/T/EEA(n)-2 PI-4/Pn-4/Pz-6/Fab-10  
IJP(c) AT

ACCESSION NR: AP5007656

S/0020/65/160/006/1293/129560

AUTHORS: Batanov, G. M.; Berezhetskiy, M. S.; Grebenchikov, S. Ye.; Zverev, N. M.; Popryadukhin, A. P.; Rabinovich, M. S.; Sbitnikova, I. S.; Shpigel', I. S.

TITLE: Magnetic surfaces and plasma containment in the helical field of a stellarator with external injection

SOURCE: AN SSSR. Doklady, v. 160, no. 6, 1965, 1293-1295

TOPIC TAGS: stellarator, plasma trapping, plasma injection, magnetic field, helical magnetic field, resonance excitation, controlled fusion

ABSTRACT: Magnetic surfaces and external injection techniques in a 10 000-oersted longitudinal field stellarator (1200 mm large diameter and 100 mm small diameter) are discussed briefly. The parameter  $\Sigma$ , equal to the ratio fundamental harmonic of field over longitudinal field, varies within the limits of 0.71-0.33, and the helical winding is at  $45^\circ$ . To verify the existence of magnetic surfaces, a pulsed electron gun is used as well as a  $3 \times 3 \text{ mm}^2$  probe. The results show an unperturbed magnetic surface at  $\Sigma = 0.40$ , a resonance excitation of the second kind at  $\Sigma = 0.37$  with an external undisturbed surface, and an internal undisturbed

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L 35592-65

ACCESSION NR: AP5007656

surface with a resonance of the third kind at  $\xi = 0.39$ . The external injection was accomplished by means of four plasma spark injectors operating simultaneously for  $0.4 \mu$  sec. Oscillograph studies indicate that the time for attaining a steady state distribution in density across the chamber corresponds to  $R/v_T$ , where  $R$  is the large chamber radius and  $v_T$  is the ionic thermal velocity. Comparing density distributions in the helical field to those of a toroidal field, the distinct influence of the former on the density distribution becomes obvious.  
Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 09Jul64

ENCL: 00

SUB CODE: OP

NO REF SOV: 004

OTHER: 002

Card 2/2

L 42118-65 EWT(m)/T/EWA(m)-2 DM

ACCESSION NR: AP5005797

S/0089/65/018/002/0096/0104

AUTHOR: Popryadukhin, A. P.

TITLE: Perturbations of particle motion in a stellarator

SOURCE: Atomnaya energiya, v. 18, no. 2, 1965, 96-104

TOPIC TAGS: stellarator, magnetic mirror geometry, particle trajectory, equilibrium trajectory, drift approximation

ABSTRACT: The conditions are derived under which small perturbations do not disrupt the closed surfaces of the trajectories of the leading centers of charged particles in a stellarator. Among the perturbations that can occur in a real stellarator and considered in this article are inaccuracies in the construction of the magnetic system, current flow in the plasma, and electric field in the plasma, as well as the toroidal geometry. The equations of motion of the particles in a helical magnetic field are written out for the case of a stellarator and the coordinates of the representative points are calculated in the presence of the various perturbations. A condition is derived for the existence of continuous particle

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L 42118-65  
ACCESSION NR: AP5005797

trajectory surfaces, and the effects of the various perturbations are then evaluated. It is shown as a net result that in the drift approximation a toroidal stellarator remains an absolute trap for individual charged particles under small perturbations of the magnetic field. Orig. art. has: 4 figures and 38 formulas.

ASSOCIATION: None

SUBMITTED: 11Jan64

ENCL: 00

SUB CODE: ME, NP

NR REF Sov: 010

OTHER: 000

Card 2/2 CC

I. 13459-66 ENT(1) IJP(c)

ACC NR: AP6002439

SOURCE CODE: UR/0057/65/035/012/2167/2175

58  
55  
BAUTHOR: Berezhetkiy, M.S.; Grebenshchikov, S. Ye.; Popryadukhin, A.P.

ORG: Physics Institute im. P.N. Lebedev, Moscow (Fizicheskiy institut)

TITLE: Investigation of the structure of magnetic surfaces in a stellarator with a double helical field

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 12, 1965, 2167-2175

TOPIC TAGS: helical magnetic field, plasma confinement, magnetic trap, magnetic field measurement, electron beam, magnetic field

21.44.5  
ABSTRACT: The magnetic surfaces of the stellarator field in the L-1 toroidal magnetic trap have been explored with electron beams. The L-1 machine has been described elsewhere by G.M. Batanov et al. (DAN SSSR, 160, 1293, 1965). The stainless steel chamber was a torus with large and small radii of 60 cm and 5 cm. The longitudinal magnetic field had a strength of 3 kOe during the measurements and its corrugation on the axis was about 1.5%. The helical magnetic field was produced by four helical conductors of 7 turns each; neighboring conductors carrying currents in opposite directions. The ratio  $h/H$  of the fundamental harmonic  $h$  of the helical field to the longitudinal field  $H$  could be varied from 0.3 to 0.7. Three different techniques were employed to explore the magnetic surfaces: 1) A beam of 60-100 eV electrons was directed along a line of force at a selected point in the chamber and was collected after a single revolution

UDC: 538.122

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ACC NR: AP6002439

on an electrode that filled the entire cross section of the chamber. By varying the position of the gun the area was mapped out from which substantially all the injected electrons reached the collector. 2) A pulse of 20 eV electrons was injected along a line of force and the lifetime of the electrons in the chamber was determined with an electrostatic induction probe. Lifetimes of 200-300  $\mu$  sec, corresponding to 150-200 revolutions, were usual. 3) An electron pulse was injected and the corresponding magnetic surface was mapped out with a small movable electrostatic induction probe. By measuring the time between injection and detection of the pulse, the number of revolutions (up to about 20) corresponding to a given point on the magnetic surface could be determined. The presence of closed magnetic surfaces was established for values of  $h/H$  less than 0.6. The magnetic surfaces were highly distorted or destroyed when  $h/H$  was increased beyond 0.6; the reason for this is not understood. Low order resonant perturbations were detected. These were evinced by a sharp decrease in the lifetime of the injected electron pulse at the resonant values of  $h/H$  and by break-up of the magnetic surface into two or three pieces, depending on the order of the resonance. The resonances were observed at the predicted values of  $h/H$ . The effect of a transverse magnetic field on the magnetic surfaces was investigated. This was found to shift the positions of the magnetic surfaces without significantly distorting them, in accord with theoretical calculations. The authors thank N.M.Zverev and G.S.Voronov for assistance with the experiments, and M.S.Rabinovich for his interest and for valuable discussions. Orig. art. has: 1 formula and 8 figures.

SUB CODE: 20 SUEM DATE: 16Apr65

ORIG. REF: 016 OTH REF: 004

Card 2/2

DR

Popryadukhin, K.A.

MECHNIKOV, I.I.; KROTKOV, F.G., redaktor; ANICHKOV, N.N., redaktor;  
BENKEVICH, V.N., redaktor; VYGODCHIKOV, G.V., redaktor; ZHDANOV,  
V.M., redaktor; ZIL'BER, L.A., redaktor; KRAYEVSKIY, M.A., redaktor;  
PAVLOVSKIY, Ye.N., redaktor; SOBOL', S.L., redaktor; BELKIN, R.I.,  
redaktor; DOGEL', V.A., redaktor; GAERLAND, M.I., tekhnicheskiy  
redaktor; POPRYADUKHIN, K.A., tekhnicheskiy redaktor.

[Collected works (Academy edition)] Akademicheskoe sobranie sochinenii.  
Redaktsiia: F.G.Kretkov i dr. Moskva, Gos. izd-vo med.lit-ry. Vol.  
1. 1955. 390 p. (BIOLOGY) (MLRA 9:5)

GUSELEVICH, Anatoliy Mikhaylovich; LYUBARSKIY, Ya.Yu., redaktor; POPRYADU-KHIN, K.A., tekhnicheskiy redaktor; s predisloviyem professora A.N. Bakuleva.

[Nikolai Ivanovich Progov's scientific literary and epistolary legacy] Nauchnoe, literaturnoe i epistoliarnoe nasledie Nikolaya Ivanovicha Pirogova. S predisl. A.N.Bakuleva. Moskva, Gos. izd-vo med. lit-ry, 1956. 261 p. (MLRA 9:8)

1. President Akademii meditsinskikh nauk SSSR (for Bakulev)  
(Pirogov, Nikolai Ivanovich, 1810-1881)

SEREZIN, P. A., red.; KOMAROVITSKIY, I. A., red.; MEDVEDEV,  
V. V., red.; POLOVA, A. D., red.; LOMAKADSKHIN, P. A., red.  
KEMEL'YANOV, S. S., red.; GORYAeva, O. I., red.

[Transactions of the Conference on the Scientific Basis  
of the Processes of Printing and Methods for Their  
Improvement] Trudy konferentsii po nauchnym osnovam pro-  
tsessov pechataniia i putiam ikh sovershenstvovaniia, Mo-  
skva, Nauchno-tekhn. st.-ye poligr. i izdatel'stv. No.1.  
1961. 44 p. (MIRA 18:5)

I. Konferentsiya po nauchnym osnovam protsessov pechata-  
niya i putiam ikh sovershenstvovaniya, Moscow, 1961.

POPRYADUKHIN, P.A., kand.tekhn.nauk, dotsent

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ACCESSION NR: AP4028954

S/0057/64/034/004/0658/0665

AUTHOR: Popryudulin, A.P.

TITLE: Behavior of the lines of force of a perturbed closed stellarator magnetic field

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.4, 1964, 658-665

TOPIC TAGS: stellarator, stellarator field, stellarator field perturbation, stellarator magnetic surface perturbation

ABSTRACT: This paper is concerned with first-order (linear) perturbation calculation of the change in the rotational transform of a stellarator field induced by a small perturbing field. The perturbation technique is applied to the equation  $H \cdot \text{grad } u = 0$  ( $H$  is the magnetic field), the integrals of which are constant along a line of force. The first-order change in  $u$  is expressed as an integral around the stellarator along an unperturbed line of force. The change is calculated for only that one integral of the above equation that represents the topologically toroidal magnetic surfaces, because the second unperturbed integral is now known. Thus, only one component of the change in the rotational transform is obtained. The contribu-

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tion of the perturbing field is calculated in cylindrical coordinates as though the stellarator tube were straight, and the effect of curvature due to closure of the stellarator tube is obtained separately by a second perturbation calculation. The perturbation of  $u$  is summed over successive image points of an unperturbed line of force (the points at which the line of force intersects a plane normal to the axis of the stellarator tube on successive traversals around the stellarator), and the sum is replaced by an integral under the assumptions that the line of force densely fills the magnetic surface and that successive image points are close together. The result presumably gives the perturbation of the magnetic surface. In case of degeneracy, when the unperturbed line of force closes on itself after several traverses of the stellarator (the author refers to this as "resonance"), the perturbation calculated in this way is infinite, and it is concluded that linear theory is not applicable. The perturbation of the magnetic surfaces due to a small perturbing dipole is calculated as an example. "The author expresses his gratitude to L.M.Kovrzhnykh for valuable discussions." Orig.art.has: 54 formulas and 3 figures.

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CIA-RDP86-00513R001342510016-8

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(ABDOMINAL WALL, fistula

after laparotomy, surg. (Bul))

(ABDOMEN, surgery,

laparotomy, postop. fistula of abdom. wall, radical repair  
(Bul))

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~~KOSIKOV, Ivan Mikhaylovich; PONOMAREV, Aleksey Timofeyevich;~~  
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