"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULE, S.

SCIENCE

Periodical: GLASNIK, Vol. 29, no. 7, 1955.

SAULE, S.; IVKOVIC, V. Determination of gold in the presence of copper and cadmium. p. 465.

Monthly List of East European Accessions (EEAI) LC, VOL. 8, no. 3
March 1959 Unclass.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULEBEKOVA, M. S., Candidate of Medical Sciences, and ZIKEYEVA, A. I.

"Substitution of the Blood of the Donor for the Blood of the Recipient as a Therapeutic Method in Mercuric Chloride Poisoning," a report presented at the First Conference of Pathologists of Central Asia and Kazakhstan held in Stalingrad, 12-15 Feb 1955, Ark. Patol., 17, No 3, pp 83-87, 1955

Abstract Sum. 1003, 20 Jul 56

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAVELSON, V.

SAVELSON, V. Contribution of the research activities in the Institute for Scientific Research on Construction to raising labor productivity in construction plants. p. 1.

Vol. 8, no. 352, Oct. 1956
QUESTIONS
TECHNOLOGY
Romania

So: East European Accession, Vol. 6, No. 5, May 1957

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULE.CU, N.

Game and hunting in the Romania People's Republic. p. 159.
(Ocrotirea Naturii, No. 2, 1956, Bucuresti, Romania)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULESCU, N.

Cynegetic reservations in Russia. p; 194,
(Ocrotirea Naturil, No. 2, 1956, Bucuresti, Rumania)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 8, Aug 1957. Uncl.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

M-4

COUNTRY : Rumania
CATEGORY :

ABS. JOUR. : RZBiol., No. 19, 1958, No. 86987

AUTHOR : Saulescu, N.
INST. :
TITLE : Winter Wheat Improvement Prospects

ORIG. PUB. : Probl. agric., 1958, 10, No 2, 57-61

ABSTRACT : No abstract.

CARD: 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

ANDERSON, E.M.; BUSKA, Z.A.; GRINBERG, R.O.; SAULGOZHA, A.K.

Optical transition probability of the diffuse series of sodium.
Vest.Len.un.11 no.4:27-31 F '56. (MLRA 9:7)
(Sodium--Spectra)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIĆ, Sava P. Dr.

Malaria in the People's Republic of Serbia and anti-malaric actions from the liberation to the end of the year 1951. Bibl.Hig.inst. Srbije no.4:1-87 '53.

(MALARIA,
epidemiol. & prev. in Serbia (Ser))
(DDT
in malaria prev. in Serbia, results (Ser))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULEA, Emilia

Results of Professor Ion Anastasiu's investigations on the earthquakes and seismic sensitiveness of the territory of Rumania with a seismotectonic intepretation. Studii astron seismol 6 no.2:297-313 '61.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

S/169/62/000/009/011/120
D228/D307

AUTHOR: Saulea, Emilia

TITLE: Results of Professor I. Atanasiu's research on past earthquakes on Rumanian territory and on seismologic interpretation

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 9, 1962, 20, abstract 9A127 (Studii şi cercetări astron. şi seismol., 6, no. 2, 1961, 297-313 (Rum.; summaries in Russ. and Fr.))

TEXT: Professor I. Atanasiu's work "Earthquakes in Rumania", which was published in 1959, is a monograph on seismology. The work considers the question of the basement's structure from a geologic viewpoint. It can be readily noticed on the composite map of seismic elements that most seismic lines are located discordantly with respect to the tectonics of the surface cover. They are considered to reflect the basement's structure. In its general features the aggregate of these seismic lines contours the major basement units

Card 1/3

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

and their main structural lines. Thus, the unit of the Podolian Platform stands out at the country's north-eastern extremity . Here the line Dorohoi-Botoşan records the degree of the platform's subsidence in front of the Carpathians. The western half of Rumania's territory is occupied by a unit of a crystalline rock mass, in which the line Bîrsa (Sibiu-Mediaş-Mediaşendorf) records the edge of the area submerged beneath the Transylvanian Depression's deposits, while the line Gura-Tisei-Arad-Oradia outlines the subsidence under the Pannon Depression's deposits. A Dobrudjan Cimmerian unit, which continues to the nor -west where it is located between the first two units, is situated in the country's southern part. Two important areas separated by the lines Urlaţi-Tolşani-Urziceni-Lehliu stand out within this unit. The western area continues to the south of Dunaia and forms the Mizii region. The eastern section is separated into two blocks, of which the block situated in the southeast forms the largest part of the Dobrudja. The second block, i.e. the north-western part of this area, sinks northwards and northwestwards under the Flysch strata of the geosyncline and the piedmont trough of the Carpathians. Ion Atanasiu reckons that the mobi-

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULEBEKOV, O.

How we improve work. Den. i kred. 20 no.7:25-27 Jl '62. (MIRA 15:7)

1. Nachal'nik gorodskogo upravleniya Karagandinskoy oblastnoy kontory Gosbanka.
(Karaganda Province--Finance)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

DMITRIYEV, [illegible]y belanzirnoy pily; SAULENKO, Yu.; KARZIN, G.;

[illegible] ...sibility. Okhr. truda i sots. strakh. 4 no.[illegible] '61. (MIA 14:11)

1. Master lesa Lavel'skogo lesopromyshlennogo khozyaystva (for Saulenko). 2. Sotrudnik Arkhangel'skoy oblastnoy gazety "Pravda Severa" (for Karzin). 3. Spetsial'nyy korrespondent zhurnala "Okhrana truda i sotsial'[illegible]" (for [illegible]). (Arkhangel Province--Lists measures)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULESCU, C., ing.

"Electric machines" by [prof. dr. ing.] Rudolf Richter. Reviewed by C. Saulescu. Electrotehnica 10 no.5:182-184 My '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULESCU, C., ing.

"Electrical and electronic apparatus in industrial laboratories" by E. Pasere, Gh. Barbulescu. Reviewed by C. Saulescu. Electrotehnica 10 no.7:274-275 Jl '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULESCU, C.

"Electric machines" by Rudolf Richter. Vol.1-5. Reviewed by C. Saulescu. Metalurgia constr mas 14 no.9:853-854 S '62.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 34539-66

ACC NR: AP6024789 SOURCE CODE: RU/0005/65/000/008/0323/0327

AUTHOR: Saulescu, Cristian (Engineer)

ORG: none

TITLE: 'E47B-110°' television receiver

SOURCE: Telecomunicatii, no. 8, 1965, 323-327

TOPIC TAGS: TV receiver, TV equipment/E47B-110° TV receiver

ABSTRACT: A description of the new receiver produced by the Electronica Works. The instrument is a standard superheterodyne receiver equipped to receive sound and images over 12 channels. A detailed circuit diagram, a photograph and lists of technical specifications are included, and details of set operation are discussed. Orig. art. has: 3 figures and 2 table. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 17 / SUBM DATE: none

Card 1/1 UDC: 621.397.62

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 31059-66
ACC NR: AP6022614 SOURCE CODE: RU/0005/65/000/010/0417/0419

18
B

AUTHOR: Saulescu, Cristian (Engineer)

ORG: none

TITLE: VS 59 television receiver

SOURCE: Telecomunicatii, no. 10, 1965, 417-419

TOPIC TAGS: circuit design, TV receiver/VS 59 TV receiver

ABSTRACT: A description of the VS 59 television receiver, a standard superheterodyne medium-class receiver. Technical specifications, a wiring diagram and a summary of the operation of the set are included. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 09, 17 / SUBM DATE: none

UDC: 621.397.62

Card 1/1 dc

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULESCU,F., ing.

Particularities and problems on coated paper processing. Cel hirtie 12 no.2:65-69 F'63.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULESCU,F., ing.

Considerations on newsprint. Cel hirtie 12 no.5/6:193-197 My-Je'63.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIN, A.S., kand.tekhn.nauk

Effect of geometrical defects in assembly on the redistribution of internal forces in the steel frame of a cooling tower. Prom. stroi. no.10:54 '62. (MIRA 15:12)
(Cooling towers) (Steel, Structural)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

S/138/60/000/008/007/015
A051/A029

AUTHORS: Gilyazetdinov, L.P.; Zuyev, V.P.; Livshits, F.B.; Saulina, V.V.

TITLE: The Production of Low-Module Furnace Carbon Blacks From Liquid Shale Raw Material

PERIODICAL: Kauchuk i Rezina, 1960, No. 8, pp. 32 - 35

TEXT: The effect of the chemical composition of the raw material on the properties of the carbon black was studied on shale oil, shale softener and its mixtures with green oil. The experimental procedure for the production of furnace carbon black with an output capacity of 20kg/h was described in Refs. 1,2. The content of oxygen and oxygen-containing compounds in the liquid shale raw material is 10.9 and 77.8%, respectively, which is a significant difference from green oil. It was established that with an equal specific surface the carbon black produced from shale raw material has significantly lower oil numbers than carbon blacks from green oil. Rubbers containing carbon blacks derived from a shale softener and its mixtures with green oil are close to rubbers with gaseous channel carbon black in their physico-mechanical properties. The carbon blacks from shale raw material produce rubbers with low modulae and high relative elongations. Tests were carried out on semi-active and active carbon blacks and it was noted that the

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

S/138/60/000/008/007/015
A051/A029

The Production of Lower-Module Furnace Carbon Blacks From Liquid Shale Raw Material

vulcanizates of the standard mixtures based on CK6(SKB), CKC-30AM (SKS-30AM) containing shale carbon black had low modulae at high values of the tenacity limit and the specific elongation. With an increase of the shale softener in the initial raw material, the tensile strength changes within the limits of 220 - 257 kg/cm^2, whereas in modulae with 300% the elongation and specific elongations are equal to 130 - 56 kg/cm^2 and 470 - 667%, respectively. The low structuralization of the carbon blacks produced from shale raw material and the low modulae of the vulcanizates using these carbon blacks is explained by the specific effect of the oxygen organically bound with a raw material molecule on the formation process of the carbon black particles in a turbulent flame. The authors point out that this mechanism has not been completely investigated. They stress the fact that the shale oil and the shale softener can be applied as raw material to the production of special low-module carbon blacks or as a component part of raw material, which gives the carbon black a low structuralization with a wide variety of properties. There are 4 tables and 7 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 13665-63 EWP(j)/EWT(m)/BDS AFFTC/ASD Pc-4 RM

ACCESSION NR: AP3001431 S/0138/63/000/004/0025/0027

AUTHOR: Bain, Yu.P.; Gilyazetdinov, L. P.; Zuev, V. F.; Saulina, V. V.

TITLE: The manufacture of low-structurated active furnace carbon black

SOURCE: Kauchuk i rezina, no. 4, 1963, 25-27

TOPIC TAGS: carbon black, carbon black furnace, cyclon reactor, reinforcing filler

ABSTRACT: The low yield of carbon black obtained by the channel process induced the authors to attempt the production of a highly dispersed, low-structurated active carbon black from high-aromatic crude oil material, which would possess outstanding properties as a reinforcing filler in rubber goods. To this end it was necessary to construct a special furnace which would permit a more thorough mixing of the gases as well as complete combustion of the selected crude oil with an aromatization factor A of 140. The pilot reactor consisted of a wide, short, properly insulated combustion chamber

Card 1/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 13665-63
ACCESSION NR: AP3001431

into which the oil-air mixture and 0.2-0.5% water were injected by nozzle. The subsequent combustion and thermic decomposition took place in a long, narrow reaction chamber. The oil was preheated to 100-180C, the temperature within the furnace was within the 1200-1300C range, and the pressure amounted to 0.15-0.20 atm. The resulting carbon black-gas mixture was cooled to 400C by water spray. The yield of carbon black amounted to 24.2-45.4%, with a specific surface of 70-140 Sq m/gm. Tests of rubbers containing the new carbon black as reinforcing filler showed it to be equal in tensile strength and superior in abrasion to that with channel carbon black. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promy*shlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: 00 DATE ACQ: 30May63 ENCL: 00

SUB CODE: 00 NO REF SOV: 004 OTHER: 005

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

ZUYEV, V.P.; GILYAZETDINOV, L.P.; GYUL'MISARYAN, T.G.; BERNSHTEYN, I.D.; SAULINA, V.V.; MAGARIL, R.Z.; SEREBRYAKOV, K.F.; BORSHCHEV, B.S.

Extracts of catalytic gas oils as raw stock for the production of furnace black. Khim. i tekh. topl. i masel 9 no.12:6-11 D '64. (MIRA 18:2)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti, Omskiy naucho-issledovatel'skiy konstruktorskogo-tekhnologicheskiy institut shinnoy promyshlennosti, Omskiy sazhevyy zavod i Kudinovskiy sazhevyy zavod.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 35067-65 EWT(m)/EWP(j)/T/EWP(t)/EWP(b) Pc-4 IJP(c) JD/RM

ACCESSION NR: AP5008527 S/0286/65/000/006/0034/0034

AUTHOR: Shil'man, Ya. M.; Veelyubskiy, S. B.; Alenina, O. S.; Saulina, V. V.; Vavul, A. Ya.

TITLE: A method for producing modified carbon black. Class 22, No. 169153

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 34

TOPIC TAGS: carbon black

ABSTRACT: This Author's Certificate introduces a method for producing modified carbon black by introducing admixtures to a liquid hydrocarbon stock or to a mixture of gas and carbon. The quality of the carbon black is improved and a wider selection of raw materials is provided by using organic or inorganic compounds of metals in group VI of the periodic table.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

SUBMITTED: 24Feb64 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

POZHELA, Yu.K. [Pozela, J.]; SAULIS, A.A. [Saulis,A.]

Injection and drift of great concentrations of minority carriers in germanium. Liet ak darbai B no.2:83-92 '60. (MEAI 10:1)

1. Institut fiziki i matematiki Akademii nauk Litovskoy SSR
(Germanium) (Semiconductors) (Telephone)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V., inzhener.

Small-size crane. Stroitel' no.1:7 Ja '57. (MLRA 10:2)

(Cranes, derricks, etc.)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAUL'T, V.

Automatic paint sprayer. Stroitel' no.2:13 F '58. (MIRA 11:2)
(Spray painting)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.I.; TUL'SKAYA, N.M., otv.red.; SHALGIN, G.N., nauchno-tekhn.red.
ANTOSYAK, N.N., red.; SEMENOVA, A.V., tekhn.red.

[Internal potentials in machinery plants; index of literature] Vnutrennie rezervy na mashinostroitel'nom predpriiatii; ukazatel' literatury. Leningrad, TSentral'noe biuro tekhn.informatsii, 1959. 47 p. (MIRA 13:4)

1. TSentral'naya nauchno-tekhnicheskaya biblioteka.
(Bibliography--Mechanical engineering)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V. R.

USSR/Nuclear Physics - Beta-spectrometers

Card 1/1 Pub. 43 - 6/97

Authors : Saulit, V. R.

Title : Analytical finding of trajectories of cha :ged particles in magnetic fields of axial symmetry utilized in modern beta-spectrometers

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 227-232, Mar-Apr 1954

Abstract : The problem of analytically finding the trajectories of charged particles moving in magnetic fields of axial symmetry of a present day beta-spectrometer are discussed. In order to find a solution to this problem, it was necessary to compute equations of trajectories for a wide spatial pencil of electrons and to determine the optimum fields which realize the focusing of the source. Considerations were given only to trajectories which lie in the plane of the mirror symmetry. The results obtained are described in detail. Eight references: I USSR; 2 Dutch; 1 German; 4 USA (1941-1954). Drawing.

Institution : The A. A. Zhdanov State University, Leningrad

Submitted : March 11, 1954

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.

USSR/Nuclear Physics - Magnetic fields

Card 1/1 Pub. 43 - 7/97

Authors : Saulit, V. R.

Title : Focusing of a plane pencil of charged particles with a magnetic field alternating along one of the Descartes coordinates

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 233-242, Mar-Apr 1954

Abstract : A solution is presented to the problem of finding analytical expressions for magnetic fields which realize an accurate focusing of plane wide-pencils of charged particles at an arbitrarily fixed form of an optical axis. A case is considered when the magnetic field in the plane of the mirror symmetry depends only upon one Descartes coordinate. The magnetic field in the space adjoining the plane of the mirror symmetry was determined by the function of the field in this given plane. The problem of producing ion- and electron-optical systems which would make it possible to realize the focusing of wide spatial pencils of charged particles in better approximations than before is considered. Eight references: 4 USSR; 2 French; 1 German and 1 USA (1911-1954). Graphs; drawing.

Institution : The A. A. Zhdanov State University, Physics Institute, Leningrad

Submitted : March 11, 1954

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.

Category : USSR/Nuclear Physics - Instruments and Installations. Methods of Measurement and Investigation. C-2

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 2998

Author : Saulit, V.R.
Inst : Leningrad State University
Title : Certain Addenda to the Article "On the Problem of Focusing a Flat Beam of Charged Particles by a Magnetic Field that Varies Along a Single Rectangular Coordinate."

Orig Pub : Izv. AN SSSR, ser. fiz. 1956, 20, No 3, 374-376

Abstract : In the author's article (Referat. Zh. Fizika, 1955, 21104) a particluar suggestion was made concerning expanding the function f (μ) into a series. In this addendum, the integral equation is solved for under a more general assumption concerning the function f (μ). In addition, a general equation, not given previously, is now presented for finding the coefficients of the series expansion of f* (μ).

Card : 1/1

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, Vitaliy Reyngol'dovich; PADALKO, Viktoriya Yur'yevna; IL'INA, M.Ye., red.; VODOLAGINA, S.D., tekhn.red.

[How to prepare for entrance examinations to institutions of higher learning; physics] Kak gotovit'sia k priemnym ekzamenam v VUZ; fizika. Leningrad, Izd-vo Leningr.univ., 1960. 261 p. (MIRA 13:7)

(Universities and colleges--Entrance requirements)
(Physics--Problems, exercises, etc.)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

68918

S/054/60/000/01/005/022
B013/B007

AUTHOR: Saulit, V. R.

TITLE: A New Method of Calculating Magnetic Fields, Which Cause Focusing of High Order

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1960, Nr 1, pp 33-40 (USSR)

ABSTRACT: First, the earlier papers by M. I. Korsunskiy, V. Kel'man, and B. Petrov (Ref 1), B. S. Dzhelepov and A. A. Bashilov (Ref 2), and P. P. Pavinskiy (Ref 3) are mentioned. The method of determining the magnetic field for high order focusing, which was developed in an earlier paper by the present author (Ref 4), has the disadvantage that the calculated fields are determined by joining two fields. Here, the problem of the rational selection of the axial trajectory, or, which is the same thing, selection of the principal field, whose focusing properties must be improved, arises. However, the aforementioned earlier paper by the author solves only the second part of the problem, viz. the improvement of focusing. The present article supplies the solution of the first part of the problem, viz. the determination of the magnetic fields with continuous derivatives, which cause the focusing of an arbitrarily high order. These conditions are then dealt

Card 1/4

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with in the second part of the paper. With an existing aberration, the trajectories of the particles will not intersect the straight line y = 0 (on which the source of the charged particles and the focus of the system are located) at one and the same point but in some other points x_F, the position of which depends on the departure of the particle from the source. The point of intersection x_F with the trajectory y = 0 is considered to be a function of the small quantity μ, which is expanded in a Taylor series with respect to powers of μ: $x_F(\mu) = \sum_{k=0}^{\infty} a_k \mu^k$. The first term of this expansion determines the coordinate x_{F0} of the focus of the system. $x_F - x_{F0} = \sum_{k=1}^{\infty} a_k \mu^k$ then results. The difference $x_F - x_{F0}$ gives the amount of aberration as a function of μ. With $a \neq 1$ there is no focusing whatever. If the expansion just written down begins with a term containing μ in the power n + 1, the focusing system yields a focusing of n-th order. The mathematical condition of n-th order focusing may be expressed by

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A New Method of Calculating Magnetic Fields, Which Cause Focusing of High Order

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B013/B007

the following conditions: $\left.\frac{dx_F}{d\mu}\right|_{\mu=0} = 0$; $\left.\frac{d^2x_F}{d\mu^2}\right|_{\mu=0} = 0$; ....; $\left.\frac{d^{n-1}x_F}{d\mu^{n-1}}\right|_{\mu=0} = 0$; $\left.\frac{d^nx_F}{d\mu^n}\right|_{\mu=0} = 0$. In the third part of the paper the magnetic fields are then determined, which cause high order focusing. The corresponding calculations are followed step by step. By means of this method it is possible to determine not only fields with good focusing properties, but also beams of the required shape are obtained. Therefore, it may always be expected from an arbitrary trajectory of the family forming the beam that it pass through a previously fixed point. In the last part of the paper the magnetic field is calculated, which causes seventh order focusing. This calculation is practically reduced to calculating the system of linear equations. With increasing or decreasing angle of divergence of the beam also that region of the field increases or decreases which may be used for the purpose of focusing the beam. The author thanks Yu. V. Vikharev,

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A New Method of Calculating Magnetic Fields, Which Cause Focusing of High Order

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B013/B007

who carried out several numerical computations. This paper reproduces a lecture held at the 8th conference on Nuclear Spectroscopy on January 31, 1958. There are 2 figures and 5 Soviet references.

SUBMITTED: March 3, 1959

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S/054/60/000/02/03/021
B022/B007

AUTHORS: Saulit, V. R., Unt, V. A.

TITLE: Inhomogeneous Magnetic Fields for the Focusing of a Divergent Beam of Charged Particles

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1960, No. 2, pp. 28-33

TEXT: In a previous paper by V. R. Saulit (Ref. 1) the focusing properties of an inhomogeneous magnetic field, which in the mirror symmetry plane depended only upon a Cartesian coordinate, were investigated. The general condition for the ideal focusing of a plane beam of charged particles was obtained in form of a nonlinear integral equation, the solution of which was found. In the present paper, the class of magnetic fields which permits calculation of a plane bundle of charged particles without aberration and without numerical integration is shown, and calculation is carried out for a special case. The scheme of the focusing of a beam of charged particles emitted by a point source is given (Fig. 1). In Fig. 2, the results obtained by calculating the focusing magnetic field in the

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plane z = 0 as a function of the coordinate y (H_o = pc/e) are given for comparison. The dotted line denotes the uncorrected field calculated with the aid of equation (10). The function H(y) is tabulated. The authors thank Yu. Vikharev for carrying out numerous calculations. There are 2 figures, 1 table, and 4 Soviet references.

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.

New method of calculating magnetic fields required for high-order focusing. Vest. LGU 15 no.4:33-40 '60. (MIRA 13:2)
(Magnetooptics) (Electron beams) (Ion beams)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.; UNT, V.A.

Inhomogeneous magnetic fields for focusing a divergent beam of charged particles. Vest.LGU 15 no.10:28-33 '60.
(MIRA 13:5)

(Magnetic fields)

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24064
S/054/61/000/002/002/005
B101/B217

24.6800

AUTHORS: Zarubin, P. P., Padalko, V. Yu., Saulit, V. R.

TITLE: A new β-spectrometer with triple focusing of high order

PERIODICAL: Leningradskiy Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1961, 55-63

TEXT: The aim of the present investigation was to design a spectrometer which would allow for a complete analysis of β-processes. For a magnetic spectrometer of this type, the following requirements are made: 1) Entry of short-lived β-active nuclei into the target which serves a spectrometer source; 2) application of a source with a large surface; 3) analysis of β-particles up to at least 15 Mev; 4) resolution of at least 0.5%; 5) aperture ratio of at least 10^{-4} - 10^{-5} cm^2 at a resolution of ~ 0.5%; 6) least effect of scattering and β-particle absorption upon measurements; 7) small detector background; 8) protection of the detector against direct radiation; 9) possibility of carrying out different correlation experiments. A multiply focused spectrometer meets all these requirements. The calculation of the potential distribution in the field of such a

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spectrometer was based on the paper by P. P. Pavinskiy (Ref.4: Izv. AN SSSR, seriya fiz., 18, 175, 1954) in which the field is written down in a parametric form: $H = H(\tau)$; $\rho = \rho(\tau)$, where τ is the parameter. The calculations were repeated and for the coefficient A_k, equations were obtained which differ from those presented in Ref.4. Teh drawing of Fig.1 is taken as basis. S is the radiation source with the polar coordinates r_0,0. The particle leaves the source at an angle α relative to the tangent. Its trajectory is determined by the function H(r). Under certain conditions, it will intersect the circle of radius r_0. For the coordinate φ_F of this point, the following is written down:

$$\varphi_F = \pm 2 \int_0^{\mu} \frac{\left(1 - \frac{\mu - \tau}{\rho(\tau)}\right) \frac{1}{\rho(\tau)} \frac{d\rho(\tau)}{d\tau} d\tau}{\sqrt{1 - \left(1 - \frac{\mu - \tau}{\rho(\tau)}\right)^2}}. \quad (3)$$

where $\mu = 1 - \cos\alpha$ (4). For the function $\rho(\tau)$, the following solution is

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A new β-spectrometer ...

obtained: $\tau \equiv -\varphi - (1/r_0)B(\varphi)+1$ (5). For the function $B(\varphi)$, the following holds: $B(\ ) \equiv (er_0^2/mcv_0)\int_1^{\varphi} H(\varphi)d\varphi$ (6). φ_F = const is written down and the solution for Eq. (3) sought. For $\rho(\tau)$, the following series is written down:

$$\rho(\tau)=1+\theta\sum_{p=0}^{\infty}\lambda_p\tau^{\frac{p+1}{2}}, \qquad (10),$$

where θ is a parameter to be determined. For φ_F, one finds:

$\varphi_F = \pm(\sqrt{2}/\pi)(\sum_{k=0}^{\infty} R_k \theta^k + \sum_{k=0} E_k \theta^{k+1/2})$ (15), where $R_k = \sum_{i=0}^{k}\left[a_i/(1-2i)\right]$ $L^{(i)}_{2(k-i)+1}\cdot B(k-i+1/2,\ i+1/2)$ (16), and $E_k = \sum_{i=0}^{k}\left[a_i/(1-2i)\right] L^{(i)}_{2(k-i)+2}\cdot B(k-i+1,\ i+1/2)$ (17). The condition of focusing is fulfilled if all

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coefficients of R_k and E_k, with the exception of R_0, become equal to zero: $\rho_F = \pm(\sqrt{2}/\pi)R_0$, and $\theta = \pm(\sqrt{2}/\pi)\rho_F$ (18). By successively setting the coefficients of R_k and E_k equal to zero, the equations for λ_k are obtained ($k = 1, 2, \ldots$):

$$\left.\begin{aligned} &\lambda_1=\frac{0}{4};\ \lambda_2=\frac{1}{4};\ \lambda_3=\frac{0}{32};\ \lambda_4=\frac{11}{160}-\frac{3}{320}\theta^2;\\ &\lambda_5=-\frac{1}{80}\theta+\frac{1}{320}\theta^3;\ \lambda_6=\frac{83}{4480}+\frac{3}{1280}\theta^2-\frac{1}{896}\theta^4,\\ &\lambda_7=-\frac{687}{71680}\theta+\frac{3}{20480}\theta^3+\frac{3}{7168}\theta^5;\ldots \end{aligned}\right\} \quad (19)$$

For $H(\tau)$ the following is obtained from Eqs. (5) and (6):

$$H(\tau)=-H_0\frac{1}{\rho(\tau)}\left(1+1/\frac{d\rho(\tau)}{d\tau}\right). \quad (20).$$

By means of Eqs. (10) and (20), the values of the function $H = H(\tau)$ for

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A new β-spectrometer ...

$\varphi_F = 120^\circ$ were calculated. At present, a spectrometer is under construction for the study of the β- and γ-radiation of short-lived isotopes; it was designed on the basis of data listed in the Table. The chamber of the spectrometer is schematically shown in Fig.3. The trajectories shown in Fig.3 were calculated according to V. R. Saulit (Ref.3: Izv. AN SSSR, seriya fiz., 18, 227, 1954). It is pointed out that the spectrometer may also be used as a γ-spectrometer and permits correlation experiments. There are 3 figures, 1 table, and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The reference to English-language publication reads as follows: F. M. Beiduk, E. J. Konopinski, Phys. Rev., 73, 1229, 1948

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.

High-order focusing of a plane monoenergetic ion beam by a uniform field with boundaries of arbitrary shape. Vest.LGU 16 no.10:42-54 '61. (MIRA 14:5)

(Ion beams) (Magnetic fields)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

ZARUBIN, P.P.; PADALKO, V.Yu.; SAULIT, V.R.

New beta-spectrometer allowing of threefold high-order focusing. Vest. LGU 16 no.10:55-63 '61. (MIRA 14:5)
(Beta-ray spectrometer)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

POPOVICH, M.; SAULIT, V.R.

Theory of the focusing of ion beams by the magnetic sector with allowance for the stray field. Vest.LGU 17 no.10:38-65 '62.
(MIRA 15:5)

(Ion beams) (Magnetic fields)

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35347
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B102/B112

24.3400 (1153, 1163, 1227)

AUTHOR: Saulit, V. R.

TITLE: Theory of the sector-type magnetic spectrograph with a uniform field and straigth boundaries

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 1, 1962, 37 - 55

TEXT: One sector of a magnetic spectrograph (Figs. 1, 2) is considered, and its characteristics are described analytically. The coordinates of the focal curve are obtained as

$$x_{02}=R(\varepsilon_2)\left\{\sin\varepsilon_2\cos^2\varepsilon_2\left[\frac{y'_{01}\cos\Phi+R(\varepsilon_2)\cos^2\varepsilon_1\sin(\Phi+\varepsilon_1)}{y'_{01}\sin\Phi-R(\varepsilon_2)\cos^2\varepsilon_1\cos(\Phi+\varepsilon_1)}-\operatorname{tg}\varepsilon_2\right]^{-1}-\frac{\sin\varepsilon_1}{\sin\Phi}-\cos\varepsilon_2-\sin\varepsilon_2\operatorname{ctg}\Phi\right\}, \quad (8)$$

$$y_{02}=R(\varepsilon_2)\cos^3\varepsilon_2\left[\frac{y'_{01}\cos\Phi+R(\varepsilon_2)\cos^2\varepsilon_1\sin(\Phi+\varepsilon_1)}{y'_{01}\sin\Phi-R(\varepsilon_2)\cos^2\varepsilon_1\cos(\Phi+\varepsilon_1)}-\operatorname{tg}\varepsilon_2\right], \quad (9)$$

$$R(\varepsilon_2)\equiv\frac{(x'_{01}+y'_{01}\operatorname{tg}\varepsilon_1)\sin\Phi}{\sin\varepsilon_2+\sin(\varepsilon_1+\Phi)}. \quad (10).$$

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

Theory of the sector-type magnetic ...

If $x'_{01} = y'_{01} = 0$ $R(\varepsilon_2)$ does not vanish only if $\sin \varepsilon_2 = -\sin(\bar{\Phi} + \varepsilon_1)$ or $\varepsilon_2 = \bar{\Phi} + \varepsilon_1 - \pi$, or $\varepsilon_2 = \beta - \pi/2$. The relations between the focal coordinates x_{02} and y_{02} and ε_1, ε_2, $\bar{\Phi}$, and R, and between β and $\bar{\Phi}$ and R (Figs. 3, 4) are determined, and (20)

$$D_p \equiv R\frac{dl}{dR} = l(R) = 2R\sin\beta\sqrt{1 + 3\cos^2\beta}$$

is obtained for dispersion. Using the denotations given in Fig. 7 for $l_\alpha \equiv \overline{SF}$, one obtains (24),

$$l_\alpha = \frac{2R\sqrt{1+3\cos^2\beta}\sin^2(\beta+\alpha)}{\sin\beta\cos\alpha + 2\cos\beta\sin\alpha}.$$

from which a formula for the aberration $l_\alpha - l$ is derived: (25).

$$B(\alpha) \equiv l_\alpha - l = 2R\sqrt{1+3\cos^2\beta}\left(\frac{\sin^2(\beta+\alpha)}{\sin\beta\cos\alpha + 2\cos\beta\sin\alpha} - \sin\beta\right).$$

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

Theory of the sector-type magnetic ...

The course of the function $B(\alpha)$ is studied. With $\alpha_2 = \arcsin \frac{3\cos^2\beta - 1}{\sqrt{1+3\cos^2\beta}}$, the aberration function reads

$$B(\alpha_2'') = 2R\cdot\left(\frac{4\cos\beta - \sin\beta(1+3\cos^2\beta)^{3/2}}{1+3\cos^2\beta}\right). \quad (27).$$

After discussing some problems of focusing order, the special case of a focal curve coinciding with one of the straight boundaries of the uniform field is dealt with for first-order focusing.

$y_{o2} = \lambda \sum_{k=0}^{\infty} a_k \sin^k \varepsilon_2$ and $x_{o2} = \lambda \sum_{k=0}^{\infty} b_k \sin^k \varepsilon_2$, where

$$\lambda \equiv \frac{(x_{01}' + y_{01}' \operatorname{tg}\varepsilon_1)\sin\Phi}{\sin(\varepsilon_1+\Phi)}, \quad (32).$$

a_k and b_k are complicated functions of ε_1 and Φ. Formulas are also presented for dispersion, aberration, and total transverse aberration. It is shown that a proper choice of geometrical parameters for first-order focusing furnishes a wider aperture than for second-order focusing.

Yu. M. Vikharev is thanked for numerical calculations. There are 14

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

Theory of the sector-type magnetic ...

figures and 11 non-Soviet references. The two references to English-language publications read as follows: T. Kitagaki. J. Phys. Soc. Japan, 9, 4, 1954; D. Dempsey. Rev. Sci. Instr. 26, 1141, 1955.

SUBMITTED: April 5, 1961

Fig. 1

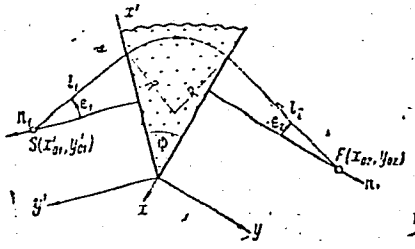


Fig. 2

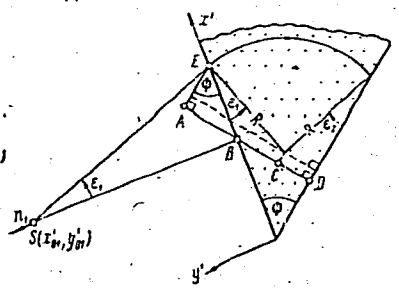


Fig. 4

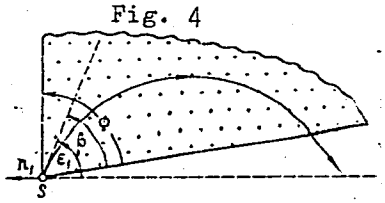
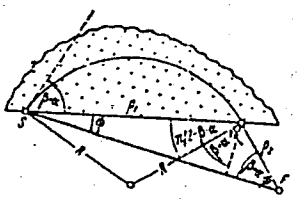


Fig. 7



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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

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B163/B138

96-2329

AUTHORS: Popovich, M., Saulit, V. R.

TITLE: Theory of the focusing of ion beams by a magnetic sector, taking into account stray-fields

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 2, 1962, 38-65

TEXT: The band of all plane trajectories leaving one source point S in the plane of symmetry of a magnetic sector field and the band of all trajectories in the same plane having one focal point F_0 in common are studied. For each of these bands, the geometrical locus (C_1 and C_2) of all centers of curvature of those circular parts of the trajectories, which proceed in the homogeneous region of the sector field, can be constructed. The focusing properties of the sector field are expressed in terms of these curves C_1 and C_2. n-th order focusing occurs if both curves have a point of contact of n-th order. The deviations $A(\alpha)$ of neighboring trajectories from a principal trajectory in a plane

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through F_o, which is parallel to the exit boundary of the sector field, can be expressed as functions of the angle α between both trajectories when they leave the source. Expressions for the aberration coefficients, i.e. the coefficients of an expansion of $y_F(\alpha)$ in a power series, are given up to the third order, and conditions for 1st, 2nd, and 3rd order focusing are derived. An expression for the momentum dispersion is given. Many of the results are identical to or equivalent with results derived earlier by König and Hinterberger (Zs. Naturforsch., 10a, 1955, 652 and 877) but the derivation is given in more detail. There are 11 figures.

SUBMITTED: November 1, 1961

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

41110
S/054/62/000/003/005/010
B102/B186

9,3140
24.6740

AUTHOR: Saulit, V. B.

TITLE: Focusing of charged particles by a rectilinear boundary of a uniform magnetic field

PERIODICAL: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 3, 1962, 72-81

TEXT: The focusing properties of a uniform magnetic field, bounded by a straight line is investigated theoretically. The source of the charged particles is assumed to be within the magnetic field. This focusing mode was suggested by P. H. Fowler and was investigated by Hafner et al. (Phys. Rev. 75, 331, 1949). Up to now, no general theory has been published. A special case was treated by Rout et al. in Nucl. Instr. Meth. 11, 347, 1961. Using the designations (Fig. 1) some general formulas are given and then the two special cases $\varepsilon \geqslant 0$ and $\varepsilon < 0$ are investigated.

If $\varepsilon \geqslant 0$

$$y = x \operatorname{tg} \varepsilon - y_{01} \frac{1 + \sin^2 \varepsilon}{\cos^2 \varepsilon}. \quad (9)$$

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Focusing of charged particles ...

is obtained for the asymptote of the image curve and

$$D_p = R\sqrt{\left(\frac{dx_{02}}{dR}\right)^2 + \left(\frac{dy_{02}}{dR}\right)^2} \qquad (10)$$

together with

$$\left.\begin{aligned} \frac{dx_{02}}{dR} &= \cos\varepsilon + \frac{1+\left(\operatorname{tg}\varepsilon - \frac{y_{01}}{R\cos^3\varepsilon}\right)\left(\operatorname{tg}\varepsilon - 2\frac{y_{01}}{R\cos^3\varepsilon}\right)}{\left[1+\left(\operatorname{tg}\varepsilon - \frac{y_{01}}{R\cos^3\varepsilon}\right)^2\right]^{3/2}}, \\ \frac{dy_{02}}{dR} &= \sin\varepsilon + \frac{\operatorname{tg}\varepsilon + \left(\operatorname{tg}\varepsilon - \frac{y_{01}}{R\cos^3\varepsilon}\right)^3}{\left[1+\left(\operatorname{tg}\varepsilon - \frac{y_{01}}{R\cos^3\varepsilon}\right)^2\right]^{3/2}}. \end{aligned}\right\} \qquad (11)$$

for the momentum dispersion along the image curve. The aberration too is investigated. The case $\varepsilon < 0$ is treated still more accurately. The formulas from the first case are partly valid, but e.g. the dispersion formula (10) is simplified to $D_p = 2R\cos\varepsilon\sqrt{1+3\sin^2\varepsilon}$ and $D_{p\,max} \approx 2.3094$ R, if a straight section of the curve is considered. For

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the aberration along the straight section of image curve (Fig. 9)

$$B(\alpha)=2R\sqrt{1+3\sin^2\varepsilon}\left(\frac{\cos^2(\varepsilon+\alpha)}{\cos\varepsilon\cos\alpha-2\sin\varepsilon\sin\alpha}-\cos\varepsilon\right) \qquad (28)$$

is obtained. In theory, $19^{\circ}28'$ ($\varepsilon = -35^{\circ}15'51''$) holds for the optimum ε value, whereas in experiment 20° was found by Rout et al. There are 9 figures.

SUBMITTED: March 18, 1962

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.

Theory of a sectorial magnetic spectrograph having a homogeneous field and rectilinear boundaries. Vest. LGU 17 no.4:37-55 '62.
(MIRA 15:3)
(Spectrograph)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.

Space distribution of the field in magnetic spectrometerw and the form of pole tips. Vest.LGU 17 no.22:29-44 '62. (MIRA 15:12)

(Spectrometers) (Magnetic fields)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.; PADALKO, V.Yu.; TSAR'KOVA, Z.I., red.; ZHUKOVA, Ye.G., tekhn. red.

[How to prepare for the entrance tests to a school of higher education; physics] Kak gotovit'sia k priemnym ekzamenam v vuz; fizika. 2 ispr. izd. Leningrad. Izd-vo Leningr. univ. 1963. 286 p. (MIRA 16:10)

(Physics--Study and teaching)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULIT, V.R.

Double focusing by a homogeneous sectioned magnetic field with straight boundary lines. Vest. LGU 20 no.4:49-66 '65.
(MIRA 18:4)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 45419-65 EWT(1)

ACCESSION NR: AP5008262 S/0054/65/000/001/0049/0066

23
22
B

AUTHOR: Saulit, V.B.

TITLE: Double focusing by a uniform sector-shaped magnetic field with rectilinear boundaries

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 1, 1965, 49-66

TOPIC TAGS: double focusing, uniform magnetic field, magnetic field, charged particle beam, particle beam focusing

21

ABSTRACT: The problem of focusing a beam of charged particles in the vertical direction by a uniform sector-shaped magnetic field is investigated in some detail and the condition is defined for first-order focusing. The present study was undertaken because of the fact that for the analysis of beams of charged particles of great mass and energy β-spectrometers, of which several dozen have been built to date, are economically unsuitable due to the great size of their magnets. Furthermore, too many gross assumptions have been made in the derivation of the formulas in the previous theoretical studies. In contrast to earlier studies, the condition for first-order focusing has been rigorously derived and is more accurate

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L 45419-65

ACCESSION NR: AP5008262

than Cotte's conditions with Kholmovskiy's corrections and in principle makes it possible to design a system with double focusing with a preassigned accuracy. The derived formulas are sufficiently accurate for practical purposes and can be used for the design of both long- and short-focus systems. In defining the boundaries of the sector-shaped magnetic field, it is assumed that the fringing fields on the medium plane are functions of a single Cartesian coordinate. "The author expresses his thanks to P.P. Zagubin for supplying the results of measuring a fringing magnetic field with rectilinear boundaries." Orig. art. has: 65 formulas and 8 figures.

ASSOCIATION: none

SUBMITTED: 29Dec63 ENCL: 00 SUB CODE: NP, EM

NO REF SOV: 006 OTHER: 017

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULITE, E.; LAGANOVSKIS, S.

Studying pneumonia in pigs in the Latvian S.S.R. [In Latvian with summary in English]. Vestis Latv ak no.1:97-104 '62.

1. Latvijas PSR Zinatnu akademija, Mikrobiologijas instituts

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

LAGANOVSKIS, S.; SAULITE, E.

Studies of infectious atrophic rhinitis in swine, microflora of the nose. Vestis Latv ak no.2:119-124 '62.

1. Latvijas PSR Zinatmu akademijas Mikrobiologijas instituts.

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APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULITE, B. G.

Tuberculosis of birds and the fight against it. p. 167.

BIOLOGICHESKAIA NAUKA; SELSKIKH I LESNYKH KHOZIAISTV. (Latvijas PSR Zinatnu akademija. Bioloģijas zinatnu nodala) Riga, Latvia, No. 3, 1957.

Monthly list of East European Accessions (EEAI), LC, Vol. 6, No. 8, August 1959.
Uncla.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULITE, E. G.: Cand Master Biol Sci (diss) -- "The significance of vitamins in the prophylaxis of tuberculosis in birds". Riga, 1958. 18 pp (Acad Sci Latvian SSR, Inst of Experimental Med), 200 copies (KL, No 4, 1959, 124)

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

R

COUNTRY : USSR
CATEGORY : Diseases of Farm Animals. Diseases Caused by Bacteria and Fungi
ABS. JOUR. : RZhBiol., No. 6 1959, No. 25985

AUTHOR : Saulite, E.G.
INST. : Institute of Microbiology, AS LatvSSR
TITLE : Significance of Vitamins in the Prophylaxis of Poultry Tuberculosis

ORIG. PUB. : Tr. in-ta mikrobiol. AN LatvSSR, 1958, vyp, 6, 61-90

ABSTRACT : Experiments showed that vitaminic feeds (coniferous needles and green feed) arrest the development of the tubercular process in the organism of hens. Vitamin D and especially vitamin A stop the development of the tubercular process in the peroral infection of hens and chicks. Anatomicopathological changes in the hens' organs visible with the naked eye, and bacteriosconical examina-

CARD: 1/2

16

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

S/798/61/000/000/011/012

AUTHORS: Saulite, U.A., Chudars, Ya.E.

TITLE: A scintillation beta-spectrometer.

SOURCE: Radioaktivnyye izlucheniya i metody ikh issledovaniya. Inst. fiz. AN LatvSSR. Riga, Izd-vo AN LatvSSR, 1961, 123-134.

TEXT: This paper describes a scintillation β-spectrometer with a twin CsI(Tl) crystal and expounds a method for the calculation of the γ-ray background. There is also a description of several changes in the single-channel analyzer employed to achieve increased resolution; a discussion of the effect of the random summation of impulses in β-spectra. The new spectrometer consists of the crystal, an ФЭУ-29 (FEU-29) photoelectronic multiplier (PhM), a no-overload linear amplifier, a single-channel analyzer or an АИ-100-1 (AI-100-1) multichannel analyzer, a counter and a mechanical adder. Three CsI(Tl) laminae 19x9x2 mm were prepared; the 2-mm thickness is sufficient to register β-particles with maximum energies up to 4 mev. In the observation of β-spectra two such plates were used; the β-source was contained in a round pouch made out of 50-μ thick polystyrene. The third plate served as a β-particle absorber in observations of the γ-ray background. The PhM employed had a voltage-divider resistance of 7.115 Mohm and was equipped with a ferroresonance voltage stabilizer. Details of the single-channel amplitude analyzer are described. The spectrometer was calibrated with the aid of the Co^{60},

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

A scintillation beta-spectrometer. S/798/61/000/000/011/012

Cs^{137}, and Hg^{203} isotopes for a NaI(Tl) crystal and for the twin CsI(Tl) crystal. The scale is linear. The resolution of the spectrometer for the Cs^{137} with a NaI(Tl) crystal is 12%, with a twin CsI(Tl) more than 20%. In the latter case the Compton distribution is intense. The separation of the noise and cosmic-ray spectrum F_1 from the spectrum F_2 of the electromagnetic radiation of the given β-preparation by means of the β-ray-absorbing third plate is described, and the number of absorbed rays is analytically estimated. Experimentally obtained F_1 and F_2 curves are also shown. The β-spectra of P^{32} and C^{45} are plotted in terms of the number of pulses registered in 30 sec, N, versus the energy E, and also as a Fermi graph. The Ca^{45} spectrum is correlated with the theoretical curve. The deviations at the high-energy end are attributed to the inadequate resolution of the spectrometer and to the random summation of the pulse amplitudes; those at the low-energy end are attributed to absorption in the foil. The experimental β-spectrum of a combined $Ca^{45} + P^{32}$ preparation is depicted in both the N-versus-E and the Fermi-graph form. The random summation of the amplitudes of the pulses in a β-spectrometer and their effect on the shape of the β-spectrum is analyzed, and it is shown that a correction for twofold and even threefold random summations should be calculated in certain cases. There are 11 figures, 2 tabulated calculation schemes, and 4 references (2 Russian-language Soviet papers and 2 Russian-language translations of English-language books: Beta and gamma-spectroscopy (Author's name not given). Fizmatgiz, Moscow, 1959; Elmore, E., Sands, M. Electronics in nuclear physics. For. Lit. Publ. House, Moscow, 1953).

Card 2/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

S/197/63/000/002/005/005
B117/B186

AUTHORS: Dobryakov, D., Nikolayev, V., Saulite, U.

TITLE: Electromagnetic rabbit transport for atomic reactors

PERIODICAL: Akademiya nauk Latviyskoy SSR. Izvestiya, no. 2 (187), 1963, 68-74

TEXT: The rabbit conveyor for atomic reactors here described was developed at the Institut fiziki AN Latv. SSR (Institute of Physics AS LatSSR). This transport system utilizes one of the channels arranged vertically along the periphery of the active zone for rapidly transporting the rabbits (transport time of the order of several seconds) from the hot cave into the active zone and after exposure to irradiation back to the hot cave. The electromagnetic rabbit conveyor has the following principal parts: 1) Mechanical assembly; 2) inductance coil; 3) operational control circuit; 4) automatic cut-off unit for the power supply of the inductor. The mechanical assembly comprises the transport channel, a divergent cone with a support and a jacket. The conveyer is the movable part. The transport channel is an aluminum tube 15 m long (52 mm inner diameter, 1 mm wall thickness), connecting the active zone with the hot cave. The rabbit conveyer for transporting the rabbits with the substance to be

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irradiated comprises: cylindrical guides, carriers and rabbits (6 cylinders and 5 rabbits with the paylcad). Its motive force is a three-phase electromagnetic field within the channel (4 sec from the hot cave into the active zone and 3.5 sec on the way back). The winding consists of 150 coils, divided into two parallel circuits (72 and 78 coils), of which 30 are used for slowing down the conveyer when it enters the hot cave. For a payload of 300 g, an amperage of 230-340 a is necessary to lift the conveyer, weighing 2000 g, whereas 160-170 a are required for slowing it down. An aluminum blanket which is the load-bearing part of the entire construction protects the winding from moisture. A special circuit diagram, including the possibility of automatic control provides for the progressive motion of the conveyer. The principal parts of the control unit are: Control console, automatic control and time-lag relay. In view of the radiation effect the most suitable constructional material for the electromagnetic transport is pure aluminum. All tests of the system, subjected to real working conditions, gave positive results. The power of the device is about 200 kva. There are 5 figures.

ASSOCIATION: Institut fiziki AN Latv.SSR (Institute of Physics AS LatSSR)

SUBMITTED: September 26,1962

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 01183-66 EWT(d)/EPA(s)-2/EWT(m)/EWP(w)/EPF(n)-2/EWP(v)/T-2/EWP(t)/EWP(k)/EWP(b)/EWA(h)/EEC(m) EM/JD/WW/JG

ACCESSION NR: AP5016657 UR/0382/65/000/002/0092/0100
621.689 : 538.4

AUTHOR: Mikel'son, A. E.; Saulite, U. A.; Shkerstena, A. Ya.

TITLE: Investigation of cylindrical coreless pumps

SOURCE: Magnitnaya gidrodinamika, no. 2, 1965, 92-100

TOPIC TAGS: MHD flow, liquid metal pump, electromagnetic pump

ABSTRACT: A cylindrical pump of the coreless type is studied theoretically and experimentally. It consists of finite induction coils and an infinite conducting cylinder concentric to the coils. The inductor coils of negligible thickness produce a traveling magnetic field which is derived from Maxwell's equations (with the help of vector potentials) and depends on the phases of each of the three solenoids forming the inductor. Some computational shortcuts are indicated. The analysis of the results shows that inside of the cylindrical coreless pump, when it operates in the static region, there is relatively intense internal circulation of the metal. The experimental data agrees well with calculations and the method is suitable for design of such pumps. These pumps are applicable in moving of such active metals

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L 01483-66

ACCESSION NR: AP5016657

as Al, Zn when the use of ferromagnetic core is not possible. Orig. art. has: 22 formulas, 5 figures.

ASSOCIATION: none

SUBMITTED: 03Dec64 ENCL: 00 SUB CODE: ME, EM

NO REF SOV: 002 OTHER: 000

Card 2/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 14441-66

ACC NR: AP6002977 (A) SOURCE CODE: UR/0286/65/000/024/0169/0169

INVENTOR: Kovalev, N. G.; Mikel'son, A. E.; Nikolayev, V. N.; Saulite, U. A.

ORG: none

TITLE: An electromagnetic conveyer. Class 81, No. 177344

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 169

TOPIC TAGS: conveyer transportation system, electromagnetic propulsion, magnetic field, magnetic circuit

ABSTRACT: This Author's Certificate introduces an electromagnetic conveyer which includes a conduit surrounded by induction coils. Cartridges inside the conduit are moved by a traveling magnetic field set up by the induction coils. A magnetic circuit in the form of a ferromagnetic insert is mounted inside each cartridge to increase the traction force acting on it.

Card 1/2 UDC: 621.867.038

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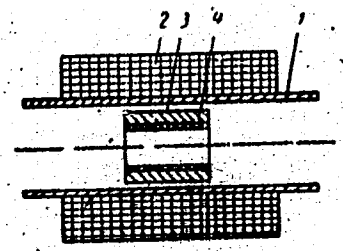
L 14441-66

ACC NR: AP6002977



1 - conduit; 2 - induction coils; 3 - cartridge; 4 - magnetic circuit.

SUB CODE: 13/ SUBM DATE: 01Apr63

Card 2/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

L 44281-66 EWT(1)/EWT(m)/T WW/DJ
ACC NR: AP6005393 (N) SOURCE CODE: UR/0413/66/000/001/0142/0142

INVENTOR: Kirko, I. M.; Branover, G. G.; Ioffe, B. A.; Saulite, U. A.

ORG: none

TITLE: Hermetically sealed piston pump. Class 59, No. 177778 [announced by the Institute of Physics, Academy of Sciences, Latvian SSR (Institut fiziki Akademii nauk Latviyskoy SSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 142

TOPIC TAGS: piston, ~~pump~~, pump, hermetic seal

ABSTRACT: This Author Certificate introduces a hermetically sealed piston pump containing a inductor, a duct, and pistons. For higher efficiency the pistons are made of electroconductive nonferromagnetic material with a ferromagnetic bushing placed inside the piston. For ease of construction, the pump is made with a braking inductor for stopping the pistons in the delivery zone (see Fig. 1). Orig. art. has: 1 figure.

UDC: 621.65

Card 1/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

ACC NR: AP6033674 SOURCE CODE: UR/0371/66/000/004/0087/0092

AUTHOR: Ioffe, B. A.; Saulite, U. A.

ORG: Institute of Physics, AN LatSSR (Institut fiziki AN LatvSSR)

TITLE: Experimental investigation of an electromagnetic rotary displacement pump

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 4, 1966, 87-92

TOPIC TAGS: fluid pump, electromagnetic pump, hydraulic pump

ABSTRACT: The authors describe the operating principles and the results of the first tests of a new type of electromagnetic induction pump, developed at the Institute of Physics of the Latvian Academy of Sciences, for the purpose of pumping conducting corrosive liquids. The pump uses no stuffing glands or bearing units, nor are valves required for the operation (Fig. 1). The construction of the test pump is described. Test results of pumping water and a solution of emulsifying oil of different viscosity are described. The described model was aimed only to check on the feasibility of the operating principle, without attempting to obtain optimal construction or high efficiency. The efficiency can be increased by improving the electromagnetic and hydraulic units. Ways of improving the design are briefly discussed. The authors thank Doctor of Physical and Mathematical Sciences I. M. Kirko and Candidate of Technical Sciences G. G. Branover for valuable advice and recommendations during the

Card 1/2

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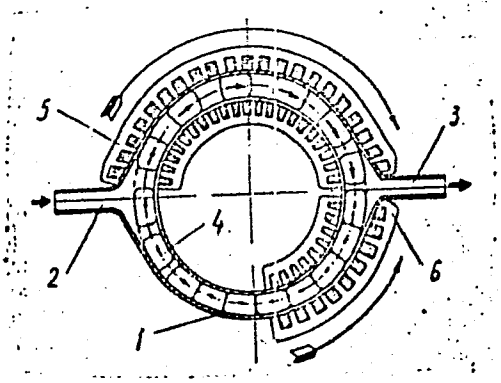
"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

ACC NR: AP6033674

Fig. 1. Schematic diagram of electromagnetic rotary displacement pump. 1 - Closed tube channel, 2 - inlet pipe, 3 - compression pipe, 4 - piston, 5,6 - coils producing rotating magnetic field.



construction of the described pump. Orig. art. has: 5 figures.

SUB CODE: 13/ SUBM DATE: 01Nov65/ ORIG REF: 005

Card 2/2

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

ACC NR: AP7000368 SOURCE CODE: UR/0413/66/000/022/0154/0154

INVENTOR: Kirko, I. M.; Branover, G. G.; Ioffe, B. A.; Saulite, U. A.

ORG: none

TITLE: Plate-type hermetic pump. Class 59, No. 188847. [announced by the Institute of Physics, AN Latvian SSR (Institut fiziki AN Latviyskoy SSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 154

TOPIC TAGS: pump, fluid pump, hydraulic pump

ABSTRACT: An Author Certificate has been issued for a plate-type hermetic pump consisting of a pipe-line inductor, plate holders, and plates. To simplify its design, the casing is made in the form of a closed annular duct. To assure its tight closing and for the automatic compensation of hydraulic-pressure wear on the operating plates' surfaces the plates' external axis of rotation is relative to the plate holder.

SUB CODE: 13/ SUBM DATE: 20Jul64/

Card 1/1 UDC: 621.66-213

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULITE, Ye.[Saulite, E.]

Tuberculous mycobacteria in cow's milk. Vestis Latv ak no.9:149-154 '60. (EEAI 10:9)

1. Latvijas PSR Zinatnu akademija, Mikrobiologijas instituts.

(MILK) (MYCOBACTERIUM TUBERCULOSIS)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULOVA, A.

CZECHOSLOVAKIA

MALY, M.; BARTLOVA, S.; JANIKOVA, M.; SAULOVA, A. CSER

District Hygiene and Epidemiological Station, Brno-rural (Okresni hygienicko-epidemiologicka stanice, Brno-venkov)

Prague, Ceskoslovenska hygiena, No 10, 1962, pp 604-609

"Influence of Protective Coating on the Sanitary Standards of Water"

4

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

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MALY, M.; BARTLOVA, S.; JANIKOVA, M.; SAULOVA, A. CSSR

District Hygiene and Epidemiological Station, Brno-rural (Okresni hygienicko-epidemiologicka stanice, Brno-venkov)

Prague, Ceskoslovenska hygiena, No 10, 1962, pp 604-609

"Influence of Protective Coating on the Sanitary Standards of Water"

4

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

S/119/62/000/001/004/011
D201/D302

AUTHORS: Berezovskiy, M.A., Korobko, M.I., Saulova, L.V., and Strelchenko, A.G.

TITLE: Multitrack recording instruments and devices for multi-point and multi-channel control

PERIODICAL: Priborostroyeniya, no. 1, 1962, 15 - 19

TEXT: The authors briefly describe the following multi-track recording instruments developed at the Institut avtomatiki Gosplana USSR (Institute of Automation of State Planning of the UkrSSR). 1) A six-point recorder for operation in conjunction with inductive pick-ups; developed from the six-point electronic automatic bridge type ЭМП-209 (EMP-209). 2) A six-channel flow, pressure or consumption meter to work with original ferro-dynamic transducers, based on the electronic pen-recorder type КВТ (KVT) in production in East Germany. 3) A multi-channel temperature recorder and controller, based on the automatic electronic potentiometer ЭПП-09 (EPP-09). The new instrument incorporates a switched electronic controller type РЭП -

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Multitrack recording instruments ...

2C (REP-2S). In this controller, as opposed to the existing controllers ЭРС-67 (ERS-67) and ЭРК-77 (ERK-77), the readings of control intervals are independent of the formation of output signals. For multi-point control, the Institute has developed a switching, six-position unit type БПУ-6 (BPU-6). A further development of it, a multi-channel control device type РЭП-6 (REP-M6) makes it possible to adjust every control channel for the specific dynamics of the object. The use of the control arrangement REP-M6 or ЭРУ-7К (ERU-7K) in conjunction with the switching unit BPU-6 makes it possible to obtain a multi-channel, multi-point control of up to 100 points. The following other automation devices have also been developed at the Institute. 1) Electronic control device type РЭП-ИМ (REP-IM). Its measurement section takes the form of an a.c. bridge, the control section consists of a set of four electronic time relays, using type 6НИП (6NIP) valves and electromechanical relays. The device is quite flexible in operation. 2) Electronic control device type РЭП-2 (REP-2). A more sensitive variant of REP-2). A more sensitive variant of REP-IM with self-synchronizing output relays and a thyratron for indication of control operation. 3) Elec-

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Multitrack recording instruments ...

tronic control device type РЭП -3 (REP-3), developed for controlling high-resistance (ferro-dynamic) pick-ups which require higher input voltages. This has been achieved by using a 6Ж5П (6Zh5P) pentode at the input. The response is logarithmic which, however, does not introduce noticeable distortion of the static characteristic of the controller. For sequential multi-point control using type REP controllers, the latter are used in conjunction with switching units BPU-6. Each of the controllers of the above type, has a contact controlling the BPU operation in such a manner, that after the control device has been switched to the control position, the BPU connects to it the pick-up and the output of the next object. The circuit of the BPU device represents a ring circuit, designed around cold cathode thyratrons type МТХ -90 (MTKh-90), which can switch from 2 .. 6 controlled points. The instruments of multi-point sequential control type ЭМПР (EMPR) and ЭППР (EPPR) are used as the basis for REP-2S instruments, the modification consisting of adding another bank of commutators to the switch and by replacing the discs of the position control arrangement by potentiometer pick-ups. The six-channel electronic controller REP-M6 consists of eight units,

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Multitrack recording instruments ...

six having a thyratron trigger in conjunction with two 6НИП (6NIP) valve switches. The six are triggered from a time interval unit, the latter consisting of a binary thyratron counter. The ЭРУ-7К (ERU-7K) seven-channel control device consists of eight units again. Seven of these are the proper control circuits and the eighth is the power supply unit. Every control unit consists of an amplifier using a 6Zh5P valve in conjunction with an electronic time relay. The series production of REP-IM instruments began in 1960; REP-2, REP-3, REP-M6, BPU 6 and ERU-7K are produced in small batches by the experimental plant of the Institute of Automation. The multi-track instruments are not being series-produced. There are 10 figures and 1 table.

Card 4/4

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"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

SAULOVA, L.V.; BEREZOVSKIY, M.A.; BEZUSYAK, Yu.L.; SAS, T.P.

Experimental radio system for remote control of bridge cranes.
Avtom.i prib. no.4:13-17 O-D '62. (MIRA 16:1)

1. Institut avtomatiki Gosplana UkrSSR.
(Cranes, derricks, etc.) (Remote control)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

BEZUSYAK, Yu.L.; SAULOVA, L.V.

Influence of certain factors on the degree of squeezing out of alkali cellulose. Khim.volok. no.1:60-63 '60. (MIRA 16:2)

1. Kiyevskiy institut avtomatiki Gosplana UkrSSR.
(Cellulose) (Mercerization)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001447310002-9

BEREZOVSKIY, Mikhail Aleksandrovich, inzh.; KOROBKO, Mikhail Ivanovich, kand. tekhn. nauk; SAULOVA, Larisa Vyacheslavovna, inzh.; KOCHO, V.S., doktor tekhn. nauk, retsenzent

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1. Institut zoologii AN URSR i Kiivs'kiy medichniy institut.
(CRANIOMETRY)

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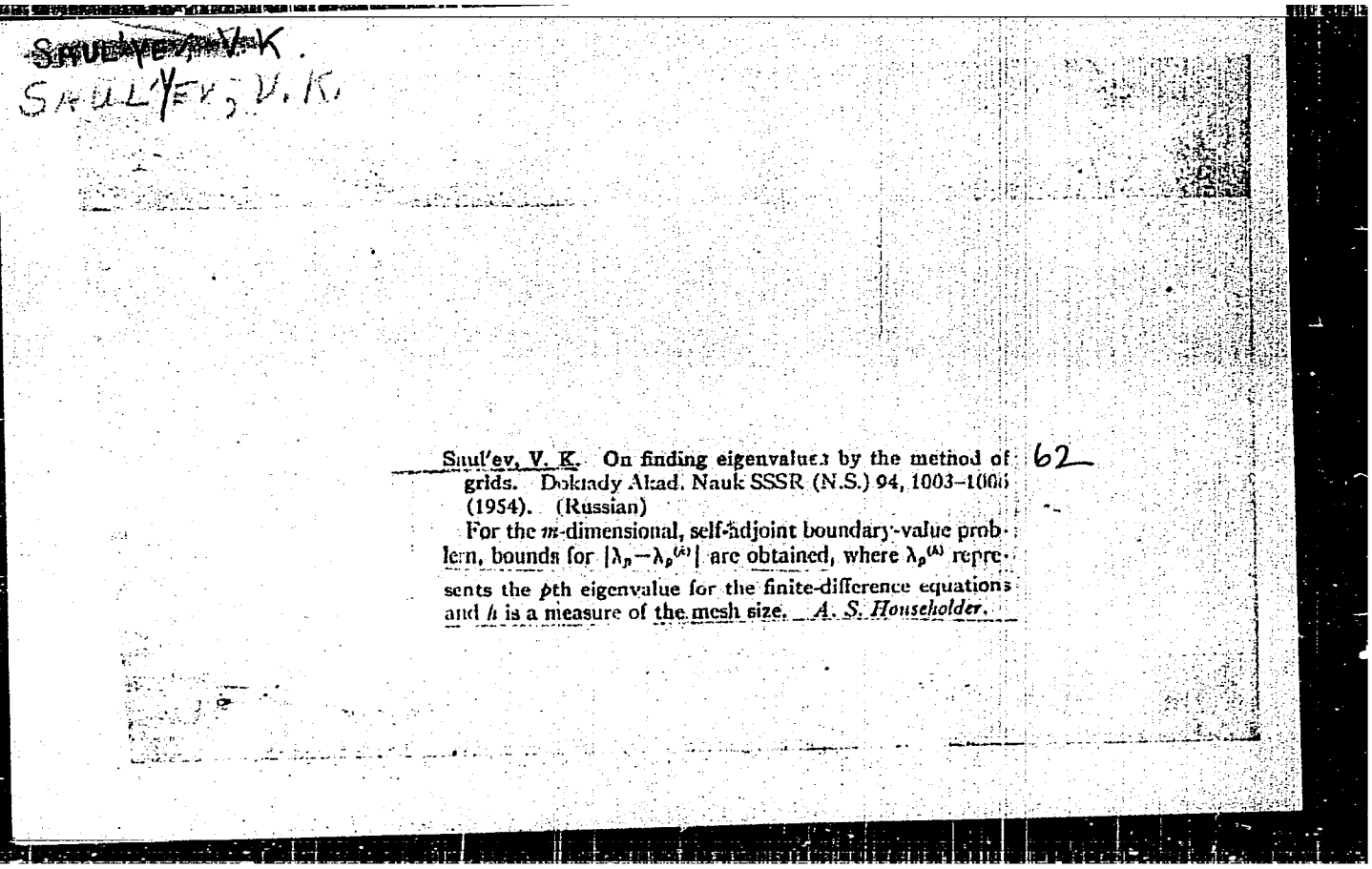

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For the m-dimensional, self-adjoint boundary-value problem, bounds for $|\lambda_p - \lambda_p^{(h)}|$ are obtained, where $\lambda_p^{(h)}$ represents the pth eigenvalue for the finite-difference equations and h is a measure of the mesh size. *A. S. Householder.*

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SAUL'YEV, V.K.

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/1 PG - 179
AUTHOR SAUL'EV V.K.
TITLE On the question of the solution of the eigenvalue problem with the difference method.
PERIODICAL Vyčislit.Mat.vyčislit.Techn. 2, 116-144 (1955)
reviewed 7/1956

In analogy to a paper of H.Bückner (Math.Z. 51, 423-465 (1948)) the author estimates the velocity of the convergence of the difference-eigenvalues with respect to the corresponding differential-eigenvalues for the case of the general selfadjoint elliptic n-dimensional operator for curvilinear boundaries of the domain.

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(Eigenfunctions) (Difference equations)

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