

USSR / Cultivated Plants. Grains. Legumes. Tropical M-1
Cereals.

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6221

are more productive than the flint corn. The yield of prospective varieties attained 23 - 35 cwt/ha. The hybrid populations, double inter-strain, and varietal strain hybrids produce the best yield of cobs and of green mass (30 - 49 cwt/ha); simple inter strain hybrids are less productive. The highest yield (28 - 47 cwt/ha) was produced by the following combinations: Flint white Gruzinskaya No 10 x Sterling, Flint yellow Tumanyan x Gorskaya yellow, Flint yellow Tumanyan x Voronezh 76, Grushevskaya x Early Gorets, Early Gorets x Minnesota 13 and Char'kov white dent x Sterling. These parental pairs are recommended to obtain inter varietal hybrid seeds. -- A. F. Khlystova

Card 2/2

YEGIKYAN, K.A.

Conference on the Developmental Problems of the SOV105-58-7-21/32
Production of Transformers in the USSR, 5-6 Mar 58, Moscow.
(Elektrichestvo, 1958, No. 7, 82-83)

and voltage and about the shortcomings in the assembling which are due to the manufacturers. S.A. Gorodetskiy (Glavelektromontazh MS RSFSR) spoke about the abolition of the revision of the removable part of the autotransformers at the assembling site, and about several constructive changes in power transformers and about the measures necessary for a mass connection of the transformers without drying. A. M. Sarkisyan (Glavsel'elektro MSKh SSSR) spoke about the electrification on the open country and the demand of open country districts on the electrical industry. K.A. Yegikyan (Armelelektrozavod) reported on new transformer constructions. Ya. L. Fishler (chief of the construction office in the works "Ural-elektroapparat") also reported on transformer constructions. The conference found serious shortcomings in the organization of scientific research work and a lack of engineers and designers.

1. Transformers--Development
2. Transformers--Production
3. Conference

Card 3/3

YEGIMOV, V.A.; OSIPOV, V.P.; SAPKO, V.N.; LEGENCHUK, V.I.; SIVTSOV, G.V.;
BYKOV, G.D.

Measures for improving the top pouring of steel. Vop. proizv.
stali no.9:79-95 '63. (MIRA 16:9)

AID P - 3154

Subject : USSR/Miscellaneous

Card 1/1 Pub. 135 - 16/20

Author : Yegin, L.

Title : I. V. Kravchenko, Letchiku o meteorologii (Meteorology for the pilot). voyenizdat, 1955 (Book Review)

Periodical : Vest. vozd. flota, 10, 83-84, 0 1955

Abstract : This is a review of a book which was written for the flying personnel of the Soviet Air Force and of the DOSAAF organizations. It may be also useful to the meteorological personnel cooperating with the flying personnel.

Institution : None

Submitted : No date

VEGINA, K. (Riga)

Cytological changes in the oogenesis of Selatosomus aeneus L.
in the phase of pupa development. Vestis Latv ak no.4:133-138
'60. (EEAI 10:7)

1. Latvijas PSR Zinatnu akademijs, Biologijas instituts.
(Selatosomus) (Oogenesis)

CINOVSKIS, J.(Riga); VEGINA, K.(Riga)

Determination of pupation time of the dark click beetle (*Agriotes
obscurus* L.) *Vestis Latv* ak no.6:141-146 '60. (EEAI 10:9)

1. Latvijas PSR Zinatnu akademijs, Biologijas instituts.

(Beetles) (*Agriotes obscurus*)

MEGINA, K.

Development of click beetle (*Selatosomus aeneus* L.) larvae in the Latvian S.S.R. [in Latvian with summaries in English and Russian]. Vestis Latv ak no.1:91-95 '62.

1. Latvijas PSR Zinatnu akademijs, Biologijas instituts

CINOVSKIS, J.; VEGINA, K.

Applying new insecticides in controlling corn pests. Izv. AN
Latv. SSR no.4:103-107 '61. (MIRA 16:1)

1. Latvijas PSR Zinatnu akademijas Biologijas instituts.

(Corn(Maize)—Diseases and pests)
(Insecticides) (Wireworms)

YEGINA, K. YA.

TSINOVSKIY, Ya. [Cinovskis, J.]; YEGINA, K.^{YA.} [Jegina, K.]; STRAZDINYA, A.
[Strazdina, A.]

Using new insecticides (rogor and trichlormetaphos-3) for controlling
the pests of corn and onion. Vestis Latv ak no.3:67-70 '62.

1. Latvijas RSR Zinatnu akademijs, Biologijas instituts.

YEGINA, K. [Jegina, K.]

Resistance of varieties of corn and potatoes to damage by wireworms.
Vestis Latv ak no.3:71-73 '62.

1. Latvijas PSR Zinatnu akademijs, Biologijas instituts.

GINOVSKIS, J.; ~~Y~~EGINA, K.

Distribution of pupae and larvae of the click beetle in the soil
of the Latvian S.S.R. Vestis Latv ak no.4:87-92 '62.

1. Latvijas PSR Zinatnu akademijas Biologijas instituts.

YEGINA, K.Ya., nauchnyy sotrudnik

Determining the age, the year of development, and the pupation
time of the larvae of the click beetle *Selatosomus aeneus* L.
Zashch.rast.ot vred.i bol. 7 no.5:50 My '62. (MIRA 15:11)

1. Institut biologii AN Latviyskoy SSR.
(Latvia--Wireworms)

TSINOVSKIY, Ya.P.; YEGINA, K.Ya.; STRAZDINYA, A.A. [Strazdina, A.]

Utilization of morphological characteristics in the forecast
of plant pests. Zhur. ob. biol. 24 no.1:30-42 Ja-F'63
(MIRA 16:11)

1. Institute of Biology, Academy of Sciences of the Latvian
S.S.R.

*

L 12614-66

ACC NR: AP6001289

SOURCE CODE: UR/0197/65/000/008/0103/0107

AUTHOR: Yegina, K.

ORG: Biological Institute, AN Latvian SSR (Institut biologii AN Latv. SSR)

TITLE: Results of application of granulated superphosphate with 2% lindane gamma isomer for control of wire worms

SOURCE: AN LatSSR. Izvestiya, no. 8, 1965, 103-107

TOPIC TAGS: pesticide, fertilizer, agriculture crop, insecticide, insect control

ABSTRACT: Tests were conducted in experimental lots (1962) and field trials (1963) with this combination applied in single or dual strips to the soil at sowing time for maize crops to a depth of 10-12 cm and at a rate of 50 kg/ha. The number of wire worms (Elateridae) and species had been determined in the soil prior to the application. Three species accounted for 83% of the pests (Selatosomus aeneus, Limonius aeruginosus and Agriotes obscurus). Best results were obtained for the 2-strip application as regards the number of undamaged plants, size of plants and number of pests left, compared with controls. Single strip applica-

Card 1/2

L 12014-66

ACC NR: AP6001289

tion reduced the number of damaged plants by 4.03-5.81%, increasing the amount of green mass by 16.5-19.1%. The corresponding figures for dual-strip application were 4.38-6.99 and 21.6-27.8%. The number of wire worms decreased to 1/4 and 1/7 respectively after treatment. Orig. art. has: 2 tables.

SUB CODE: 06, 07/ SUBM DATE: 23Feb65/ ORIG REF: 004/ OTH REF: 000

HW
Card 2/2

ACC NR: AP6026755

SOURCE CODE: UR/0197/66/000/007/0080/0084

AUTHOR: Yegina, K. Ya.

ORG: Biology Institute, AN LatSSR (Institut biologii, AN LatSSR)

TITLE: Mechanism of the effect of insecticides on the development of sex cells in click beetles

SOURCE: AN LatSSR. Izvestiya, no. 7, 1966, 80-84

TOPIC TAGS: hexachloran, insecticide, insect pest, click beetle, Vofatox, HISTOLOGY, ENTOMOLOGY, BIOLOGIC REPRODUCTION

ABSTRACT:

Histological study of reproductive cells of Elaturid beetles treated with hexachloran and vofatox showed that these insecticides stimulate digestion of the cells. The sequential steps of deformation, degeneration, and final transformation of the spermatozooids into a shapeless mass are seen. A 2.5% solution of vofatox and a 12% hexachloran dust mixture produced similar results on female cells. In both cases no oviposition took place. [WA-50; CBE No. 11]

SUB CODE: 06/ SUBM DATE: 23Feb65/ ORIG REF: 012/ OTH REF: 001

Card 1/1

L 4481-06 EWT(I)/EWT(m)/FCC/T/EWA(h) IJP(c) GW

ACC NR: AP5024635

SOURCE CODE: UR/0048/65/029/009/1690/1692

AUTHOR: Vernov, S.N.; Yegorov, T.A.; Yegimov, N.N.; Krasil'nikov, D.D.; Kuz'min, A.I.
Maksimov, S.V.; Nesterova, N.M.; Nikol'skiy, S.I.; Sleptsov, Ye. I.; Shafer, Yu. G.

ORG: none

TITLE: Plan for a large installation at Yakutsk for study of extensive air showers
/Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1690-1692

TOPIC TAGS: primary cosmic ray, secondary cosmic ray, extensive air shower, spectral
energy distribution, cosmic radiation composition, cosmic radiation anisotropy

ABSTRACT: After a discussion of the significance of extensive air showers for the in-
vestigation of ultrahigh energy primary cosmic rays, the authors briefly describe an
installation to be completed in the next two or three years near sea level at latitude
62° N in the Yakutsk region; it is anticipated that the installation will yield infor-
mation concerning the energy spectrum, composition, and anisotropy of primary cosmic
rays with energies up to 10²⁰ eV. The installation, intended for investigation of ex-
tensive air showers, will comprise 65 stations spread over an area of 23 km². Each
station will be equipped with scintillation counters with a total sensitive area of 1
m² or 4 m², and at the central station - 10 m². The total sensitive area of scintil-

Card 1/2

37
03
19

07010 3

4481-

ACC NR: AP5024635

ation counters in the whole installation will be 204 m². Each station will be equipped with photomultipliers (total cathode area 180 cm² at each station) for recording the Cerenkov flash accompanying a shower. In addition, there will be muon detectors with a total sensitive area of 22 m². Pulses will be transmitted from the more remote stations to the central laboratory by radio. It is anticipated that this installation will record 2 x 10⁵ showers per year with energies exceeding 10¹⁵ eV and 2 showers per year with energies exceeding 10²⁰ eV. Orig. art. has: 1 figure and 1 table.

SUB CODE: NP/ SUBM DATE: 00/

ORIG REF: 002/ OTI REF: 008



Card 2/2

L 34155-65

EWP(k)/EWP(d)/EWP(h)/EWP(l)/EWP(v)
IJP(c) RG/GS

Pf-l/PE-l/Pk-l/Pl-l/Po-l/Pq-l

ACCESSION NR: AT5004749

S/0000/64/000/000/0053/0061

AUTHOR: Yegipko, V. M.

TITLE: Automatization of complicated physical experiments and commercial tests with the aid of digital computers

54
53
6+1

SOURCE: AN UkrSSR. Institut kibernetiki. Kibernetika i vychislitel'naya tekhnika (Cybernetics and computer engineering). Kiev, Naukova dumka, 1964, 53-61

TOPIC TAGS: automatic control design automation, complex process control, machine organization, digital computer/UMShN

ABSTRACT: After first describing briefly the premises underlying the use of electronic computers as component parts of automatized complicated physical experiments or commercial tests, the article describes a universal general-purpose control machine (UMShN), developed at the Institut kibernetiki (Institute of Cybernetics) AN

Card 1/4

L 34155-65

ACCESSION NR: AT5004749

UkrSSR, and now in regular production, designed for automatization of various experiments. A block diagram of the UMSHn is shown in Fig. 1 of the Enclosure. It constitutes a small high-speed universal digital computer, provided with equipment for interconnection with objects. The latter makes it possible to connect the machine to pickups and to actuating mechanisms of the object, to exercise visual control of the operation of the machine and of the individual elements of the automatic control system. The machine is designed for objects in which the number of pickups yielding information of the object does not exceed 250, the number of actuating mechanisms of two-position control does not exceed 30, and the volume of information used in the realization of the control algorithm, including the algorithm itself, does not exceed 5000 26-digit binary numbers (of which 2048 bits constitute the volume of the operating memory and the remainder constitute the passive memory). Various characteristics of the computer and of the apparatus for interconnection with the objects are described, and a theoretical example of auto-

Card 2/4

L 34155-65

ACCESSION NR: AT5004749

matization of an experiment is briefly discussed. The capability of the UMSH_N can be increased by using a magnetic-tape memory with a volume 0.5--1.0 million numbers. Orig. art. has: 3 figures and 1 formula.

ASSOCIATION: None

SUBMITTED: 30Sep64

ENCL: 01

SUB CODE: LS, DP

NR REF SOV: 001

OTHER: 002

Card 3/4

L 34155-65

ACCESSION NR: RT5004749

ENCLOSURE: 01

0

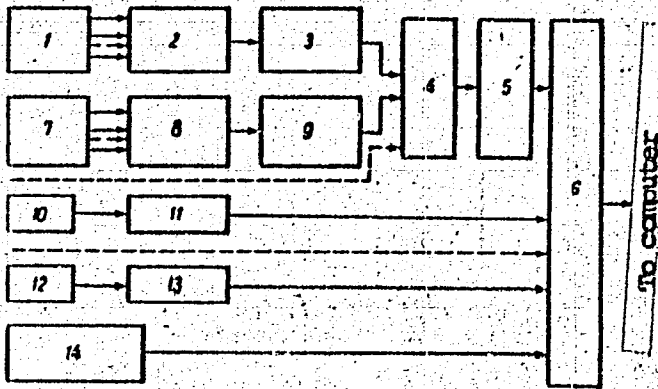


Fig. 1. Block diagram of universal general purpose control machine.

1 - DC pickup, 2 - commutator, 3 - amplifier-converter, 4 - group commutator, 5 - voltage-code converter, 6 - code-to-computer unit, 7 - ac pickup, 8 - commutator, 9 - amplifier-converter, 10, 12 - position pickups, 11, 13 - position-code converters, 14 - discrete pickup

Card 4/4

MOROZOV, V.A. Primalni uchastiy: NIKITIN, A.P., pomoshchnik entomologa;
YEGIPKO, V.P.; bonifikator; VENEDIKTOR, A.V.; bonifikator;
GODINA, M.S., bonifikator.

Distribution of mosquitoes of the genus *Mansonia richiardii*
Fic. in Krasnodar Territory and methods for the collection of
their larvae. Med. paraz. i paraz. bol. 34 no. 5:514-517
S-0 '65 (MIRA 19:1)

1. Parazitologicheskiy otdel Krasnodarskoy krayevoy sanitarno-
epidemiologicheskoy stantsii (for Morozov). 2. Kropotkinskaya
gorodskaya sanitarno-epidemiologicheskaya stantsiya (for Ni-
kitin). Submitted December 29, 1964.

L 36290-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM
ACCESSION NR: AP5008142 S/0286/65/000/005/0021/0021

AUTHORS: Melikyan, R. A.; Yegishyan, V. G.; Turabova, M. G. 21

TITLE: A method for obtaining chloroprene Class 12, No. 168605 15 B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 21

TOPIC TAGS: chloroprene, vinyl acetate, hydrogen chloride, copper chloride, amine, formamide, dimethylformamide

ABSTRACT: This Author Certificate presents a method for obtaining chloroprene by the interaction of vinyl acetylene and hydrogen chloride. The reaction is carried out at a high temperature in the presence of a catalyst of hydrogen chloride and copper chloride in a solution. To increase the yield of the final product, the catalyst is used in a solution of amine or replaced oxygen-bearing amines, such as formamide, dimethylformamide, or methylpyrrolidone.

ASSOCIATION: none

SUBMITTED: 26Feb64

ENCL: 00

SUB CODE: 00

NO REF SOV: 000

OTHER: 000

Card 1/1 10

YEGIYAN, G. M., dotsent; IGITKHANYAN, A. M.

Fate of a transplanted heterogenous cartilage. Vest. khir. no.12:
22-26 '61. (MIRA 15:2)

1. Iz Yerevanskogo nauchno-issledovatel'skogo instituta travmatc-
logii i ortopedii (dir. - prof. I. G. Isaakyan)

(CARTILAGE—TRANSPLANTATION)

ACCESSION NR: AP4026811

S/0022/64/017/001/0131/0136

AUTHORS: Trchunyan, A. A.; Pogosyan, Ya. M.; Yeghyan, K. A.; Pogosyan, T. A.

TITLE: Equipment for simultaneous investigation of ferromagnetic films using the magneto-optical method of Kerr and the Akulov-Bitter method

SOURCE: AN ArmSSR. Izv. Seriya fiziko-matematicheskikh nauk, v. 17, no. 1, 1964, 131-136

TOPIC TAGS: ferromagnetic film, magneto-optical method, powder pattern, metallographic microscope, magnetic field, Helmholtz coil

ABSTRACT: The equipment for simultaneously studying ferromagnetic films using the magneto-optical method of Kerr and the powder patterns of Akulov-Bitter has been described and several photographs of specimens with different magnification are included. The equipment consists of two basic components; an instrument for magneto-optical observations and a metallographic microscope MDM-8 with some minor modifications to observe the Akulov-Bitter patterns. Photographs of the general setup and a detailed diagram for the optical system are presented. The advantage of the system described lies in the possibility of observing the same portion of
Card 1/2

ACCESSION NR: AP4026811

the film by both methods in a magnetic field generated by the same Helmholtz coil, under identical conditions suitable for a comparative study. Several examples of films studied by this method are outlined briefly. Orig. art. has: 6 figures.

ASSOCIATION: none

SUBMITTED: 21Jun63

DATE AOQ: 16Apr64

ENCL: 00

SUB CODE: PH

NO REF SOV: 000

OTHER: 008

Card 2/2

TRCHUNYAN, A.A.; POGOSYAN, Ya.M.; YEGIYAN, K.A.; POGOSYAN, T.A.

Apparatus for the simultaneous study of ferromagnetic films by
Kerr's magneto-optical method and the Akulov - Bitter method.

Izv. AN Arm. SSR, Ser. fiz.-mat. nauk 17 no.1:131-136 '64.

(MIRA 17:3)

ACCESSION NR: AP4017353

S/0126/64/017/002/0212/0216

AUTHOR: Pogosyan, Ya. M.; Yeghyan, K. A.; Pogosyan, T. A.

TITLE: Effect of anisotropy direction dispersion on the behavior of thin ferromagnetic films

SOURCE: Fizika metallov i metallovedeniye, v. 17, no. 2, 1964, 212-216

TOPIC TAGS: ferromagnetism, ferromagnetic film, magnetization
direction, nickel alloy, iron containing alloy, molybdenum containing alloy,
magnetism, hysteresis loop

ABSTRACT: A multitude of new properties has been discovered in thin ferromagnetic films which cannot be explained by a simple theory of coherent rotation and which may arise from factors such as the dispersion of axial direction of the magnetization. To investigate the residual magnetization which results from inhibitedly directed film saturation, the authors undertook a magnetomicroscopic study of 800-1400 Å, disk-shaped films, 10 mm in diameter, obtained by sublimation of an alloy consisting of Ni (79%), Fe(17%) and Mo(4%) at 300 C in a $2 \cdot 10^{-5}$ mm Hg vacuum in the presence of a 40-cc magnetic field. The study showed that the films develop an inhibitedly directed rectangular hysteresis loop and possess a residual magnetization state stable enough to offset

Card 1/2

ACCESSION NR: AP4017353

subsequent reapplication of the field, which generates a new phase and steps up its growth. Orig. art. has: 4 figures.

ASSOCIATION: None

SUBMITTED: 12Feb63

DATE ACQ: 18Mar64

ENCL: 00

SUB CODE: ML, PH

NO REF SOV: 001

OTHER: 010

Card

2/2

POGOSYAN, Ya.M.; YEGHYAN, K.A.; SCLAKHYAN, A.O.

Determining the thickness of thin films. Izv. AN Arm. SSR.
Ser. fiz.-mat. nauk 16 no.6:131-136 '63. (MIRA 17:8)

1. 00120-65 EWG(j)/EWT(l)/EWT(n)/EPT(c)/EPT(n)-2/EPT/T/EPT(t)/EEG(b)-2/EPT(b)
EPT-1,7 Pad/Ps-1, Pu-4 IJP(c) JD/WW/RW/JG/GG
ACCESSION NR: AP5004262 S/0126/65/019/001/0033/0037

AUTHOR: Yeghyan, K. A.; Dzhidaryan, V. A.

TITLE: Hysteretic properties of thin ferromagnetic films, and the effect of angular anisotropy dispersion on them 49 B

SOURCE: Fizika metallov i metallovedeniye, v. 19, no. 1, 1965, 33-37

TOPIC TAGS: ferromagnetic film, anisotropy dispersion, film anisotropy, hysteresis loop, vacuum evaporation, zirconium oxide, coercive force, boundary shift, magnetization, nickel alloy 27 21

ABSTRACT: Numerous properties of thin ferromagnetic films, not described in the theory of coherent rotation, are associated with the angular dispersion of anisotropy. The connection between the angular dispersion of anisotropy and the splitting of the film into narrow domains when a change is made to a heavy magnetization direction has already been established; this is accompanied by the formation of a hysteresis loop. All the past studies have dealt with the effect of dispersion on the behavior and properties of films from a purely qualitative point of view, while the only attempt at defining the quantitative relationships (by Olmen and

Card 1/2

L 30120-65

ACCESSION NR: AP5004262

Rubens) between film properties and angular dispersion ended in failure. The present study represents an attempt to define the correlation between the various parameters of the films, and ascertain the effect of the angular dispersion of anisotropy on them. The experiments involved the use of disc-shaped films, 10mm thick, prepared from alloys containing either 82% Ni and 18% Fe, or 79% Ni, 17% Fe and 4% Mo. The coercive force of boundary shifts (coercive force in the direction of light magnetization) was determined by the limiting hysteresis loop of the film, and the coercive rotational force by extrapolating the linear hysteresis loop in the direction of heavy magnetization to the saturation level. The results showed that the coefficient of rectangularity of the loop increases with an increasing ratio between the coercive force of boundary shifts and the coercive force of rotation. The coercive force of boundary shifts depends on the number of domains in the state of residual magnetization after saturation, and with a constant energy of the 180-degree Neel boundaries. It increases with increasing angular dispersion of the anisotropy. Orig. art. has: 5 figures, 1 table and 1 formula.

ASSOCIATION: None

SUBMITTED: 21Jan64

ENCL: 00

SUB CODE: MM, EM

NO REF SOV: 003

OTHER: 007

Card 2/2

L 18729-66 EWT(1)/EWT(m)/T/EWP(t) IJP(c) JD/GG

ACC NR: AP6005147

SOURCE CODE: UR/0126/66/021/001/0146/0148

AUTHOR: Yegiyan, K. A.

ORG: none

TITLE: How the properties of magnetic thin films are affected by annealing in a magnetic field applied in either difficult or easy axes of magnetization

SOURCE: Fizika metallov i metallovedeniya, v. 21, no. 1, 1966, 146-148

TOPIC TAGS: magnetic thin film, magnetic field, annealing, magnetic anisotropy, magnetic hysteresis

ABSTRACT: The annealing of films in a ^{21, 44, 55}magnetic field can provide significant information on the nature of induced anisotropy. In this connection the author investigated ^{21, 44, 55}thin-film specimens annealed at 95-430°C in a vacuum chamber placed in between the poles of a DC magnet in a field with an intensity of ~500 oersteds (vacuum $1-4 \cdot 10^{-5}$ mm Hg). The films were obtained by vacuum evaporation ($1-2 \cdot 10^{-5}$ mm Hg, substrate temperature 200-240°C). Film disks of 6-mm diameter were placed on glass slides measuring 32x22 mm (six disks per slide). Two slides were annealed at the same time: one in a field parallel to the easy axis and the other in a field parallel to the difficult axis. Following each anneal the coercive forces in the easy and difficult directions, H_c and H_{c1} , the anisotropy fields H_k and H_k' (maximum

Card 1/2

UDC: 539.216.2:538.22

61
59
B

L 18729-66

ACC NR: AP6005147

2

field within which the hysteresis loop of the difficult direction is linear) and the angular variance of anisotropy φ_{80} were measured. It was established that during annealing in a field applied in a difficult direction, as the annealing temperature increases H_c , $H_{c\perp}$ and H_k decrease while φ_{80} increases, and beginning with 280°C, the easy axis shifts its direction with concomitant improvement in anisotropy. A characteristic feature of this process is that the changes in film properties up to a temperature of 400°C are determined not just by the temperature but also by the magnetic field applied, since in the case of the slides annealed in a field parallel to the easy axis no marked changes in H_k and φ_{80} were observed over the same temperature range. The findings point to the existence of a common source conditioning the anisotropy in the old and new directions of the easy axis. "The author is indebted to Professor R. V. Telesin for discussion of this project and to T. A. Pogozyan for assistance in conducting the experiments." Orig. art. has: 2 figures.

SUB CODE: 09, 20/ SUBM DATE: 24Mar65/ ORIG REF: 002/ OTH REF: 006

Card 2/2 *SM*

ACC NR: AP7005131

(A)

SOURCE CODE: UR/0126/66/022/004/0556/0562

AUTHOR: Yeghyan, K. A.; Arityunyan, R. G.

ORG: none

TITLE: Coercive force of thin ferromagnetic films as a function of certain factors

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 4, 1966, 556-562

TOPIC TAGS: magnetic thin film, ferromagnetic film, iron nickel alloy, magnetic coercive force

ABSTRACT: The nature of the coercive force H_c of thin films is as yet inadequately understood, and previous studies of H_c investigated its dependence on only some one factor or another rather than on several factors. To fill this gap, the authors investigated the dependence of H_c on a number of factors: composition of binary Fe-Ni alloy film (varying from 75% Ni and 25% Fe to 84% Ni and 16% Fe); dependence of H_c on substrate temperature (150-350°C); dependence of H_c on film thickness (700-2700 Å); dependence of H_c on the anisotropy field H_k and its angular dispersion φ . Only uniaxially anisotropic films were considered. The films were obtained by the vacuum evaporation method in $1-2 \cdot 10^{-5}$ mm Hg at the rate of 120-160

Card 1/2

UDC: 539.216.2:538.248

ACC NR: AP7005131

Å/min, with deposition on ordinary glassslides. Hysteresis properties were measured with the aid of a ferrotester at a frequency of 1200 cps. H_c was determined in a field of 5 oe; H_k , by the extrapolation method; and φ , by the Krouter pulsed method. The magnetoelastic constant was determined according to the dependence of H_k on relative elongation. Findings: under specific experimental conditions there exists a direct relationship between the variations in H_c and angular dispersion. E.g. the minima of both these quantities coincide for the alloys with the composition 75% Ni + 25% Fe. For films 700 to 2700 Å thick $H_c \sim d^{-2/3}$. The increase in φ with increase in film thickness in this case is associated with the increase in the demagnetizing field of the specimen. The mechanism of action of such angular dispersion on the properties of the films differs from that of the conventional structural increase in φ . In particular, in this case a rise in φ leads to a decrease rather than increase in H_c . The anisotropy field H_k contributes to the magnitude of H_c only in the region $H_c/H_k > 0.8$. When $H_c/H_k < 0.5$ the variation in H_k does not lead to variation in H_c . It is assumed that this relationship is conditioned by the change in the mechanism of the reversal of films along the easy axis with increase in the ratio H_c/H_k . "The authors are indebted to Professor R. V. Telesnin for discussion of this project." Orig. art. has: 7 figures.

SUB CODE: 42 20/ SUBM DATE: 08Jan66/ ORIG REF: 003/ OTH REF: 009

Card 2/2

S/058/61/000/010/021/100
A001/A101

AUTHORS: Khrimyan, A.V., Kosmachevskiy, V.K., Avakyan, V.V., Gorodkov, Yu.V.,
Yeghyan, K.Sh., Nalbandyan, N.A.

TITLE: Investigation of the nature and spectra of particles produced by
high-energy nucleons

PERIODICAL: Referativnyy zhurnal. Fizika, no. 10, 1961, 97, abstract 10B507 ("Tr.
Mezhdunar. konferentsii po kosmich. lucham, 1959, v. 1", Moscow, AN
SSSR, 1960, 183 - 187)

TEXT: The authors present the results of investigating particles with mo-
menta up to 900 Mev/c produced in lead by high-energy nucleons of cosmic radia-
tion at an altitude of 3,200 m above sea level (the Aragats mountain, Armenia).
The ionizing capability of individual particles was determined with an average
accuracy of $\pm 14\%$ by means of a gas counter and of $\pm 10\%$ by means of five scin-
tillation counters.

L. Dorman

[Abstracter's note: Complete translation]

Card 1/1

33141

S/120/61/000/006/007/041

E032/E114

21.6000

AUTHORS: Khrimyan, A.V., ~~Yegiyana, K.Sh.~~, Nalbandyan, N.A.,
Avakyan, V.V., and Karapetyan V.A.

TITLE: Measurement of charged-particle masses with the aid
of scintillation counters

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1961, 52-56

TEXT: The method can be used to (a) select particles which
stop in the scintillator owing to ionization losses, and
(b) to determine the mass of the particles by measuring their
energy and range in the scintillator. The device consists of a
telescope of n scintillation counters (C_1, \dots, C_n) with
thickness l_1, \dots, l_n respectively. If a particle which has
passed at an angle of φ through $k - 1$ scintillators has come
to rest in the scintillator C_k at a depth l_x , and at the end
of its range in the $m + 1$ scintillators C_{k-m}, \dots, C_k the
energy losses $\Delta E_{k-m}, \dots, \Delta E_k$ were due to ionization only, then
it can be shown that:

Card 1/6

X

33141

Measurement of charged-particle ...

S/120/61/000/006/007/041
E032/E114

$$\frac{\Delta E_{k-i}}{\Delta E_{k-(i+1)}} = f_i \left(\frac{\Delta E_{k-(i+1)}}{\Delta E_{k-(i+2)}}, \ell_{k-1}, \dots, \ell_{k-(i+2)} \right) \quad (1)$$

(i = 0, ..., m - 2)

This holds whatever the nature of the particle, the direction of its motion, and range in the last scintillator C_k . Thus, by measuring the energies $\Delta \xi_1, \dots, \Delta \xi_n$ in the scintillators C_1, \dots, C_n one can select with the aid of Eq.(1) all those particles which come to rest in the scintillators C_{k-m}, \dots, C_k by losing energy in ionization processes only.

For stable particles $\Delta \xi_i = \Delta E_i$. If on the other hand a primary particle decays (or is captured) in the scintillator C_k then the energy liberated in C_k is $\Delta \xi_k = \Delta E_k + \delta E_k$ where the latter quantity is the energy of the secondary particles. In this case the first equation (i = 0) in Eq.(1) can only be used for the determination of the unknown energy:

$$\Delta E_k = \Delta \xi_{k-1} f_0 (\Delta \xi_{k-1} / \Delta \xi_{k-2}) \quad (4)$$

Card 2/6

X

33141

Measurement of charged-particle...

S/120/61/000/006/007/041
E032/E114

and the remaining relations in Eq.(1) are used to select the ionization stoppages. The energy loss of a particle with an ionizing power I/I_{\min} in the scintillator C_1 is given by:

$$\Delta \epsilon_i = B (I/I_{\min}) C_i \ell_i \text{ MeV} \quad (5)$$

where B is in MeV/cm and represents the minimum ionization loss in the particular scintillator, and ℓ_i is the thickness of the scintillator C_i in cm. Thus the energy lost by a particle before stopping in scintillators C_{k-m}, \dots, C_k is given by

$$E = \sum_{i=k}^{k-m} \Delta \epsilon_i$$

If Eq.(1) is not satisfied for $i = 0$, then

$$E = \sum_{i=k-1}^{k-m} \Delta \epsilon_i + \Delta E_k \quad (6)$$

Card 3/6

X

Measurement of charged-particle...

33141
S/120/61/000/006/007/041
E032/E114

where ΔE_k is given by Eq. (4). The range of a particle in the scintillators C_{k-m}, \dots, C_k is given by:

$$R = \left(\sum_{i=k-1}^{k-m} \ell_i + \ell_x \right) \operatorname{cosec} \varphi \quad (7)$$

in which all the quantities except ℓ_x are known. If the scintillators are looked upon as simple filters then

$$\ell_x = 1/2 \ell_k \pm 1/2 \ell_k.$$

ℓ_x can also be determined from a relation of the form:

$$\ell_x = F(\ell_0, \ell_{k-1}, \ell_{k-2}) \quad (3)$$

In order to verify the above method the authors have used the results obtained with the instrument described by A.I. Alikhanov, A.V. Khrimyan, V.K. Kosmachevskiy, V.V. Avakyan, Yu.V. Gorodkov, K.Sh. Yegiyan and N.A. Nalbandyan. (Ref.6: Proceedings of the International Conference on Cosmic Rays, 1959, 1960, v.1., 183)

Card 4/6

Measurement of charged-particle ... 33141
S/120/61/000/006/007/041
E032/E114

The instrument consists of a magnetic mass spectrometer, a five-layer proportional counter (A.I. Alikhanov, V.A. Lubimov, G.P. Elisiyev, CERN Symposium, v.2, 1956, 87) and five scintillation counters (V.K. Kosmachevskiy and M.S. Aynuddinov, PTE, no.3, 1956, 49). The rms error in the momenta between 0.2 and 1 GeV/c was approximately 8 to 5% for protons and 2 to 4% for π -mesons. The ionizing power of the particles could be measured with the proportional counter to an average accuracy of $\pm 14\%$. For particles stopping in the scintillation counters the average losses in the scintillators could be measured to $\pm 10\%$. Preliminary results indicate that the efficiency of selection of particles which come to rest owing to ionization only is about 0.8. The average accuracy with which the masses can be determined from the energies and ranges is approximately 20%. The statistics on which these results are based are limited and therefore the results are only preliminary. The experiment did not confirm the possibility of investigating the masses and decays of unstable particles. The method may find wide-ranging applications and is amenable to automation. Acknowledgments are
Card 5/6

X

Measurement of charged-particle ...

33141
S/120/61/000/006/007/041
E032/E114

expressed to A.I. Alikhanov and A.I. Alikhanyan for interest and discussions, and to Yu.V. Gorodkov, M.P. Lorikyan, I.P. Karabekov, K.A. Khurshudyan, G.P. Matevosyan, V.V. Truzyan, E.V. Patvakanyan, G.M. Smsaryan, A.A. Oganesyanyan and B.V. Tovmasyan for assistance in the organisation and execution of this work.

There are 4 figures and 11 references; 5 Soviet-bloc and 6 non-Soviet-bloc. The four most recent English language references read as follows:

Ref.2: J.W. Keuffel, R.L. Call, W.H. Sandmann, M.O. Larson.
Phys. Rev. Letters, v.1, 1958, 203.

Ref.4: Phys. Rev., v.114, 1959, 1150.

Ref.5: E. Birman, R. Lea, J. Orear, S. Rosendorff.
Phys. Rev., v.113, 1959, 710.

Ref.7: J. Steinberger, 1958 Annual International Conference on High Energy Physics at CERN, Geneva, 1958.

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

SUBMITTED: April 3, 1961
Card 6/6

X

L 15683-65 EWT(m)/I/EWA(m)-2 ASD-3/ESD(t)/AEDC(a)/SSD/BSO/AFWL/ASD(a)-5/
ASD(p)-3/AFMDC
ACCESSION NR: AP4047461 S/0120/64/000/005/0075/0078

AUTHOR: Yegiyani, K. Sh.

TITLE: Method for measuring charged-particle masses with an automated selection of ionization stops ^{9m} ^B

SOURCE: Pribory* i tekhnika eksperimenta, no. 5, 1964, 75-78

TOPIC TAGS: particle physics, charged particle /9

ABSTRACT: A method for determining the charged-particle mass by means of scintillation counters was suggested by A. V. Khrimyan, et al. (PTE, 1961, no. 6, 52). The method permitted selecting the ionization stops of particles in the scintillators and determining the particle mass with a mean-square error of $\pm 20\%$. In the present article, an improvement of the method is suggested; the possibility of automating both the ionization-stop pick-off and the determination of particle mass by measuring its residual energy and range is demonstrated. The

Card 1/2

L 15683-65

ACCESSION NR: AP4047461

efficiency of the improved method, tested theoretically by using published data, is claimed to be 10% higher than the efficiency of the original method. Orig. art. has: 4 figures and 9 formulas.

ASSOCIATION: none

SUBMITTED: 04Mar64

ENCL: 00

SUB CODE: NP, OP

NO REF SOV: 006

OTHER: 005

Card 2/2

L 15682-65 EWT(m)/T ASD-3/AFWL/AMD/IJP(c)/ESD(t)/AEDC(a)/SSD/BSD/
AFWL/ASD(a)-5/ASD(p)-3/AFMDC
ACCESSION NR: AP4047467 5/0120/64/000/005/0103/0106

AUTHOR: Yeghyan, K. Sh.; Vartanyan, S. V. B

TITLE: Automatic selection of ionization stops of charged particles in a
scintillation telescope 19

SOURCE: Pribory* i tekhnika eksperimenta, no. 5, 1964, 103-106

TOPIC TAGS: particle physics, charged particle, scintillation telescope

ABSTRACT: An electronic circuit is described which permits the automatic isolation of ionization stops of charged particles by the author's method (see Abstract AP4047461). Events are isolated in which three simultaneous signals are connected by: $A(U_1/U_2)^{\gamma} - B(U_1/U_3)^{\gamma} = C$, where A, B, C, and γ are constants, U_1, U_2, U_3 are the amplitudes of signals. The circuit depends for its action on the conversion of a power of the ratio of amplitudes of two pulses into a pulse whose amplitude is proportional to the above power. The possibility of using the

Card 1/2

L 15682-65
ACCESSION NR: AP4047467

1
circuit for a determination of the charged-particle mass by means of a scintillation telescope is demonstrated; a few experimental trials are reported. Orig. art. has: 3 figures and 17 formulas.

ASSOCIATION: Fizicheskiy institut GKAE (Institute of Physics, GKAE)

SUBMITTED: 04Mar64

ENCL: 00

SUB CODE: EC, OP

NO REF SOV: 006

OTHER: 001

Card 2/2

S/048/62/026/006/005/020
B125/B112

AUTHORS: Khrimyan, A. V., Avakyan, V. V., Nalbandyan, N. A.,
Yeghyan, K. Sh., and Pleshko, M. P.


TITLE: Composition of the nuclear active cosmic radiation particle
current in the momentum range exceeding 1.8 Bev/c at
3250 m above sea level. I.

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,
no. 6, 1962, 722 - 727

TEXT: The relative number of pions present in the current of nuclear active cosmic radiation particles was determined for momenta above 1.8 Bev, at an altitude of 3250 m on the Aragats mountain in Armenia. A magnetic mass spectrometer (6850 oe) was used, the measuring apparatus comprising also a five-layer gas proportional counter and five scintillation counters. The electrons, the muons, and the particles produced in the measuring apparatus itself were screened out. The first series of measurements recorded mainly the particles absorbed by the filters and their secondary products. In the second series all particles were recorded. At $p = 1.8$ Bev, 65 positively charged particles were recorded.
Card 1/2

Composition of the nuclear...

S/048/62/026/006/005/020
B125/B112

after which the number dropped to 4 particles at 11.2 Bev. One negative particle each was measured at 1.8 and 2.2 Bev, two were recorded at 11.2 Bev. Fig. 2 shows the spectrum obtained in the second series of measurements. Only 3% of the particles recorded in the momentum range 1.8 to 22 Bev/c were negative. The ratio N_{π^+}/N_{π^-} for momenta above 1.8 Bev does not differ considerably from the ratio in the interval up to 720 Mev/c. The pion portion in all nuclear active particles in the momentum interval is, however, $6 \pm 2\%$, or 10% at most. At momenta above 2 Bev/c the relative number of K-mesons, protons, and deuterons cannot be determined by the method of "ionization-momentum" or by the method used in the present paper. There are 2 figures and 2 tables. The most important English-language reference is: G. Bozoki, E. Fenyves, L. Janossy, Nucl. Phys., 24, 412 (1961). 

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

Card 2/02

38969

S/048/62/026/006/019/020
B125/B102

9.6150

AUTHORS: Khrimyan, A. V., Yeghyan, K. Sh., Nalbandyan, N. A.,
Avakyan, V. V., and Karapetyan, V. A.

TITLE: On the measurement of masses of charged particles by means
of scintillation counters

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya,
v. 26, no. 6, 1962, 831-836

TEXT: A group of scintillation counters can be used to determine the
stoppings due to ionization losses and the masses (range-energy
measurement). The apparatus here used comprised a magnetic mass spectro-
meter ($H = 6850$ oe), a five-layer proportional counter and five
scintillation counters. After measuring the energies released from the
particle in the scintillators C_1, \dots, C_n with the thicknesses
 l_1, \dots, l_n ($n \geq 3$) the stoppings due to ionization losses were
distinguished from the nuclear interactions by applying the criterion

X

Card 1/3

On the measurement of masses ...

S/048/62/026/006/019/020
B125/B102

$$\frac{\Delta E_{k-i}}{\Delta E_{k-(i+1)}} = f_i \left(\frac{\Delta E_{k-(i+1)}}{\Delta E_{k-(i+2)}}, l_{k-1}, \dots, l_{k-(i+2)} \right) \quad (i=0, \dots, m-2)$$

$\Delta E_{k-m}, \dots, \Delta E_k$ are the energy losses in the scintillators

C_{k-m}, \dots, C_k . The four quantities momentum, ionization power, range and energy are measured by this device. From these, the mass of the particles is found by the momentum - ionization and range - energy methods. The mass spectrum as measured by the first method has a maximum at $\sim 1780 m_e$ and that obtained from the second method a maximum at $\sim 1850 m_e$.

In both cases a weak deuteron spectrum appears between 3500-4500 m_e . The stoppings due to ionization are identified with an efficiency of ~ 0.8 . The stoppings due to other causes are eliminated with an efficiency of $\sim 0.9-1$. This method was tested by the devices available at the time and can undoubtedly be improved upon by more perfect selection and use of apparatus. Its applicability to decay processes and to mass measurements of unstable particles has not yet been confirmed experimentally. There are 4 figures. The most important English-language reference is: Stenberger J. 1958 Annual International Conference on High Energy Physics at CERN, Geneva, 1958.
Card 2/3

On the measurement of masses ...

S/048/62/026/006/019/020
B125/B102

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

4

Card 3/3

S/048/62/026/006/020/020
B181/B104

AUTHORS: Khrimyan, A. V., Yegiyany, K. Sh., Nalbandyan, N. A.,
Avakyan, V. V., and Karapetyan, V. A.

TITLE: Mass measurements of low-intensity charged-particle groups
by various methods

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26,
no. 6, 1962, 837- 840

TEXT: The mass of particles produced by the action of cosmic rays was determined from (1) momentum and ionization, (2) momentum and length of path, (3) momentum and energy, (4) ionization and energy, (5) ionization and length of path, (6) energy and length of path. The experimental arrangement (A. V. Khrimyan, V. V. Avakyan, N. A. Nalbandyan, K. Sh. Yegiyany, M. P. Pleshko, present publication, p. 722) consisted of a mass spectrometer, a proportional counter, two scintillation counters for determining the energy and length of path, and three scintillation counters for determining the energy losses of scattered particles. (2) and (3) gave masses too high, (4), (5); and (6) masses too small for the 203

Card 1/2

Mass measurements of low-intensity ...

S/048/62/026/006/020/020
B181/B 104

protons, 11 deuterons, and 3 muons and pions observed. Methods (2) through (6) give correct results only if non-ionizing energy losses are detected with sufficient reliability. As it is difficult to construct the necessary apparatus (high ionization gradient in very flat Wilson chambers, very thin-walled counting tubes, etc.), preference should be given to method (1). There is 1 figure. ✓

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

Card 2/2

15155
S/056/62/042/003/005/049
B117/B112

24.6700

AUTHORS: Khrimyan, A. V., Avakyan, V. V., Nalbandyan, N. A.,
Yeghyan, K. Sh., Pleshko, M. P.

TITLE: Composition of nuclear-active cosmic-ray particles with
momenta above 1.8 Bev/c at an altitude of 3250 m above sea
level. I

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 3, 1962, 669 - 674

TEXT: The nature and momentum spectra of nuclear-active cosmic-ray
particles in the momentum range above 1.8 Bev/c were studied on Mount
Aragats (Armenia) at an altitude of 3250 m above sea level in order to
determine the relative number of pions in the particle flux. The investi-
gations were made with a magnetic mass spectrometer of 6850 oe including
a hodoscope, a thin-walled five-layer proportional counter, and five
scintillation counters. The momenta from 2 to 20 Bev/c were determined
with a mean square error from 10 to 80%. The ionizing power of individual
particles was determined with a mean error of $\pm 14\%$ (gas counter) and

Card 1/3

S/056/62/042/003/005/049
B117/B112

Composition of nuclear-active...

± 10% (scintillation counters). Electrons, muons, and the particles produced in the device were not taken into account. Two series of measurements were carried out: (1) coincidences I + II + III + IV + V - XIII and recording of particles absorbed by the filters together with their secondary products; (2) coincidences I + II + III + IV + V and recording of all the particles. The results of both series could be used to determine the relative number of pions in the cosmic-ray particle flux. Results: In the momentum range of 1.8 - 22 Bev/c, which contains 95 - 98% of the particles with momenta ≥ 1.8 Bev/c, negative particles comprise about 3% of all the particles. In the momentum range of 100 - 720 Mev/c, the ratio $N_{\pi^+}/N_{\pi^-} = 0.90 \pm 0.15$ was obtained for the nuclear-active cosmic-

ray particle flux. In the momentum range of 1.8 - 22 Bev/c, pions account for $6 \pm 2\%$ of all the nuclear-active particles. On the assumption that also the five particles with unknown sign, observed above 1.8 Bev/c, are pions, the latter comprise not more than 10% of the nuclear-active cosmic-ray particles at 3250 m above sea level. The results are consistent with published data (Ref. 11: N. M. Kocharyan, G. S. Saakyan, Z. A. Kirakosyan, ZhETF, 35, 1335, 1958; Ref. 18: G. M. Garibyan, I. I. Gol'dman, ZhETF, 26,

Card 2/3

Composition of nuclear-active...

S/056/62/042/003/005/049
B117/B112

257, 1954). It is noted that the determination of K-mesons, protons, and deuterons requires other methods. In the range ≥ 2 Bev/c, these particles cannot be determined by measuring the ionization and momentum, or by the method applied here. Professor A. I. Alikhanyan is thanked for valuable hints, and V. Sh. Kamalyan, Yu. V. Gorodkov, I. P. Karabekov, B. N. Moiseyev, G. G. Matevosyan, E. V. Patvakanyan, G. M. Smsarayan, K. A. Khurshudyan, V. S. Truzyan, and N. A. Marutyan for assistance. There are 2 figures and 18 references: 10 Soviet and 8 non-Soviet. The four most recent references to English-language publications read as follows: A. G. Barkov, V. Chamany, D. M. Haskin, P. L. Jain, E. Lohrmann, M. W. Teucher, M. Schein, Phys. Rev., 122, 617, 1961; I. H. Atkinson, W. N. Hess, V. Perez-Menez, R. W. Wallace, Phys. Rev. Lett., 2, 168, 1959; P. H. Barrett, Phys. Rev., 114, 1374, 1959; G. Bozoki, E. Fenyves, L. Janossy. Nucl. Phys., 24, 412, 1961.

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

SUBMITTED: July 28, 1961

Card 3/3

YEGYAN, K.Sh.

Method for measuring the masses of charged particles with
automatic selection of ionization stops. Prib. 1 tekhn.
eksp. 9 no.5:75-78 S-O '64. (MIRA 17:12)

YEGIYAN, K.Sh.; VARTANYAN, S.V.

Automatic selection of ionization stops of charged particles
in a scintillation telescope. Prib. i tekhn. eksp. 9 no.5;
103-106 S-O '64. (MIRA 17:12)

1. Fizicheskiy institut Gosudarstvennogo komiteta po ispol'zo-
vaniyu atomnoy energii SSSR.

YEGHIAN, H. G.

24385

YEGHIAN, H. G. Vnesustavnyye formy kostnogo tuberkulosa. Sbornik nauch. Trudov (Yerevansk. nauch.-issled. II-T ortopedii i vosstanovit. Khirurgii). I, 1949, s. 24-26.

SO: Letopis, No. 32, 1949.

YEGIYAN, R.

PERINSKIY, N., polkovnik; FILIPPOV, R., polkovnik; MIKHAYLOVSKIY, G.,
POMINYKH, A., general-leytenant; DYUBKOV, G., podpolkovnik;
BAYTUGANOV, M., podpolkovnik; YEGIYAN, R., podpolkovnik;
KONDRASHIN, V., podpolkovnik ~~zapas~~

From practice training in military science. Voen. vest. 38 no. 6:53-
57 Je '58. (MIRA 11:7)

(Military education)

USSR/Cultivated Plants - Commercial. Oil-Bearing. Sugar-Bearing. M

Abs Jour : Ref Zhur Biol., No 18, 1958, 82430

Author : Yegiyar, R.S.

Inst : Azerb. Scientific Research Institute of Cotton Raising

Title : Effect of Phosphorobacterin on the Cotton Yield.

Orig Pub : Byul. nauchno-tekhn. inform. Azerb. n.-i. in-ta khlopko-
vodstva, 1957, No 2, 79-81

Abstract : Dried cotton plant seeds were treated prior to planting
with the solution of the preparation at the rate of 50
cubic centimeters to 1 liter of water. Increases in
the yield of cotton wool comprised 1-2.8 centners/ha.
Application of phosphorobacterin with the seeds promoted
a better assimilation of P from the soil and of the phos-
phorus fertilizers applied.

Card 1/1

BUNYATYAN, G.Kh.; MKHITARYAN, V.G.; ~~YEGIYAN, V.B.~~

Participation of oxypurines in ascorbic acid metabolism. Report
no. 4: Effect of uric acid on the oxidation of ascorbic acid in
the presence of hydrogen peroxide. Nauch.trudy Inst.fiziol.AN
Arm.SSR. 1:59-72 '48. (MLBA 9:8)
(URIC ACID) (ASCORBIC ACID) (HYDROGEN PEROXIDE)

YEGIYAN, V.B.

MKHITARYAN, V.G.; YEGIYAN, V.B.

Effect of choline and colamine on the oxidation of adrenaline.
Dokl.AN Arm.SSR, 11 no.1:19-23 '49. (MLRA 9:10)

1. Kafedra biokhimii Yerevanskogo Meditsinskogo insitututa,
Yerevan. Predstavleno G.Kh. Bunyatyanom.
(ADRENALINE) (CHOLINE) (ETHANOL)

YEGIYAN, V.B.

BUNYATYAN, G.Kh.; MKHITARYAN, V.G.; YEGIYAN, V.B.

Participation of oxypurines in adrenaline exchange. Part 3. Effect of oxypurines on the oxidation of pyrocatechin and adrenaline in the presence of phenolase. Dokl.AN Arm.SSR 10 no.4:167-171 '49.

(MLRA 9:10)

- 1.Deystvitel'nyy chlen Akademii nauk Armyanskoy SSR (for Bunyatyan).
- 2.Institut fiziologii Akademii nauk Armyanskoy SSR, Yerevan.
(Phenolases) (Purines) (Adrenaline) (Pyrocatechol)

GURVICH, M.M.; YEGIYEVA, R.Sh.

Increasing the efficiency of techniques used in the production
of coal-alkali additives from seawater. Trudy Inst. khim. AN Azerb.
SSR. 16:118-130 '57. (MIRA 12:9)
(Drilling fluids)

GUREVICH, M.M.; ZEYNAIOV, B.K.; YEGIYEVA, R.Sh.

Petroleum oxyacids as reagents for chemical treatment of drilling
muds. Dokl. AN Azerb. SSR 14 no.5:357-364 '58. (MIRA 11:5)

1. Institut khimii AN AzerSSR. Predstavleno akademikom AN AzerSSR
M.F. Nagiyevym.

(Oil well drilling fluids)

GURVICH, M.M.; YEGIYEVA, R.Sh.

Investigation of the effect of alkali on structure formation in
clay suspensions. Izv. AN Azerb. SSR. Ser.fiz-tekh. i khim.nauk
no.6:109-121 '58. (MIRA 12:2)
(Clay) (Sodium hydroxide)

YEGIYEVA, R.Sh.; GURVICH, M.M.

Effect of gelatinous substances on the structural properties and
viscosity of clay suspensions in water. Trudy Inst.khim. AN Azerb.-
SSR 18:31-37 '60. (MIRA 14:9)

(Drilling fluids)

GURVICH, M.M.; ZEYNALOV, B.K.; YEGIYEVA, R.Sh.

Petroleum oxyacids as reagents for the chemical treating of
clay solutions. Report No.4: Oxyproducts from unrefined
paraffinic distillates as reagents for the chemical treatment
of clay solutions. Azerb. khim.zhur. no.3:91-98 '61. (MIRA 14:11)
(Petroleum products) (Clay)

KLASSEN, V.I.; PIKKAT-ORDYNSKIY, G.A.; VENKOVA, M.D.; ZHENDRINSKIY, A.P.;
MATVEYENKO, N.V.; GORODETSKIY, M.I.; YEGIZAROV, A.A.;
PECHENKIN, V.V.; SIREGIN, N.V.; KEPP, G.A. YATSENKO, N.M.

Industrial testing of an ejector-type flotation machine for
the flotation of ores. TSvet. met. 36 no.4:7-13 Ap '63.
(MIRA 16:4)

(Flotation—Equipment and supplies)

GOL'DAISKIY, V.I.; YEGIZAROV, B.G.; ZAPOROZHETS, V.M.; OSTANEVICH, Yu.M.;
CHUPROVA, I.D.

Studying the Mossbauer spectra of ferruginous minerals. Prikl.
geofiz. no.44:202-210 '65. (MIRA 18:9)

ATABEKOV, G.I.; BELOUSOV, M.M.; BULGAKOV, K.V.; VASIL'YEV, D.V.;
YEGIZAROV, I.V.; ZAKHAROV, S.N.; ZEYLIDZON, Ye.D.; KOSTENKO, M.P.;
MANOYLOV, V.Ye.; WARNEVSKIY, B.I.; RYZHOV, P.I.; SOLOV'YEV, I.I.;
SYROMYATNIKOV, I.A.; FABRIKANT, V.L.; CHERNIN, A.B.; CHERNOBROVOV,
N.V.; FEDOSEYEV, A.M.; SHABADASH, B.I.; SHCHEDRIN, N.N.;
FATEYEV, A.V.

Viktor Ivanovich Ivanov, 1900-1964; an obituary. Elektrichestvo
no.11:89 N '64. (MIRA 18:2)

YEGIZARYAN, Ye.A.

Viticulture in the Ararat region [in Armenian with summary in Russian].
Nauch. trudy Brev. un. 63:147-164 '58. (MIRA 11:6)

1. Yerevanskiy gosudarstvennyy universitet, kafedra ekonomicheskoy
geografii.

(Ararat Mountain region--Viticulture)

YEGLE, I. Yu.

USSR

Myškis, A. D., and Egle, I. Yu. On an estimate of the error in the method of successive approximations. Mat. Sb. N.S. 35(77), 491-500 (1954). (Russian)

1 - P/W

MS

The authors give four essential characteristics of useful accuracy estimates for any approximate method: a) They should use only known quantities; b) they should not be excessively loose; c) they should be adaptable to a large number of ways of applying the basic method; d) they should not be too laborious to apply. They claim that few estimates satisfy all these criteria, but in this regard praise those of L. V. Kantorovič and V. I. Krylov, Approximate methods of higher analysis [e.g., 3rd ed., Gostelizdat, Moscow-Leningrad, 1950; MR 13, 77]. The authors claim that for many estimates deficiencies of the above types can be corrected very easily. To illustrate this they consider the solution by successive approximation of the Volterra integral equation

62
①

$$y(x) = \phi(x) + \int_a^x F(x, s, y(s)) ds,$$

where F and ϕ are continuous and

$$(*) \quad |F(x, s, y_1) - F(x, s, y_2)| \leq K|y_1 - y_2| \quad (K = \text{constant}).$$

(C.V.E.A.)

A.D. MYSKIS

The algorithm treated is the usual one:

$$y_n(x) = \phi(x) + \int_{x_0}^x F(x, s, y_{n-1}(s)) ds \quad (n=1, 2, \dots).$$

A common error estimate for $|y(x) - y_n(x)|$ is derived from (*), based on proving inductively that

$$|y_n(x) - y_{n-1}(x)| \leq A(x-x_0)^p \quad (A \geq 0, p > -1).$$

The authors observe that (*) does not ordinarily hold for all y in $(-\infty, \infty)$, and derive estimates under the weaker assumption that $K = K(a, b; x, s)$, for $a \leq y \leq b$. The estimates are then refined. There is an example corresponding to solving $y' = x^2 + y^2$, $y(0) = 0$.

In another section the authors generalize the procedure of getting a bound for $|y - y_n|$ from a bound for $|y_n - y_{n-1}|$ to mappings of a partially ordered abelian semigroup on itself. As an application, Volterra-type operators and equations in a Banach space are defined, and a Lipschitz condition analogous to (*) is used to give an error estimate for solutions by successive approximation. *G. E. Forsythe.*

YEGORIT, A. (Riga).

~~They bring aviation knowledge to youth.~~ Kryl. rod. 8 no.8:16 Ag '57.
(MLRA 10:9)

1. Inspektor-letchik respublikanskogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu Latviyskoy SSR.
(Latvia--Military education)

YEGNARYAN, V. O.

37628

o Lechenii maylariynykh la--bolevaniy aorenalinom. trudy in-ta malyarii
i med. paralitologo(m-yo zdravookhraneniya arm. ssr.) vyp. 4, 1949, s. 144-46

SO: Letopis' Zhurnal'nyy Statey, Vol. 37, 1949

YEGNUS, M.Ya., inzhener.

Our method of utilizing and improving building machinery. Stroi. i
dor.mashinosts. 1 no.12:9-12 D '56. (MIRA 10:1)

1. Glavmosstroy.
(Building machinery)

YEGNUS, M.Ya., - inzhener.

Mechanizing the construction work of the Main Administration of
the Moscow Housing and Public Building Construction Trust.
Mekh.stroi.13 no.6:5-10 Je '56. (MIRA 9:9)
(Moscow--Building machinery)

SOKOLOV, K.M.; YEVSTAFYEV, S.V.; ROSTOTSKIY, V.K.; GRECHIN, N.K.; STANKOVSKIY, A.P.; BAUMAN, V.A.; BERKMAN, I.L.; BORODACHEV, I.P.; BOYKO, A.G.; VALUTSKIY, I.I.; VATSSLAVSKAYA, L.Ya.; VOL'FSON, A.V.; DOMBROVSKIY, N.G.; YEGHUS, M.Ya.; YEFREMBENKO, V.P.; ZIMIN, P.A.; IVANOV, V.A.; KOZLOVSKIY, A.A.; KOSTIN, M.I.; KRIMMERMAN, M.N.; LINEVA, M.S.; MORZENKOV, A.S.; MIROPOL'SKAYA, N.K.; PETROV, G.D.; REBROV, A.S.; ROGOVSKIY, L.V.; SMIRNOV, G.Ya.; SHAFRANSKIY, V.N.; SHIMANOVICH, S.V.; SHNEIDER, V.A.

Evgenii Richardovich Peters; obituary; Mekh. stroi. 15 no.1:3 of cover
Ja '58. (MIRA 11:1)

(Peters, Evgenii Richardovich, 1892-1957)

~~YEGNUS, M. Ya.~~

Truck-conveyer for producing prestressed reinforced concrete.
Gor. khoz. Mosk. 32 no.6:17-19 Je '58. (MIRA 11:7)

1. Nachal'nik Upravleniya glavnogo mekhanika i glavnogo energetika
Glavmosstroya.
(Conveying machinery) (Prestressed concrete)

YEGNUS, M., inzh.

Improved car conveyor for making prestressed reinforced products
using the method of vibration stretching. Na stroi. Mosk. no. 1:5-7
Ja '59. (MIRA 12:1)
(Vibrators) (Conveying machinery) (Prestressed concrete)

YEGNUS, M., inzh.

New method for repairing building machinery. Stroitel'
no.12:23,26 D '59. (MIRA 13:3)
(Building machinery--Maintenance and repair)

YEGNUS, M.Ya., inzh.

Ways to increase precision in the work of assembly equipment.
Mekh.stroi. 20 no. 5:17-20 My '63. (MIRA 16:4)
(Construction equipment)

YEGNUS, M. Ya., inzh.

Experience in the operation of mechanical equipment and repairing
with interchangeable parts in a large construction organization.
Sbor. trud. MISI no.39:459-460 '61. (MIRA 16:4)

1. Glavnoye upravleniye po zhilishchnomu i grazhdanskomu
stroitel'stvu v g. Moskve.

(Construction equipment—Maintenance and repair)

YEGNUS, M.Ya., inzh,

Which cranes are required for erection of large buildings. Mekh,
stroi. 19 no.2:11-15 F '62, (MIRA 16:7)

(Cranes, derricks, etc.)
(Buildings, Prefabricated)

SOV/133-58-8-29/30

AUTHORS: Turchenkova, Ye.K., Sikorskiy, A.I., ~~Yegnus, R.M.~~
Boldyrev, L.I., Raznotina, Ye.T., Engineers, Pol'shakov,
L.A., Candidate of Technical Sciences, and Gavrikov, V.Z.,
Engineer

TITLE: Performance of the Coupling Sleeves Made From Nodular Iron
at the Mill 650 (Rabota soyedinitel'nykh muft iz chuguna
s sharovidnym grafitom na stane 650)

PERIODICAL: Stal', 1958, Nr 8, pp 763 - 766 (USSR)

ABSTRACT: As the durability of the coupling sleeves of the mill 650
made from grey iron decreased with increased degree of
reduction per pass introduced in the rolling practice, the
use of sleeves made from nodular iron was investigated.
Four series of experimental smelting of magnesium-inoculated
iron were carried out. Sleeves from the first series
were tested as cast and of the remaining series after
various heat treatments. The chemical composition,
mechanical, and conditions of thermal treatment are given
in Table 1. The microstructure of heat-treated metal
- Figures 1-3, the mould for casting of sleeves - Figure 4,
the results of service life of sleeves made from nodular
iron, grey iron and steel - Table 2. On the basis of the
results obtained, it is concluded that the service life

Card1/2

SOV/133-58-8-29/30

Performance of the Coupling Sleeves Made from nodular Iron at the Mill 650

of sleeves from nodular iron is 4-6 times higher than that of sleeves made from grey iron. The optimum heat treatment is normalisation with subsequent annealing at 580 °C. Sleeves should be cast with the consumption of metal for shrinkage head not less than 20% of the weight of casting. When coupling sleeves are not heat-treated, then the sum of C + Si in nodular iron should be maintained in a range of 5.5-6.0%. There are 5 figures and 2 tables.

ASSOCIATIONS: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute) and Zavod "Azovstal'" ("Azovstal'" Works)

Card 2/2

1. Couplings--Materials
2. Couplings--Test results
3. Iron--Applications
4. Steel--Applications

KRASOVITSKIY, V.S.; RASPOPOV, I.V.; YEGNUS, R.M.

Device to determine the strength of metal mold coatings. Lit.
proizv. no.1:47 Ja '59. (MIRA 12:1)
(Molding (Founding)--Testing)

BOL'SHAKOV, L.A., kand.tekhn.nauk; BUL'SKIY, M.T., inzh.; TURCHENKOVA, Ye.K.,
inzh.; YEGNUS, R.M., inzh.; SVIRIDENKO, F.F., inzh.; TARASOVA, L.P.,
inzh.; SLEPKANEV, P.N., inzh.; GAVRIKOV, V.Z., inzh.

Efficient design of large rail ingot molds. Stal' 20 no.9:793-797
S '60; (MIRA 13:9)

1. Zavod "Azovstal'" i Zhdanovskiy metallurgicheskiy institut.
(Ingot molds)

KRASOVITSKIY, V.S., kand.tekhn.nauk; TURCHENKOVA, Ye.K., inzh.; YEGNUS,
R.M., inzh.

Increasing the durability of closed-bottom molds. Stal' 21 no.5;
475-476 My '61. (MIRA 14:5)

1. Zhdanovskiy metallurgicheskiy institut i zavod "Azovstal'."
(Steel ingots)

KRASOVITSKIY, V.S., kand.tekhn.nauk; TURCHENKOVA, Ye.K., inzh.;
YEGNUS, R.M., inzh.

Chill casting of trays for ingot molds. Stal' 23 no.2:185-187
F '63. (MIRA 16:2)

1. Zhdanovskiy metallurgicheskiy institut i Avoskiy staleplavil'nyy zavod im. Sergo Ordzhonikidze v Zhdanove.
(Iron founding)

BOL'SHAKOV, L.A., kand.tekhn.nauk; YEGNUS, R.M., inzh.; BALABANOV, A.Kh.,
inzh.; LUGOVAYA, L.N., inzh.

Using rapidly drying mixtures for the making of molds and cores
for large castings. Stal' 23 no.8:710-711 Ag '63. (MIRA 16:9)

1. Metallurgicheskiy zavod "Azovstal'."
(Sand, Foundry) (Molding (Founding))

BOL'SHAKOV, L.A., kand.tekhn.nauk; YEGNUS, R.M., inzh.; SVIRIDENKO, F.F.,
inzh.; BALABANOV, A.Kh., inzh.

Effectiveness in the use of lightweight, solid-bottom ingot molds.
Stal' 23 no.8:712-713 Ag '63. (MIRA 16:9)

1. Zhdanovskiy metallurgicheskiy institut i metallurgicheskiy zavod
"Azovstal'".

(Ingot molds)

KRASOVITSKIY, V.S., kand.tekhn.nauk; BOL'SHAKOV, L.A., kand.tekhn.nauk;
TURCHENKOVA, Ye.K., inzh.; GORBANEV, Ya.S., inzh.; YEGNUS, R.M.,
inzh.; CHUMAK, M.A., inzh.; KISSEL', N.N., inzh.; SAL'MAN, B.Sh.,
inzh.

Increasing the stability of ingot molds by an addition of
ferrotitanium. Stal' 23 no.8:717-718 Ag '63. (MIRA 16:9)

1. Zhdanovskiy metallurgicheskiy institut, zavod "Azovstal'" i
zavod im. Il'icha.

(Ingot molds)

YEGNUS, YE. I.

VORONTSOV, B.V., inzhener; ~~YEGNUS, Ye. I.~~ kandidat tekhnicheskikh nauk;
PLETNEV, V.I.; YANKOVSKIY, O.A.

Building narrow-gauge railroads by specialized crews. Torf.
prom. 34 no.3:24-28 '57. (MLRA 10:5)

1. Vsesoyuznyy nauchno-issledovates'skiy institut transportnogo
stroitel'stva Ministerstva transportnogo stroitel'stva.
(Railroads--Construction)

YEGOKHIN, A. A.

ALEKSIJEVIC, Aleksandar, inz., asistent, [translator] (Zagreb); EGOHIN,
A.A., [Yegokhir, A.A.]; BALANDIN, G.F.; KODOLOV, E.D.

Influence of ultrasonic oscillations on the crystallization of
the weld in electric welding under slag. Zavarivanje 4 no.4:82-
84 Ap '61.

1. Metalurski institut A.A.Baikova, A.N. SSSR (for Egochin,
Balandin and Kodolov). 2. Visoka tehnicka skola u Zagrebu, Zagreb.