IVANOVICS, G.

Recent results in the virus research in Hungary. Acta microb. hung. 1 no.1-3:279-288 1954.

1. Institut fur Mikrobiologie der Medizinischen Universitat, Szeged.
(VIRUSES
*research, Hungary)

IVANOVICS G.

ABRAHAM, E.; KOCH, A.; IVANOVICS, G.

Cyclic multiplication of the Aujeszky's disease virus. Acta microb. hung. 1 no.4:423-436 1954.

1. Institute of Microbiology, University Medical School, Szeged.
(VIRUSES
Aujeszky's dis. virus, cyclic multiplication)

IVANOVICS, G.; KORVATH, S.; SZOLLOSY, E.

The influenza virus adsorbing capacity of the vascular endothelium of various mammals. Acta microb. hung. 2 no.1-2:121-129 1954.

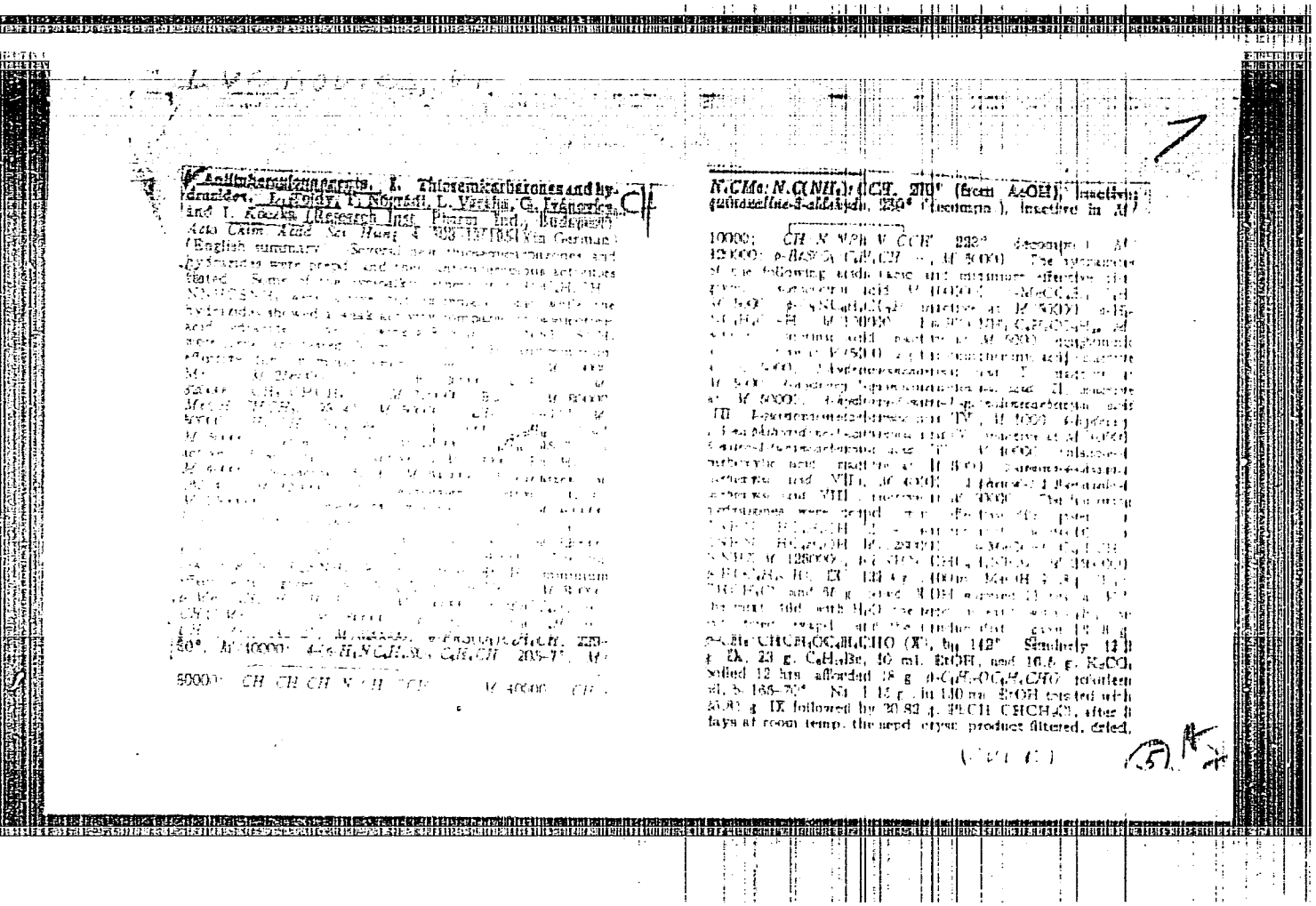
1. Institute of Microbiology, University Medical School, Szeged.
(INFLUENZA VIRUSES
adsorp. by vasc. endothelium)
(BLOOD VESSELS, physiol.
endothelium, adsorp. of influenza virus)

BELADI, I.; IVANOVICS, G.

Immunization of laboratory animals with Aujeszky's disease virus following inactivation with ultraviolet rays. Acta microb. hung. 2 no.1-2:151-160 1954.

1. Institut fur Mikrobiologie der Medizinischen Universitat, Szeged.

(VIRUS DISEASES, immunol.
Aujeszky's dis., immun. of rabbits with ultraviolet-inactivated virus)
(ULTRAVIOLET RAYS, eff.
inactivation of Aujeszky's dis. virus, immun. studies in rabbits)



p-MeCH [illegible] CHCH$_2$OC$_6$H$_4$CHO, b$_1$ 140-4°; *p*-CH$_3$.CH$_2$.CH$_2$.CH$_3$.CH:CCH$_2$CH$_2$OC$_6$H$_4$CHO, b$_1$ 160-5°; *p*-CH$_2$.CH$_2$-CH$_2$.CH:CCH$_2$CH$_2$OC$_6$H$_4$CHO, b$_1$ 150-5°. A mixt. of 13 g. X, 30 ml. Me$_2$CO, 650 ml. H$_2$O, 350 ml. EtOH, and 20 ml. 10% aq. NaOH shaken frequently over 3 days at room temp., dild. with H$_2$O, the product filtered, and recrystd. gave 3.24 g. [illegible] (XVII), [illegible]. Treating 7 g. XVII and 8 g. X with 20 ml. 10% [illegible] filtering after [illegible] gave 8.5 g. [illegible] from EtOH, which did not react with H$_2$NNHCSNH$_2$. [illegible] 100 ml. EtOAc hydrogenated 50 min. over Pd-C, the mixt. filtered, [illegible] the residue recrystd. from EtOH gave [illegible] m. 172-4°. The thiosemicarbazones [illegible] compds. in the usual manner. Et 2-hydroxy[illegible] (1 g.) and 2 ml. N$_2$H$_4$.H$_2$O boiled 2 hrs. and recrystd. gave I, m. 237-8° (decompn.). 2-Quinoxalinecarboxylic acid, m. 202° (decompn.) (3.2 g.) in [illegible] abs. EtOH with 1 g. H$_2$SO$_4$ refluxed 3.5 hrs., the soln. [illegible] H$_2$O, neutralized with Na$_2$CO$_3$, and the ppt. recrystd. gave 2.45 g. (80%) Et ester (XVIII), colorless needles, m. 82-4° from aq. EtOH. XVIII (1.2 g.) heated [illegible] on the steam bath with [illegible] N$_2$H$_4$.H$_2$O [illegible] filtered, and [illegible] XII Et ester XX.

and recrystd. from 100 ml. EtOH gave 10 g. *p*-PhCH:CHCH$_2$OC$_6$H$_4$CHO (XI), m. 90-1°. XI (5 g.) in 60 ml. EtOAc hydrogenated over Pd-C at atm. pressure at room temp. and the product distd. gave a quant. yield of *p*-Ph(CH$_2$)$_3$OC$_6$H$_4$CHO, b$_1$ 190-3°. A soln. of 4.6 g. KOH, 10 g. IX, and 18 g. 2-cyclohexen-1-yl chloride (RCl) (R = 2-cyclohexen-1-yl) in 50 ml. EtOH let stand overnight, dild. with H$_2$O, extd. with C$_6$H$_6$, and the ext. distd. yielded 8 g. *p*-ROC$_6$H$_4$CHO, b$_1$ 185-8°. RCH$_2$C(:NH)Et (XII) (67 g.), 200 ml. abs. EtOH, and 15 ml. concd. H$_2$SO$_4$ boiled 3 hrs., concd. to 1/3 the vol. in vacuo, dild. with 500 ml. H$_2$O, the oil extd. with C$_6$H$_6$, and the ext. distd. yielded 43 g. [illegible] ester (XIII). XIII (63 g.) in 400 ml. abs. EtOH warmed to 80°, the source of heat removed, the soln. treated over 15 min. with 30.75 g. Na, the latter dissolved after stirring 1 hr., the warm soln. poured into 1 l. H$_2$O, extd. with five 200-ml. portions of Et$_2$O, the exts. washed with H$_2$O, dried, the Et$_2$O evapd., and the residue distd. gave 24 g. [illegible] (XIV), b$_1$ 85-7.5°. Similarly were [illegible] 51% CH$_3$.CH$_2$.CH$_2$-CH:CCH$_2$CH$_2$OH (XV), b$_1$ 60-6°. XIV (32 g.) in 40 ml. abs. Et$_2$O treated dropwise with 16.7 g. PBr$_3$ in 20 cc. abs. Et$_2$O over 15 min. (ice-cooling), the soln. let stand 1 hr. in ice-water, then washed with 3 × 50 ml. H$_2$O and 2% NaHCO$_3$, dried, evapd., and distd. gave the corresponding Br compd. (XVI), b$_1$ 85-90°; the Br compd. from XV similarly, b$_1$ 85 [illegible]. Both bromides were unstable and were [illegible] after [illegible] IX and 1 g. XVI in 50 ml. EtOH [illegible] hrs., the mixt. [illegible] washed with NaOH and H$_2$O, dried [illegible] The following compds. were analogously prepd. from IX and the appropriate bromide: [illegible] C$_6$H$_4$CHO, b$_1$ 187-94°,

$b_{0.4}$ 160–3°, m. 87–8° (from C_6H_6-ligroine). XX (1 g.) in 10 ml. EtOH added dropwise to 3 ml. $N_2H_4.H_2O$ in EtOH and the product recrystd. yielded II, m. 140–5° (decompn.) (from EtOH). Et 5-nitro-8-hydroxy-7-quinolinecarboxylic acid (m. 149–50°) with $N_2H_4.H_2O$ gave III, m. 230–5° (decompn.) (from EtOH). Similarly were prepd. V, colorless needles, m. above 350° (from H_2O), VIII, m. 177–8° (from MeOH). VII, colorless needles, m. 198–7°. Et 5-nitro-2-furancarboxylate (XXI) (2.5 g.) in 200 ml. abs. EtOH treated at 0° with 680 mg. $N_2H_4.H_2O$, left 2 days at 0°, the soln. treated with C, the EtOH distd. in vacuo, and the residue recrystd. from EtOH gave impure VI which was purified by subliming out unchanged XXI and recrystg. the residue twice from EtOH, yielding 0.6 g. VI, m. 162–4°.

II. Derivatives and analogs of *p*-aminosalicylic acid. L. Vargha, L. Toldy, S. Lendvay, I. Koczka, and C. Ivanovics. *Ibid.* 345–54.—Several derivs. and analogs of 2,4-$HO(H_2N)C_6H_3CO_2H$ (I) were prepd. and tested for antituberculous activity. All the compds. had weaker activities than I. The following compds. were prepd. (formula and min. effective diln. given): *2,4-HO(H₂N)C₆H₃CH₂OH* (II), inactive at *M*/10000; 2,4-HO(Cl)C₆H₃CONH₂ (IIa), *M*/2000; *2,4-HO(Cl)C₆H₃CH₂OH* (III), inactive at *M*/10000; 2,4-HO[2,4-HO(H₂N)C₆H₃CONH]C₆H₃CO₂H (IV), *M*/18000; 2,4-HO(2-HO₂CC₆H₄CONH)C₆H₃CO₂Et (IVa), *M*/160000; 2,4-HO(1,2-C₆H₄(CO)₂N)C₆H₃CO₂Et (V), inactive at *M*/10000; 2,4-HO(BzHN)C₆H₃CO₂H (VI), *M*/10000; 4,3,5-O₂N(HO)₂C₆H₂CO₂H, inactive at *M*/1000; 4,3,5-H₂N(HO)₂C₆H₂CO₂H, *M*/1000; *p*-H₂NC₆H₄CH:CHCO₂H, inactive at *M*/10000; *p*-H₂NC₆H₄CH:CHCO₂Pr (VII), inactive at *M*/10000; [illegible] *M*/64000. 2,4-AcO(O₂N)C₆H₃CH₂Br (4 g.) and 2 g. fused KOAc in 20 ml. AcOH refluxed 2.5 hrs., the mixt. added to H_2O, and recrystd. gave 2.5 g. 2,4-AcO(O₂N)C₆H₃CH₂OAc (VIII), m. 75–6° (from EtOH). Hydrolysis of 3.2 g. VIII in 40 ml. 30% alc. HCl by boiling 1 hr., the EtOH distd., the residue extd. with C_6H_6, and the C_6H_6 removed left 2 g. *2,4-HO(O₂N)C₆H₃CH₂OH* (IX), yellow [illegible], m. 202–5° (from EtOH). Catalytic reduction of 1.8 g. IX in 50 ml. EtOH with Pd-C (the substance absorbed 6[illegible]5 ml. H in 30 min.), the mixt. filtered, the filtrate concd. in vacuo, and the residue recrystd. gave 1.3 g. II, unstable, m. 271–3°. $LiAlH_4$ (2.3 g.) in 200 ml. abs. Et_2O gradually added with stirring to 4.41 g. IIa in 200 ml. abs. Et_2O, the mixt. refluxed 30 min., unchanged $LiAlH_4$ destroyed with EtOAc, the soln. decompd. with H_2O and 10% H_2SO_4, the Et_2O layer evapd., and the residue recrystd. yielded 2.8 g. III, m. 119–20° (from C_6H_6). To 65 g. I Et ester in 800 ml. abs. $CHCl_3$ was added dropwise with stirring and cooling 72.4 g. 2,4-HO(O₂N)C₆H₃COCl in 400 ml. $CHCl_3$, followed by 400 ml. pyridine, the mixt. let stand 2 days at room temp., the $CHCl_3$ distd. in vacuo, the residual mixt. warmed, cooled, the product filtered, washed with 20 ml. C_5H_5N, treated with 5% HCl, finally washed with H_2O and EtOH, and repeatedly recrystd. from C_5H_5N to give 64 g. 2,4-HO[2,4-HO(O₂N)C₆H₃CONH]C₆H₃CO₂Et (X), m. 251–3°. Hydrogenation of 5 g. X in 250 ml. EtOAc over 10% Pd-C gave the H₂N compd. (XI), colorless needles, m. 200–1° (from AcOH). Hydrolysis of XI with aq. NaOH gave

(OVER)

crude IV which, pptd. from C_6H_6N with abs. EtOH, colorless, decompd. 242–3°. I (3 g.) and 2.9 g. phthalic anhydride (XII) in 150 ml. EtOAc let stand 24 hrs. at room temp., the material filtered, and washed with EtOAc afforded IVa acid, decompd. 189–90° with gas evolution, becoming solid, and then m. 216–20°. I Et ester (3.6 g.) and 3 g. XII in 50 ml. EtOAc let stand overnight, the cryst. product filtered, and washed with EtOAc gave 4.7 g. IVa, m. 179–80° (decompn.). IVa (1 g.) heated 1 hr. at 200° and recrystd. yielded V, m. 192–3° (from AcOH). Benzoylation of 15.3 g. I in aq. Na_2CO_3 gave 20 g. VI, m. 230–1° (from EtOAc). p-$HO_2CCH:CHC_6H_4NH_2$.HCl (8 g.) and 60 ml. PrOH treated 4 hrs. with dry HCl while warming on the water bath, the soln. cooled, the cryst. material filtered, and washed with a little PrOH gave 3 g. VII. HCl, m. 210° (decompn.).

William Brader

Antituberculotic agents. IV. p-Aminosalicylic acid and analogues. L. Vargha, L. Toldy, S. Lendvay, I. Kocsis, and G. Ivánovics (*Acta chim. Hung.*, 1954, 4, 345—354).—Deriv. and analogues of p-aminosalicylic acid show weaker activities than p-aminosalicylic acid. The following compounds are prepared (the smallest active mol. concn. are recorded): *4-nitro-2-acetoxybenzyl acetate*, $C_{11}H_{11}O_6N$, m.p. 75—76°; 4-*nitro*- an oil (p-*nitrobenzoate*, $C_{14}H_{10}O_7N_2$, m.p. 203—205°); 4-*amino*-, $C_7H_9O_2N$, m.p. 271—273° and 4-*amino*-2-*hydroxybenzyl alcohol*, $C_7H_9O_2N$, m.p. 119—120°; *Et* p-N-p'-*nitrosalicyloylamido*-, $C_{16}H_{14}O_6N_2$, m.p. 251—252°, *Et* p-N-p'-[illegible] *salicylate*, $C_{16}H_{16}O_4N_2$, m.p. 200—201° [illegible] m.p. 242—243° [illegible] and 115—[illegible] [illegible] m.p. 188—190° (decomp.) [illegible] m.p. 179—180° (decomp.) [illegible] at [illegible] *Et* p-*phthalimidosalicylate*, $C_{17}H_{13}O_5N$, m.p. [illegible] p-*benzamidosalicylic acid* $C_{14}H_{11}O_4N$, m.p. 230—231° [illegible] inactive at [illegible] propyl p-aminocinnamate *hydrochloride*, $C_{12}H_{15}O_2NCl$, m.p. 210° (decomp.). H. WREN.

HUNG.

A new antibacterial principle: megacine. Geo. Iványovics and Lewis Alföldi (Med. Univ., Szeged, Hung.). *Nature* 174, 405(1954).—*Bacillus megatherium* strain No. 210 brought about a lysis of all 37 strains of *B. megatherium* investigated, including the strain producing the effect, but to a lesser degree. Megacine, the name given the antibacterial principle, did not cause lysis of other species of bacteria. The principle is slightly diffusible in agar, does not pass through parchment, and is moderately thermostabile; up to 60° its effect is not diminished, but at 80°, 90% of its activity is destroyed in 30 min. It is ppted. by $(NH_4)_2SO_4$ at 75% satn. Trypsin inactivates it. It can not be classed as an antibiotic but is more closely related to bacteriocins. S. P. Hunter

1036. IVÁNOVICS G. Mikrobiol. Inst., Med. Univ., Szeged. *Gewebskulturen als eine Methode der quantitativen Virusforschung. Tissue cultures as a method of virus titration PROPHYLAXE 1955, 2/1 (1-5) Graphs 1 Tables 2 Illus. 5

If a virus causes changes in the cells of a tissue culture, such a culture can be used as a means of titration. The author has previously described a method of titrating a suspension of virus III with the help of a fibroblast culture from rabbit testes. In the fibroblasts, inclusions were demonstrated by Giemsa staining. A method was also worked out for the titration of the Aujeszkyschen virus on cultures of embryo-chick heart. Infected cells do not grow and here is a possibility for titrating the virus. By this means the author discovered a cyclical increase of the virus. The author describes another method to titrate the influenza virus. He grew the virus on tissue culture of chorionallantoic membrane and titrated the virus in the culture fluid by means of haemagglutination. The great advantage of this method of virus titration is the cheapness of the medium as compared with tests on animals. The author thinks that the results of the titration method are not quite as good as those on animals but in many cases this is of no great importance.

De Graaf - Abadan

IVANOVICS, G.; ALFOLDI, L.

Observations on lysogenesis in B. megaterium and on megacine, the antibacterial principle of this bacillus species. Acta microb.hung. 2 no.3:275-292 1955.

1. Institute of Microbiology, Medical University, Szeged.
(BACILLUS,
megaterium, lysogenic properties)

IVANOVICS, G.

IVANOVICS, G. Dissociation of *L. monocytogenes* associated with the change of cell-wall antigenic structure. In English. p. 131.

Vol. 3, No. 1/2, 1955
ACTA MICROBIOLOGICA
SCIENCE
Budapest, Hungary

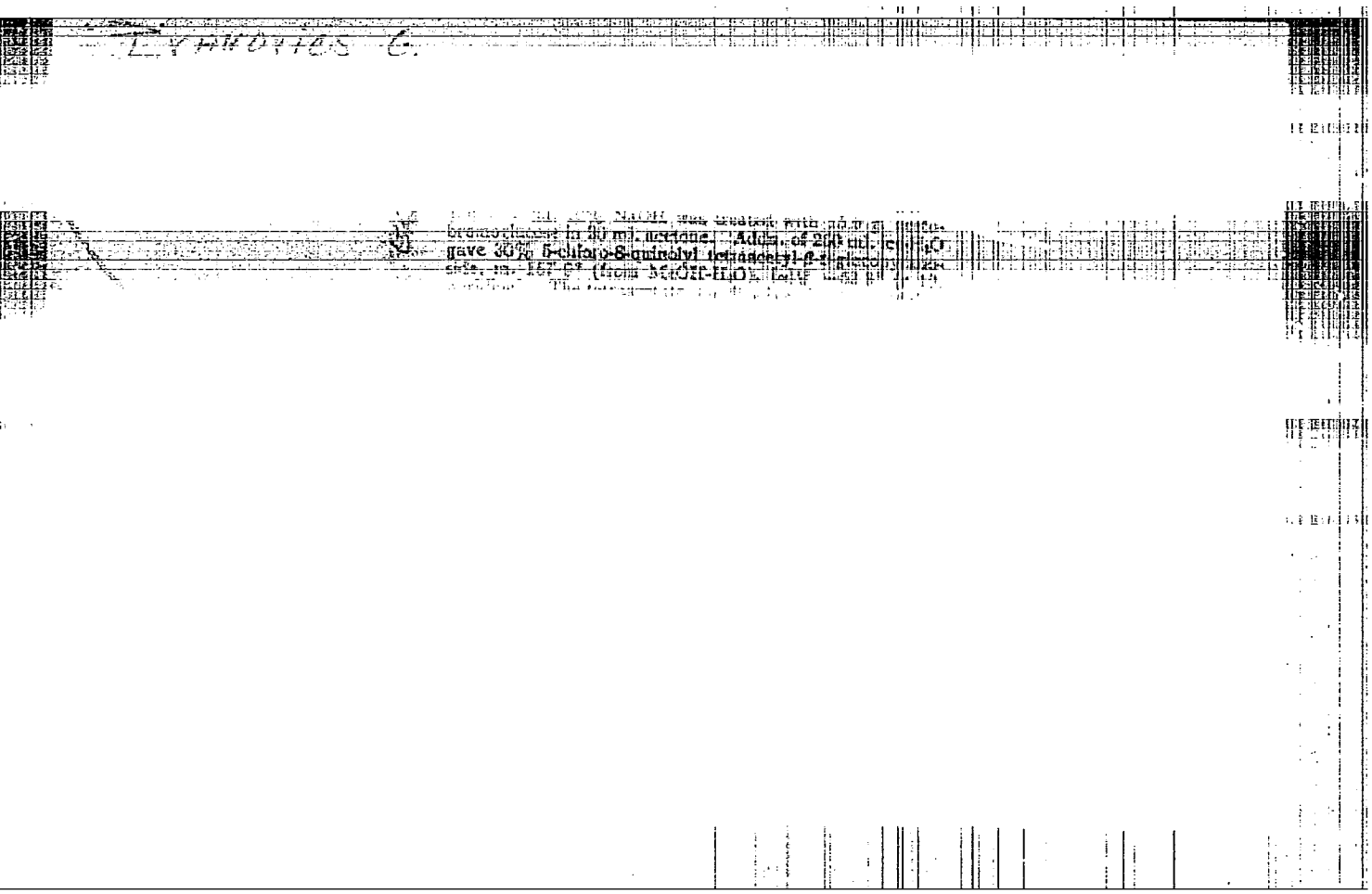
So: East European Accessions, Vol. 5, No. 5, May 1956

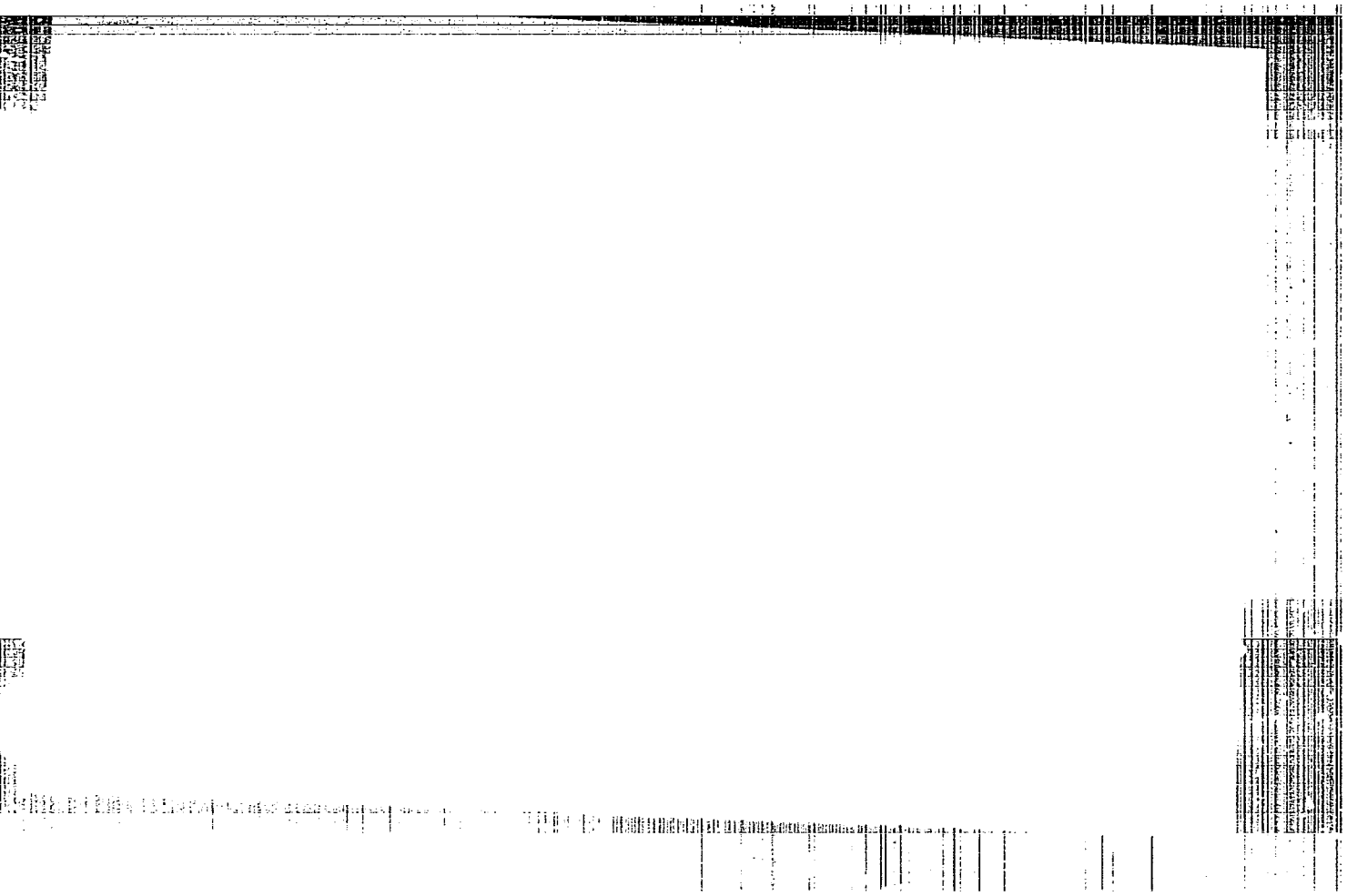
IVANOVICS, G.; BELADI, I.; SZMICSSY, E.

IVANOVICS, G.; BELADI, I.; SZMICSSY, E. Variation of the cytopathogenic activity of Aujeszky's disease (pseudorabies) virus. In English. p. 19).

Vol. 3, No. 1/2, 1955
ACTA MICROBIOLOGICA
SCIENCE
Budapest, Hungary

So: East European Accession, Vol. 5, No. 5, May 1956





APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619230013-6"

IVANOVICS, Gyorgy, dr.

The question of poliomyelitis virus still unsolved. Orv. hetil. 96 no.34:925-928 21 Aug 55.

(POLIOMYELITIS VIRUS)

8618. Antibacterial spectrum of Megacine. G. Ivánovics, L. Alföldi, and E. Ábrahám Zbl. Bakt., 1951, 163, 274–280 (Mikrobiologischen Inst. der Medizinischen Univ. Szeged, Ungarn).—Megacine is a protein-like antibacterial substance derived from cultures of certain Bacterium megatherium strains grown under u.v. light. The antibacterial action is limited but has been demonstrated against some aerobic spore forming bacilli as well as against B. megatherium. It is very active against several species of air-borne chromogenous cocci. (German) G. W. Caulfield

2965. CULTIVATION AND ELECTRON MICROSCOPY OF A BACTERIOCINOGENIC STRAIN OF BACILLUS MEGATHERIUM - Ivánovics G., Alföldi L. and Lovas B. Inst. of Microbiol., Med. Univ., Szeged; Electron Microscopic Lab., Hungarian Acad. of Scis, Budapest - ACTA MICROBIOL. ACAD. SCI. HUNG. 1957, 4 3(295-306) Tables 3 Illus. 15

A particular strain of B. megatherium (strain 216) capable of liberating a bacteriocin-like agent, which has been termed megacin, was studied. This strain reminiscent of inducible lysogenic B. megatherium strains, did not yield phage particles. Electron microscopy showed neither phage particles, nor granules which might be regarded as an incomplete form of phage. In contrast with the non-lysogen strain 216, some particular phenomena highly reminiscent of phage action were observed. These phage-like effects can be interpreted as a consequence of megacin formation.

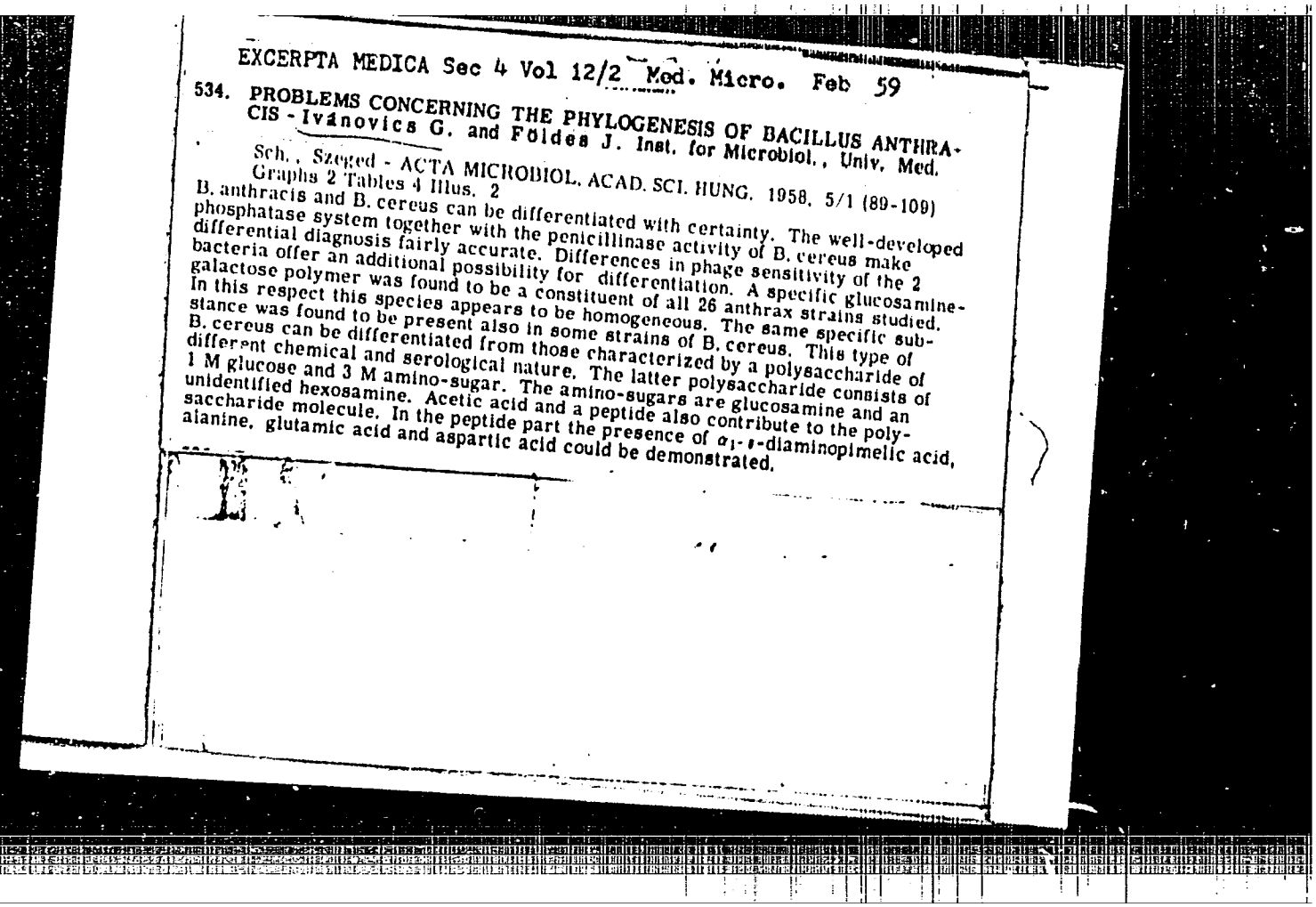
Ivánovics - Szeged

IVANOVICS, G.

Serological types of Bacillus megatherium and their sensitivity to p[illegible]es.

P. 333 (ACTA MICROBIOLOGICA) Vol. 4, no. 3, 1957, in English
Budapest, Hungary

Sc: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 3, March 1958



EXCERPTA MEDICA Sec 4 Vol 12/2 Med. Micro. Feb 59

534. PROBLEMS CONCERNING THE PHYLOGENESIS OF BACILLUS ANTHRACIS - Ivánovics G. and Földes J. Inst. for Microbiol., Univ. Med. Sch., Szeged - ACTA MICROBIOL. ACAD. SCI. HUNG. 1958, 5/1 (89-109) Graphs 2 Tables 4 Illus. 2

B. anthracis and B. cereus can be differentiated with certainty. The well-developed phosphatase system together with the penicillinase activity of B. cereus make differential diagnosis fairly accurate. Differences in phage sensitivity of the 2 bacteria offer an additional possibility for differentiation. A specific glucosamine-galactose polymer was found to be a constituent of all 26 anthrax strains studied. In this respect this species appears to be homogeneous. The same specific substance was found to be present also in some strains of B. cereus. This type of B. cereus can be differentiated from those characterized by a polysaccharide of different chemical and serological nature. The latter polysaccharide consists of 1 M glucose and 3 M amino-sugar. The amino-sugars are glucosamine and an unidentified hexosamine. Acetic acid and a peptide also contribute to the polysaccharide molecule. In the peptide part the presence of α_1-ε-diaminopimelic acid, alanine, glutamic acid and aspartic acid could be demonstrated.

IVANOVICS, G., Prof.

Some aspects of antibiotic therapy. Ther. hung. 6 no.1:3-8 1958.

1. From the Institute of Microbiology (Director: Prof. Gyorgy Ivanovics), Medical University of Szeged.
(ANTIBIOTICS, ther. use)

IVANOVICS, Gyorgy (r. tag)

Biology and antigenic structure of Bacillus anthracis. Magy. Tudom. Akad. Orv. Oszt. Kozl. 9 no.1:17-33 1958.

1. A Szegedi Orvostudomanyi Egyetem Mikrobiologiai Intezete.

(BACILLUS ANTHRACIS
biol. individuality & antigenic structure (Hun))

EXCERPTA MEDICA Sec 17 Vol 5/2 Public Health Feb 59

610. ETHYL-THIO-FORMYL COMPOUND WITH ANTITUBERCULOUS ACTIVITY - Ivanovics G. and Dumbovich B. Inst. of Microbiol., Med. Univ. of Szeged; Pharm. Res. Inst., Budapest - AMER. REV. TUBERC. 1958, 77/6 (1017-1018) Tables 2

The remarkable anti-tb action of thioethyl compounds in animal experiments is confirmed, also with regard to this new compound (ethyl-thio-formyl-glycine), in which a formyl group is linked to amino-acids. Like the other thioethyl compounds it has no bacteriostatic effect on Myco. tuberculosis in vitro.

Bais - The Hague (XVII.15*)

IVANOVICS, Gyorgy, Dr.

Some aspects of antibiotic therapy. Orv. hetil. 99 no.3:73-79 19 Jan 58.

1. A Szegedi Orvostudomanyi Egyetem Mikrobiologiai Intezetenek Kozlemenye Az Orvosi Hetilap alapitasanak 100-ik evfordulojara, a szerkesztoseg felkeresere irt tanulmany.
(ANTIBIOTICS, ther. use
current problems (Hun))

IVANOVICS, G.; ALFOLDI, L.; NAGY, E.

Masked provirus in bacillus megaterium strains. Acta virol. Engl. Ed., Praha 3(Supplem.):23-26 1959.

1. Institute of Microbiology, Medical University, Szeged, Hungary.
(BACILLUS) (BACTERIOPHAGE)

IVANOVICS, G.; NAGY, E.; ALFOLDI, L.

Megacinogeny: Inducible synthesis of a new immunospecific substance. Acta microb.hung. 6 no.2:161-169 '59.

1. Institute of Microbiology, Medical University, Szeged.
(BACILLUS)
(ANTIBIOTICS chem)

NAGY, E.; ALFOLDI, L.; IVANOVICS, G.

Megacins. Acta microb.hung. 6 no.4:327-336 '59.

1. Institute of Microbiology, University Medical School, Szeged.
(ANTIBIOTICS)

IVANOVICS, G.

Present state of microbiological research in Hungary. Mikrobiologiia 28 no.5:783-785 S-O '59. (MIRA 13:2)

1. Direktor Mikrobiologicheskogo instituta Meditsinskogo universitata, ~~Segod, Vengriya.~~ HUNGARY.
SZEGED (MICROBIOLOGY)

IANTOS, Judith; VARGA, I.; IVANOVICS, G.

Characterization of anthrax phages. Acta microb. hung. 7 no.1:31-42 '60.

1. Institute of Microbiology, University Medical School, Szeged.
(BACILLUS ANTHRACIS)
(BACTERIOPHAGE)

LANTOS, Judith; IVANOVICS, G.

The phage receptors of Bacillus anthracis. Acta microb. hung. 8 no.4: 379-388 '61.

1. Institute of Microbiology, University Medical School, Szeged.

(BACILLUS ANTHRACIS) (BACTERIOPHAGE)

IVANOVICS, Gyorgy, dr.

Colicin and its bacteriogenic effects. Orv. hetil. 102 no.22:1009-1014 28 My '61.

1. Szegedi Orvostudomanyi Egyetem, Mikrobiologiai Intezet.

(ANTIBIOTICS pharmacol)

IVANOVICS, Gyorgy, dr.

Megacin and other bactericidal substances. Orv. hetil. 102 no.23: 1063-1071 4 Je '61.

1. Szegedi Orvostudomanyi Egyetem, Mikrobiologiai Intezet.

(ANTIBIOTICS)

IVANOVICS, G.; CSISZAR, K.

Isolation and some characteristics of subtilis phages with transducing activity. Acta microbiol. Hung. 9 no.2:209-218 '62.

1. Institute of Microbiology (Director: G. Ivanovics), University Medical School, Szeged.
(BACTERIOPHAGE) (BACILLUS SUBTILIS)

HUNGARY

IVANOVICS, G., and LANTOS, JUDIT of the Institute of Microbiology (Director: IVANOVICS, G.) University Medical School, Szeged (Original version not given).

"The [illegible] of Resistance to Phage W in Bacillus Anthracis"

Budapest, Acta Microbiologica, Vol [illegible], No [illegible], [illegible], pp [illegible].

Abstract [English article, authors' English summary]: Liquid cultures of capsulogenic and non-capsulogenic strains of Bacillus anthracis were infected with [illegible] of phage W. The lysis of cultures was [illegible] by secondary growth of bacteria which was associated with an increase of the phage titre. The growth of the culture was terminated by a mass sporulation of bacteria. Individual spores which had formed in the presence of phage gave rise to either a colony or a plaque, but not to both. This indicated that a proportion of spores contained the [illegible] genome in a labile (prophage) form. The colonies developed from [illegible] were found to be highly sensitive to [illegible] phage, suggesting that the secondary growth consists of bacteria [illegible] sensitive to phage W or containing prophage. [illegible] [illegible]

ALIKHANJAN, Sz.I. [Alikhanian, S.I.]; MINDLIN, Sz.Z. [Mindlin, S.Z.]; SZUCHODELEC, V.V. [Sukhodelets, V.V.]; KRILOV, V.N. [Krylov, V.N.]; SZABO, Gabor, dr. [translator]; IVANOVICS, Gyorgy, prof.dr. [translator]

Some newer problems relating to the genetics of microorganisms. Biol kozl 10 no.2:87-96 '62.

1. Szovjet Orvostudomanyi Akademia Kurcsatovrol elnevezett Atomenergiai Intezete (for Alikhanian, Mindlin, Sukhodelets, Krylov).

HUNGARY

IVANOVICS,G., CSISZAR, K.; Medical University of Szeged, Microbiological Institute [original language version not given].

"Congress of the Hungarian Microbiological Society 15-17 October 1962."

Budapest, Acta Microbiologica Academiae Scientiarum Hungaricae, Vol X, No 1, 1963, pages 65-100.

Abstract: The article presents a short summary on 54 papers presented during the congress. No references.

2473
1/1

IVANOVICS, G., prof.

The present state of the therapy of bacterial infections and the prospects of the chemotherapy of the viral diseases. Ther. hung. 11 no.1:9-13 '63.

1. Medical University, Institute for Microbiology, Szeged (Hungary).
(ANTIBIOTICS) (ANTIVIRAL AGENTS)

IVANOVICS, Gyorgy, akademikus, egyetemi tanar

The 1962 general meeting of the Hungarian Microbiological Society. Magy tud 70 no.1:63-64 Ja '63.

1. Szegedi Orvostudomanyi Egyetem.

HUNGARY

IVANOVICS, Gyorgy, Dr; Medical University of Szeged, Microbiological Institute (Szegedi Orvostudomanyi Egyetem, Mikrobiologiai Intezet)

"Present State of the Treatment of Bacterial Infections and Prospects for the Chemotherapy of Virus Diseases."

Budapest, Orvosi Hetilap, Vol 104, No 1, 6 Jan 63, pages 1-6.

Abstract: In his essay on bacterial and virus diseases, the author discusses the mechanism of action of penicillin and sulfonamides. The biology of viruses and their mode of attack on the cells is treated in detail. The lack of success with antibiotic treatment in virus diseases is explained. The theoretical significance of interferon and the distant possibility of its practical use is evaluated.
(1 Hungarian, 24 Western references)

1/1

MARJAI, Elisabeth; IVANOVICS, G.

The effect of different anticancer agents on inducible systems of Bacillus megaterium. Acta microbiol. acad. sci. Hung. 11 no.2:193-198 '64.

1. Institute of Microbiology (Director: G. Ivanovics), University Medical School, Szeged.

IVANOVICS, G.; VARGA, I.; MARJAI, Elisabeth

Auxotrophs of bacillus anthracis. Acta microbiol. acad. sci. Hung. 10 no.4:409-420 '63-'64

1. Institute of Microbiology (Director: G. Ivanovics), University Medical School, Szeged.

IVANOVICS, Gyorgy, dr.

Recent achievements in genetics on the basis of tests performed on microorganisms. Elovilag 10 no.1:7-10 '65.

LANTOS, Judith; IVANOVICS, G.

Alkaline phosphatase repression by inorganic phosphate in Bacillus anthracis and Bacillus cereus. Acta microbiol. acad. sci. Hung. 11 no.4:351-355 '64-'65.

1. Public Health Station (Director: J. Vetro) and Institute of Microbiology (Director: G. Ivanovics), University Medical School, Szeged.

ANGELESCU, A., ing.; IVANOVSCHI, B., ing.

Drainage of methane in coal mines. Rev min 15 no. 5/6: 271-277 My-Je '64.

IVANOVSKAYA, A. A.

Ivanovskaya, A. A. - "The life and works of F. M. Porodko," (Biologist, 1877-1948), Trudy Odes. gos. un-ta im. Mechnikova, Vol IV, 1949, p. 167-70

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 25, 1949).

IVANOVSKAYA, A. I.

Beans, Grafting

Increasing the root system of plants by grafting. Dokl, AN SSSR 82, No. 1, 1952.
Odesskiy Gosudarstvennyy Universitet im.
I.I. Mechnikova, rcd. 6 Nov. 1951.

SO: Monthly List of Russian Accessions, Library of Congress, May 1952 1953, Uncl.

IVANOVSKAYA, A.A.; SUKACHEV, V.A., akademik.

Effect of various soils on the growth and formation of lemon and tangerine. Dokl.AN SSSR 93 no.1:175-177 N '53. (MLRA 6:10)

1. Akademiya nauk SSSR (for Sukachev). 2. Odesskiy gosudarstvennyy universitet im. I.I.Mechnikova (for Ivanovskaya). (Lemon) (Tangerine)

IVANOVSKAYA, A.A.

USSR/ Agriculture - Plant physiology

Card 1/1 Pub. 22 - 45/49

Authors : Ivanovskaya, A. A.

Title : Growth and formation of the Chinese lemon on different uncultivated plants

Periodical : Dok. AN SSSR 100/5, 1013-1015, Feb 11, 1955

Abstract : Investigation was conducted to determine and explain how a Chinese lemon grows and develops when adapted to different uncultivated soils the suitability of which was not yet investigated for this type of lemon. Results obtained are stated. One USSR reference (1952). Tables.

Institution : The I. I. Mechnikov State University, Odessa

Presented by : Academician, A. L. Kursanov, December 4, 1954

IVANOVSKAYA, A.A.

USSR/Cultivated Plants - Subtropical, Tropical M-9

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1772

Author : A.A. Ivanovskaya
Inst : University of Odessa
Title : Root Systems of Wildings of the Chinese Lemon

Orig Pub : Doklad AN SSSR, 1956, 109, No 6, 1206-1209

Abstract : The normal root system has been studied of seedlings of the Chinese lemon (5 yrs old) and those obtained by grafting on trifoliata, bitter orange, lemon and orange at the age of 3 years. The measurement of the roots was performed to a depth of 55-60 cm on soil strata every 5 cm. According to their diameter, the roots were divided into 4 fractions. Obvious peculiarities of the root systems were discovered which could be seen in the form of the spreading of small absrobing root-lets with a diameter of less than 2mm, by the depth of their penetration into the soil, and by the indicator of the root population (the size of an overall surface of small roots at a given level per 1 cm of its magnitude). The most vigorous

Card : 1/2

Card : 2/2

I.

USSR/Physiology of Plants - Mineral Nutrition.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67803

Author : Ivanovskaya, A.A.

Inst : Odessa University.

Title : The Role of Organic Acids in the Assimilation by Corn Roots of Carbon.

Orig Pub : Nauchn. yezhegodnik Odessk. un-t, 1956, Odessa, 1957, 203.

Abstract : The roots of 12-day old corn shoots were immersed for 90 minutes in a dilute Knop solution containing $Na_2C^{14}O_3$ (33.4 curies/liter). With weak illumination (one 300 watt bulb) the radioactivity of organic acids was, in the roots, 81.2%, and in the leaves, 91.1%, of total radioactivity. Under heavier illumination (two 300 watt bulbs) 2-3 times less C^{14} was drawn into the molecules of organic acids.

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- 9 -

USSR/Physiology of Plants - Mineral Nutrition.

Abs Jour : Ref Zhur - Biol., No 15, 1958, 67803

The roots contained more marked succinic acid, and the leaves more apple acid.

Card 2/2

IVANOVSKAYA, A.A. [Ivanovs'ka, H.O.], dots.

Effect of rootstock on some biochemical indices in the Chinese lemon. Pratsi Od. un.Ser.biol.nauk no.8(vol.147):11-18 '57. (MIRA 12:4)

(Citron) (Grafting) (Plant physiology)

IVANOVSKAYA A.A.[Ivanovs'ka, H.O.]; LEBEDEV, S.I., doktor biol. nauk, prof., akademik, otv. red.; SHAFIROVICH, M.D., tekhn. red.

[Biochemistry; a course of lectures] Biokhimiia; kurs lektsii. Odessa, Odesskii gos. univ. im. I.I.Mechnikova, 1959. 195 p. (MIRA 15:6)

1. Ukrainskaya akademiya sel'skokhozyaystvennykh nauk (for Lebedev).

(Biochemistry)

IVANOVSKAYA, F.

Preventive medicine is most important. Okhr.truda i sots. strakh. no.12:24-26 D '59. (MIRA 13:4)

1. Zaveduyushchaya zdravpunktom Ostankinskogo pivovarennogo zavoda.
(Ostankino--Brewing industry--Hygienic aspects)

IVANOVSKAYA, A.V.

Lower Triassic phosphate-bearing sediments in the Lena-Olenek interfluve. Trudy Inst. geol. i geofiz. Sib. otd. AN SSSR no.28: 80-86 '64. (MIRA 17:11)

PRAVDINA, O.V.; MELEKHOVA, L.V.; IVANOVSKAYA, F.A.; TAPTAPOVA, S.I.; ALMAZOVA, A.I.; LYAPIDEVSKIY, S.S., red.; NOVIKOV, Ya.A., red.; DRANNIKOVA, M.S., tekhn.red.

[Essays on the pathology of speech and of the voice] Ocherki po patologii rechi i golosa. Pod red. S.S.Liapidevskogo. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR. No.1. 1960. 148 p. (MIRA 13:12)

1. Moscow. Moskovskiy gosudarstvennyy pedagogicheskiy institut. (Speech, Disorders of)

IVANOVSKAYA G. O.

Country : [illegible]

CATEGORY : [illegible]

ABS. JOUR. : RZBiol., No. 1[illegible] 195[illegible], No. [illegible]

AUTHOR : [illegible], G. O.

INST. : [illegible] University

TITLE : [illegible] on Biochemical [illegible] of Chinese Lemon.

ORIG. PUB. : [illegible], 1957, [illegible], 11-13

ABSTRACT : In leaves of Chinese lemon grafted on trifoliate-orange, [illegible] activity was lower than [illegible] [illegible] In the former instance there [illegible] ascorbic acid, than in the latter. [illegible] increase [illegible] trifoliate-orange [illegible] increase, which enhanced the resistance [illegible]

CARD: 1/1

FOMINA, V.I.; BYK, S.Sh.; IVANOVSKAYA, G.F.; SKUR'YAN, E.N.

Vapor-liquid equilibrium in the system isopropyl alcohol - propane propylene fraction in the region of small concentrations of isopropyl alcohol. Khim.prom. 41 no.7:509-510 Jl '65.

(MIRA 18:8)

YEYDUS, M.S., ADAMOVICH, M.I., IVANOVSKAYA, I.A., NIKOLAYEV, V.S., TULYANKINA, M.S.

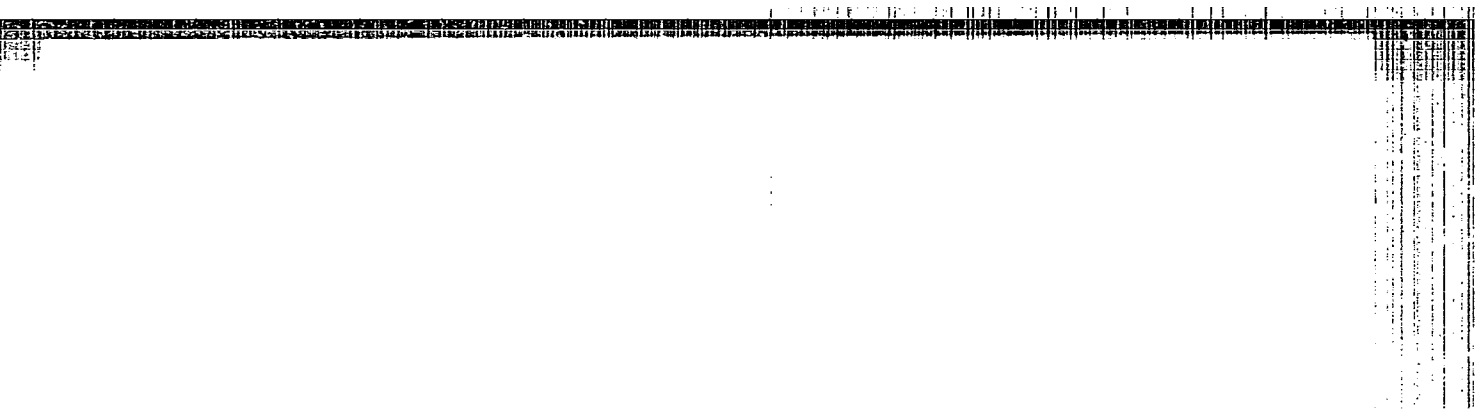
Cosmic Rays

Spatial distribution of penetrating particles in atmospheric showers of cosmic rays. Zhur. eksp. i teor. fiz. 22 no. 4, 1952.

Investigates the spatial distribution of penetrating particles in atom showers by means of counters connected to hodoscopes. Shows that the percent of penetrating particles increases proportionally to the distance to the showers axis. The total energy of penetrating particles exceeds half of the total energy of the shower. Presents proofs of existence of showers with a complex spatial structure. Indebted to Acad D. V. Skobeltsyn, N. A. Dobrotin, G. T. Zatsepin. Received 15 Dec 51.

215T81

9. Monthly List of Russian Accessions, Library of Congress, November 1952, Uncl.



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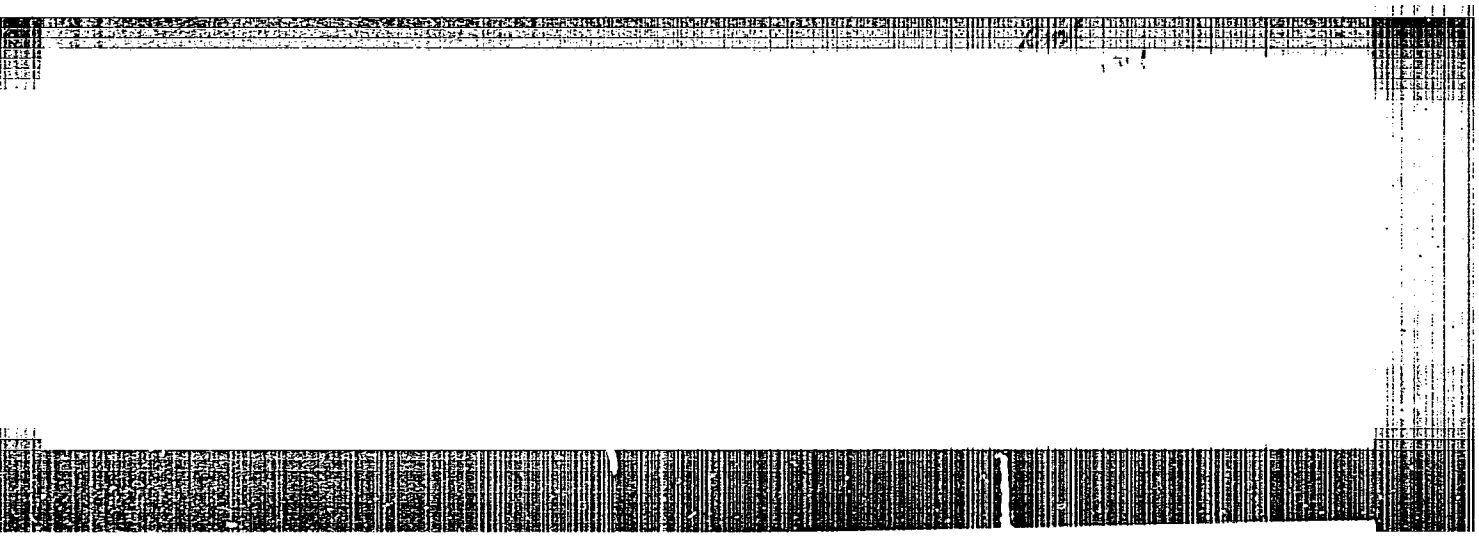

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IVANOVSKAYA, I. A.

56-2-8/47

AUTHOR IVANOVSKAYA, I.A., KULIKOV, G.V., RAKOBOL'SKAYA, I.V. SARYCHEVA, L.I.

TITLE Cloud Chamber Investigation of the Electron-Photon Component of Extensive Air Showers at Sea Level
(Issledovaniye elektronno-fotonnoy komponenty shirokikh atmosfernykh livney na urovne morya pri pomoshchi kamery Vil'sona. Russian)

PERIODICAL Zhurnal Eksperim. i Teoret. Fiziki 1957, Vol 33, Nr 2 (8), pp 358 - - 364 (U.S.S.R.)

ABSTRACT By means of a Wilson chamber located at sea level the energy spectrum of the electron-photon component of a broad atmospheric shower with different numbers of particles and different axis spacings was investigated. A dependence of energy spectra of the number of particles in broad showers was not observed. In a large distance from the shower axis the energy spectrum becomes "softer". The experimentally found share of high-energy electrons in different axial spacings cannot be brought into line with the number computed by means of the cascade theory.

For an axial spacing of 2 - 10 m the spatial distribution of the energy flow, of the electron-photon component of the shower can be approximated by the law r^{-n} . $n = 2,0 + 0,5$.
(With 2 tables, 5 illustrations, and 8 Slavic references).

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Library of Congress

Card 2/2

AUTHORS: Abrosimov, A. T., Goman'kov, V. I., Ivanovskaya, I.A. 56-5-4/46
Sarycheva, L. I.

TITLE: The Angular Distribution of the Axes of Extensive Air Showers at Sea Level (Uglovoye raspredeleniye osey shirokikh atmosfernykh livney na urovne morya)

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1957, Vol. 33, Nr 5, pp. 1110-1115 (USSR)

ABSTRACT: By means of an equipment manufactured in 1954 and consisting of a cloud chamber (60 x 60 x 30cm) and 288 hodoscopic counter tubes, the angular distribution of the axes of extensive air showers was measured also.
The extension chamber served for the determination of the orientation of the particles, for the observation of the interaction of the high-energetic particles with the lead atoms and for measuring of both the electron and photon energy.
72 counters were combined in the hodoscopic points. (13 x 24 with 330, 100 and 24 cm^2 measuring surface) permitting the measurement of the particle density in 4 points of the cross-section of the shower. From this the orientation of the axes of a shower can be determined. The angular distribution of the axes of extensive showers was measured in the intervals: 0 to 10°, 10 to 20°

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The Angular Distribution of the Axes of Extensive Air Showers at Sea 56-5-4/46
Level.

2o-3o°, 3o to 4o°, 4o to 5o°. If the angular distribution is represented by terms of $\cos^n \theta$ the value $8,3 \pm 1,4$ is obtained for n. There are 3 tables, 4 figures, and 4 Slavic references.

ASSOCIATION: Moscow State University, Physics Institute imeni P.N.Lebedev of AN USSR (Moskovskiy gosudarstvennyy universitet, Fizicheskiy institut im. P. N. Lebedeva, Akademii nauk SSSR)

SUBMITTED: May 8, 1957

AVAILABLE: Library of Congress

Card 2/2

IVANOVSKAYA, I. A.

AUTHORS: Ivanovskaya, I. A., Sarycheva, L. I., Chikin, P. S. 56-1-8/53

TITLE: Cloud Chamber Investigation of the Nuclear-Active Component of Wide Atmospheric Showers (Izucheniye yaderno-aktivnoy komponenty shirokikh atmosfernykh livney pri pomoshchi kamery Vil'sona).

PERIODICAL: Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, 1958, Vol. 34, Nr 1, pp. 45-52 (USSR).

ABSTRACT: By means of a cloud chamber with seven lead plates the authors investigated the nuclear interactions which are caused by the particles of wide atmospheric showers. In this context a particle is defined as nuclear-active if it is creates in the lead plates of the cloud chamber a shower satisfying certain conditions specified here. At the beginning the spatial distribution of the nuclear-active particles is investigated. The authors determined the current density $\rho_{\text{nuclear-active}}(r)$ of the nuclear-active particles in a wide nuclear-active shower in different center distances by using a well-known formula. A diagram shows the results for wide showers with an average number of 2.10^5 particles. As a result of the great

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statistical errors it is impossible to describe the exact form of the spatial distribution of the nuclear-active particles. But the distribution received here is not contradictory to a distribution of the typ r^{-n}, with the value of n close to 1. Two main groups of nuclear electron showers can be distinguished: showers with narrow electron cascades, and those with no electron cascades of high energy. A characteristic feature of the first group of showers is the narrow angular distribution of the particles and the high energy of the neutral pions which form the beginning of the electron-photon cascades. The showers of the second group have a wide angular distribution of the particles and a comparatively low energy of the neutral pions. Besides these two main groups of nuclear electron showers two small groups were found. The next passage deals with the determination of the energy of nuclear-active particles by means of the different methods suited to each of these groups. About one half of the nuclear-active particles are charged, the rest is neutral. He can be concluded from this that the nuclear-active component of wide showers at sea level with the energy of

Cloud Chamber Investigation of the Nuclear-Active Component of Wide Atmospheric Showers. 56-1-8/56

10^9-10^{10} eV chiefly consists of nucleons. There are 6 figures, 4 tables, and 8 references, 5 of which are Slavic.

ASSOCIATION: **Moscow State University** . Physical Institute imeni P.N. Lebedev of the AN USSR (Moskovskiy gosudarstvennyy universitet. Fizicheskiy institut imeni P.N. Lebedeva Akademii nauk SSSR).

SUBMITTED: July 25, 1957

AVAILABLE: Library of Congress

Card 3/3

21(8) SOV/56-35-6-43/44

AUTHORS: Ivanovskaya, I. A., Rakobol'skaya, I. V.

TITLE: On the Problem of the Spectrum of the Electron-Photon Component of Extensive Atmospheric Showers (K voprosu o spektre elektronno-fotonnoy komponenty shirokikh atmosfernykh livney)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 6, pp 1583-1584 (USSR)

ABSTRACT: The present work was carried out in Moscow in 1958 for the purpose of clearing up the difference between the results obtained by the authors of 2 previous papers (Refs 1,2). The energy spectra obtained by these works differed from one another in the energy range of $< 10^9$. Besides, the two earlier papers gave different values of the share $\varphi(\geqslant 10^9)/\varphi(>0)$ of high-energy electrons and photons. For the purpose of solving this problem new experiments were carried out on sea-level by means of the same cloud chamber as before. The already described control system made it possible to select extensive atmospheric showers, the axis of which in 70% of the cases passed the chamber at a distance of from 0 to 3 m. The average number of particles in these showers was 3.10^4. After measurements of 400 hours dura-

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tion, 385 showers were determined. The energy spectrum of the electron-photon component found by these measurements is shown by a diagram. The spectrum found by this work differs from the results obtained by the aforementioned previous work (Ref 1). After careful analysis and comparison of previous and new experimental data, the authors formed the following opinion concerning the causes of the aforementioned differences: 1) In the interval of from 0 to 3 m the axis of the showers recorded by the earlier (Ref 1) and by the present work were differently distributed over the distances from the cloud chamber. 2) In the earlier work only few showers were recorded in a distance of less than 1 m from the chamber, which was apt to lead to considerable fluctuations with respect to their share. 3) Because of the small number of counters in the hodoscope used in the earlier work, distances from the shower axis and the cloud chamber were determined with insufficient accuracy, so that a certain part of the showers of greater distances was assumed to belong to the interval of from 0 to 3 m. An exact analysis of these causes will be published later. The assumption made

On the Problem of the Spectrum of the Electron-Photon Component of Extensive Atmospheric Showers

earlier regarding the high degree of dependence of the share of high-energy electrons and photons on the number of particles in the shower was not confirmed. The authors thank G. T. Zatsepin, S. I. Nikol'skiy, L. I. Sarycheva, and O. I. Dovzhenko for discussing the results obtained. There are 1 figure and 4 Soviet references.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences, USSR)

SUBMITTED: June 27, 1958

Ivanovskaya, I. A.

82597
S/056/60/039/01/05/029
B006/B070

24.6900

AUTHORS: Ivanovskaya, I. A., Kuznetsov, Ye. V., Mal'tsev, E. I. Prokesh, A., Stashkov, G. M., Chuvilo, I. V.

TITLE: A Possible Case of the Disintegration of a Neutral Cascade Meson

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 1 (7), pp. 44-46

TEXT: During the irradiation of a two liter Xenon bubble chamber with negative pions (momentum 3 Bev/c) in the ITEF AN SSSR (Institute of Theoretical and Experimental Physics of the AS USSR) 20000 photographs were taken. In their evaluation one was found, represented in Fig. 1, which is assumed to disintegrate according to the scheme $D^0 \rightarrow K^+ + \pi^-$. Fig. 2 shows the geometrical scheme of this decay event. The chamber worked without a magnetic field. Identification of the particles was made only according to ionization and multiple scattering. The results of measurement are compiled in a table. In the diagram the path ends are denoted by letters, so that the particles (i.e. the tracks) are described in each case by two letters. Point b lies in the primary pion beam. The

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A Possible Case of the Disintegration of a Neutral Cascade Meson

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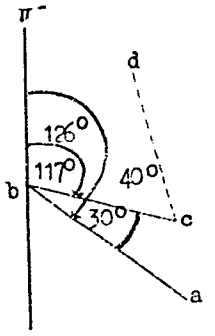
directions of motion of the particles are denoted by arrows. The mass of particle "bc", which is stopped in the chamber volume, was determined to be (490±190) Mev, which agrees with the mass of the K meson within the statistical error limits. The momentum determination for the "cd" particles gave the value (180±54) Mev/c, which corresponds to a K_{π_2} or K_{μ_2} decay. Further considerations showed that the track sequence "bc" - "cd" represents a K^+ meson decay (and not $\pi-\mu-e$). The "ba" particle of momentum (113±22) Mev/c and mass (195±55) Mev corresponds to a pion or a muon. Since the track ends with a nuclear disintegration, "ba" is considered to be a pion. Some other possibilities of decay modes are discussed, as for example, $K^0+n \rightarrow n+K^++\pi^-$. But, on grounds explained here they have very small probabilities. The only probable interpretation of the observed decay remains the mode $D^0 \rightarrow K^++\pi^-+Q$ with $Q = 10 \div 50$ Mev. The mass of D^0 is taken to be (660±50) Mev and the mode of production is assumed to be $\pi^- + p \rightarrow n + D^0$.



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A Possible Case of the Disintegration of a Neutral Cascade Meson

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B006/B070

Since a D^+ meson is already known, it may be assumed that, D^+-, D^0-, and D^--mesons exist, which all decay according to the scheme $D \rightarrow K + \pi$. There are 2 figures, 1 table, and 7 references: 5 Soviet, 1 Chinese, and 1 Italian.

ASSOCIATION: Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: February 15, 1960

Card 3/3

IVANOVSKAYA, I.A.; KUZNETSOV, Ye.V.; PROKESH, A.; CHUVILO, I.V.

Cross polarization of Λ-hyperons generated by π^--mesons with a pulse of 2,8 Bev/c on xenon nuclei. Zhur. eksp. i teor. fiz. 40 no.2:708-709 F '61. (MIRA 14:7)

1. Ob"yedinennyy institut yadernykh issledovaniy i Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR.
(Mesons)

GRA[illegible]Y, I. B., IVAN[illegible]SKAYA, I. A., [illegible], T., [illegible], A. S., OKH[illegible], L. S., PRO[illegible], A., [illegible]KIY, G. S., [illegible], N. A. and [illegible], I. V.

"Neutral Strange Particles Production on Xenon Nuclei in the 9 Gev/C π⁻ Meson Beam"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Institute for Nuclear Research
Laboratory of High Energies

IVANOVSKAYA, I.A.

GRAMENITSKIY, I. M., IVANOVSKAYA, I. A., KANAREV, T., MAKSIMOV, A. G., OKHRIMENKO, L.S., PRONSKIH, A., TERENOVA, L. A.

"Cross-Section of the Generation of π^--Mesons in the Coulomb Field of the Xenon Nucleus at the Momentum of Primary π^--Mesons 9 Gev/c"

report presented at the Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Joint Inst. for Nuclear Research
Lab. of High Energies, Dubna, 1962

S/056/62/043/003/005/063
B125/B102

AUTHORS: Ivanovskaya, I. A., Kuznetsov, Ye. V., Prokesh, A., Chuvilo, I. V.

TITLE: Angular distribution of decay products from Λ-hyperons produced by 2.8 BeV/c π^--mesons acting on xenon nuclei

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3 (9), 1962, 765-774

TEXT: The asymmetry coefficients for the angular distribution of the decay products of Λ^- hyperons were determined from 360 reliably identified Λ-particles and from 70 cases (Λ or K^0) imperfectly determined. These particles were produced by negative 2.8 BeV/c pions on xenon nuclei according to $\pi^- + p \rightarrow K^0 + \Lambda$. The relation $\alpha P_1 = 0.27 \pm 0.12$ holds for the up - down asymmetry with respect to the plane of production of the Λ-particles at momenta from 400 to 900 Mev/c in the coordinate system of Fig. 2. α characterizes the degree of parity non-conservation in the Λ-particle decay. With

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B125/B102

Angular distribution of decay ...

$\alpha = -0.75^{+0.15}_{-0.50}$ the value $\bar{P} = 0.36^{+0.18}_{-0.22}$ is deduced for the polarization $\bar{P}$ averaged over the production angle. The transverse polarization depends on the momentum of the Λ-hyperon in the laboratory system and perhaps changes its sign at the momenta >900 Mev/c. Owing to this low polarizability, heavy nuclei cannot be used as targets for the production of polarized particles. Systematic errors, difficult to control (being perhaps of the same order as the effect itself), make it more difficult to draw exact conclusions as to the amount of $\alpha\bar{P}_2$. This amount characterizes the forward-backward asymmetry. For all Λ-particles produced according to $\pi^- + Xe \rightarrow \Lambda + K + Xe' + n\pi$, perhaps $\alpha\bar{P}_3 = 0$. The quantity $\alpha\bar{P}_3$ characterizes the right - left asymmetry. Xe' denotes the secondary nucleus and $n\pi$ are the accompanying pions. With $\varphi_\Lambda < 26^\circ$ the asymmetry $\alpha\bar{P}_3$ is non-zero for all Λ with any momentum. There are 3 figures and 1 table.

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S/056/62/043/003/005/063
B125/B102

Angular distribution of decay ...

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute of Theoretical and Experimental Physics of the Academy of Sciences USSR). Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: March 27, 1962

Table: dependence of the asymmetry coefficients on momentum (in Mev/c) and the emission angle of the Λ-particle in the laboratory system.

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L 10286-63 EWF(c)/EWP(q)/EWT(m)/BDS--AFFTC/ASD--Pr-4--JD

ACCESSION NR: AP3000034 S/0056/63/044/005/1456/1462 63

AUTHOR: Ivanovskaya, I. A.; Kuznetsov, Ye. V.; Prokesh, A.; Chuvilo, I. V. 61

TITLE: Production of strange particles by 2.8 BeV/c negative pions on xenon nuclei 19 27

SOURCE: Zhurnal eksper. i teoret. fiziki, v. 44, no. 5, 1963, 1456-1462

TOPIC TAGS: Strange particles, production cross sections, negative pions, LAMBDA hyperons, neutral Kaons, xenon and freon

ABSTRACT: The relative and absolute cross sections were measured for the different channels of production of strange particles, mainly LAMBDA hyperons and neutral Kaons, by 2.8-BeV negative pions in a xenon bubble chamber. THe angular and momentum distributions of these particles are also presented. Both direct particle production and production via short-lived intermediate particles are included. The experiment was described in detail in a separate article by the authors (Zhurnal eksperimental'noy i teoreticheskoy fiziki, vol. 43, 765, 1962). The cross section measurement results are tabulated (Enclosure 1). It

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is concluded that reactions differing only with regard to the charge of strange particles occur with identical intensity. The experimental cross section ratios are in good agreement with Fermi-model calculations for some cases, and 1.5 times smaller in others. The bulk of the LAMBDA hyperons are emitted backward within a 154-180° cone in the pion-nucleon center of mass system. The angular distributions depend only slightly on the strange-particle charge. About 30% of the LAMBDA hyperons are scattered in the parent nucleus. Comparison of the data on the neutral Kaon-Antikaon pairs produced in freon and xenon indicates that the neutral Kaons are scattered considerably less frequently in the nucleus. There are 3 figures, 5 formulas, and one table.

ASSOCIATION: Institute of theoretical and experimental physics (Institut teoreticheskoy i eksperimental'noy fiziki); Joint Institute of Nuclear Research (Ob"yedenennyy institut yadernykh issledovaniy).

SUBMITTED: 17Nov62 DATE ACQ: 12Jun63 ENCL: 01

SUB CODE: PH NR REF SOV: 007 OTHER: 007

Card 2/2

ACCESSION NR: AP4042562 S/0056/64/046/006/2023/2027

AUTHORS: Gramenitskiy, I. M.; Ivanovskaya, I. A.; Kanarek, T.; Okhrimenko, L. S.; Prokesh, A.; Tikhonova, L. A.

TITLE: Investigation of the reaction $\pi^- + Xe \rightarrow \pi^- + \pi^0 + Xe$ for 9 GeV/c primary negative pions

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 2023-2027

TOPIC TAGS: pion, pion interaction, pi meson product, negative pi meson, neutral pi meson, xenon, Coulomb field

ABSTRACT: The production of negative and neutral pions in the interaction between negative pions and nuclei, with small momentum transfer to the recoil nucleus, was investigated in a xenon bubble chamber. The greatest interest in these reactions lies in the process of producing a neutral pion in a Coulomb field, for this reaction can yield information on the interaction between pions and gamma rays. The se-

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IVANOVSKAYA, I.L.; NOVIKOV, A.G.

Large rectangular cloud chamber. Zhur.tekh. fiz. 26 no.1:209-212 Ja '56. (Cloud chamber) (MLRA 9:6)

5(2), 5(4) SOV/54-59-3-15/21

AUTHORS: Parfenov, A. I., Ivanovskaya, I. S.

TITLE: The Electrode Properties of the Glasses of the System Li_2O-Cs_2O-SiO_2

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1959, Nr 3, pp 94 - 98 (USSR)

ABSTRACT: Glasses with a Cs-content of ≤ 9 % by mole were used for the investigation of the electrode properties of glasses of the system Li_2O-Cs_2O-SiO_2; a higher Cs-content increases resistance considerably, and the chemical stability of such a compound is only small. Table 1 gives the composition and resistance (lgρ) at 20 and 150°. The electrode properties of the glasses were investigated at room temperature and at 95° in lithium- and sodium salt solutions at a pH-value of the solutions ranging from 0 to 14. The methods employed in the production of glass electrodes had already been described (Ref 1). The expansion coefficient of the glasses investigated was from 90.10^{-7} to 115.10^{-7} cm/per degree. The electrodynamic force of the glass-calomel galvanic elements E_1 was measured according to the compensation method. A tube electrometer served as zero instrument. The accuracy of

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measurements at room temperature was within the error limits of $\pm$0.0002 v, and at 95° it was 0.001 v. E_1 was investigated in dependence on the composition and the pH-value of the solution (E_1=f(pH), calibration curve of the glass electrode). Further, the limits of the hydrogen function and deviations from it, expressed in ΔE_1 mv, were determined in acid and basic solutions. The limit values were assumed to be those in which E_1=f(pH) is a linear function, and where ΔE_1 does not exceed 10 mv, and the pH-difference is not more than 0.2 at room temperature. Table 2 shows the behavior characteristic of some electrode glasses of the LS-24-6-type (Li_2O-SiO_2) at 95° in acid and basic solutions, tables 3, 4 that the glasses of the system Li_2O-Cs_2O-SiO_2 at room temperature and at 95°. Figures 1 and 2 show the deviations from the hydrogen function observed in glasses with constant Si-content and varying Cs-content in acid and basic solvents. Cs-containing lithium glasses proved to extend considerably

the limit of the hydrogen function in the range of the high pH-values. Increased structure density is given as a reason for this phenomenon. Cs exerts also a negative effect upon the properties of the glasses; it increases the deviation from the hydrogen in acid medium. Increased resistance and lower chemical stability are mentioned as an explanation. There are 2 figures, 4 tables, and 3 references, 2 of which are Soviet.

SUBMITTED: April 29, 1959

IVANOVSKAYA, K. I.

Zhurbitskiy, Z. I. and Ivanovskaya, K. I. "Effect of local fertilizers on the yield of onions and cabbage," Trudy nauch.-issled. in-ta ovoshch. khoz-va, Vol. I, 1948, pp. 185-90

SO U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No 3, 1949)

IVANOVSKAYA, Kseniya Mikhaylovna, kandidat tekhnicheskikh nauk; LASTOCHKINA, L.A., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor

[Technique of statistical computation of hydrological parameters of rivers; a practical manual] Tekhnika statisticheskikh ischislenii gidrologicheskikh parametrov rek; prakticheskoe rukovodstvo. Moskva, Gos.energ.izd-vo, 1955. 107 p. (MLRA 9:3)

(Rivers)

AR'YEV, Yuriy Alekseyevich; PAVLUSHKOV, Vladimir Vsevolodovich; CHEZHIN, Vladimir Aleksandrovich; IVANOVSKAYA, K.M., red.

[Cantilever erection of reinforced concrete bridges] Sooruzhenie zhelezobetonnogo mosta navesnoi sborkoi. Moskva, Transport, 1965. 31 p. (MIRA 18:4)

ARBUZOV, B.A., akademik; VIZEL', A.O.; SAMITOV, Yu.Yu.; IVANOVSKAYA, K.M.

Derivatives of phosphacyclopentene. Synthesis and structure of isomers. Dokl. AN SSSR 159 no.3:582-585 N '64 (MIRA 18:1)

1. Institut organicheskoy khimii AN SSSR, Kazan'.

ARBUZOV, B.A., akademik; VIZEL', A.O.; ZAIKONNIKOVA, I.V.; [illegible]ENTSOVA, I.A.; DUNAYEV, V.G.; ZVEREVA, M.A.; IVANOVSKAYA, K.M.

Organophosphorus compounds of low toxicity. Dokl. AN SSSR 165 no.1:91-94 N '65. (MIRA 18:10)

1. Institut organicheskoy khimii AN SSSR, Kazan', i Kazanskiy gosudarstvennyy meditsinskiy institut.

L 20705-66 EWT(1)/EWT(m)/EWP(j)/T RO/JK/RM

ACC NR: AP6012027 SOURCE CODE: UR/0020/65/160/004/0826/0828

AUTHOR: Vizel', A. O.; Zvereva, M. A.; Ivanovskaya, K. M.; Studentsova, I. A.; Dunayev, V.-G.; Berim, M. G.

ORG: Institute of Organic Chemistry, AN SSSR, Kazan' (Institut organicheskoy khimii AN SSSR); Kazan' Medical Institute, Kazan' (Kazanskiy meditsinskiy institut)

TITLE: Synthesis and some properties of phosphacyclopentene derivatives

SOURCE: AN SSSR. Doklady, v. 160, no. 4, 1965, 826-828

TOPIC TAGS: organic synthetic process, toxicology, mouse, ester, antibiotic

ABSTRACT: Esters of cyclophosphinic acid were synthesized by reaction of 1-oxo-1=bromo-3-methylphosphacyclopentene-2 with corresponding alcohols in the presence of triethylamine in ether solution. Two acids were prepared by saponification of the corresponding acid bromides and recrystallized from acetone. One methyl ester was prepared by reaction of 2-oxo-2-chloro-3,3,5-trimethyl-1-oxaphosphacyclopentene-4 with methanol in the presence of triethylamine. Toxicity studies were run on white mice according to the Berens method; most of the compounds studied gave a monotypic picture of poisoning, similar to the action of narcotics. Lethal doses of the compounds studied produced a sharp inhibition and stoppage of respiration. The toxicity of the esters was found to increase with increasing length of the hydrocarbon radical. The action of the preparations was reversible, and after the mice awoke there was no effect on their general condition. The preparations were also investigated in vitro in 1:100 and 1:1000 dilutions on seven species of pathogenic microbes. The two free acids studied exhib-

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L 20705-66

ACC NR: AP6012027

ited the broadest range of antimicrobial action. This paper was presented by Academician B. A. Arbuzov on 27 July 1964. Orig. art. has: 3 tables. [JPRS]

SUB CODE: 06, 07 / SUBM DATE: 22Aug64 / ORIG REF: 006 / OTH REF: 007

Card 2/2 BK

VIZEL', A.O.; ZVEREVA, M.A.; IVANOVSKAYA, E.M.; STUDENTSOVA, I.A.; LUNAYEV, V.G.; BERIM, M.G.

Synthesis and certain properties of phosphacyclopentane derivatives. Dokl. AN SSSR 160 no.4:826-828 F '65.

(MIRA 18:2)

1. Institut organicheskoy khimii AN SSSR i Kazanskiy meditsinskiy institut.

MIKHAYLOVA, Raisa Dmitriyevna; MIKHAYLOV, Aleksey Nikolayevich; IVANOVSKAYA, K.M., red.; DONSKAYA, G.D., tekhn. red.

[Curing concrete with the use of film-forming materials] Ukhod za betonom s primeneniem plenkoobrazuiushchikh materialov; posobie masteru. Moskva, Avtotransizdat, 1961. 42 p. (MIRA 15:7)
(Concrete--curing) (Protective coatings)

EPSHTEYN, Fedor Moiseyevich; IVANOVSKAYA, K.M., red.; GORYACHKINA, R.A., tekhn. red.

[Manufacturing welded armature frames for beams and plates; a handbook for electric welders] Izgotovlenie svarnykh armaturnykh karkasov balok i plit; posobie elektrosvarshchiku. Moskva, Avtotransizdat, 1963. 40 p. (MIRA 16:6)
(Concrete reinforcement) (Electric welding)

[illegible], [illegible], kand. tekhn. nauk; GIBSHMAN, Ye.Ye., zasl. deyatel' nauki i tekhniki RSFSR, doktor tekhn. nauk, prof., [illegible]; IVLIANSKAYA, K.M., red.

[Using polymer materials in bridge construction] Primenenie polimernykh materialov v mostostroenii. Moskva, Transport, [illegible]. 109 p.
(MIRA 17:10)

ACC NR: AP6032859 SOURCE CODE: UR/0020/66/170/003/0585/0588

AUTHOR: Arbuzov, B. A. (Academician); Vizel', A. O.; Ivanovskaya, K. M.

ORG: Institute of Organic and Physical Chemistry im. A. Ye. Arbuzov, Academy of Sciences, SSSR (Institut organicheskoy i fizicheskoy khimii Akademii nauk SSSR)

TITLE: Phosphacyclopentene derivatives as catalysts in the synthesis of carbodiimides

SOURCE: AN SSSR. Doklady, v. 170, no. 3, 1966, 585-588

TOPIC TAGS: organic phosphorus compound, imide, phosphinic acid, phosphonic acid, phosphate

ABSTRACT: The catalytic activity of various phospholene derivatives were studied by determining the rate constants of conversion of phenyl isocyanate into diphenylcarbodiimide. The CO_2 liberation rate served as the kinetic parameter. In all cases, the reaction was first order. The following series of catalyst activity in the synthesis of carbodiimides was arrived at: phospholenephosphine oxides > phospholenephosphinates oxides of noncyclic phosphines > phosphinates > phosphonates > phosphates. Despite the fact that the derivatives of phospholenephosphinic acid occupy the second place in the activity series, their activity is fully adequate for practical applications. The applicability of these derivatives to preparative syntheses is illustrated by the high yield of diphenylcarbodiimide from phenyl isocyanate in the presence of 1-ethoxy-1-oxo-

Card 1/2 UDC: 547.76:661.718.1:541.128

ACC NR: AP6032859

3-methyl-3-phospholene. Orig. art. has: 3 tables.

SUB CODE: 07/ SUBM DATE: 14Mar66/ ORIG REF: 005/ OTH REF: 022

Card 2/2

Ivanovskaya, L.A.

IVANOVSKAYA, L.A.; KULIKOV, G.V.; RAKOBOL'SKAYA, I.V.; SARYCHEVA, L.I.

Cloud chamber investigation of the electron-photon components of extensive air showers at sea level [with summary in English]. Zhur.eksper. i teor.fiz. 33 no.2:358-364 Ag '57. (MIRA 10:10)

1.Fizicheskiy institut imeni P.N. Lebedeva AN SSSR i Moskovskiy gosudarstvennyy universitet.
(Cosmic rays) (Cloud chamber)