EPSHTEYN, D.A., professor (Moskva)

Practical problems on the subject: Nitrogen and phosphorus.
Khim.v shkole 11 no.2:39-45 Mr-Ap '56. (MLRA 9:7)
(Chemistry--Study and teaching)

EPSHTEYN, David Arkal'yevich, professor, doktor tekhnicheskikh nauk; LEYPUNSKAYA, D.I., redaktor; PROFERANSOVA, M.V., redaktor; SOKOLOVA, R.Ya., tekhnicheskiy redaktor

[Principles of chemical technology; a book for teachers] Osnovy khimicheskoi tekhnologii; kniga dlia uchitelia. Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1957. 222 p. (MLRA 10:5)
(Chemistry, Technical)

EPSHTEYN, DAVID ARKAD'YEVICH

KHODAKOV, Yuriy Vladimirovich; TSVETKOV, Leonid Aleksandrovich; SHAPOVALENKO, Sergey Grigor'yevich; EPSHTEYN, David Arkad'yevich; SAVEL'YEVA, P.N., redaktor; MAKHOVA, N.N., tekhnicheskiy redaktor.

[Chemistry; a textbook for grades 8-10 in the secondary school] Khimiia; uchebnik dlia VIII-X klassov srednei shkoly. Pod red. S.G.Shapovalenko.Izd.3-e. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1957. 423 p. (MIRA 10:6)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR(for Shapovalenko).
(Chemistry)

EPSHTEYN, D. A.

GLORIOZOV, Pavel Aleksandrovich; DRIZOVSKAYA, Tamara Mikhaylovna; TSVETKOV, Leonid Aleksandrovich; SHAPOVALENKO, Sergey Grigor'yevich; EPSHTEYN, David Arkad'yevich; PROFERANSOVA, M.V., red.; LAUT, V.G., tekhn. red.

[Problems of technical education in the teaching of chemistry] Voprosy politekhnicheskogo obucheniia v prepodavanii khimii. Pod. red. S.G.Shapovalenko. Moskva, Izd-vo Akad. pedagog. nauk RSFSR, 1957. 425 p. (MIRA 11:5)

1. Chlen-korrespondent APN RSFSR (for Shapovalenko)
(Chemistry--Study and teaching)

EPSHTEYN, D.A.

AUTHOR: Epshteyn, D.A., Professor (Moskva) 26-12-42/49

TITLE: A Book About Nitrogen (Kniga ob azote)

PERIODICAL: Priroda, 1957, # 12, p 120-121 (USSR)

ABSTRACT: The author gives a critical review of the book "Nitrogen", (Azot) written by V.I. Medvedovskiy. It contains a popular description of the many ways nitrogen is used, where it is found in nature and how it can be produced. It is intended for the general reader, but contains a whole series of mistakes and incorrect details which lessen its value considerably as pointed out by the author. (Publ. by AN,USSR, 1957)

AVAILABLE: Library of Congress

Card 1/1

EPSHTEYN, David Arkad'yevich, doktor tekhn.nauk; SHAPOSHNIKOVA, A.A., red.; SOKOLOVA, R.Ya., tekhn.red.

[Visual aids in the study of chemical industries in secondary schools; description of the aids and methods of using them] Nagliadnye posobiia po khimicheskim proizvodstvam dlia srednei shkoly; opisanie posobii i metodika ikh ispol'zovaniia. Moskva, Izd-vo Akad.pedagog.nauk RSFSR, 1958. 106 p. (MIRA 13:4)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Epshteyn).
(Chemical engineering--Equipment and supplies)
(Visual aids)

EPSHTEYN, D., doktor khim. nauk

Contact apparatus for the oxidation of ammonia. Khim. v shkole. (MIRA 11:3)
no.2:73 Mr-Ap '58.
(Ammonia) (Oxidation)

EPSHTEYN, D.A.; KLESHCHEVA, Ye.P.

Conducting an elective course in chemical technology in a secondary school. Politekh. obuch. no.4:17-23 Ap '58. (MIRA 11:3)
(Chemistry, Technical)

EPSHTEYN, D.A.

Raw materials for synthetics. Khim. V shkole 13 no.5:10-16 S-O '58.
(MIRA 11:9)

1.Chlen-korrespondent APN RSFSR.
(Synthetic products)

5(1)

AUTHORS: Epshteyn, D. A., Tkachenko, N. M., Miniovich, M. A., Dobrovol'skaya, N. V.

SOV/20-122-5-35/56

TITLE: A Two-Stage Catalyst for Oxidation of Ammonia (Dvukhstupenchatyy katalizator okisleniya ammiaka)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 5, pp 874-877 (USSR)

ABSTRACT: Catalysts for the oxidation of ammonia to nitric oxide can be divided according to their chemical composition into platiniferous and non-platiniferous catalysts. The latter include iron, cobalt, chromium oxides and oxides of other metals. In industry platiniferous catalysts are used almost exclusively, although they are less accessible and more expensive than non-platiniferous ones and involve large irrecoverable losses. But they are stable and guarantee a high degree of transformation of ammonia to nitric oxide (97-98% yield of N_2O). Both groups of catalysts have a great power of selectivity. The question arises as to the conditions under which non-platiniferous catalysts retain their high selectivity without change for a period of time that would meet industrial requirements. The first and second author studied the oxidation

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of ammonia with several non-platiniferous catalysts (Ref 1). Because of various difficulties it was decided to place a standard platinum grid in front of the non-platiniferous catalyst so that the latter contacts a partly reacted mixture. By means of a sight glass it was discovered that the non-platiniferous catalyst, which formerly would hardly glow, soon started to operate again under these conditions. The yield of nitric oxide rose to its original level (98%) and remained there for a long time without dropping: under all other optimum conditions the non-platiniferous catalyst reached stability. It was obvious that the drop of activity and selectivity of the non-platiniferous catalyst was due to a change in its frontal layer, that comes into contact with the new air-ammonia mixture. The great amount of heat created and the ever present poisonous components inactivate the frontal layer. If a platinum grid is used, comparatively little heat is created because of the reduced ammonia concentration and a part of the poison is neutralized by the platinum. The authors have conducted experiments under different conditions and with grids of different densities . The results are given in table 1. From this study the conclusion may be drawn that some non-platiniferous catalysts equal platiniferous catalysts with

A Two-Stage Catalyst for Oxidation of Ammonia SOV/20-122-5-35/56

respect to their selectivity. They possess a higher stability when part of the ammonia was previously oxidized at a platiniferous catalyst. A possible mechanism of reaction had been discussed before (Ref 3). There are 1 table and 3 Soviet references.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti (State Scientific and Planning Research Institute of Nitrogen Industry)

PRESENTED: June 9, 1958, by S. I. Vol'fkovich, Academician

SUBMITTED: June 6, 1958

Card 3/3

EPSHTEYN, David Arkad'yevich, prof., doktor tekhn.nauk; PROFERANSOVA, N.V., red.; ZAKHAROVA, V.V., tekhn.red.

[Mineral fuels and their chemical processing] Goriuchie iskopaemye i ikh khimicheskaia pererabotka; kniga dlia uchitelia. Moskva, Izd-vo Akad.pedagog.nauk RSFSR, 1959. 150 p. (MIRA 12:12)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Epshteyn).

(Fuel) (Chemicals)

KNUNYANTS, I.L., glav. red.; BAKHAROVSKIY, G.Ya., zam. glav. red.; BUSEV, A.I., red.; VARSHAVSKIY, Ya.M., red.; GEL'PERIN, N.I., red.; DOLIN, P.I., red.; KIREYEV, V.A., red.; MEYERSON, G.A., red.; MURIN, A.N., red; POGODIN, S.A., red.; REBINDER, P.A., red.; SLONIMSKIY, G.S., red.; STEPANENKO, B.N., red.; EPSHTEYN, D.A., red.; VASKEVICH, D.N., nauchnyy red.; GALLE, R.R., nauchnyy red.; GARKOVENKO, R.V., nauchnyy red.; GODIN, Z.I., nauchnyy red.; MOSTOVENKO, N.P., nauchnyy red.; LEBEDEVA, V.A., mladshiy red.; TRUKHANOVA, M.Ye., mladshiy red.; FILIPPOVA, K.V., mladshiy red.; ZHAROVA, Ye.I., red.; KULIDZHANOVA, I.D., tekhn. red.

[Concise chemical encyclopedia] Kratkaia khimicheskaia entsiklopediia. Red. koll.: I.L.Knuniants i dr. Moskva, Gos. nauchn. izd-vo "Sovetskaia entsiklopediia." Vol.1. A - E. 1961. 1262 columns. (MIRA 15:2)

(Chemistry--Dictionaries)

EPSHTEYN, D.A.

Studying the production of sulfuric acid in the chemistry course of the general secondary schools. Khim. v shkole 16 no.5:27-30 S-O '61. (MIRA 14:9)

1. Deystvitel'nyy chlen Akademii pedagogicheskikh nauk RSFSR.
(Sulfuric acid industry)

EPSHTEYN, D.A. (Moskva)

Development of chemical abilities in students. Vop. psikhol. 9 no.6:106-116 N-D '63. (MIRA 17:4)

EPSHTEYN, D.A. (Moskva); GENDZHEVA, N. [translator]

Forming chemical aptitude in students. Biol i khim 7 no.6:27-36 '64.

VOSKRESENSKIY, P.I.; PARMENOV, K.Ya.[deceased]; TSVETKOV, [illegible]; EPSHTEYN, D.A.; GLORIOZOV, P.A., zasl. uchitel'; kand.khim.nauk retsenzent; STAKHANOVA, M.S., kand.khim.nauk, retsenzent; KOZLOV, V.V., red.

[Handbook of chemistry for secondary school students] Spravochnik po khimii dlia uchashchikhsia srednei shkoly. Moskva, Prosveshchenie, 1964. 359 p. (MIRA 18:2)

1. Chlen-korrespondent Akademii pedagogicheskikh nauk RSFSR (for Gloriozov).

EPSHTEYN, D.I., dotsent.

Systematic bases for enlarged technical standardization of machine--tool work for production in small lots and units. Trudy LIEI no.6: 141-167 '53. (MLRA 9:8)

(Machine-shop practice)

EPSHTEYN, D.I., dotsent.

Methods and practice of setting up consolidated technical norms for machineng operations in small-lot production. Trudy LIEI no.10: 7-32 '55. (MLRA 9:8)

(Factory management)
(Machine-tool industry--Production standards)

ZAKHAROV, Nikolay Nikolayevich; EPSHTEYN, D.L., dotsent, retsenzent; GAL'TSOV, A.D., inzh.; [illegible], G.Ya., dotsent, red.; SIMKHOVA, M.M., red.izd-va; UVAROVA, A.F., tekhn.red.

[Setting labor standards in the machinery industry] Tekhnicheskoe normirovanie truda v mashinostroenii. Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry, 1958. 560 p. (MIRA 12:2)
(Machinery industry--Production standards)

EPSHTEYN, D.I.; TSYGANKOVA, A.M.; SARAYEV, Yu.D.

Establishment of norms for machine-tool operations based on consolidated norms reduced to a single line. Mashinostroitel' no.11: 37-39 N '61. (MIRA 14:11)

(Factory management)

DZHURABAYEV, Kakhraman Tursunovich; EPSHTEYN, D.I., red.

[Relationship between time norms and the size and recurrence of the lot of manufactured parts] Zavisimost' norm vremeni ot velichiny i povtoriaemosti partii detalei. Leningrad, 1965. 34 p. (MIRA 18:11)

BROKARENKO, Konstantin Kuz'mich; IGNATOV, Viktor Nikolayevich; PETROV, Boris Ivanovich; EPSHTEYN, D.M., red.; KHITROV, P.A., tekhn.red.

[Technological training for students specializing in railroad transportation; organization and methods] Professional'no-tekhnicheskoe obuchenie na zheleznodorozhnom transporte; organizatsiia i metodika. Moskva, Gos.transp.zhel-dor.izd-vo, 1959. 255 p. (MIRA 12:6)

(Railroads)

EPSHTEYN, D. S.

SHAPOVALENKO, S.G.; EPSHTEYN, D.S.; TSVETKOV, L.A.; GLORIOZOV, P.A.; KLESHCHEVA, E.P., redaktor; MAKHOVA, N.N., tekhnicheskiy redaktor.

[Problems of training in practical applications in the teaching of chemistry] Voprosy politekhnicheskogo obucheniia v prepodavanii khimii. Moskva, Gos. uchebno-pedagog. izd-vo, 1954. 157 p. (MLRA 7:8)
(Chemistry--Study and teaching)

EPSHTEYN, E.

Operating MUKZ-35 feed mills in Gorkiy Province. Muk.-elev. prom. 27 no.6:20-21 Je '61. (MIRA 14:6)

1. Gor'kovskoye upravleniye zagotovok.
(Gorkiy Province—Feed mills)

EPSHTEYN, E.F.

Some results of scientific research in the field of the boring and breaking of rock; Izv. DGI 42:40-44 '64.
(MIRA 18:11)

USSR/Microbiology - Microorganisms Pathogenic to Humans and Animals. F-4

Abs Jour : Ref Zhur - Biol., No 10, 1958, 43292

Author : Filippova, O.G., Epshteyn, E.I.
Inst : -
Title : A Comparative Study of Two Methods of Antigen Vaccination in an Experiment on Mice.

Orig Pub : Nauchn. tr. Mosk. n.-i. in-t vaktsin i syvorotok, 1956, 8, 645-652.

Abstract : A study was conducted of two methods of verifying antigen immunogenicity -- a subcutaneous and an intraperitoneal method. The study was conducted on mice with samples of typhoid fever preparations (total antigens, and prepared polyvaccine). Both tested preparations produced a greater immunity when used intraperitoneally (greater survival of infected mice) than when used subcutaneously. The optimum period for testing immunity in subcutaneous immunization

Card 1/2

BAGIROV, M.A.; VECHKHAYZER, G.V.; DZHUVARLY, Ch.M.; EPSHTEYN, E.M.

Effect of breaks in air supply on the process of thermal treatment of an oil-bearing bed. Izv. AN Azerb. SSR.Ser. fiz.-mat. i tekh. nauk no.3:109-115 '63. (MIRA 16:11)

BAGIROV, M.A.; VECHKHAYZER, G.V.; DZHUVARLY, Ch.M.; EPSHTEYN, E.M.

Temperature distribution and conditions for the stability of combustion in the heating of an oil-bearing stratum. Izv.AN Azerb.SSR.Ser.fiz.-mat.i tekh.nauk no.1:77-87 '62. (MIRA 15:4)
(Petroleum engineering)

S/056/60/039/002/031/044
B006/B070

24.6600

AUTHORS: Guliyev, N. A., Epshteyn, E. M.

TITLE: Bremsstrahlung From a Distributed Proton 19

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 2(8), pp. 432 - 433

TEXT: A. I. Akhiyezer and A. G. Sitenko have already treated similar problems (Refs. 1,2). They have not, however, taken into account the anomalous magnetic moment and the "blurring" of the proton, which is of particular significance according to experimental investigations of the scattering of fast electrons from protons. The consideration of the interaction between the proton and the mesonic vacuum is particularly important for large recoils of the proton. It has been shown already that, in order to take this interaction into account, the interaction operator γ_μ from the current density formula of the proton, $u_2\gamma_\mu u_1$, must be replaced by the vertex operator Γ_μ (defined by formula (1); see Ref. 4). The authors of the present paper have used this method to investigate the

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effect of the structure and the anomalous magnetic moment of the proton on its bremsstrahlung during diffractional scattering in the nuclear field. It is assumed that the appearance of the "blurred" proton is independent of the kind of electromagnetic process and depends only on the magnitude of the recoil of the proton. In the expression for the matrix element of the bremsstrahlung of ultra-relativistic protons in a central field, γ_μ is replaced by $A\gamma_\mu - (iB/2M)\gamma_\mu \hat{k}$. For not too high accelerations of the proton during the emission, and, therefore, for not too high energies of the emitted photons, A and B are functions only of $E\omega - \vec{p}\vec{k}$. By this the authors obtain for $d\sigma$ formula (4), which differs from that obtained by Sitenko only in the factor F^2 (see L. D. Landau and I. Ya. Pomeranchuk, Ref. 5). Formula (4) is no more valid when $E\omega - \vec{p}\vec{k} \sim M^2$. The effect of the "structure" of the proton on the diffractional production of electron - positron pairs during the scattering of the proton in a central field may be taken into account in an analogous manner. There are 5 Soviet references.

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Card 2/3

Bremsstrahlung From a Distributed Proton

83194
S/056/60/039/002/031/044
B006/B070

ASSOCIATION: Institut fiziki Akademii nauk Azerbaydzhanskoy SSR (Institute of Physics of the Academy of Sciences of the Azerbaydzhanskaya SSR)

SUBMITTED: March 19, 1960

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Card 3/3

37114
S/056/62/042/004/029/037
B125/B102

24.4400

AUTHOR: Epshteyn, E. M.

TITLE: High-energy electron-electron scattering and the dipole structure of the electron

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 4, 1962, 1103-1105

TEXT: Substituting the vertex operator

$$\Gamma_\nu(q) = F_1(q^2)\gamma_\nu + \frac{i\mu}{4m} F_2(q^2)[\gamma_\nu \hat{q}] + \frac{i\lambda}{4m} F_3(q^2)[\gamma_\nu \hat{q}]\gamma_5 \quad (2)$$

taking account of the smearing, the electric and magnetic dipole moments of the electron into the matrix element

$$M = (2\pi)^4 e^2 \delta(p_1 + p_1' - p_2 - p_2') \times \left\{ \frac{[\bar{u}_2(p_2)\Gamma_\nu(q)u_1(p_1)][\bar{u}_2(p_2')\Gamma_\nu(-q)u_1'(p_1')]}{(p_1 - p_2)^2} - \frac{[\bar{u}_2(p_2')\Gamma_\nu(f)u_1(p_1)][\bar{u}_2(p_2)\Gamma_\nu(-f)u_1'(p_1')]}{(p_1 - p_2')^2} \right\}, \quad (1)$$

High-energy electron-electron ...

for the high-energy electron-electron scattering gives the differential cross section

$$d\sigma = \frac{\pi r_0^2}{\gamma^2}\left\{F_1^4(q^2)\left(1+\cos^4\frac{\theta}{2}\right)\Big/ 4\sin^4\frac{\theta}{2} + F_1^2(q^2)\,F_1^2(f^2)\Big/ 2\sin^2\frac{\theta}{2}\cos^2\frac{\theta}{2} + \right.$$
$$+ F_1^4(f^2)\left(1+\sin^4\frac{\theta}{2}\right)\Big/ 4\cos^4\frac{\theta}{2} + F_1^2(q^2)\,[\mu^2F_2^2(q^2)+\lambda^2F_3^2(q^2)]\,\gamma^2\operatorname{ctg}^2\frac{\theta}{2} +$$
$$+ F_1^2(f^2)\,[\mu^2F_2^2(f^2)+\lambda^2F_3^2(f^2)]\,\gamma^2\operatorname{tg}^2\frac{\theta}{2} + F_1^2(q^2)\,[\mu^2F_2^2(f^2)-\lambda^2F_3^2(f^2)]\times$$
$$\times\gamma^2\cos^2\frac{\theta}{2}\left(1+\sin^2\frac{\theta}{2}\right)\Big/ 4\sin^2\frac{\theta}{2} + F_1^2(f^2)\,[\mu^2F_2^2(q^2)-\lambda^2F_3^2(q^2)]\times \qquad (3)$$
$$\times\gamma^2\sin^2\frac{\theta}{2}\left(1+\cos^2\frac{\theta}{2}\right)\Big/ 4\cos^2\frac{\theta}{2} + \frac{1}{8}\,[\mu^2F_2^2(q^2)+\lambda^2F_3^2(q^2)]^2\times$$
$$\times\gamma^4\left(1+\cos^2\frac{\theta}{2}\right)^2 + \frac{1}{8}\,[\mu^2F_2^2(f^2)+\lambda^2F_3^2(f^2)]^2\,\gamma^4\left(1+\sin^2\frac{\theta}{2}\right)^2 +$$
$$+\frac{1}{8}\,[(\mu^2F_2(q^2)\,F_2(f^2)+\lambda^2F_3(q^2)\,F_3(f^2))^2+\mu^2\lambda^2\,(F_2(q^2)\,F_3(f^2)+$$
$$\left.+F_2(f^2)\,F_3(q^2))^2]\,\gamma^4\left(2+\sin^2\frac{\theta}{2}\cos^2\frac{\theta}{2}\right)\right\}\sin\theta\,d\theta,$$

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of this process in the center-of-mass system. p_1 and p_1', p_2 and p_2' denote the four-dimensional momenta of the initial and final states of electrons, $r_0 = \alpha/m$ is the classical radius of the electron, and $\gamma = \mathcal{E}/m$; $q_\nu = (p_2 - p_1)_\nu = (p_1' - p_2')_\nu$; $f_\nu = (p_2' - p_1)_\nu = (p_1' - p_2)_\nu$; λ is the electric dipole moment, and μ is the anomalous magnetic moment of the electron, both in terms of $e/\sqrt{4\pi}\,m$. $\mathcal{E}$ is the electron energy, m its mass, ϑ the scattering angle. Substitution of $F_1 = 1$, $F_2 = F_3 = 0$ into (3) gives the well-known formula for the Moeller cross section, and substitution of $\lambda = 0$ gives the results found by V. N. Bayer (ZhETF, 37, 1490, 1959). The present author states that the last two terms of the scattering cross section as calculated by G. V. Abakov (ZhETF, 37, 848, 1959) are incorrect. Substituting the relative loss $\Delta = \sin^2(\vartheta/2)$ of the kinetic energy of an incident electron in the laboratory system into (3) gives the energy distribution of the secondary electrons when an electron passes through matter. The formulas derived can, in principle, be used for determining the form factors F_1, μF_2, and λF_3 for different values of the argument. The English-language references read as follows: G. Feinberg.

Card 3/4

High-energy electron-electron ... S/056/62/042/004/029/037
B125/B102

Phys. Rev., 112, 1637, 1958; B. Margolis, S. Rosendorff, A. Sirlin. Phys. Rev., 114, 1530, 1959; A. A. Schupp, R. W. Pidd, H. R. Crane. Phys. Rev., 121, 1, 1961; G. R. Burleson, H. W. Kendall. Nucl. Phys., 19, 68, 1960.

ASSOCIATION: Institut fiziki Akademii nauk Azerbaydzhanskoy SSR
(Institute of Physics of the Academy of Sciences Azerbaydzhanskaya SSR)

SUBMITTED: November 9, 1961

Card 4/4

S/056/62/043/004/049/061
B104/B186

AUTHORS: Guliyev, M. A., Epshteyn, E. M.

TITLE: The transformation of an electron-positron pair into a μ-meson pair

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 4(10), 1962, 1517-1520

TEXT: The energies of the colliding particles in the c.m.s. have to exceed 106 Mev to give rise to $e^- - e^+ \rightarrow \mu^- + \mu^+$ processes. At these energies the experimental results differ from those of quantum electrodynamics because the equations are modified to small intervals, to the nonlocality of interaction, to the definite structure of the interacting particles and to their nonelectromagnetic interaction. Mathematically, the modification of the electrodynamic equations to small intervals is equivalent to the form factors involved in the expressions for the matrix elements of the particle flux when the locality of interaction is perturbed (S. D. Drell, Ann. of Phys., 4, 75, 1958; A. I. Nikishov, ZhETF, 36, 1323, 1959). The "structure" of the particles involved in the process

The transformation of an ...

can be taken into account when the matrix γ_ν in the particle flux density $e\bar{u}(p_2)\gamma_\nu u(p_1)$ is substituted by the vertex operator

$$\Gamma_\nu(q) = a(q^2)\gamma_\nu + \frac{ib(q^2)}{4M}\left[\gamma_\nu, \hat{q}\right] \qquad (1)$$

where $q = p_2 - p_1$, $a(q^2)$ and $b(q^2)$ are invariant functions and M is the particle mass. When due consideration is given to the extent that electrons and muons are "expanded", the matrix element of the process will have the form

$$S = (2\pi)^4 \frac{e^2}{q^2}\delta(p_- + p_+ - P_- - P_+)\left\{\bar{v}(-p_+)\left[a(q^2)\gamma_\nu - \right.\right. \qquad (2),$$
$$\left. - \frac{ib(q^2)}{4m}(\gamma_\nu\hat{q} - \hat{q}\gamma_\nu)\right]u(p_-)\Big\}\left\{\bar{U}(P_-)\left[A(q^2)\gamma_\nu + \right.\right.$$
$$\left.\left. + \frac{iB(q^2)}{4M}(\gamma_\nu\hat{q} - \hat{q}\gamma_\nu)\right]V(-P_+)\right\}.$$

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The transformation of an ...

where $q = p_+ + p_- = P_+ + P_-$; here the capital letters refer to electrons, the small letters to muons. The differential cross section is

$$d\sigma/d\Omega = \tfrac{1}{16} r_0^2 \lambda^3 \sqrt{1-\Lambda^2} \{ |a(q^2)|^2 |A(q^2)|^2 [1 + \Lambda^2 + (1-\Lambda^2)\cos^2\vartheta] +$$
$$+ 12 \operatorname{Re}[a(q^2) b^*(q^2)] \operatorname{Re}[A(q^2) B^*(q^2)] + 4 |a(q^2)|^2 \operatorname{Re}[A(q^2) B^*(q^2)] +$$
$$+ 2 \operatorname{Re}[a(q^2) b^*(q^2)] |A(q^2)|^2 (2 + \Lambda^2) +$$
$$+ |a(q^2)|^2 |B(q^2)|^2 \Lambda^{-2} [1 + \Lambda^2 - (1-\Lambda^2)\cos^2\vartheta] +$$
$$+ |b(q^2)|^2 |A(q^2)|^2 \lambda^{-2} [1 - (1-\Lambda^2)\cos^2\vartheta] +$$
$$+ 2 \operatorname{Re}[a(q^2) b^*(q^2)] |B(q^2)|^2 \Lambda^{-2} (1 + 2\Lambda^2) +$$
$$+ |b(q^2)|^2 |B(q^2)|^2 \lambda^{-2} \Lambda^{-2} [\Lambda^2 + (1-\Lambda^2)\cos^2\vartheta] +$$
$$+ 2 |b(q^2)|^2 \operatorname{Re}[A(q^2) B^*(q^2)] \lambda^{-2} \}. \qquad (3),$$

where r_0 is the classical electron radius, $\lambda = m/E$, $\Lambda = M/E$. For the case

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The transformation of an ...

in which the electron pairs are annihilated, the total cross section reads

$$\sigma = \tfrac{1}{4}\pi r_0^2 \lambda^2 \sqrt{1-\Lambda^2}\{\tfrac{2}{3}|a|^2|A|^2(2+\Lambda^2) + \\ + 12\,\mathrm{Re}(ab^*)\,\mathrm{Re}(AB^*) + 4|a|^2\,\mathrm{Re}(AB^*) + \\ + 2|A|^2\,\mathrm{Re}(ab^*)(2+\Lambda^2) + \tfrac{2}{3}|a|^2|B|^2\Lambda^{-2}(1+2\Lambda^2) + \\ + \tfrac{1}{3}|b|^2|A|^2\lambda^{-2}(2+\Lambda^2) + 2\,\mathrm{Re}(ab^*)|B|^2\Lambda^{-2}(1+2\Lambda^2) + \\ + 2\,\mathrm{Re}(AB^*)|b|^2\lambda^{-2} + \tfrac{1}{3}|b|^2|B|^2\lambda^{-2}\Lambda^{-2}(1+2\Lambda^2)\}. \qquad (4).$$

The correctness of quantum electrodynamics can be evaluated by determining the angular dependence of the differential cross section $(d\sigma(\vartheta))$ at a given energy and by constructing $\left[S(\vartheta) = \left[d\sigma(\vartheta) - d\sigma(\vartheta)\right]/d\sigma_0(\vartheta)\right]$, where

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$d\sigma_0(\vartheta)$ is the differential cross section for a = A = 1, b = B = 0; $d\sigma_1(\vartheta)$ is the differential cross section calculated on the basis of "pure" quantum electrodynamics, inclusive of radiation corrections. S is found to be a straight line $S = f(E)$ if one of the two first-mentioned mathematically equivalent perturbances of quantum electrodynamics is present. $S(\vartheta) = f_1(E) + f_2(E)\cdot\cos^2\vartheta$ holds if a vertex operator has to be introduced. Conclusions: The formulas (3) and (4) are suitable for describing electrodynamic processes of the form $e^- + e^+ \longrightarrow f + \bar{f}$; where f and $\bar{f}$ are particles and antiparticles (other than electron or positron) which can be described by a spinor. These formulas are less suitable in the case of strong interaction.

ASSOCIATION: Institut fiziki Akademii nauk Azerbaydzhanskoy SSR
(Institute of Physics of the Academy of Sciences Azerbaydzhanskaya SSR)

The transformation of an ...

S/056/62/043/004/049/061
B104/B186

SUBMITTED: May 8, 1962

Card 6/6

EPSHTEYN, E.M.

Correction to the article "High-energy electron-electron scattering and the dipole structure of electrons." Zhur. eksp. i teor. fiz. 44 no.6:2194-2195 Je '63. (MIRA 16:6)

1. Institut fiziki AN Azerbaydzhanskoy SSR.
(Electrons)

L 21239-66 EWT(1)/EPF(n)-2/ETC(m)-6 IJP(c) WW
ACC NR: AP6003813 SOURCE CODE: UR/0181/66/003/001/0274/0275

AUTHOR: Epshteyn, E. M.

ORG: Institute of Radio Engineering and Electronics AN SSSR, Moscow (Institut radiotekhniki i elektroniki AN SSSR)

TITLE: On acoustic instability in a semiconductor with negative differential conductivity

SOURCE: Fizika tverdogo tela, v. 8, no. 1, 1966, 274-275

TOPIC TAGS: semiconductor conductivity, semiconductor carrier, acoustic property, sound transmission, piezoelectric crystal, dispersion equation

ABSTRACT: The purpose of the investigation was to ascertain the relation between the acoustic instability, first observed by M. Ye. Gertsenshteyn (Radiotekhn. i elektron. v. 7, 1055, 1962) and the instability due to supersonic carrier drift, reported by A. R. Hutson et al. (Phys. Rev. Lett. v. 7, 237, 1961). From an analysis of the complete equations describing the propagation of sound in a piezo-

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L 21239-66
ACC NR: AP6003813

electric semiconductor, assuming an isotropic medium, the author derives a dispersion equation, from which the damping decrement of the variable quantities is obtained. It follows from these equations that, in addition to the known instability due to the supersonic carrier drift, there should also occur an instability due to the presence of negative differential conductivity. Simultaneous occurrence of the two instabilities is possible. The amplitude of the sound wave will increase only if the growth increment determined by these formulas exceeds the sound damping decrement in the crystal lattice. The authors thank V. L. Bonch-Bruyevich for a discussion of the work. Orig. art. has: 6 formulas.

SUB CODE: 20/ SUBM DATE: 02Aug65/ ORIG REF: 002/ OTH REF: 003

Card 2/2 dd

L 23140-66 EWT(1)/EPF(n)-2/T/EWP(k)/ETC(m)-6 IJP(c) WW
ACC NR: AP6006845 SOURCE CODE: UR/0181/66/008/002/0552/0559

AUTHOR: Epshteyn, E. M.

ORG: Institute of Radio Engineering and Electronics, AN SSSR, Moscow (Institut radiotekhniki i elektroniki AN SSSR)

TITLE: Acoustoelectric effect in a strong ultrasonic field

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 552-559

TOPIC TAGS: acoustoelectric effect, ultrasonic field, semiconductor theory, acoustic absorption

ABSTRACT: The author considers the acoustoelectric effect in a semiconductor assuming a deformation mechanism for electron-phonon interaction at high frequencies in an arbitrarily intense acoustic field. The electron distribution function is found from the kinetic equation for nondegenerate conduction electrons in an atomic semiconductor where the electrons interact with a stationary monoenergetic ultrasonic flux and with thermal phonons. An expression is derived for the density of acoustoelectric current, and the coefficient for sonic absorption by electrons is calculated. It is found that the coefficient of absorption is inversely proportion-

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L 23149-66

ACC NR: AP6006845

2

al to the density of acoustic flux and not to its square root. Impurity scattering and heating of the electron gas are considered. The limits of applicability for the formulas derived in this paper are discussed. The authors are sincerely grateful to V. L. Bonch-Bruyevich for discussion of the work and for valuable consultation and also to P. Ye. Zil'berman for useful discussions. Orig. art. has: 34 formulas.

SUB CODE: 20/ SUBM DATE: 01Apr65/ ORIG REF: 004/ OTH REF: 005

Card 2/2 UDC

L 25493-66 EPF(n)-2/EWA(h)/EWT(1)/ETC(n)-6/T LIP(c) AT/GG

ACC NR: AT6009690 SOURCE CODE: UR/0181/66/008/003/0943/0947

AUTHOR: Bonch-Bruyevich, V. L.; Epshteyn, E. M.

ORG: Institute of Radio Engineering and Electroncis, AN SSSR, Moscow (Institut radiotekhniki i elektroniki AN SSSR)

TITLE: On the acoustic-recombination instability in semiconductors

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 943-947

TOPIC TAGS: ultrasonic effect, acoustoelectric effect, carrier density, semiconductor carrier, electron capture

ABSTRACT: This is a continuation of earlier work by one of the authors (Epshteyn, FTT v. 8, 552, 1966) dealing with heating of electrons by an ultrasonic beam. The present article is aimed at determining the influence of charged impurity centers on the dependence of the acousto-electric current on the magnitude of the sound flux. The acousto-electric coefficient is calculated first with allowance for the fact that a change in the sound flux changes also the electron temperature and the carrier density. The conditions under which the differential acousto-electric coefficient becomes negative are determined. It is found that for n-Ge at 10K and a sound wave vector 6×10^5 cm^{-1} the flux density needed for this purpose must exceed 0.1 w/cm^2. The dependence of the capture coefficients on the carrier energy is shown to be such that the plot of the acousto-electric current against the sound flux can have a decreasing section, thus leading to instability of the system against fluctuations of

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I. 25495-66

ACC NR: AP6009690

the sound flux and of the electron density. Capture both by like and unlike charge centers is considered. It is shown that the instability can occur in both cases. The authors thank S. G. Kalshnikov for a discussion of the work. Orig. art. has: 18 formulas.

SUB CODE: 20/ SUBM DATE: 03Jul65/ ORIG REF: 006/ OTH REF: 004

Card 2/2

L 26124-66 EPF(n)-2/EWT(1)/ETC(m)-6

ACC NR: AP6015806 SOURCE CODE: UR/0386/66/003/010/0410/0413

AUTHOR: Gulyayev, Yu. G.; Epshteyn, E. M.

ORG: Institute of Radio Engineering and Electronics, Academy of Sciences SSSR (Institut radiotekhniki i elektroniki Akademii nauk SSSR)

TITLE: Acousto-thermal effect in semiconductors

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 10, 1966, 410-413

TOPIC TAGS: thermal acoustic effect, phonon drag, temperature gradient, semiconductor crystal

ABSTRACT: The authors show that excitation of a monochromatic flux of phonons in a crystal by an external source produces, besides the well known acousto-electric effect, also a temperature gradient under adiabatic conditions. In analogy with the acousto-electric effect, they call this phenomenon the acousto-thermal effect. The results of this effect are presented analytically for a non-piezoelectric crystal in which the carriers are characterized by an isotropic effective mass and a relaxation time that depend on the energy, and in which a hypersonic wave propagates. By regarding such a wave as a current of monochromatic phonons and by calculating the integral of the collisions between the electrons and the phonon current, the antisymmetrical part of the distribution function is obtained, from which the electric current density and the heat flux density are calculated. It is found that the effect

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L 26124-66
ACC NR: AP6015806

reverses sign when the frequency of the hypersound is raised. The magnitude of the effect is estimated at approximately 10^4 (deg/cm)/(w/cm^2). The authors thank V. L. Bonch-Bruyevich for a discussion of the work. Orig. art. has: 4 formulas.

SUB CODE: 20/ SUBM DATE: 25Mar66/ ORIG REF: 002

Card 2/2

L 31166-66 EWT(1)
ACC NR: AP6006818 SOURCE CODE: UR/0181/66/008/002/0383/0386

43
41
B

AUTHOR: Epshteyn, E. M.

ORG: Institute of Radio Engineering and Electronics AN SSSR, Moscow (Institut radiotekhniki i elektroniki AN SSSR)

TITLE: Acoustoelectric effect in a transverse electric field

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 383-386

TOPIC TAGS: acoustoelectric effect, electric field, acoustic wave, particle interaction, volt ampere characteristic

ABSTRACT: When a specimen is placed in a strong electric field, the thermal de Broglie wavelength of an electron becomes less than the wavelength of sound, resulting in an acoustoelectric current which differs from zero. The author studies the density of this current as a function of the electric field strength. The distribution function is given for electrons interacting with a monochromatic phonon flux and with thermal acoustic phonons. Current-voltage curves are given for weak and maximum sonic intensity. The acoustoelectric current is zero for the case of weak

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electron heating when the sonic intensity is also weak. In this case, the current increases exponentially with the field intensity reaching a maximum and then decreasing in inverse proportion to the square of the electric field. This is due to the fact that nearly all electrons may interact with phonons in a strong field and further electron heating results in a reduction in mobility and a decrease in the electron coefficient of sonic absorption. In the case of maximum sonic intensity, the current voltage curve shows saturation. This is because the sonic intensity is strong enough to move most of the electrons at a velocity close to the maximum in spite of the reduction in mobility and the decrease in the coefficient of absorption. At high concentrations and low temperatures where electron-electron interaction predominates, the electrons may be heated by sonic intensities below the thermal energy. It is shown that in this case the general nature of the relationship between acoustoelectric current and electric field strength is the same as for the case of electron scattering by acoustic phonons. The possibility of using an alternating electric field to modulate the acoustic wave is discussed. I am sincerely grateful to V. L. Bonch-Bruyevich and S. G. Kalashnikov for discussion of this work. Orig. art. has: 1 figure, 7 formulas.

SUB CODE: 20/ SUBM DATE: 03Jul65/ ORIG REF: 003/ OTH REF: 001

EPSHTEYN, F., doktor med.nauk

Household sanitation. Sov. shakht. 11 no.3:45-46 Mr '62.
(MIRA 15:5)
(Sanitation, Household)

EPSHTEYN, F.

Mechanics of road-maintenance units are preparing for soil stabilization operations. Avt. dor. 27 no.7:31 Jl '64.
(MIRA 17:12)

1. Starshiy inzh. otdela glavnogo mekhanika Glavnogo upravleniya stroitel'stva i ekspluatatsii dorog respublikanskogo i mestnogo znacheniya.

EPSHTEYN, F.

Using the D-370 mixer with a loader for stabilizing soils with cement. Avt. dor. 28 no.1:7 Ja '65. (MIRA 18:3)

EPSHTEYN, F.

The D-343B cement distributor. Avt. dor. 28 no.4:32 Ap '65.
(MIRA 18:5)

1. Starshiy inzhener otdela glavnogo mekhanika Glavnogo upravleniya stroitel'stva i ekspluatatsii dorog respublikanskogo i mestnogo znacheniya.

EPSHTEYN, F. G.

Epshteyn, F. G., Levinson, A. S. and Semaskho, and others, "The clinical characteristics of grippe A", (Bases on data gathered in 1943, 1944, 1946), Voprosy med. virusologii, Issue 1, 1948, p. 198-208, - Bibliog: 7 items.

SO: U-3042, 11 March 53, (Letopis 'zhurnal 'nykh Statey, No. 10, 1949).

EPSHTEYN, F. G.

Epshteyn, F. G., Semashko, Z. A, Levinson, A. S. and others, "Material for treating grippe infections", Voprosy med. virusologii, Issue 1, 1948, p. 209-18, - Bibliog: 6 items.

So: U-3042, 11 March 53, (Letipos 'zhurnal 'nykh Statey, No. 10, 1949).

EPSHTEYN, F. G.

EPSHTEYN, F. G. "The clinical aspects and structure of cold (seasonal) catarrhs of the respiratory tract", Voprosy med. virusologii, Issue 1, 1948, p. 230-37, - Bibliog: 12 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

EPSHTEYN, F. G.

42687. EPSHTEYN, F. G. O Klassifikatsii i Nomenklature Grippoznykh Zabolevaniy (Sokr. Doklad na I-Y Sessii In-ta Virusologii Akad. Med. Nauk SSSR 25 Iyunya 1948 G). Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, 1948, No 12, s. 23-27.— Bibliogr: 9 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

EPSHTEYN, F. G.

42686. EPSHTEYN, F. G. Gripp A. I. B. Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, 1948, No 12, s. 27-31.--Bibliogr: 15 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 7, 1949

PA47T70

EPSHTEYN, F. G.

Feb 1948

USSR/Medicine - Influenza
Medicine - Skin, Diseases

"Eruptions during Grippal Infections," F. G. Epshteyn, Deputy, Influenza Sec, Infection Clinic VIEM, Nth Infectious Hospital, 3 pp

"Klin Medits" Vol XXVI, No 2

No record of true case of influenza or seasonal catarrh complicated by either scarlet fever or petechial rash. Herpes only form of rash ever observed with influenza or seasonal catarrh. Presence of influenzal rash fully established only after positive diagnosis of influenza made. Scientific Instructor at Infection Clinic VIEM: Prof A. A. Smorodintsev. Chief of Nth Infectious Hospital: Capt P. P. Timokhina, Medical Corps. VMS

47T70

EPSHTEYN, F. G.

Epshteyn, F. G., Levinson, A. S., Semashko, Z, A., and others, "Material on the serotherapy of grippe", Voprosy med. virusologii, Issue 2, 1949, p. 278-87, - Bibliog: 15 items.

So: U-3042, 11 March 53, (Letopis 'zhurnal 'nykh Statey, No. 10, 1949).

EPSHTEYN, F. G.

EPSHTEYN, F. G. "General and local phenomena in the treatment of grippe by inhalation of anti-grippe serum", Voprosy med. virusologii, Issue 2, 1949, p. 288-91.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

...IBIN, F. G.

USSR/Medicine - Sulfa Drugs
Catarrh, Acute — Aug

"Use of Sulfonamide for the Treatment of Acute Catarrh of the Respiratory Passages," F. G. Epshteyn, Z. A. Semashko, S. A. Semashko, T. I. Bibikova, Moscow, 1/2 p

"Sov Med" No 8

PA 152T60

A group of 490 patients with acute catarrh of the respiratory passages was treated with sulfonamide preparations while a control group of 304 patients was treated with urotropine. Duration of febrile reactions, toxic and local catarrhal symptoms, and

152T60

USSR/Medicine - Sulfa Drugs (Contd) — Aug 49

unfitness for work was approximately the same for both groups, but fewer complications occurred in the group receiving sulfonamide treatment.

152T60

EFSHTEYN, F. G.

33527

Klinika Grippa I K atarrov Dykhatel'nykh Putey. (Doklad Na 5-Y Sessii Akad. Med Nauk Sssr 27 Dek. 1948 G.). Klinich. Meditsina, 1949, No 10, c. 29-37. -Bibliogr: c. 37

SO: Letopis' Zhurnal'nykh Statey, Vol, 45, Maskva, 1949

EPHSHTEYN, F. G.; SHIMSHELEVICH, S.B.

On the frequent recurrence of "grippe". Klin. med., Moskva 29 no.7:76-78 July 1951. (CLML 20:11)

1. Prof. Epshteyn. 2. Of the Experimental Clinical Division (Head -- Prof. F. G. Epshteyn), Institute of Virusology (Director -- Prof. A. T. Kravchenko), Academy of Medical Sciences USSR, Moscow.

EPSHTEYN, F.G.

Present methods of the treatment of influenza and acute catarhs of the upper respiratory tract and their prevention. Vest. otorinolar., Moskva 15 no.2:14-18 Mar-Apr 1953. (GLML 24:3)

1. Professor. 2. Of the Experimental Clinical Division of the Institute of Virusology (Director -- Prof. M. P. Chumakov, Corresponding Member AMS USSR), Academy of Medical Sciences USSR.

EPSHTEYN, F. G., Prof.

Influenza

Clinical and laboratory characteristics of influenza. Klin. med. 31, No. 1, 1953. pp. 31-41

Mass experimentation with ekmolin and atebrin must be conducted before they can be recommended for extensive use. Outbreaks of influenza during the late winter and spring of 1949 shpwed a more pronounced toxicosis and produced greater distress than any previous outbreak s during the past 10 years. It is difficult to diagnose influenza clinically and to distinguish it from acute catarrhal fever. The action of hemagglutination may, in a number of cases, make it easier to establish the correct diagnosis early; no parallelism exists between the intensity of reaction and the character of the clinical course. Recognition of subjective symptoms is a valuable auxiliary differential diagnostic method. 255T24

Monthly List of Russian Accessions, Library of Congress, June 1953. Uncl.

EPSHTEYN, F.G.; FADEYEVA, D.N.

Epidemic and sporadic influenza. Zhur.mikrobiol.epid.i immun. no.7: 100 Jl '54. (MLRA 7:9)

1. Iz Instituta virusologii im. Ivanovskogo Akademii meditsinskikh nauk SSSR.
(INFLUENZA)

Abstract U-7920, 8 Mar 56

EPSHTEYN, F.G., professor; FADEYEVA, D.N.; OSTAPKOVICH, V.Ye.

Controlling frequently recurring so-called "grippe." Sov.med. 18 no.3:24-26 Mr '54. (MLRA 7:2)

1. Iz kliniki grippa (zaveduyushchiy - professor F.G.Epshteyn) Instituta virusologii im. D.I.Ivanovskogo (direktor - chlen-korrespondent Akademii meditsinskikh nauk SSSR professor M.P. Chumakov) Akademii meditsinskikh nauk SSSR i kliniki ukha, gorla i nosa (direktor - professor B.S.Preobrazhenskiy) II Moskovskogo meditsinskogo instituta im. I.V.Stalina. (Influenza)

EPSHTEYN, F.G.

EPSHTEYN, F.G., professor, Moskva

Correct evaluation of the effectiveness of treating influenza and acute inflammations of the upper respiratory tracts. Klin. med. 32 no.12:56-59 D '54. (MLRA 8:3)

1. Iz kliniki grippa Instituta virusologii imeni D.I.Ivanovskogo AMN SSSR (dir.-chlen-korresp. AMN SSSR prof. M.P.Chumakov)
(INFLUENZA, therapy
results, correct registration)
(RESPIRATORY TRACT, diseases
inflamm., ther. results, correct registration)

EPSHTEYN, F.G.

[Influenza and acute catarrhs of the respiratory tract] Gripp i ostrye katarry dykhatel'nykh putei. Moskva, Medgiz, 1955. 146 p.
(INFLUENZA) (COLD (DISEASE)) (MLRA 9:5)

EPSHTEYN, F. G.

"New Developments in Diagnosis, Clinical Symptoms, Therapy, and Prophylaxis of Grippe," Voyenno-Med. Zhur., No. 11, p. 56, 1955.

EPSHTEYN, F.G., Prof.

Clinical forms of influenza. Klin.med. 33 no.5:70-73 My '55.
(MLRA 8:9)

1. Iz kliniki grippa (zav.prof. F.G. Epshteyn) Instituta virusologii AMN SSSR (dir.chlen-korrespondent AMN SSSR prof. M.P.Chumakov)
(INFLUENZA
clinical forms)

EPSHTEYN, F.G., professor (Moskva)

Pathogenesis of influenza. Terap. arkh. 28 no.1:68-74 '56
(MLRA 9:6)

1. Iz kliniki grippa Instituta virusologii imeni D.I. Ivanovskogo.
(INFLUENZA, etiology and pathogenesis)

Epshteyn, F.G.

ANTIINFLUENZA DRUG

"Research Work on the Ambulatory Treatment of Influenza Patients with Dry Anti-Influenza Serum", by Doctor of Medical Sciences Prof. F.G. Epshteyn (Institute of Virusology of the Academy of Sciences USSR) and S.G. Moiseyev (Chief Therapeutist of the Moscow City Department of Health), Klinicheskaya Meditsina, No 2, February 1957, pp 97-101.

The testing of a new anti-influenza serum produced in the Soviet Union, in ten Moscow polyclinics, was ordered by the Ministry of Health USSR.

This anti-flu serum was developed by A.A. Smorodintsev in 1938, through the hyperimmunization of horses with strains of virus A, A_1, and B, which are prevalent among the population. As originally conceived, its use in the form of an aerosol required too complicated a nebulization system for home use. Smorodintsev then developed a new dry form of his vaccine, adding penicillin and sulfadimezine*. The dose was 1 g. of the preparation, consisting of 2 mg. of dried anti-influenza serum, 10,000 units of penicillin and sulfadimezine q.s. 1 g.

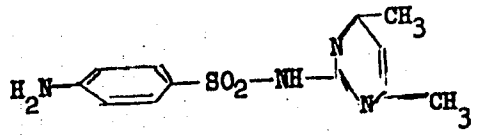
The treatment was to be continued for 2-3 days after the initial administration of the serum.

In all, 1032 patients suffering from influenza and flu-like acute catarrh were treated with the Smorodintsev anti-flu serum during the winter and spring of 1953-1954; 889 patients, treated with different preparations, served as controls.

In nine of the ten polyclinics, the results obtained in patients treated with anti-flu serum were positive, as compared with the controls. Smorodintsev's serum was, in particular, more effective than norsulfazole*, which had been the most popular preparation, both with the medical profession and the population.

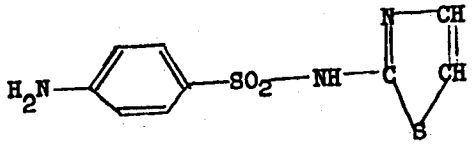
* [A sulfonamide produced in the Soviet Union. Its chemical name is 2-(para-amino-benzene-sulfamido)-4,6 dimethyl pyrimidine. The structural formula of this preparation is:

ANTIINFLUENZA DRUG



cf., sulfamezathine, Sulfamethazine (Merck, Sharp & Dohme).]

* [A Soviet-produced sulfonamide. Its chemical name is 2-(para-amino-benzene-sulfamido)-thiazol, and its structural formula:



[cf., sulfathiazole.]

Card 3/3

EPSHTEYN, F.G.

EPSHTEYN, F.G.; SOROKINA, Ye.Yu.; SEMASHKO, S.A.; DUBNYAKOVA, A.M.

Course of influenza in vaccinated persons [with summary in English]. Vop.virus. 2 no.4:210-213 Jl-Ag '57. (MIRA 10:12)

1. Klinika Instituta virusologii AMN SSSR, Moskva.
(INFLUENZA, immunology
course in vaccinated & non-vaccinated subjects (Rus))

EPSHTEYN, F.G., professor

In bad weather. Zdorov'e 3 no.2:5-6 F '57. (MIRA 10:3)
(COLD (DISEASE))

EPSHTEYN, F.G., professor (Moskva)

Clinical aspects of influenza C; review of foreign literature.
Sov.med. 21 no.2:85-88 F '57. (MLRA 10:6)
(INFLUENZA
C, review)

EPSHTEYN, F.G.

EPSHTEYN, F.G., doktor meditsinskikh nauk, professor; MOISEYEV, S.G.

Outpatient treatment of influenza with dry anti-influenza serum. Klin. med. 35 no.2:97-101 F '57 (MLRA 10:4)

1. Institut virusologii AMN SSSR (for Epshteyn) 2. Glavnyy terapevt Moskovskogo gorodskogo otdela zdravookhraneniya (for Moiseyev)

(INFLUENZA, ther.
dry influenza serum)
(IMMUNE SERUMS, ther. use
dry influenza serum in influenza)

ZHDANOV, Viktor Mikhaylovich; SOLOV'YEV, Vladimir Dmitriyevich; EPSHTEYN, Fedor Grigor'yevich. Prinimali uchastiye: GORBUNOVA, A.S.; FADEYEVA, L.L.; ZAKSTEL'SKAYA, L.Ya.; SACHKOV, V.I., red.; BEL'CHIKOVA, Yu.S., tekhred.

[What we know about influenza] Uchenie o grippe. Moskva, Gos.izd-vo med.lit-ry, 1958. 581 p. (MIRA 13:4)

1. Institut virusologii imeni Ivanovskogo AMN SSSR (for Zhdanov, Solov'yev, Epshteyn). 2. Khar'kovskiy institut vaktsin i syvorotok imeni Mechnikova (for Zhdanov). 3. Moskovskiy institut vaktsin i syvorotok imeni Mechnikova (for Solov'yev).
(INFLUENZA)

Epshteyn FG

EPSHTEYN, F.G., prof. (Moskva)

Treating influenza. Med. sestra 17 no.2:11-13 F '58. (MIRA 11:3)
(INFLUENZA)

[redacted], P.G., SOROKINA, Ye.Yu., TITOVA, G.V., LESHCHINSKAYA, Ye.V., KNYAZEVA, L.D., SEMASHKO, S.A., DUBNYAKOVA, A.M., ZHUZHIGINA, M.A., MARTYNOVA, G.D.

Clinical and laboratory data on influenza A, in adults according to finding during the 1953-1954 epidemic. Zhur.mikrobiol. epid. i immun. 29 no.9:29-33 S '58 (MIRA 11:10)

1. Iz Instituta virusologii imeni Ivanovskogo AMN SSSR.
(INFLUENZA, epidemiology,
Al, in Russia (Rus))

EPSHTEYN, F.G.

EPSHTEYN, F.G., prof. (Moskva)

Combined conference of institutes of the Academy of Medical Sciences of the U.S.S.R. on the influenza problem. Terap.arkh.30 no.1:84-87 Ja '58. (MIRA 11:3)
(INFLUENZA)

[redacted], F.G., prof. (Moskva)

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