

GALANIN, A.D.; GRASHIN, A.F.; IOFFE, B.L.; POMERANCHUK, I.Ya.

Nucleon-nucleon scattering in two-meson approximation with large
orbital moments. Zhur.eksp.i teor.fiz. 38 no.2:475-488 F '60.
(MIRA 14:5)

(Nucleons--Scattering)

~~GRASHIN, A.E.~~; KOBZAREV, I.Yu.

Peripheral interaction of nucleons in the two-meson approximation. Zhur.eksp.i teor.fiz. 38 no.3:863-869 Mr '60.
(MIRA 13:7)

(Nucleons) (Mesons)

S/056/60/039/003/023/045
B006/B063

AUTHORS: Grashin, A. F., Nikitin, Yu. P.

TITLE: The Nucleon - Nucleon Potential 19

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960,
Vol. 39, No. 3(9), pp. 713-719

TEXT: Following a previous paper (Ref. 1) in which the nucleon - nucleon potential was studied at large distances, the authors now describe a method of representing the local potential (with the non-relativistic locality range $p^2 \ll m^2$) in the form of series (1):

$$U(x) = \sum_{n=1}^{\infty} U^{(n)}(x) \text{ with } U^{(n)}(x) \sim e^{-nx} \text{ for } x \rightarrow \infty.$$
 It is still possible to

estimate the accuracy with which the relativistic scattering matrix is produced by the potential. Application of this method to the case of two-mesonic interaction of nucleons leads to the local potential with the large locality range $p^2 \ll m^2$. The anomalous non-locality of the pseudo-potential seems to be an equivalent method for describing the higher

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The Nucleon - Nucleon Potential

S/056/60/039/003/023/045
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Born approximations of the actual potential, and has no physical significance. First, the authors represent the general method, confining themselves to a consideration of the interaction of particles of the same kind (of mass m). This interaction is assumed to take place only by exchange of mesons of mass μ , and anomalous graphs are supposed to be absent. It is shown that series (1) may be regarded as an expansion in a power series of "peripherity", and not as an expansion in a series of the interaction constant. The recurrence formulas required for the development of the $U^{(n)}$ series are given by (4). From the first of these formulas one obtains the well-known static single-meson potential formula by means of the single-meson nucleon - nucleon amplitude and by passing over to x-representation. This formula may be used in the range $p^2/m^2 \ll 1$ to calculate the two-meson potential. Using the same approximation as in Ref. 1 for obtaining the pseudo-potential (expansion in a series of $1/x$, ξ^2 , and $\xi\sqrt{x}/2$), the authors find an explicit expression for $U^{(2)}(x)$. (x is the distance in $1/\mu$ units, μ - pion mass; $\xi^2 = \mu^2/m^2$). The expression derived for the peripheral nucleon interaction practically consists of the tensor and the central attractive forces which are slightly dependent

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The Nucleon - Nucleon Potential

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on the isotopic state. The properties of two-meson interaction are finally discussed. The authors thank V. N. Gribov, I. Yu. Kobzarev, L. D. Landau, L. B. Okun', I. Ya. Pomeranchuk, and K. A. Ter-Martirosyan for discussion of the results obtained. There are 2 figures and 18 references: 7 Soviet, 2 Italian, 3 Japanese, and 6 US.

SUBMITTED: April 8, 1960

Card 3/3

S/056/61/040/002/040/047
B102/B201

AUTHOR: Grashin, A. F.

TITLE: Antiproton level shifts for large orbital momenta

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki,
v. 40, no. 2, 1961, 652-653

TEXT: The present paper gives the results of a calculation of level shifts in the proton-antiproton system caused by single-meson interaction. In single-meson approximation, the peripheral proton-antiproton coincides with proton-proton interaction and may be described by the known tensor potential $U^{(1)}$. The principal terms of the development of the Coulomb functions in the origin are employed to calculate the shift, which permits an accuracy $\sim me^2/\mu$ (m and μ are the nucleon and pion mass, respectively, $e^2 = 1/137$, $\hbar = c = 1$). For the singlet levels and the "non-shifted" triplet levels one obtains

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Antiproton level shifts for ...

S/056/61/040/002/040/047
B102/B201

$$\Delta E_l = -\frac{1}{2} \mu f^2 \frac{(n+l)! (me^2/\mu)^{2l+3}}{(2l+1)! (n-l-1)! n^{2l+4}}$$

$$\Delta E_l' = -\frac{l+1}{l} \Delta E_l, \quad \Delta E_1^0 = 3\Delta E_1, \quad (1)$$

(which holds for the states $J = 1$ and 3P_0 ; $l \geq 1$); $f^2 = 0.08$ is the square renormalization constant of the nucleon (antinucleon) interaction with pions, n - principal quantum number. Formula

$$\Delta E_{J-1}^J = -\mu f^2 \frac{(n+J-1)! (me^2/\mu)^{2J+2}}{(4J^2-1)(2J-1)(n-J)! n^{2J+2}} \quad \text{для } J \geq 2,$$

$$\Delta E_{J+1}^J = \frac{1}{4} \mu f^2 \frac{(4J^2-1)(n+J+1)! (me^2/\mu)^{2J+4}}{(2J+2)(n-J-2)! n^{2J+4}} \quad \text{для } J \geq 1. \quad (2)$$

holds for "shifted" triplet levels. The maximum shift amounts to

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S/056/61/040/002/040/047
B102/B201

Antiproton level shifts for ...

$\Delta E_1^0 = -0.08$ ev (for $n = 2$) and $\Delta E_1^0/E_1 = 2.5 \cdot 10^{-5}$. The additional contribution to the level shift given by the following approximations (two-meson) is $\sim 4^{-1-1}$ small. Because of the anomalous exiguity of the single-meson matrix element $\langle J, J-1 | U^{(1)} | J, J-1 \rangle \sim (me^2/\mu)^{2J+2}$, the shifts ΔE_{J+1}^J are anomalously dependent on me^2/μ (while ΔE_{J-1}^J is anomalously small, ΔE_{J+1}^J is anomalously large). Therefore, the two-meson approximation adds to these shifts a correction $\sim \mu/4^{1+1} me^2$. If these shifts are compared with the expansion caused by annihilation it is found that since annihilation takes place at distances $\leq \alpha/m$ ($1 \leq \alpha \leq 3$), the nuclear width should be small with respect to the nuclear shifts with a proportionality factor of $(\alpha\mu/m)^{2l}$. This estimation fits results by Desai. The width is, accordingly, considerably smaller than the shifts also with relatively small l . A. A. Tyapkin is thanked for having formulated the problem and I. Ya. Pomeranchuk for his remarks.

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Antiproton level shifts for ...

S/056/61/040/002/040/047
B102/B201

There are 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows:
B. R. Desai, Phys. Rev. 119, 1385, 1960.

SUBMITTED: September 15, 1960

Card 4/4

BORCVIKCV, V.A.; GEL'FAND, I.M.; GRASHIN, A.F.; POMERANCHUK, I.Ya.

Phase shift analysis of pp-scattering at 95 Mev. Zhur. eksp. i
teor. fiz. 40 no.4:1106-1111 Ap '61. (MIRA 14:7)
(Protons--Scattering)

SHALAMOV, Ya.Ya.; SHEBANOV, V.A.; GRASHIN, A.F.

Generation of Υ^0 (Λ , Σ^0)-hyperons and K^0 -mesons on light nuclei by π^- -mesons having a pulse energy of 2.8 Bev/c.
Zhur. eksp. i teor. fiz. 40 no.5:1302-1312 My '61.

(MIRA 14:7)

1. Institut teoreticheskoy i eksperimental'noy fiziki AN SSSR.
(Hyperons) (Mesons)

GEL'FAND, I.M.; GRASHIN, A.F.; IVANOVA, L.N.

Phase analysis of pp-scattering at an energy level of 150 Mev.
Zhur. eksp. i teor. fiz. 40 no.5:1338-1342 My '61.

(MIRA 14:7)

(Mesons--Scattering)

GRASHIN, A. F. and SHALAMOV, Ya. Ya.

"The Resonances in Two-Pion System"

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

Inst. of Theoretical and Experimental Physics, Moscow, USSR

GRASHIN, A.F.

GALANIN, A. D., GRASHIN, A. F., MELNIKOVA, V. N. and BIKITIN, Yu. P.

"The Effects of $\pi\pi$ interaction in $\pi^+\pi^-\pi^0$, $\pi^+\pi^-\pi^+\pi^-$ and $\pi^+\pi^-\pi^+\pi^-\pi^0$ amplitudes"

report presented at the ^{1st} Intl. Conference on High Energy Physics, Geneva, 4-11 July 1962

Inst. of Theoretical and Experimental Physics, Moscow, USSR

GRASHIN, A.F.

KUZNETSOV, Ye. V., SHALAMOV, Ya. Ya., and GRASHIN, A. F., KUZNETSOV, E. P.

"Evidence for the Resonances in $K^0(\bar{K}^0)$ Systems at 1650 and 1700 MeV."

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

Institute of Theoretical and Experimental Physics, Moscow, USSR
(Kuznetsov, Shalamov, Grashin)

Lebedev Institute of Physics, Moscow, USSR (Kuznetsov, E.P.)

GRASHIN, A. F.

95

S/089/62/013/006/019/027
B102/B186

AUTHORS: G. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo instituta (Scientific Conference of the Moscow Engineering Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fizevskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Iosilevskiy, theory of the Mössbauer effect; M. I. Ryazanov, theory of ionisation losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadse, h-f conductivity of subcritical plasma;

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Nauchnaya konferentsiya...

S/089/62/013/006/019/027
B102/B186

Ye. Ye. Lovetskiy, A. A. Rukhadse, electromagnetic waves in nonhomogeneous plasma; Yu. D. Kotov, I. L. Rosental', the origin of fast cosmic muons; Yu. M. Ivanov, muon depolarization in solids; V. G. Varlanov, Yu. M. Grashin, B. A. Dolgoshein, V. G. Kirillov-Ugryunov, V. S. Roganov, A. V. Samoylov, μ^- capture by various nuclei; V. S. Demidov, V. G. Kirillov-Ugryunov, A. K. Ponomov, V. P. Protasov, F. M. Sergeyev, scattering of π^- mesons at 5 - 15 Mev in a propane bubble chamber; S. Ya. Nikitin, M. S. Aynutdinov, Ya. M. Selektor, S. M. Zombkovskiy, A. F. Grashin, muon production in π^+p interactions; B. A. Dolgoshein, spark-chambers; N. G. Volkov, V. K. Lyapidevskiy, I. M. Obodovskiy, study of operation of a convection chamber; K. G. Finogenov, production of square voltage pulses of high amplitudes; G. N. Aleksakov, problems of color vision; V. K. Lyapidevskiy, relation between number of receivers and number of independent colors; Ye. M. Kudryavtsev, N. N. Sobolev, N. I. Tisengausen, L. N. Tunitkiy, F. S. Pysulov, determination of the moment of electron transition of oscillator forces and the widths of the Schumann-Runge bands of molecular oxygen; B. Ye. Gavrilov, A. V. Zharikov, V. I. Rayko, decomposition of the volume charge of intense ion beams; Ye. A. Krauer-Ageyev, V. S. Troshin, measurement of neutron spectra; G. G. Doroshenko, new methods of fast-neutron recording; V. I. Ivanov, dosimetry terminology; E. M. Voronkov, Card 2/4

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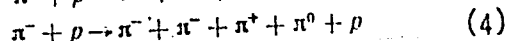
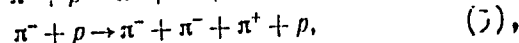
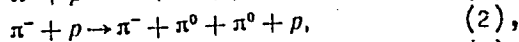
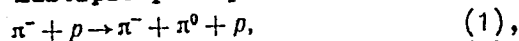
S/056/62/042/004/032/037
B125/B102

AUTHORS: Shalamov, Ya. Ya., Grashin, A. F.

TITLE: Data on $\pi\pi$ -interaction pion production in πp -collisions

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 4, 1962, 1115-1121

TEXT: The authors studied the multiple pion production modes



with π^- momenta of 2.8 ± 0.3 Bev/c by means of a 17-liter propane-xenon bubble chamber to obtain information on $\pi\pi$ -interaction. The events on bound protons yield only a small contribution (20-30%). The angular and energy distributions are similar to those for hydrogen. The energy distribution of protons and the angular distribution of γ -quanta greatly differ from the spectra calculated with the statistical model. The mean
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Data on $\pi\pi$ -interaction pion ...S/056/62/042/004/032/037
B125/B102

proton energy is lower in the production of two than of three pions. Reaction (1) is a two-particle reaction as to its kinematic parameters. The neutral pions produced in the reactions (1) and $\pi^- + p \rightarrow \pi^0 + \pi^0 + n$ (5) keep the direction of the incident pion. The total cross section of the reaction calculated by the method of differences is $\sigma = 2.3 \pm 0.4$ mb for $10 \leq E_p \leq 200$ Mev, and $\sigma = 1.8 \pm 0.4$ mb for $10 \leq E_p \leq 100$ Mev. The total cross section of reaction (2) for $10 \leq E_p \leq 200$ Mev is $\sigma = 1.0 \pm 0.3$ mb.

The hypothesis of the pole diagrams yielding a significant contribution to the cross section explains satisfactorily all experimentally observed properties of reactions (1), (2), (3), (5), and $\pi^- + p \rightarrow \pi^0 + \pi^0 + n$ (6). Reaction (1) can be defined more accurately with the amplitude $A(s, t)$

$= A_p(s, t) \vec{\sigma} \vec{p} - B \vec{\sigma} \vec{p}_0$, where $A_p(s, t)$ is the pole amplitude, $t = -2m_p^2$ the square transferred momentum, \vec{p}_0 and \vec{p} the momenta of the incident meson and proton in the laboratory system, $\vec{\sigma}$ the Pauli matrix of the proton, m the proton mass. The angular distributions of the γ -quanta can also be explained by the pole approximation in a simple way. A. I. Alikhanov, I. Yu. Kobzarev, I. Ya. Pomeranchuk are thanked for discussion, V. I. Smetanina and V. A. Kutilina for assistance. There are 6 figures.

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Data on $\pi\pi$ -interaction pion...

S/056/62/042/004/032/037
B125/B102

The most important English-language references read as follows: J. A. Anderson, Vo. X. Bang, P. G. Burke, D. D. Carmony, N. Schmitz. Phys. Rev. Lett., 6, 365, 1961; Rev. Mod. Phys., 33, 431, 1961; A. R. Erwin, R. March, W. D. Walker, E. West. Phys. Rev. Lett., 6, 628, 1961; E. Pickup, D. K. Robinson, E. O. Salant. Phys. Rev. Lett., 7, 192, 1961; B. C. Maglico, L. W. Alvarez, A. H. Rosenfeld, M. L. Stevenson. Phys. Rev. Lett., 7, 178, 1961.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute of Theoretical and Experimental Physics of the Academy of Sciences USSR) J

SUBMITTED: *November 22, 1961

Card 3/3

S/056/62/042/004/036/037
B102/B108AUTHORS: Grashin, A. F., Shalamov, Ya. Ya.TITLE: The spin of the φ -mesonPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 4, 1962, 1140 - 1141

TEXT: The authors have measured the c. m. s. π^- angular distribution in the reaction $\pi^- + p \rightarrow \pi^- + \pi^0 + p$, studied in previous work (ZhETF, 42, 4, 1121). The angular distribution can be described by a $\cos^2 \theta^*$ curve and is similar to that obtained for π^- in π^0 production on quasifree protons. This fact indicates that the above reaction can be studied in collisions with nuclei. These distributions can be considered the first measurements of the resonance moments of two pions at $\omega \approx 5\mu(J=1)$; this resonance can also be interpreted by the reaction $\pi^- + p \rightarrow \rho^{0,-} + (np) \rightarrow \pi^- + \pi^{+,0} + (np)$. The \cos^2 -type distribution indicates that the φ meson production takes place with zero spin projection upon the $J_z=0$ direction (peripheral Card 1/2

The spin of the ...

S/056/62/042/004/036/037
B102/B108

collision). The mesons produced are emitted in a narrow forward cone ($\approx 15^\circ$ for $p_0=2.8$ Bev/c and $\approx 7^\circ$ for $p_0=7.2$ Bev/c) and the zero orbital angular momentum projection ($l_z=0$) is conserved. Also the spin of the nucleon remains unchanged. The law of conservation of total momentum projection upon the initial direction $J_z=0$. I. Yu. Kobzarev and L. B. Okun' are thanked for discussions. There are 2 figures.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki
(Institute of Theoretical and Experimental Physics)

SUBMITTED: February 12, 1962

Card 2/2

24.6700

37890
S/056/62/042/005/041/050
B108/B138

AUTHORS: Grashin, A. F., Mel'nikov, V. N.

TITLE: $\pi - \pi$ interaction in nucleon electromagnetic form factors

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42, no. 5, 1962, 1404-1409

TEXT: The isovectorial form factors of the nucleon with consideration of $\pi - \pi$ interaction as calculated by W. R. Frazer and J. R. Fulco (Phys. Rev., 117, 1609, 1960) involve some inaccuracies. For this reason the present authors calculated these electromagnetic form factors in two-meson approximation, using the results of A. D. Galanin and A. F. Grashin (ZhETF, 41, 633, 1961) for the $\pi + \pi \rightarrow N + \bar{N}$ amplitudes. Rescattering corrections are ignored. Use was made of an expression for $\pi - \pi$ interaction that is more general than the Breit-Wigner model:

$$\delta_1(t) = \text{arctg} \left[\frac{\sqrt{x}Q(x)}{X(x)} \right], \quad \varphi_1(t) = \frac{\prod_{k=1}^n (x-x_k)}{X(x) + Q(x)\sqrt{-x}}, \quad (9).$$

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S/056/62/042/005/041/050
B108/B138

$\pi - \pi$ interaction in nucleon ...

This led to the absorption part of the nucleon form factor:

$$\text{Im } F_1^V(t) = \frac{1}{2} e^2 g^2 |\varphi_1(t)|^2 \frac{x \sqrt{x/(1+x)}}{\prod_{k=1}^n |x-x_k|^2} \times \quad (10),$$

$$\times \{X(x) - L_n(x)\} \left\{ X(x) \frac{1+2x}{x} - L_{n+1}(x) \right\};$$

(11), where

$$\text{Im } F_2^V(t) = \frac{1}{8} \frac{e g^2}{1.85} |\varphi_1(t)|^2 \frac{x \sqrt{x/(1+x)}}{\prod_{k=1}^n |x-x_k|^2} \times$$

$$\times \{X(x) - L_n(x)\} \left\{ X(x) \frac{\pi}{\sqrt{x}} - M_{n+1}(x) - Q(x) \ln x \right\};$$

$X(x)$ and $Q(x)$ are arbitrary polynomials; the x_k are the roots of the equation $X(x) + Q(x)\sqrt{-x} = 0$, $\text{Re } \sqrt{-x} \gg 0$; $g^2 = 14.5$; $\epsilon = \mu/m = 0.15$,

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π - π interaction in nucleon ...

S/056/62/042/005/041/050
B108/B138

m and μ are the nucleon and pion masses, respectively. Results consistent with experiment can be obtained for the case of kinematic resonance at an energy of about 750 Mev (effect of the ρ -meson). There are 3 figures.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki
Akademii nauk SSSR (Institute of Theoretical and Experimental
Physics of the Academy of Sciences USSR)

SUBMITTED: January 6, 1962

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GRASHIN, A. F.

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37893
S/056/62/042/005/044/050
B108/B138

AUTHORS: Aynutdinov, M. S., Zombkovskiy, S. M., Nikitin, S. Ya.,
Selektor, Ya. M., Grashin, A. F.

TITLE: π - π interaction in π^- -p collisions at 7.2 Bev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskooy fiziki, v. 42,
no. 5, 1962, 1413-1415

TEXT: In order to collect information on pion multiple production the authors studied 7.2-Bev π^- -p collisions using a liquid hydrogen chamber in a magnetic field. The distribution of $\pi^- + p \rightarrow p + \pi^- + k\pi^0$ events according to the square of the pion total energy ω has a narrow peak at $\omega^2 \sim 30$. This is attributed to participation of spin 1 ρ -mesons in the reaction $\pi^- + p \rightarrow p + \rho^- \rightarrow p + \pi^- + \pi^0$. The production cross section of ρ^- -mesons is ~ 1 mbarn. The scattering cross section $\sigma_{\pi\pi}$ for primary momenta of 2.8 Bev/c is about 300 ± 100 mbarn for $\omega^2 = 20-30$. There are 2 figures.

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π - π interaction in...

S/056/62/042/005/044/050
B108/B138

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki (Institute
of Theoretical and Experimental Physics) J.

SUBMITTED: March 5, 1962

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S/056/62/042/006/042/047
B104/B112

AUTHORS: Kuznetsov, Ye. V., Kuznetsov, Ye. P., Shalamov, Ya. Ya.,
Grashin, A. F.

TITLE: Experimental data on the existence of resonance in the $K^0 \Lambda^0$
system at 1650 Mev

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 42,
no. 6, 1962, 1675-1677

TEXT: Previous papers (Ya. Ya. Shalamov et al., ZhETF, 40, 1302, 1962;
I. A. Ivanovskaya et al., IX. Intern. Ann. Conf. on High Energy Physics,
Kiev, 1960. Plenary sessions I-V, Moscow, 1960, p. 459) have shown that
in the pair production of K^0 and Λ^0 particles by 2.8-Mev π^- mesons on
complex nuclei (C, Cl, F), i.e., in the reaction $\pi^- + (A, Z) \rightarrow \Lambda^0 + K^0$
 $+ m\pi + (AZ)^*$ ($m = 1, 2, \dots$) (1), the angular distribution of the Λ^0
particles in the center-of-mass system of πN is directed backward and that
the angular distribution of the K^0 particles is nearly isotropic. These
angular distributions cannot be attributed to the production of
 $Y^* + K^0$, $Y^* + K^*$, or $\Lambda^0 + K^*$ with the subsequent decay reactions
Card 1/2

Experimental data on the existence ...

S/056/62/042/006/042/047
B104/B112

$\gamma^* \rightarrow \Lambda^0 + \pi$ and $K^* \rightarrow K^0 + \pi$. The angular distributions are explained by assuming, in (1), the intermediate reaction $\pi^- + N \rightarrow Z^0 + \pi\pi$, where $m = 1, 2, \dots$ and $Z^0 \rightarrow \Lambda^0 + K^0$. In the center-of-mass system, the Z^0 particle travels from πN to the rear hemisphere. Results: $M_Z \approx 1650$ Mev; strangeness $S = 0$; spin $I = 1/2, 2/3, \dots$; isotopic spin $I = 1/2$. Z^0 interacts as an individual particle with the nucleus. There are 2 figures. ✓

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute of Theoretical and Experimental Physics of the Academy of Sciences USSR)
Fizicheskiy Institut im. P. N. Lebedeva AN SSSR (Physics Institute imeni P. N. Lebedev AS USSR)

SUBMITTED: March 24, 1962

S/056/62/043/001/004/056
B101/B102AUTHORS: Shalamov, Ya. Ya., Grashin, A. F.TITLE: Data on $\pi\pi$ -interaction collected in pion production through
 πp -collisions. II. Production of ρ^0 -mesonsPERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 1(7), 1962, 21 - 24

TEXT: The reactions $\pi^- + p \rightarrow \pi^- + \pi^+ + n$ and $\pi^- + p \rightarrow \pi^- + \pi^+ + n + \gamma$
($m = 1, 2, \dots$) with free or quasi-free protons in the $C_3H_8 + Xe$ working
mixture of a 17-liter propane-xenon bubble chamber were studied for initial
 π^- momenta of 2.8 ± 0.3 Bev/c. This study is the continuation of a
previous publication (ZhETF, 42, 1115, 1962) on the reaction
 $\pi^- + p \rightarrow \pi^- + \pi^0 + p$ (ρ^- -meson production). The angle $\theta_{\pi\pi}$ enclosed by the
two mesons emitted was measured. Neglecting meson-neutron interaction, the
measured pion angular distribution was converted into a mass spectrum with
resonance peaks at $M_{\pi\pi} \approx 0.8$ Bev and ≈ 1.4 Bev. The distribution of the
two pions of the first maximum was found to be $\sim \cos^2 \varphi_{\pi}^*$ in the c.m.s.
Card 1/2

Data on $\pi\pi$ -interaction collected in ...

S/056/62/043/001/004/056
B181/B102

The production of a vector ρ -meson, aligned along the original direction, proceeds under the same conditions. The second maximum has a virtually isotropic distribution. The probability of producing a mass of the two mesons of $0.35 \leq M_{\pi\pi} \leq 0.5$ Bev does not exceed a few percent of the total cross section of the process. There are 5 figures. ✓

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii nauk SSSR (Institute of Theoretical and Experimental Physics of the Academy of Sciences USSR)

SUBMITTED: February 9, 1962

Card 2/2

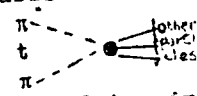
24.6700

39672
S/056/62/043/001/038/056
B102/B108

AUTHOR: Grashin, A. F.

TITLE: Solution of linear equations of the dispersion method in two-particle approximation

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki; v. 43, no. 1(7), 1962, 277-286

TEXT: A method of solving linear integral equations occurring in two-meson approximation in the calculation of the nearest singularities by the dispersion technique is put forward. This problem arises when the behavior of the amplitudes $F(t)$ in a process of the kind $\rightarrow t$  is to be

studied. With small t the behavior of the amplitude is determined only by the nearest singularities in the complex t -plane. With large t it is determined by a series of intermediate states in the unitary condition and cannot be determined in two-particle approximation. As in the problem considered, the $\pi\pi$ scattering partial amplitude $\lambda(t) = \sin\delta(t)\exp i\delta(t)$

Card 1/3

Solution of linear equations ...

S/056/62/043/001/038/056
B102/B108

and lead to incorrect results. There are 2 figures.

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki Akademii
nauk SSSR (Institute of Theoretical and Experimental
Physics of the Academy of Sciences USSR)

SUBMITTED: February 23, 1962

Card 3/3

3/056/62/043/002/050/053
B108/B102

AUTHORS: Shalamov, Ya. Ya., Grashin, A. F.

TITLE: Experimental data on new pion resonances

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 2(8), 1962, 726-728

TEXT: The reaction $\pi^- + p \rightarrow \pi^- + \pi^0 + p$ with an initial pion momentum of 2.8 BeV/c was studied with the aid of a 17-liter xenon-propane bubble chamber. The mass spectrum showed resonances at $M_{\pi\pi} \approx 0.77$ BeV (corresponding to the ρ^- -meson), $M_{\pi\pi} \approx 0.99$ BeV and ≈ 1.16 BeV (widths $\Gamma \approx 100$ MeV). The reaction $\pi^- + n \rightarrow \pi^- + \pi^- + p$ yielded four resonance peaks at approximately 0.59, 0.78, 0.98, and 1.2 BeV. If these peaks were really the result of $\pi\pi$ resonant interaction this would mean that bipion resonances at similar energies could be observed simultaneously for the isotopic spins $I = 1$ and $I = 2$. There are 2 figures.

Card 1/2

Experimental data on new pion ...

S/056/62/043/002/050/053
B108/B102

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki
Akademii nauk SSSR (Institute of Theoretical and
Experimental Physics of the Academy of Sciences USSR)

SUBMITTED: June 1, 1962



Card 2/2

S/056/62/043/006/047/067
B111/B102

AUTHORS:

Galanin, A. D., Grashin, A. F., Mel'nikov, V. N.,
Nikitin, Yu. P.

TITLE:

Nucleon-nucleon scattering in two-meson approximation with
consideration of the π -interaction

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,
no. 6 (12), 1962, 2245 - 2254

TEXT: The explicit calculation of the two-meson contribution to the nucleon-nucleon scattering amplitude has been possible so far only for large values of the orbital angular momentum $l \gg 1$. The accuracy obtained was $(\sqrt{1 + p^2/\mu^2})/(l + 1)$, where μ is the pion-mass and p is the nucleon momentum in the c. m. s. In order to achieve more accurate results, the absorptive part of the NN-amplitude must be calculated by using the π N-amplitude in the nonphysical domain. In the present work this calculation given by

$$\lambda_l(x) = e^{i\delta_l(x)} \sin \delta_l(x) = Q^{(l)}(x) \sqrt{x} / [X^{(l)}(x) - iQ^{(l)}(x) \sqrt{x}];$$

$$\sqrt{x} \operatorname{ctg} \delta_l(x) = X^{(l)}(x) / Q^{(l)}(x); \quad l = 0(S), 1(P), 2(D), \quad (3)$$

Card 1/3

Nucleon-nucleon scattering in ...

S/056/62/043/006/047/067
B111/B102

NN-scattering amplitude consistent with the experiment. Finally, the present results are compared with previous data. There are 1 figure and 2 tables.

SUBMITTED: July 5, 1962

Card 3/3

Data on three-pion interaction

S/056/63/044/001/013/067
B108/B180

the recoil proton. At $M_p \approx 0.45, 0.63, 0.87,$ and 1.05 Bev three-pion resonances may exist for the isospin $I = 2$. There are 3 figures. The English-language references are: E. Pickup et al. Phys. Rev. Lett., 8, 329, 1962; B. Sechi Zorn. Phys. Rev. Lett., 8, 282, 1962. ✓

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki (Institute of Theoretical and Experimental Physics)

SUBMITTED: July 12, 1962

Card 2/2

L 58953-65 EFF(c)/EWT(1)/EEC(t) P1-4 IJP(c) GG/WW
ACCESSION NR: AT5010455 UR/3138/64/000/273/0001/0008

31
29
B+1

AUTHORS: Verebryusov, V. S.; Veselovskiy, G. S.; Grashin, A. F.;
Demidov, V. S.; Kuznetsov, Ye. V.; Kuznetsov, Ye. P.; Ponomov, A.K.;
Protasov, V. P.; Sergeyev, F. M.; Shalamov, Ya. Ya.

TITLE: Data on pp resonance with Q = 148 MeV

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy
energii. Institut teoreticheskoy i eksperimental'noy fiziki. Doklady
no. 273, 1964, Damnyye o pp-rezonanse s Q = 148 Mev, 1-8

TOPIC TAGS: proton, proton resonance, diproton resonance, pion nucleon
resonance, excitation energy

ABSTRACT: The authors present data on a possible new photon resonance
with excitation energy 148 MeV. The photographs were obtained with a
17-liter bubble chamber filled with a freon mixture (without magnetic
field), using the extracted beam of ϕ^+ mesons of the OIYaI (Joint In-
stitute of Nuclear Research) synchrocyclotron with energy $E_0 = 80$ MeV.

Card 1/3

L 58953-65

ACCESSION NR: AT5010455

Absorption of positive pions with formation of 1, 2, and 3 heavy particles (p, d, etc.) was investigated. The meson energy at the instant of absorption was 60 ± 20 MeV. Distributions of the event with production of two particles shows peaks at excitation energy values of 148 and 128 MeV. The same spectrum plotted for more symmetrical stars shows the 148 MeV peak more clearly. It is shown that the spectra can contain, besides the distribution with respect to the diproton mass, also components due to pd, dd, and similar stars, which can be mistaken for pp stars. The 128-MeV peak may be due to the presence of pd stars. The results indicate the possible existence of a diproton resonance with excitation energy 148 ± 3 MeV and width ~ 5 MeV, and also a pd resonance with approximate excitation energy 143 ± 3 MeV and width ~ 5 MeV. Such resonances could be observed in the presence of πN resonance with mass 938 ± 150 MeV, producing 'hypernuclei' by interacting with other nucleons. Work on a direct observation of the possible new πN resonance is continuing. The authors thank I. A. Alikhanov for a discussion of the results. Original article has:

2 figures

Card 2/3

L 58953-65

ACCESSION NR: AT5010455

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki
GKAE (Institute of Theoretical and Experimental Physics, GKAE)

SUBMITTED: 01Aug64

ENCL: 00

SUB CODE: NP

NR REF SOV: 001

OTHER: 002

40
Card 3/3

L 11913-66 EWT(m)/T/EWA(m)-2
ACC NR: AP6001156

SOURCE CODE: UR/0367/35/052/003/0496/0500

AUTHOR: Veselovskiy, G.S.; Grashin, A.F.; Demidov, V.S.; Kuznetsov, Ye. P.; Ponomov, A.K.; Protasov, V.P.; Sergeev, F.M.

ORG: Institute of Theoretical and Experimental Physics, GKIAE (Institut teoreticheskoy eksperimental'noy fiziki)

TITLE: Production of slow pi mesons on light nuclei and the pi-pi interaction

SOURCE: Yadernaya fizika, v. 2, no. 3, 1965, 496-500

TOPIC TAGS: pi meson, pion pion interaction

ABSTRACT: The object of the study was to find the possible resonance states in a system composed of two pi-mesons at low energies:

$$Q = M_{\pi\pi} - 2\mu = [(\omega_{\pi_1} + \omega_{\pi_2})^2 - (p_{\pi_1} + p_{\pi_2})^2]^{1/2} - 2\mu \lesssim \mu$$

μ being the mass of a π -meson. The statistical material was obtained by studying the production of slow π^\pm mesons upon collision of π^- mesons (initial momentum 2.8 GeV/sec) with nuclei of a freon mixture in a 17- and 200-liter bubble chambers. In analyzing the films, all those cases were selected which involved interaction between π -mesons and the nuclei of the working liquid, resulting in the formation of two or more slow π -mesons which stopped in the working substance of the chamber. The Q distributions of the bignon in the range $Q < 100$ MeV were obtained. The distribution for $\pi^+\pi^-$ pairs differs from that for $\pi^+\pi^+$ and

Card 1/2

L 11913-66

ACC NR: AP6001156

$\pi^-\pi^-$ pairs; this may be explained by the presence of a strong $\pi\pi$ interaction in the isotopic state $T = 0$. Orig. art. has: 5 figures.

SUB CODE: 20 / SUBM DATE: 03Jul64 / ORIG REF: 004 / OTH REF: 001

BC
Card 2/2

GRASHIN, K.Ye.

Food stuff substitutes used in producing solvents by fermentation. Biol.
tekh.-ekon.inform.no.2:56-58 '59. (MIRA 12:3)
(Solvents) (Fermentation)

GRASHIN, K.Ye.

The PPA-3 semiautomatic surface-polishing machine. Biul.tekh.-ekon.
inform. no.7:38-40 '61. (MIRA 14:8)
(Woodworking machinery)

GRASHIN, YU. M.

8/089/62/013/006/019/027
B102/B186

95

AUTHORS: G. T. and M. R.

TITLE: Nauchnaya konferentsiya Moskovskogo inzhenerno-fizicheskogo instituta (Scientific Conference of the Moscow Engineering Physics Institute) 1962

PERIODICAL: Atomnaya energiya, v. 13, no. 6, 1962, 603 - 606

TEXT: The annual conference took place in May 1962 with more than 400 delegates participating. A review is given of these lectures that are assumed to be of interest for the readers of Atomnaya energiya. They are following: A. I. Leypunskiy, future of fast reactors; A. A. Vasil'yev, design of accelerators for superhigh energies; I. Ya. Pomeranchuk, analyticity, unitarity, and asymptotic behavior of strong interactions at high energies; A. B. Migdal, phenomenological theory for the many-body problem; Yu. D. Fivyskiy, deceleration of medium-energy antiprotons in matter; Yu. M. Kogan, Ya. A. Iosilevskiy, theory of the Mossbauer effect; M. I. Ryazanov, theory of ionization losses in nonhomogeneous medium; Yu. B. Ivanov, A. A. Rukhadse, h-f conductivity of subcritical plasma;

Card 1/4

36

Nauchnaya konferentsiya...

3/089/62/013/006/019/027
B102/B186

Ye. Ye. Lovetskiy, A. A. Rekhadze, electromagnetic waves in nonhomogeneous plasma; Yu. D. Kotov, I. L. Rozental', the origin of fast cosmic muons; Yu. M. Ivanov, muon depolarization in solids; V. G. Varlamov, Yu. M. Grashin, B. A. Dolgoshein, V. G. Kirillov-Ugryumov, V. S. Roganov, A. V. Samoylov, μ^- capture by various nuclei; V. S. Desidov, V. G. Kirillov-Ugryumov, A. K. Ponomov, V. P. Protasov, F. M. Sergeyev, scattering of μ^- mesons at 5 - 15 Mev in a propane bubble chamber; S. Ya. Nikitin, M. S. Aynutdinov, Ya. M. Selektor, S. M. Zombkovskiy, A. F. Grashin, muon production in μ^+p interactions; B. A. Dolgoshein, spark chambers; N. G. Volkov, V. K. Lyapidevskiy, I. M. Obodovskiy, study of operation of a convection chamber; K. G. Finogenov, production of square voltage pulses of high amplitudes; G. N. Aleksakov, problems of color vision; V. K. Lyapidevskiy, relation between number of receivers and number of independent colors; Ye. M. Kudryavtsev, M. M. Sobolev, M. I. Tisengausen, L. N. Tunitskiy, P. S. Fayzulov, determination of the moment of electron transition of oscillator forces and the widths of the Schumann-Runge bands of molecular oxygen; B. Ye. Gavrilov, A. V. Zharikov, V. I. Rayko, decomposition of the volume charge of intense ion beams; Ye. A. Kramer-Ageyev, V. S. Troshin, measurement of neutron spectra; G. G. Doroshenko, new methods of fast-neutron recording; V. I. Ivanov, dosimetry terminology; R. M. Voronkov, Card 2/4.

ACCESSION NR: AP3002719

S/0120/63/000/003/0055/0057

AUTHOR: Bobrov, V. D.; Varlamov, V. G.; Grashin, Yu. M.; Dolgoshein, B. A.; Kirillov-Ugryumov, V. G.; Roganov, V. S.; Samoylov, A. V.

TITLE: Use of threshold Cerenkov counter for separation of μ - and π -mesons in meson beams

SOURCE: Pribery i tekhnika eksperimenta, no. 3, 1963, 55-57

TOPIC TAGS: μ -meson separation, threshold Cerenkov counter

ABSTRACT: A Cerenkov counter has been used for the separation of μ - and π -mesons. The counter consists of a 100-mm cube of polished organic glass 2 mm thick filled with distilled water containing 2-aminonaphthalene-6,8-disulfonic acid, which serves as the spectrum transformer. This cube is placed inside another cube with walls 4 mm thick. The space of 3 mm between the cubes is filled with MgO powder. Two FEY-33 photomultipliers connected to a common load are in optical contact with the water radiator. The radiator

Card 1/3

ACCESSION NR: AP3002719

and the photomultiplier are enclosed in a steel casing with foil windows for particle passage. A block diagram of the arrangement is shown in Fig. 1 of the Enclosure. A 260-Mev/sec pulsed meson beam was used in experiment. Resolution time of the coincidence circuits is 5-8 nanosec, and the efficiency of anticoincidence, 99.93%. It was found that the use of the Cerenkov counter makes it possible to reduce the contents of π -mesons in a μ -meson beam by a factor of 10. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 25Jun62 DATE ACQ: 12Jul63 ENCL: 01

SUB CODE: 00 NO REF SOV: 001 OTHER: 001

Card 2/3

ACCESSION NR: AP3002719

ENCLOSURE: 01

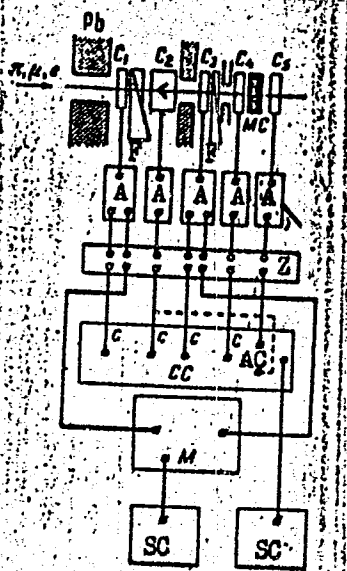


Fig. 1. Location of counters and block diagram of electronic circuit

Pb - 70 x 70 mm lead collimator; C₁ and C₃ - scintillation counters with Φ 100 x 10 mm plastic scintillators; C₄ - Φ 80 x 3 mm; C₂ - Φ 200 x 10 mm; C₂ - Cerenkov counter; F₁ and F₂ - variable thickness filters; Mc - 3 gr/cm² carbon target; A₁ through A₅ - amplifiers with gain of 5; 3 - variable delay lines; CC - coincidence and anticoincidence circuits; C - coincidence inputs; AC - anticoincidence inputs; M - coincidence monitoring circuit; SC - scale circuit.

Card 3/3

L 14984-63
IJP(C)

EWT(d)/BDS ASD/ESD-3/APGC Pg-4/Pk-4/Po-4/Pq-4

ACCESSION NR: AP3004891

S/0120/63/000/004/0063/0066

AUTHOR: Varlamov, V. G.; Grashin, Yu. M.; Dolgoshein, B. A.; Samoylov, A. V. 74
75

TITLE: Multichannel coincidence-anticoincidence circuit 160

SOURCE: Pribory* i tekhnika eksperimenta, no. 4, 1963, 63-66

TOPIC TAGS: multichannel coincidence-anticoincidence circuit, coincidence-anti-coincidence circuit, scintillation counter, particle recording efficiency, coincidence-circuit dead time, coincidence-pulse rise time

ABSTRACT: The coincidence-anticoincidence circuit shown in Fig. 1 of Enclosure has four coincidence and two anticoincidence channels. The coincidence circuits are switched on by corresponding tumblers. The input pulses are negative with an amplitude of 2 v or higher. The plate current of each coincidence tube (L_1 to L_4) is 20 μ amp. The current flowing along the separating diode D_3 is 15 μ amp. The voltage of D_3 is 0.5 v with one open tube and 0.7 v with four open tubes; consequently, with incomplete coincidence the maximum pulse amplitude for D_3 is 0.2 v. The coincidence pulses separated at D_3 are amplified by the wide-band stage of tube L_5 . Diode D_5 discriminates the incomplete coincidences, which then have an amplitude of 1 v or higher. Discrimination reduces the current of L_6 by

Card 1/32

ACCESSION NR: AR4023769

S/0274/64/000/001/A082/A082

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 1A542

AUTHORS: Grashin, Yu. M.; Yefremenko, V. I.; Finogenov, K. G.,
Tsitovich, A. P.

TITLE: Pulse height analyzer with solid acoustic delay line

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. ra-
dioelektronike. T. 2. Ch. 2. Gosatomizdat, 1963, 163-172

TOPIC TAGS: pulse height analyzer, delay line, acoustic delay line,
solid delay line, magnesium delay line, delay line memory, time cor-
related signal

TRANSLATION: A 64-channel pulse-height analyzer is described with a
memory system operating with an ultrasonic delay line. The latter
is made of magnesium. The resolution time of the analyzer is 1

Card 1/2

L 19599-65 APOC(b)/SSD/AFWL/ESD(dp)

ACCESSION NR: AP4044686

S/0120/64/000/004/0148/0152

AUTHOR: Varlamov, V. G.; Grashin, Yu. M.

TITLE: Time analyzer based on AI-100

SOURCE: Pribory* i tekhnika eksperimenta, no. 4, 1964, 148-152

TOPIC TAGS: time analyzer, pulse height analyzer, AI 100 pulse height analyzer, 100 channel time analyzer

ABSTRACT: The development of a new 100-channel time analyzer based on the standard AI-100 pulse-height analyzer (less its input part) is reported. Its essential addition is a time-amplitude-time-code (pulse train) converter. The new analyzer has four ranges: 0.5, 1, 2, and 4 microsec. The analyzer has been in operation since autumn, 1962, on the pi-meson beam of the OIYaI synchrocyclotron; it was often in continuous use for 20--30 hrs. Under these conditions, its nonlinearity (variation of channel width with the range) was $\pm 0.3\%$

Card 1/2

L 52965-65 EWT(m)/T/EWA(m)-2

ACCESSION NR: AF5010519

UR/0056/65/048/004/1197/1199

AUTHOR: Bobrov, V. D.; Varlamov, V. G.; Grashin, Yu. M.; Dolgoshein, B. A.;
Kirillov-Ugryumov, V. G.; Roganov, V. E.; Samoylov, A. V.; Somov, S. V.

TITLE: Capture of negative muons by atoms in a chemical compound

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 4, 1965,
1197-1199

TOPIC TAGS: muon, muon capture, effective affinity, mesic atom

ABSTRACT: The authors measured the relative probabilities of captured negative muons by atoms in several chemical compounds, with an aim at extracting information necessary for the interpretation of other experiments with muons. The results show that for the compounds investigated (LiCl, CaCl, ZnO, ZnS, and AlCu) the Fermi-Teller Z-law does not describe the experiment satisfactorily. An analysis of the available data shows that compared with the prediction of the Z-law, mesic atoms of the elements which have relatively large electron-affinity energy are produced with some preference. The results show that in most cases the tendency to preferred formation of the mesic atoms of the element with the larger electron affinity

Card 1/2

AND'YAN, L. [Angyan, L.]; GRASHT'YAN, Ye. [Grastyán, E.]; SAKHIULINA, G.T.

Formation of conditioned avoidance reflex to stimulation of
the "recruiting" System used as a conditioned stimulus.
Zhur.vys.nerv.deiat. 13 no.2:228-234 Mr-Apr'63. (MIRA 16:9)

1. Institute of Physiology, Medical University, Pesh, Hungary,
and Institute of Higher Nervous Activity and Neurophysiology,
U.S.S.R. Academy of Sciences, Moscow.

(CONDITIONED RESPONSE) (ELECTROENCEPHALOGRAPHY)
(AVOIDANCE (PSYCHOLOGY))

FATELEVICH, S., inzh.-polkovnik; GRASIS, A., mayor.

Adapter for ultrashortwave radio stations. Voen. sviaz. 16 no.2:
14-15 F '58. (MIRA 11:3)
(Radio, Shortwave--Equipment and supplies)

GRASIS, V.

Reviews. Med.paraz.i paraz.bol. 33 no.4:510 J1-Ag '64. (MIRA 18:3)

GRASIS, V.K.

Detection of *Culex jacksoni* Edwards (1934) among the mosquitoes
of Furugelma Island. Med.paraz. 1 paraz.hol. 28 no.3:345-349
My-Je '59. (MIRA 12:9)

(MOSQUITOES,

Culex jacksoni in Russia (Rus))

TIMOFEYEVA, L. V.; GRASIS, V. K.; MERINOV, V. A.; LEBEDENKO, T. D.;
REBERG, M. S.

Method of survey with reference to tick encephalitis and gnats
in the exploration of new territories. Med. paraz. i paraz. bol.
no.6:710-715 '61. (MIRA 15:6)

1. Iz Instituta meditsinskoy parazitologii i tropicheskoy medi-
tsiny imeni Ye. I. Martynovskogo Ministerstva zdravookhraneniya
SSSR (dir. - prof. P. G. Sergiyev) i Krasnoyarskoy krayevoy
sanitarno-epidemiologicheskoy stantsii (glavnyy vrach S. I.
Nozik)

(ENCEPHALITIS) (DIPTERA)

GRASIS, V.K.; PRISYAGINA, L.A.

Some materials on the landscape-related epidemiology of tick-borne encephalitis in Krasnoyarsk Territory. Med. paraz. i paraz. bol. 33 no.5:572-576 S-0 '64. (MIRA 18:4)

1. Institut meditsinskoy parazitologii i tropicheskoy meditsiny imeni Martsinovskogo Ministerstva zdravookhraneniya SSSR, Moskva.

GRASIS, V.K.; GLAZUNOVA, Z.I.

Brief news. Med. paraz. i paraz. bol. 34 no.6:750-751
N-D '65. (MIRA 18:12)

GRASHIK, T. A.

Treatment of shock in the light of nervous system physiology.
Klin. med., Moskva 28 no. 9:70-74 Sept. 1950. (CML 20:1)

1. Of the Surgical Division of the First Municipal Hospital,
Nizhny Tagil.

GRASMIK, T.A., kand.med.nauk (Nizhniy Tagil, prospect Stroiteley, d.6, kv.10)

Choledochoduodenostomy as internal drainage of the common bile duct and blind suturing of it in inflammatory diseases of the bile ducts. Vest.khir. no.9:70-76 '61. (MIRA 15:B)
(DUODENUM--SURGERY) (BILE DUCTS--DISEASES)

GRASMIK, T.A., kand.med.nauk

Analysis of the causes of death in severe complications following pulmonary surgery under the conditions of a city hospital. Kaz.med.zhur. no.5:20-24 S-0 '62. (MIRA 16:4)

1. Khirurgicheskoye otdeleniye (zav. - T.A.Grasmik) 3-y gorodskoy bul'nitsy g. N.Tagila (glavnyy vrach - M.M.Fomin) i khirurgicheskoye otdeleniye Nizhne-Tagil'skogo gorodskogo tuberkuleznogo dispansera (zav. otdeleniyem - G.A.Ozhiganova, konsul'tant - T.A.Grasmik).
(LUNGS—SURGERY) (DEATH—CAUSES)

GRASMIK, T.A., kand.med.nauk (Nizhniy Tagil, pr. Stroitsley, d.61,
kv.10)

Unusual reconstructive operation in biliary fistula. Vest.khir.
no.5:107-108 '62. (MIRA 15:11)

1. Iz khirurgicheskogo otdeleniya (zav. - T.A. Grasmik) 3-y
gorodskoy bol'nitsy (gl. vrach - M.M. Fomin) g. Nizhnegog
Tagila.

(FISTULA) (BILIARY TRACT--SURGERY)

GRASMIK, T.A., kand.med.nauk (Nizhniy Tagil, pr. Stroiteley, d.6, kv.10)

Technique of liver resection. Vest.khir. 90 no.3:41-46 Mr'63

(MIRA 16:10)

(LIVER—SURGERY) (STOMACH—CANCER) (METASTASIS)

GRASMIK. T. I., kand.med.nauk

Abdomino-anal resection of the rectum for cancer. Vest. khir. 93
no.12:40-44 D '64. (MIRA 18:5)

1. Iz khirurgicheskogo otdeleniya 3-y gorodskoy bol'nitsy
glavnyy vrach - M.M.Fomin) goroda Nizhnego Novgoroda.

GRASS, I.P.

KOVAL'CHUK, V.M., polkovnik; NOSOV, F.V., doktor istoricheskikh nauk, kapitan 1 ranga, redakter; GRASS, I.P., mayor, redakter; VOROB'YEV, P.V., kapitan 3 ranga; ZEMLIN, N.N., podpolkovnik; MORDVINOV, R.N., kandidat voenno-morskikh nauk, kapitan 1 ranga, redakter; IZACHIK, N.G., kontr-admiral, redakter; LYUSHKOVSKIY, N.W., polkovnik, kandidat istoricheskikh nauk, redakter. ANDREYEV, N.I., kapitan 1 ranga, redakter; BOL'SHAKOV, N.V., kapitan 2 ranga, redakter; BYKOV, P.D., kapitan 1 ranga v obstanovke, redakter; KOVALEV, S.I., professor, redakter.

[History of naval art] Isteria voenno-morskogo iskusstva. Vol. 1.
[Naval art of slaveholding and feudal society] Voenno-morskoe iskusstvo raboyadatel'skogo i feodal'nogo obshchestva. 1953. 275 p.
(MLRA 7:5)
1. Russia (1923- U.S.S.R.) Glavnyy shtab veyenne-morskikh sil
Istericheskoye otdeleniye.
(Naval art and science--History)

VESELOVSKIY, Yu.P.; GRASSE, B.I.; RYBIN, V.V., inzh., retsenzent;
MURAV'YEV, V.A., inzh., retsenzent; LESNICHENKO, I.I., red.
izd-va; DEMKINA, N.F., tekhn. red.

[Laboratory manual for a course on the "Technology of metals
and structural materials."]Laboratornyi praktikum po kursu
"Tekhnologiya metallov i konstruktsionnye materialy."Moskva,
Mashgiz, 1962. 150 p. (MIRA 16:3)
(Metallography) (Structural materials--Testing)
(Metallurgical laboratories--Equipment and supplies)

CHERNOV, Aleksandr Vasil'yevich; BESSREBENNikov, Nikolay
Konstantinovich; SILETSKIY, V.S., prof., retsenzent;
GRASSE, B.S., retsenzent; REMIZOV, S.A., red.

[Fundamentals of heat engineering and hydraulics] Osnovy
teplotekhniki i gidravliki. Moskva, Energiia, 1965. 455 p.
(MIRA 18:9)

GRASELLI, J.

"Lectures on mathematics" by J. Bas. Vol. 1 and 2. Reviewed
by J. Grasselli. Rud met zbor no.3:301-302 '62.

GRASSELLI, Joze

Normal numbers. Obz mat fiz 10 no.1:6-12 Ap '63.

GRASSELLI, Joze

Some spaces of analysis. Obz mat fiz 11 no.2:62-72 '64.

COUNTRY : Hungary H-28
CATEGORY :
ABS. JOUR. : RZKhim., No. 16 1959, No. 58977
AUTHOR : Grasselli, M.
INST. : Not given
TITLE : Present State and Future Development of the Mechanized (Chamber) Fermentation of Tobacco
ORIG. PUB. : Dohanyipar, October 1958, 14-20
ABSTRACT : The author describes the process used at the fermentation plant in Nyiregyhazi.
S. Rozenfel'd

PROCESSES AND PROPERTIES INDEX

B

ca

Analysis of a sediment from the source of the Kovászna by means of a modification of the Winkler method. Gyula Gyassally (Könyv. Sieged, Hungary). *Acta Univ. Szegediensis, Acta Mineral., Petrog.* [N.S.], 1, 31-40, 1943.

The aragonite, realgar, orpiment, and deposits amalgamated the fractions of clay schist to a hard breccia in the water of this Hunko source of the Kovászna, Transylvania. For quantitative chem. analysis the method proposed by Winkler was slightly modified (in the determination of the CO₂ content no metallic Zn but gaseous H was used, to make possible the subsequent analysis). The results of analyzing 3 samples were: CaO 39.95, 36.98, 37.44; MgO 2.12, 3.52, 4.17; FeO 1.07, 1.50, 2.81; CO₂ 31.08, 33.75, 32.38; As 11.05, 16.04, 18.87; S 8.60, 6.90, and 6.64; total 91.50, 90.35, and 90.30%. The amt. of carbonate was 77.22, 75.75, and 73.80; that of sulfides 22.31, 23.40, and 25.50%.

Istvan Erdelyi.

ASTROLOGICAL LITERATURE CLASSIFICATION

CA

8

The occurrence of native copper in the Mátra Mountains at Bajopatak. Josef Mrazov and Gyula Grasslly (Univ. Szeged, Hung.). *Acta Univ. Szeged, 1970 Mineralog., Petrog.* 3, 44 7(1970)(English summary). Native Cu, disseminated in diabase, contained 99.57% Cu and no As, whereas the sulfide ores of the region contain As. The Cu is therefore probably of supergene origin. Michael Fleischer

CA

7

Decomposition of orpiment and realgar. Gyula Grassmally (Univ. Szeged, Hung.). *Acta Univ. Szeged. Acta Mineralog., Petrog.* 3, 56-8(1949)(In English).--By dissolving in ammoniacal H_2O_2 , S, As; and insol. residue can be detd. on a single sample. Procedures are given.
Michael Fleischer

Altaite from Stanija (Sztanizsa, Rumania). Sándor Koch and Gyula Grasselly, *Acta Univ. Szegediensis, Sect. Sci. Nat., Ann. Min. Petrol.* 4, 47-9(1950)(English summary).—The Wilaacela lode in Stanija is the only source in Europe of macrospecimens of altaite (PbTe). It is generally found in finely disseminated granules or minute veins in quartz-marcite, and assoc. with pyrite. The mineral has a strong metallic luster, and old fractures appear yellowish while fresh ones are tin-white in color. It has perfect (100) cleavage. Chem. analysis, after correction for a small amt. of gang, shows Pb 61.71 and Te 38.29%.

A. Illis

CA

The structure of gelatin. László Szalay and Gyula Szászallyi (Univ. Szeged, Hung.). *Magyar Kém. Folyóirat* 56, 325-7 (1950).--Investigation of moist, dry, 0.1-0.3-mm. thick gelatin layers yielded the following results: The layers possess a crystal structure only in the rigid state. After solidification the whole gelatin plate showed a uniform anisotropic character. The cryst. form of gelatin behaved definitely as a biaxial crystal, thus it must belong to either the rhombic, monoclinic, or triclinic system. The crystal had an optically neg. character. The axial plane of the crystal was perpendicular to the plane of the gelatin layer. The direction of the greatest elasticity was perpendicular to the plane of the gelatin layer. I. P.

BRISSELL, ST

Processes occurring during the decomposition of sulfide ores. I. S. Koch and G. G. Ginzburg (Univ. Soviet Union), *Adm. Data. Ser. Geol. Sci. Ser. 15-37(1961)(in English)*. Processes taking place in the oxidation and cementation zones of sulfide ore deposits were investigated by means of oxidation and solv. studies of various sulfide minerals. Devs. were made of pH, cond. ratio, and amt. of dissolved Zn, Fe, Ca, and Mn. Galena, sphalerite, pyrite, tetrahedrite, chalcopyrite, and some of their natural mixts. were investigated. The changes on the surface of the ore minerals were examined. About 5% of the ore at room temp. for approx. 10 days. The changes in pH, specific cond., content of total sulfate, barium sulfate, and free H₂SO₄ are tabulated for 10 samples. Presence of metal size greatly affected the solv. Preserv. of grain size greatly affected the solv., particularly in pyrite and sphalerite. The increase in pH was from 0.11 to 1.10. The observed decrease in cond. was chiefly caused by the change in the content of free H₂SO₄ and depended on the mineralogical constitution of the sample. Fe(OH)₃ was hydrolytically prod. in the solns. obtained from the sulfide mixts. Fe(SO₄)₂ and CuSO₄ formed had a dissolv. action on the ores. The chem. processes taking place during leaching are discussed, and equations are set up for them. For the pure minerals investigated, the solv. decreased in the following order: tetrahedrite, pyrite, sphalerite, chalcopyrite; the oxidation decreased in the following order: pyrite, sphalerite, tetrahedrite, chalcopyrite, galena. Forty-two mine waters from sulfide deposits contained, on an av. (in per cent. of dissolved salts) Cu 11.65, Zn 0.52, Fe 2.41, Co + Ni + Cd + Pb 0.01. The content of ferrous Fe, ferrous Fe, and Mn in the solns. obtained by leaching is tabulated. Mn and Fe became sepd. during the leaching. The changes in the Fe and Mn content are discussed. The content of Fe, Mn, Zn, and Cu in the final solns. is tabulated, and the rates of soln. of the different minerals are discussed. Investigations of cerussite formed on galena, Fe(OH)₃ on pyrite, and of covellite on chalcopyrite, of white pyrite remaining unoxidized or was partly covered by Fe(OH)₃. 10 references. Kalervo Rankama

GRASSELLY, GYULA

Electrographical investigation of sulfides on polished sections. Gyula Grasselly. *Acta Univ. Szegedensis, Ser. Sci. Nat., Acta Mineralog. Petrog.* 5, 68-72 (1951) (English summary); cf. *C.A.* 47, 7361c.—The application of an electrographic method is described for the detection of Fe, Cu, Ni, Co, Ag, and Sn in polished sections of sulfide ores. A filter paper satd. with a suitable electrolyte ((NH₄)₂SO₄, KCl, K₂SO₄ soln.) is placed on a flat Al cathode. Gelatin paper (prepd. from glossy photographic paper by treating with Na₂S₂O₄) is first satd. with the same electrolyte, the excess is removed, then satd. with a reagent soln. (selective for the element sought), and then placed on the filter paper with the gelatin-side up. The polished surface of the sample is next placed on the gelatin paper and the necessary contacts are made for electrolysis, which is usually carried out at 3-10 ma. at 2.5-3 v. for 25-60 sec. The presence of the

element in question is shown by the development of a distinctive color on the test paper. Fe and Cu are detected with an aq. soln. of 0.5% 2,2'-bipyridine, Ni with an aq. soln. of 1% dimethylglyoxime, Co with 1-nitro-2-naphthol (1 g. in 50 ml. glacial AcOH. + 50 ml. H₂O), Ag by the presence of reduced metal on the test paper, and Sn with a satd. aq. soln. of kakotheline. The characteristic colors obtained in these reactions are illustrated by 10 plates.

A. Illis

Met
Phys
2

GRASSELLY, G.

Chem Abo V48

1-25-54

Mineralogical Chemistry

3

✓ The minerals of the sulfide ore deposit of Nagyörzsöny (Hungary). S. Koch and Gy. Grasselly¹ (Univ. Szeged, Hung.). *Acta Univ. Szegediensis, Acta Mineral. Petrog.* 6, 1-21 (1952) (in English).—An account is given of the mineralization of the Nagyörzsöny mining district. The sulfides occur as mineralized zones and veins in hydrothermally altered dacites and andesites. The following minerals are described: apatite, pyrrhotite and its alteration products, sphalerite, chalcopyrite, Bi minerals, native Au, galena, and Pb-Sb minerals. New chem. analyses are given of a sulfide ore, a hydroxyrite, an arsenopyrite (in %, Fe 33.09, Mn 0.20, As 40.93, S 20.06, insol. 5.85; total 100.13), a siderite (FeO 61.07, MnO 0.76, CaO trace, MgO trace, CO₂ 37.88, insol. 0.48; total 100.19), 2 sphalerites, and an arsenopyrite ore replaced by Bi minerals. The mineralogy of the district is compared with that of two other hydrothermal deposits from the Carpathian Mountains. K. R. —

KRIVELY,

200 (3)

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Mineralogical and Geological Chemistry

Data on the oxidation of sulfide-ore deposits. S. Koch (Univ. Szeged, Hung.) and Gy. Grassny. *Acta Univ. Szegediensis, Acta Mineral. Petrog.* 6, 27-30 (1952) (in English).—The soln. and oxidation of enargite (I) and a mixt. of I and pyrite (II) from the sulfide-ore deposit at Reek, Hungary, was investigated by means of pure 0.05N H₂SO₄ and solns. of 0.05N H₂SO₄ with CuSO₄ and Fe₂(SO₄)₃, resp. The change in the content of free H₂SO₄, total sulfate, Fe, Cu, and As in the solns. was investigated. The results (content in g./l.) are tabulated. The soln. and oxidation of sulfide minerals are governed by the chem. compn. of the minerals and by the mineral assemblage. In the expts. the free H₂SO₄ content usually diminished, while total sulfate remained unchanged. For the I-II mixt., the total sulfate increased and the mixt. was most strongly oxidized in pure 0.05N H₂SO₄. The series of decreasing soly. in 0.05N H₂SO₄ runs as follows: tetrahedrite, sphalerite, galena, pyrite, enargite, chalcopyrite. The possible manner of oxidation of enargite is discussed. The presence of CuSO₄ in the soln. greatly increased the content of dissolved Cu and As; the content of Fe was similarly increased. The oxidation of I-II mixts. was stronger than that of pure I. The dissolving action of CuSO₄ is stronger than the action of Fe₂(SO₄)₃. The oxidation and soln. phenomena were investigated on the basis of the oxidation-reduction potential. The changes of the Fe²⁺/Fe³⁺ ratio caused by Cu and Mn were examd. by measuring the change in the ferrous Fe content in a 0.05N H₂SO₄ soln. caused by the presence of CuSO₄ and (or) MnSO₄; the results are tabulated. The rate of oxidation of ferrous Fe was slower in a CuSO₄ soln. and more rapid in a MnSO₄ soln. than in a FeSO₄ soln. The simultaneous presence of Mn and Cu retarded the oxidation of ferrous Fe. Kalervo Rankama

GRASSELLY, GY.

Chemical Abst.
Vol. 48 No. 4
Feb. 25, 1954
Analytical Chemistry

Electrographical analysis of ore textures. Gy. Grasselly
(Univ. Szeged, Hung.). *Acta Univ. Szegediensis, Acta
Mineral. Petrog.* 6, 47-57(1952)(in English).—Methods
are given for the detection, by electrolysis, of Co, Fe-As
minerals, As, Pb, Bi, Zn, and Ag in polished sections of
ores. The elimination of interferences caused by many
cations is discussed in detail. The structure etching, by
electrographical means, of chalcocite, luzonite-famatiite,
bornite, niccolite, chalcopyrite, galena, and arsenopyrite
is described. Kalervo Rankama

GRASSELLY, GY.

Electrochemical examination of the oxidation processes of sulfide ores; from the electromotive force series of sulfide ores, In English, p. 47, ACTA MINERALOGICA PETROGRAPHICA, (Szegedi Tudományegyetem, Ásvány-Közetani Intézet) Szeged, Vol. 7, 1953/54

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December 1953

HUNGARY / Cosmochemistry. Geochemistry. Hydro-chemistry. D

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 26814.

Author : Grasselly, G.

Inst : Not given.

Title : Determination of the Composition of MnO_2 - Mn_2O_3 - Mn_3O_4 Systems.

Orig Pub: Acta Miner-Petrog Szeged, 8, 13-26 (1955) (in English).

Abstract: A method is proposed for the determination of MnO_2 , Mn_2O_3 , and Mn_3O_4 in admixture by analyzing the samples for Mn (by the Vollhard-Wolf [spellings uncertain] method) and active oxygen (oxalate method) before and after heating to $600-700^\circ$ for 3 hrs. The method is based on the fact that MnO_2 on heating is quantitatively converted to Mn_2O_3 . The

Card 1/2

Country : Hungary B-8
Category: : Thermodynamics. Thermochemistry. Equilibria.
Physico-Chemical Analysis. Phase Transitions. 18459
Abs. Jour. : Ref Zhur-Khimiya, No 6, 1959
Author : Grasselly, Gy.; Klivenyi, E.
Institut. :
Title : Concerning the Thermal Properties of the
Manganese Oxides of Higher Valencies
Orig. Pub. : Acta mineral.-petrogr. Szeged, 1956, 9, 15-32

Abstract : Study of behavior of manganese oxides on heating in presence of air, for 3 hours, in temperature range 460°-1050°. Temperature dependence curves of Mn:O ratio in oxides were obtained for pure synthetic MnO₂ (I), Mn₂O₃ (II), Mn₃O₄ (III), and mixtures I + II, I + III, II + III, with initial component ratios 1:3, 1:1, 3:1, and of I + II + III, with initial component ratios 5:3:2, 2:1:2, 2:3:5. By the oxalate method a determination was made, with an accuracy of ± 0.2%, of the amount of active oxygen in the mixtures, after heating. Average composition of mixtures after calcining: at 460° MnO₂.992; at 700° Mn₂O₃; at 1050° Mn₃O₄.008. III in mixtures
Card: 1/2

R-12

GRASSELLY, Gy.

27
 Stability of Mn₂O₇. Gy. Grasselly and E. Klivényi (Univ. Szeged, Hung.). *Acta Univ. Szegediensis, Acta Mineral. Petrog.* 9, 33-40 (1950) (in English).—A mixt. of Mn oxides is completely changed to Mn₂O₇ at 600°, or to Mn₂O₃ above 640°. The change from Mn₂O₃ to Mn₂O₇ is possible only when O is available from the atm., and does not occur if a mixt. of MnO₂ and Mn₂O₃ is heated in N₂. A procedure is described for detg. the compn. of a mixt. of Mn oxides by thermal analysis.
 Walter R. Averett

4

G. WISSELY, GY

Laboratory equipment for electrographic examinations.
G. Wisseley (Univ. Szeged, Hung.) Acta Univ. Szeg.
Math. Nat. Mineral. Parag. 10, 19-23 (1957) (in English).
App is described for the exam in series or for the semi-
quant detn of metals in ores and minerals by electrographic
printing where voltage, current, time, and pressure are con-
trolled.

1/1

MC

9

HUNGARY / Cosmochemistry. Geochemistry. Hydro-chemistry. D

Abs Jour: Ref Zhur-Khimiya, No 8, 1959, 26872.

Author : Grasselly, G. and Klivenyi, E.

Inst : Not given.

Title : A Method for Determining the Mineral Composition of Sedimentary Manganese Oxide Ores on the Basis of Their Thermal Properties.

Orig Pub: Acta Miner.-Petrog. Szeged, 10, 33-46 (1957) (in English).

Abstract: The earlier developed method for the analysis of the system $MnO - Mn_2O_3 - Mn_3O_4$ (RZhKhim, 1959, 26814) is applied to the determination of the mineral composition of 12 specimens from various Hungarian deposits containing pyrolusite (I), manganite (II), and psilomelane (III). Thermal analysis has shown

Card 1/2

COUNTRY : HUNGARY D
CATEGORY : Cosmochemistry. Geochemistry. Hydrochemistry
ABB. JOUR. : *AzKhim.*, No.23 1959, No. 81698
AUTHOR : Geneselly, G.
INST. : Hungarian Academy of Sciences
TITLE : Variability of the Complex Anion Potential
In Anisodesmic and Mesodesmic Structures
ORIG. PUB. : *Acta geol. Acad. scient. hung.*, 1958, 5,
No 3-4, 293-311
ABSTRACT : Complex anion potentials, even in the case
of the same anion, cannot be considered as
values having a stable character. In aniso-
desmic structures, the variation of these
values mainly depends upon possible changes
in the ionic distances. From the point of
view of evaluation of the potential of the
connection or energy of the lattice, it is
necessary to distinguish the physically con-
sidered complex anions from the hard crys-
CARD: 1/2

Grasselly, G.

HUNGARY/Geochemistry Cosmochemistry. Hydro- D
chemistry.

Abs Jour: Referat Zhur - Khim, No. 9, 1959, 30816

Author : Grasselly, G.

Inst : Not given

Title : Remarks on the Determination of the Composition
of MnO₂-Mn₂O₃-Mn₃O₄ Systems

Orig Pub: Acta Mineral Petrograph Szeged, 1958, 2, 41-46

Abstract: The determination of the amount of active oxygen released at 600-700° in the determination of the composition of the system MnO₂-Mn₂O₃-Mn₃O₄ (RZh Khim, 1959, 26814) must be carried out in an atmosphere of N₂, since the presence of air leads to an oxidation of the Mn₃O₄ to Mn₂O₃ (RZhKhim, 1959, 11006). The determination of the active

Card 1/2

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ACC NR: AP5028709

SOURCE CODE: GE/0006/65/000/002/0071/0074

AUTHOR: Grassler, L. ^{44, 55}

ORG: Central Institute of Automation, Dresden (Zentralinstitut für Automatisierung) ^{44, 55} 217
63

TITLE: Determination of the dielectric constant and of the loss factor of foam-base dielectrics ^{44, 55}

SOURCE: Nachrichtentechnik, no. 2, 1965, 71-74

TOPIC TAGS: dielectric constant, dielectric material, ceramic dielectric ^{5, 44}

Abstract: The article applies the logarithmic mixing law to the case of composite dielectrics consisting of synthetic resins or ceramics and trapped air pockets. Formulae are derived for both the dielectric constant and the loss factor $\tan \delta$ of such foam-base materials. Numerical values are obtained by measurement and comparing foamy samples with solid ones made of the same material in the same shape. The actual values thus determined, i.e. by weighting, are tabulated for eight groups of dielectric compounds: polyethylenes, polyvinylbutyral, hard polyurethanes, silicones, polystyroles, epoxies, phenols and cellulose acetate). The data are taken from several sources; variations are attributed to water content, manufacturing processes and storage. Orig. art. has 1 table, 15 formulas, and 2 figures. [JPRS]

Card 1/2

UDC: 621.315.61

1054-00

ACC NR: AP5028709

SUB CODE: ME, EM / SUBM DATE: 31Mar64 / ORIG REF: 008 / OTH REF: 003 / SOV REF: 001

oo

Card 2/2

GRASSMANN, A.

TECHNOLOGY

Periodical: EPULETGEFESZET Vol. 8, no. 1, 1959

GRASSMANN, A. Building Mechanics Days, Berlin, 1958. p. 38.

Monthly List of East European Accessions (MEAL) IC. Vol. 6, No. 5,
May 1959, Unclass.

GRASSMANN, A.

"The 1958 Congress of the Section on Heating and Ventilation of the VDI." p. 126.

EPULETGEPESZET. (Építőipari Tudományos Egyesület). Budapest, Hungary, Vol. 8, No. 3, 1959.

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

GRASSMANN, W. (Muncheu)

Structure and significance of collagen fiber from technological point of view. Ber eipo 13 no.4:101-110 JI '63.

GRASTA, M. La; STROHAL, K.

Clinico-roentgenological aspects of bronchial carcinoma. Tuberkuloza 17 no.1/2:28-38. ~~Ja-1p.165.~~

1. Iz bolnice za plucne bolesti i plucnu tuberkulozu "Jordanovac", u Zagrebu (Direktor: prim. dr. Milan Goldner).

MAJNAN, E., KALDOR, E., LISSAK, K., MOLNAR, L., and RUMSONYI, Z.

"Autonomic Functions of the Hypothalamus," Acta physiol., Hung. 1951, 2, p.1-9.

By stimulation of the hypothalamus with various frequencies different effects belonging to the same system within an area could be dominantly localised. The rebound-like effects showed a strong interrelation with the frequencies applied and the size of the effect. Reaction reversals of respiratory inhibitory processes of sympathetic and parasympathetic character could be demonstrated in the area of the hypothalamic efferent tracts. Lesions of the same points caused changes of vasomotor tone indicating a condition of dynamic balance. In animals treated with atropine the secondary (sympathetic-inhibitory) character of parasympathetic centers was proved; the effect being accompanied by an increased reactivity of the sympathetic centres.

Physiol Inst., Univ of Pecs.