

S/185/60/005/002/001/022
D274/D304

Polarization of gamma-quanta...

which agrees (to within a factor) with the expression for the cross-section of the process obtained by S.D. Drell (Ref. L: Phys. Rev. 87, 753, 1952). For the parameters ξ_1 and ξ_2 one finally obtains

$$\xi_1 = -1 + \frac{2\omega}{q^2 Q} \left[\frac{\omega}{q^2} \left\{ \frac{4\epsilon_0^2 - q^2 \left(1 + \frac{2\epsilon_0}{M}\right)}{x_0^2} (pn)^2 - \frac{[kq_1]^2}{x_0 x} \right\} + \frac{m^4}{2M(q_1^2 - \omega^2)} \times \right. \quad (14)$$

$$\left. \times \left(1 - 2\frac{\mu_0}{x_0}\right) (pn)^2 - \frac{m^2}{M(q_1^2 - \omega^2)} \left\{ \frac{[kp][kq_1] + 2\omega\epsilon_0 (pn)^2}{x_0} + \frac{[kp_0][kq_1]}{x} \right\} \right]; \quad (14)$$

$$\xi_2 = \frac{2\omega (pn)}{q^2 Q} \left[\frac{\omega}{q^2} \left\{ \frac{4\epsilon_0^2 - q^2 \left(1 + \frac{2\epsilon_0}{M}\right)}{x_0^2} (p_1) + \frac{4\epsilon_0\epsilon - q^2 \left(1 - \frac{\omega}{M}\right)}{x_0 x} p_0 \right\} + \right. \quad (15)$$

$$\left. + \frac{m^4}{4M(q_1^2 - \omega^2)} \left\{ \left(1 - 2\frac{\mu}{x}\right) (p_0) + \left(1 - 2\frac{\mu_0}{x_0}\right) (2p - p_0, 1) \right\} - \right. \quad (15)$$

$$\left. \frac{\omega m^2}{M(q_1^2 - \omega^2)} \left\{ \frac{\epsilon}{x} (p_0) + \frac{\epsilon_0}{x_0} (2p + p_0, 1) \right\} \right].$$

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(n is the polarization vector, p and k are the energy vectors of the electron and photon respectively, m is the electron mass). There are 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc. The reference to the English-language publication reads as follows: S.D. Drell, Phys. Rev., 87, 753, 1952.

ASSOCIATION: Fizyko-tekhnichnyy instytut AN USSR (Physicotechnical Institute of the AS UkrSSR)

SUBMITTED: July 20, 1959

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S/185/60/005/004/001/021
D274/D306

AUTHORS: Kresnin, A.A. and Tishchenko, B.Y.

TITLE: Polarization effects in the scattering of electrons by nuclei

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 4, 1960, 437-443

TEXT: The scattering cross-section, the azimuthal asymmetry and the polarization of the scattered electrons are calculated. Electron scattering by nuclei with Yukawa charge-density distribution is considered in the second Born-approximation. The Yukawa charge-density distribution is

$$\rho(r) = \frac{x^2}{4\pi} \cdot \frac{e^{-xr}}{r} \quad (4)$$

For describing the polarization of the scattered electrons, the method of density matrices is used. For the cross-section one ob-

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Polarization effects...

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tains

$$\frac{d\sigma}{d\Omega} = \left(\frac{Ze^2}{2mv^2 \sin^2 x} \right)^2 \frac{(1-v^2)(1-v^2 \sin^2 x)}{(1+\alpha^2 \sin^2 x)^2} \times$$

$$\times \left\{ 1 + Ze^2 v \frac{1+\alpha^2 \sin^2 x}{1-v^2 \sin^2 x} \sin x [\delta_1 - (1-v^2)^{\frac{1}{2}} \operatorname{tg} x (\vec{\zeta}_1 \vec{q}_1) \delta_2] \right\}, \quad (18)$$

where δ_1 and δ_2 are given by expressions involving v^2 , α and trigonometric functions of x , (x being half the scattering angle ϑ , and $\alpha = 2p/\alpha$). If $\alpha \gg 1$, the cross section is

$$\frac{d\sigma}{d\Omega} = \left(\frac{Ze^2}{2mv^2 \sin^2 x} \right)^2 \frac{(1-v^2)(1-v^2 \sin^2 x)}{(1+\alpha^2 \sin^2 x)^2} \times$$

$$\times \left\{ 1 + Ze^2 v \frac{1+\alpha^2 \sin^2 x}{1-v^2 \sin^2 x} \sin x \left[\pi \left(1 - \sin x - \frac{2\alpha^2}{v^2} \sin x (1-v^2 \sin^2 x) \right) + \right. \right.$$

$$\left. \left. + 2(1-v^2)^{\frac{1}{2}} \frac{\sin^3 x}{\cos x} (\ln \sin x + \alpha^2 (1 - \sin x)) (\vec{\zeta}_1 \vec{n}) \right] \right\}. \quad (22)$$

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For $\alpha = 0$, formula (22) coincides with the well-known formula for scattering cross-section of electrons in a Coulomb field. For $\alpha \ll 1$, another expression for the cross-section is obtained. In case of positron scattering, Ze^2 has to be replaced by $(-Ze^2)$. If a polarized electron beam is scattered, azimuthal asymmetry arises, i.e. dependence of cross-section on azimuth φ . Defining the azimuthal asymmetry by

$$\gamma_1 = \frac{\frac{d\sigma}{d\Omega}(\varphi=0) - \frac{d\sigma}{d\Omega}(\varphi=\pi)}{\frac{d\sigma}{d\Omega}(\varphi=0) + \frac{d\sigma}{d\Omega}(\varphi=\pi)} \quad (25)$$

one obtains

$$\gamma_1 = -Ze^2 v (1-v^2)^{1/2} \frac{1 + \alpha^2 \sin^2 x \sin^2 x}{1 - v^2 \sin^2 x \cos x} \delta_2(\vec{r}, \vec{n}) \quad (26)$$

For the polarization of the scattered electrons one obtains

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$$\vec{\zeta}_f = \vec{\zeta}_i + \frac{(\gamma-1)\sin\theta}{\mu} \{ [a_1(A_0+2A_1) + 2b_1B_1 - 2c_1B_2] \vec{k} + [a_2(A_0+2A_1) + 2b_2B_1 - 2c_2B_2] \vec{l} - 2c_3B_2 \vec{n} \} \quad (29)$$

μ , a , b , c , A and B are given by expressions involving α , δ , p , Z , e , γ and E , where

$$\gamma = \frac{E}{m} = \frac{1}{\sqrt{1-v^2}} \quad (32)$$

$$\vec{k} = \frac{\vec{p}_1}{|\vec{p}_1|}; \quad \vec{l} = [\vec{n}\vec{k}] \quad (33)$$

In the case of scattering of unpolarized electrons, formula (29) reduces to

$$\vec{\zeta}_f = Ze^2v (1-v^2)^{\frac{1}{2}} \frac{\sin^2x}{\cos x} \frac{1 + \alpha^2 \sin^2x}{1 - v^2 \sin^2x} \delta_2 \vec{n} \quad (34)$$

An analysis of formula (34) shows that the polarization and azi-

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mutual asymmetry of electrons scattered by a nucleus with finite radius is smaller than in the case of electrons scattered by a Coulomb field. With increasing α these quantities decrease; for $\alpha = \alpha_0$, they become zero, and with α further increasing, they change sign. It is noted however, that at the points where δ_2 vanishes, the higher Born-approximations have to be taken into account; therefore, the results are only fully reliable for $\alpha < \alpha_0$. The smaller polarization and azimuthal asymmetry in the case of scattering by nuclei of finite size, as compared to point nuclei, is a result of absence of singularities of the interaction potential between electrons and nuclei of finite radius. Hence such a decrease should take place independent of the charge-density distribution in the nucleus. This conclusion is of a general character and does not depend on the use of the second Born-approximation. There are 7 references: 2 Soviet-bloc and 5 non-Soviet-bloc. The references to the English-language publications read as follows: N.F. Mott, Proc. Roy. Soc., A124, 425, 1929; N.S. Sherman, Phys. Rev., 103, 1601, 1956; R. Dalitz, Proc. Roy. Soc., A206, 509, 1951; R.R. Lewis, Phys. Rev., 102, 537,

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Polarization effects...

S/185/60/005/004/001/021
D274/D306

1956.

ASSOCIATION: Fizyko-tehnichnyy instytut AN USSR (Physicotechni-
cal Institute AS UkrSSR)

SUBMITTED: November 19, 1959

Card 6/6

S/185/62/007/004/002/018
D407/D301

AUTHORS: Tishchenko, B. Y., and Kresnin, A. A.
TITLE: Study of properties of light nuclei based on
a generalized model
PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 4,
1962, 349-355

TEXT: The generalized nuclear model is used for determining the equilibrium deformations, spins, and magnetic and quadrupole moments of light nuclei ($4 < A \leq 40$). Calculated and experimental values are compared. The authors are using a method (developed by them earlier) which permits one to carry out the calculations for fairly large values of the deformation parameter ($\delta \approx 0.5$); this compares favorably with S. G. Nilsson's method (Ref. 2: Kgl. Danske Vidensk, Selsk, Mat.-Fys. Medd., 29, No. 16, 1955), which is suitable for small values of δ only. The parameter δ is calculated from the expression for the minimum of the

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Study of properties...

S/185/62/007/004/002/018
D407/D301

total energy of the nucleus. The calculated values of the equilibrium deformations are listed in a table; the corresponding experimental values are not directly determined. Therefore, the comparison is carried out by means of physical quantities which depend on the deformation (spin and magnetic and quadrupole moments). The calculations showed that at the beginning of the filling of the closed shell, the nuclei are prolate spheroids, whereas at the end of the filling they are oblate. Hence, a transition from prolate to oblate nuclei takes place. It is noted that most of the nuclei have not one, but two energy-minima (in the region of positive and negative δ respectively). The calculated and experimental values of the spins of light nuclei are listed in a table. The magnetic moment was calculated by the expression

$$\mu = \frac{1}{I + 1} \left\{ (g_S - g_L) \langle sI \rangle + (g_L - g_R) \langle jI \rangle + g_R \langle I^2 \rangle \right\}, \quad (10)$$

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Study of properties...

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(which was further transformed for that purpose). The quad-
rupole moment was calculated by the expression

$$Q_0 = \langle IMK | \hat{Q}_0 | IMK \rangle_{M=I} \quad (12)$$

The calculated and experimental values of the magnetic and quad-
rupole moments were in agreement for the majority of nuclei;
yet, for B^{11} , O^{17} , and Al^{27} , agreement could only be obtained
for values of δ which were at the less deep minimum. For the
nuclei B^{10} , P^{31} , S^{33} , and Cl^{35} , no satisfactory agreement
with experiment could be obtained with $\kappa = 0.06$. With $\kappa =$
 0.12 , however, the agreement with experiment was good. In con-
clusion, the obtained results show that the generalized model
is applicable to light nuclei. There are 2 tables and 5 refer-
ences: 2 Soviet-bloc and 3 non-Soviet-bloc. The references to
the English-language publications read as follows: Nuclear

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Study of properties...

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Spectroscopy, ed. by Ajsenberg-Selove F., Academic Press, N. Y.,
1960; R. Hofstadter, Rev. Mod. Phys., 28, 252, 1956. ✓

ASSOCIATION: Fizyko-tekhnichnyy instytut AN URSSR (Physico-
technical Institute of the AS UkrRSR), Kharkiv

SUBMITTED: August 24, 1961

Card 4/4

TISHCHENKO, B.I.; KRESNIN, A.A.; INOPIN, Ye.V.

Motion of nucleons in deformed light nuclei. *Izv. AN SSSR.*
Ser. fiz. 26 no.1:138-147 Ja '62. (MIRA 15:2)

1. Fiziko-tekhnicheskij institut AN USSR.
(Nuclear spin)
(Wave mechanics)

L 17020-63

EPF(n)-2/EWT(m)/BDS AFFTC/ASD/SSD Pu-4 AR
S/185/63/008/004/002/015

60

AUTHOR: Kresnin, A. A.

TITLE: A generalized nuclear model; certain questions relating to the theory of β -decay 19

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 4, April 1963, 426-430

TEXT: Using a generalized model of the nucleus, the author computes values of the relative period of the β -decay for certain types of this phenomenon in light nuclei. He correlates experimental data with the model, confirming the applicability of such a model to the description of the properties of light nuclei.

ASSOCIATION: Fizyko-tekhnichnyy instytut AN URSS (Physico-Technical Institute of the Academy of Sciences of the Ukrainian SSR, Khar'kov)

SUBMITTED: September 10, 1962

Card 1/1

TISHCHENKO, B.I.; ERSHIN, A.A.

Determination of single-particle wave functions for light nuclei. Ukr. fiz. zhur. 9 no.3:213-221 Mar 1964.

(MIRA 11:01)

1. Fiziko-tehnicheskyy institut AN UARSS, Khar'kov.

ACCESSION NR: AP4022694

8/0185/64/009/003/0233/0241

AUTHOR: Tishchenko, B. Y. (Tishchenko, B. I.); Kresnin, A. A.

TITLE: On the determination of single-particle wave functions for light nuclei

SOURCE: Ukrayins'kyy fizyohnyy zhurnal, v. 9, no. 3, 1964, 233-241

TOPIC TAGS: single-particle wave function, one-particle wave function, nucleon wave function, nuclear magnetic moment, nuclear quadrupole moment, light nucleus, nuclear quantum number, nuclear deformation perturbation theory

ABSTRACT: Perturbation theory is used to derive formulas for single-particle energy levels and wave functions of nucleons in nuclei with $A \leq 40$ in a deformed axially-symmetric potential, taking into account the interaction between states with different values of principal quantum number N . This is a continuation of previous works (B.I.T., A.A.K., E.V. Inopin, Izv. AN USSR, Ser. Fiz., 26, 138, 1962; B.I.T., A.A.K., (Ukr. Fizyohn. zh. 7, 349, 1962) in which interactions between nucleons of differing N were not considered. Formulas are obtained for computing the magnetic moment, the "unbinding" parameter and the internal quadrupole moment, taking these interactions into account. The corrections, to be sure, are not great, but do increase greatly with an increase of the deformation parameter δ , spin-orbit

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ACCESSION NR: AP4022694

interaction constants kappa and Nilsson parameter mu. It is noted that the electromagnetic transition probabilities (of the E2 type, for instance) between states with different N, which would otherwise be forbidden, are non-zero when this interaction is considered. "The authors consider it their pleasant duty to express deep gratitude to E.V. Inopin and D.V. Volkov for [their] interest in the work and [for their] valuable consultation." Orig. art. has: 23 numbered equations and 6 extensive tables of numerical values of energy corrections for possible combinations of the above-mentioned parameters.

ASSOCIATION: Fizyko-tekhnichnyy instytut, AN UkrSSR, Kharkov (Physico-Technical Institute AN UkrSSR)

SUBMITTED: 07Oct53

DATE ACQ: 06Apr64

ENCL: 00

SUB CODE: PH, NS

NO REF SOV: 003

OTHER: 001

Card 2/2

TISHCHENKO, B.I.; KALISHIN, A.A.; SHELEKO, A.V. [Sheleko, O.V.]

Equilibrium form of light nuclei. Ukr. Fiz. zhurn. 3 no.11:1185-1192
164. (MIRA 17:9)

1. Fiziko-tehnicheskii institut AN UkrSSR, Khar'kov.

INOPIN, Ye.V.; KRESHIN, A.A.; TISHCHENKO, B.I.

Alpha-particle model of the nucleus and electron scattering.
IAd. fiz. 2 no.5:802-809 N '65. (MIRA 18:12)

L 17606-66 EWT(m) DIAAP

ACC NR: AP6002720 SOURCE CODE: UR/0056/65/049/006/1796/1801

AUTHORS: Inopin, Ye. V.; Kresnin, A. A.

ORG: Physicotechnical Institute, Academy of Sciences UkrSSR
(Fiziko-tehnicheskii institut Akademii nauk UkrSSR)

TITLE: Contribution to the theory of the diffraction scattering of particles by nuclei

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 6, 1965, 1796-1801

TOPIC TAGS: elastic scattering, nuclear scattering, alpha interaction, particle diffraction, scattering matrix, differential cross section

ABSTRACT: A method proposed recently by one of the authors (Inopin, ZhETF v. 48, 1620, 1965) for the description of diffraction scattering of particles by composite nuclei, is compared with experiments on the scattering of particles with energies of several tens of MeV, carried out in recent years on a large number of nuclei from various regions of the periodic table. The method leads to a formula with

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ACC NR: AP6002720

five parameters which are expressed in terms of the poles of the scattering matrix, and comparison of the values of these parameters are obtained from experiments on titanium, copper, niobium, molybdenum, and silver, magnesium, and lead point to a good agreement between the theory and experiment. It is concluded that the theory can describe a wide range of data on elastic diffraction processes. Reasonable parameters are obtained for the formula for the differential cross section, for the radii of the nuclei, and for the properties of the surface layer. The method makes it also possible to predict some peculiarities that might appear in the behavior of some nuclei. Orig. art. has: 5 figures, 15 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 04May65/ ORIG REF: 001/ OTH REF: 010

Card 2/2 nst

KRESNYAKOVA, L.V.

Radii of the asterism and convexity for functions with a bounded mean modulus. Izv. AN Arm. SSR. Ser. fiz.-mat.nauk 14 no.4:49-55 '61. (MIRA 14:11)

1. Gor'kovskiy gosudarstvennyy universitet imeni N.I. Lobachovskogo.

(Functions, Modular)

KRESNYAKOVA, L.V.

Regular functions with bounded mean moduli. Dokl. AN
SSSR 147 no.2:290-293 N '62. (MIRA 15:11)

1. Gor'kovskiy gosudarstvennyy universitet im.
N.I. Lobachevskogo. Predstavleno akademikom V.I. Smirnovym.
(Functions)

KRESNYAKOVA, L.V.

Some evaluations for regular functions with a finite mean modulus.
Izv. vys. ucheb. zav.; mat. no.1:94-97 '63. (MIRA 16:5)

1. Gorkovskiy gosudarstvennyy universitet imeni N.I.Lobachevskogo.
(Functions)

GEL'FER, S.S.; KHESHYAKOVA, L.V. (Gor'kiy)

Variational method in the theory of analytic functions with a
bounded mean modulus. Mat. sbor. 67 no.4:570-585 Ag '65.
(MIRA 18:8)

KRESNYAKOVA, Z. V.

~~Lead chloride complexes. I. A. Korshunov and Z. V. Kresnyakova (Gorkii State Univ.). Zhur. Obshchei Khim. (J. Gen. Chem.) 26, 1082-4 (1952). The compn. of the complexes formed between $Pb(NO_3)_2$ at the const. concn. of 0.004 M, in 0.1 N KNO_3 , and increasing amts. of HCl (up to 6.5 N) was det. from the displacement of the polarographic half-wave potential $\epsilon_{1/2}$. With HCl increasing from 0.025 to 6.5 N, $\epsilon_{1/2}$ (at 25°) changes from -0.4 to -0.6 v., and the diffusion current remains const. From the exptl. plot of $\epsilon_{1/2}$ as a function of [HCl], the compn. of the complex ion at [HCl] > 3.0 N is $[PbCl_4]^{2-}$. Between 0.8 and 2.5 N HCl, the predominating ion is $[PbCl_3]^-$, and this ion is further dissoci. at further decreasing [HCl]. Between 3.0 and 6.5 N HCl, the half-wave potential is, empirically, $\epsilon_{1/2} = -0.416 - 0.112 \log [HCl]$. With $\epsilon_{1/2} = 0.4$ v. for the hydrated Pb^{2+} ions (measured directly), the instability const. for $[PbCl_4]^{2-}$ is found ≈ 0.025 . For $[PbCl_3]^-$, the instability const. is found, similarly, ≈ 0.020 . Within the accuracy of the measurements (± 0.005 v.), change of the temp. between 0 and 40° has no effect on $\epsilon_{1/2}$.~~

AUTHORS: Malyugina, N. I., Kresnyakova, Z. V. 75-13-2-18/27

TITLE: Polarographic Determination of Ethyl-Mercuric-Chloride in Granosan (Polyarograficheskoye opredeleniye etilmerkurchlorida v granozane)

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1958, Vol. 13, Nr 2, pp. 250-252 (USSR)

ABSTRACT: The possibility of the reduction of some organo metallic compounds at a mercury- drop electrode has been investigated already for several times (refs 1-3). In this paper the authors investigated the reduction of ethyl mercury chloride (C_2H_5HgCl) at a mercury - drop electrode, to build up upon this a quantitative determination method for this compound in the preparation granosan . The corresponding measurements were performed on a visual polarograph. The reduction was investigated in the following media: HNO_3 , HCl , KCl , KNO_3 , $LiCl$. Thereby it appeared that an 0.2 normal hydrochloric acid solution is suited best for the determination. In this medium ethyl mercury chloride gives clear, well expressed waves at a half wave potential of -4 V with regard to a

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Polarographic Determination of Ethyl-Mercuric-Chloride in
Granosan

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saturated calomel electrode. To obtain a quantitative characteristic of the reduction a calibration line for the reduction in 0.2 normal hydrochloric acid was taken, which is given in the paper. Technical ethyl mercury chloride can contain small quantities of mercury chloride. In the reduction of such an ethyl mercury chloride 2 separate, well expressed waves are obtained, the one of which corresponds to the reduction of mercury chloride and the other with the reduction of the ethyl mercury chloride. In case of percentages of mercury chloride, which are by 10 to 100 times less than the quantity of the ethyl mercury chloride, the diffusion current of the latter is independent of the concentration of mercuric chloride. In case of equal percentage of both components in the solution or even in the case of a surplus of mercuric chloride the diffusion flow of the ethyl mercury chloride increases much with increasing concentration of the mercury chloride. On the other hand, however, ethyl mercury chloride has no influence upon the diffusion flow of mercury chloride. Because in Granosan

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Polarographic Determination of Ethyl-Mercuric-Chloride in
Granosan

75-13-2-18/27

mercury chloride can be present only in small quantities, the joint determination of ethyl mercury chloride and mercury chloride can be performed without errors. Granosane is a finely pulverized mixture of talcum and ethyl mercury chloride. The latter is extracted from granosane for its determination by ethyl alcohol. The present mercury chloride can simultaneously be determined with the ethyl mercury chloride. In polarographing the solutions, which were obtained by extraction of granosan, the wave of mercury chloride did not occur.

The experimental performance of the determination of ethyl mercury chloride according to this method is given in detail. There are 3 figures, 2 tables and 4 references, 2 of which are Soviet

ASSOCIATION: Gor'kovskiy Gosudarstvennyy universitet
(Gor'kiy State University)

SUBMITTED: November 26, 1956

Card 3/3 1. Metalorganic compounds--Reduction 2. Mercury electrodes--Applications
3. Mercury chloride--Determination

KREISOVA, A.S.

Answering queries on the application of paint materials.

Lakokras. mat. i ikh prim. no.5:70 '63.

(MIRA 16:11)

KRESOVA, L.S., inzh.

Using sulfuric acid in the manufacture of "SPS" tanning agent.
Kozh.-obuv.prom. 2 no.8:22-23 Ag '60. (MIRA 13:9)
(Tanning materials) (Sulfuric acid)

KISS, J.

For more mechanized plant treatment in vegetable production.

p. 4 (Allami Gazdasag) Vol. 9, No. 5, May 1957. Budapest, Hungary

30: Monthly Index of European Accession (EEAI) LC, - Vol. 7, No. 1, Jan. 1958

ORVIKU, K., prof.; NURM, E.; KALJO, D.; KINDLAM, M.; MANNIL, R.;
OLLI, V.; KRESS, Rich., red.; KASS, P., tekhn. red.

[Russian-Estonian geological dictionary] Vene-Eesti geoloogia
sõnastik. Koostanud K. Orviku ja teised. Tallinn, Eesti Riiklik
Kirjastus, 1963. 261 p. (MIRA 17:2)

1. Eesti NSV Teaduste Akadeemia. Geoloogia Instituut. 2.
Eesti NSV Teaduste Akadeemia. Geoloogia Instituut (for Kaljo,
Olli, Mannil). 3. Teaduste Akadeemia Keele ja Kirjanduse
Instituut (for Kindlam).

KARAMYAN, A.S. [deceased]; KUZHEYEV, B.I.; KRESS, R.P.; SILIN, Yu.S.;
STUKOV, G.M.; SHCHEBOLEV, V.T.; YARITSYNA, I.A.

Use of the method of associated particles in determining the absolute
of neutrons emitted by the source. Atom energ. 16 no.3:252-253 Mr
'64. (MIRA 17:3)

ACCESSION NR: AP4020334

S/0089/64/016/003/0252/0253

AUTHORS: Karamyan, A.S. (Deceased); Kuzeyev, B.I.; Kress, R.P.;
Silin, Yu. S.; Stukov, G.M.; Shchebolev, V.T.;
Yaritsy*na, I.A.

TITLE: Absolute determination of a number of neutrons emitted by
source, using the associated particle method

SOURCE: Atomnaya energiya, v. 16, no. 3, 1964, 252-253

TOPIC TAGS: absolute determination, absolute neutron determination,
associated particle method, alpha particle, emitted neutron, gra-
phite, neutron determination

ABSTRACT: The method of associated particles is based on a com-
parison of neutron flux from the source being studied with neutron
flux from the reaction $T(d, n) He^4$. Since one α -particle corres-
ponds to each outgoing neutron in this reaction, it is possible to
determine the number of emitted neutrons by the absolute counting
of α -particles. In a medium for which the moderation length is

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ACCESSION NR: AP4020334

less than the diffusion length, it is possible to find such spacing of thermal neutrons from source to detector where the density of thermal neutrons does not depend on the energy of neutrons emitted by the source and is determined only by its intensity. Graphite in the form of a sphere with a 4 m. diameter was used as such a medium. Three curves for 3 different sources are given in the figure in the Enclosure. The point of intersection of curves determines the radius of the efficiency constant for a given device. This distance is 82 cm. To find the number of neutrons being emitted by various sources. it is not necessary to measure the full curves of thermal neutron distribution in the graphite globe. It is sufficient to determine the number of detector readings in the spacing of the efficiency constant. Mean square error of method is about $\pm 1.4\%$. Orig. art. has: 2 figures.

ASSOCIATION: None

SUBMITTED: 18Apr63

DATE ACQ: 31Mar64

ENCL: 01

SUB CODE: NS, PH

NO REF SOV: 001

OTHER: 002

Card 2/3

ACCESSION NR: AP4020334

ENCLOSURE: 01

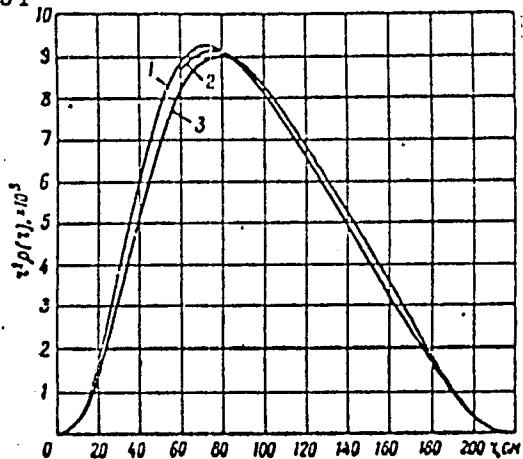


Fig. 1

Space distribution curves for thermal neutrons in graphite sphere:

- 1--for neutrons of Ra-Be source;
- 2 - for neutrons of Po-Be source;
- 3 - for neutrons obtained from $T(d, n)He^4$ reaction

Card 3/3

1970, Moscow

Electromechanical tools from the viewpoint of industrial safety.
Elektrotechnik 19 no. 6:162-170, 1974.

1. Research Institute of Industrial Safety, Revolutionary Trade
Union Movement, Prague.

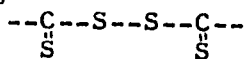
Z/009/61/000/001/006/006
E112/E153

AUTHORS: Kresta, Jiří and Mikl, Oldřich

TITLE: Polarographic Analysis of Tetraethyl-thiuram-
disulfide in Chloroprene Latex

PERIODICAL: Chemický Průmysl, 1961 No.1, pp.52-55

TEXT: Polarographic reduction of compounds which contain
the grouping



has been demonstrated by Proske (Ang.Chem. 53, 550, 1940) who has, however, made no systematic study of the compounds he investigated and confined himself to reporting the feasibility of using the polarograph for the analysis of vulcanisation accelerators. Satisfactory methods for the determination of thiuram in rubber latexes were not known. The present paper describes a reliable and reproducible polarographic analysis for thiuram, which is also applicable to complex latex (chloroprene) mixtures. A Heyrovský model polarograph was used for recording
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Z/009/61/000/001/006/006
E112/E153

Polarographic Analysis of Tetraethyl-thiuram-disulfide in Chloroprene Latex

all polarograms. The supporting electrolyte had the following composition: 0,2M-LiCl, 0,025M-CH₃COONa, 95% CH₃OH and 5% water. Thiuram gives rise to a well-defined half-wave reduction curve at -0,60 V vs. saturated calomel electrode. Using a mercury base as unpolarised electrode, $E_{1/2} = -0,42$ V. The occurrence of an adsorption curve was not established. An investigation was conducted as to whether thiuram could be determined polarographically directly in the latex mixture, containing apart from the chloroprene emulsion also sulfur, sodium sulfide, rosin soaps, pyrocatechole, phenyl- β -naphthylamine, toluene and water, or whether suitable extraction methods have to be devised. Direct extraction proved impracticable. Useful results were obtained by precipitating the latex with simultaneous extraction of thiuram by means of the supporting electrolyte. The chloroprene latex was added, drop by drop, and with rapid stirring to the electrolyte solution (1 ml latex added to 50 ml supporting electrolyte and this solution was used directly for

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Z/009/61/000/001/006/006
E112/E153

Polarographic Analysis of Tetraethyl-thiuram-disulfide in Chloroprene Latex

the polarographic analysis). The solubility of thiuram in the supporting electrolyte was first determined by preliminary tests, amounting to 15.15 g/l at 20.5 °C and 28.5 g/l at 30.0 °C. Using the suggested method, 95% of the total thiuram content was extracted from the reaction mixture. The effect of the other ingredients in the chloroprene latex on the polarogram was studied (without thiuram). The polarogram showed only one wave, that of sulfur, the other components proving polarographically inactive. It was seen that the half-wave potential of sulfur was in great proximity to that of thiuram, the recording of which was therefore difficult. Methods of polarographic analyses of thiuram in the presence of sulfur were studied. Best differentiations were accomplished by the addition of alkalies to the reaction mixture, e.g. 0.003 mol/l KOH. Decomposition of thiuram was negligible. Polarograms showing a solution of thiuram in the supporting electrolyte, without and with the addition of varying amounts of KOH, are illustrated, annotated as follows:

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Z/009/61/000/001/006/006
E112/E153

Polarographic Analysis of Tetraethyl-thiuram-disulfide in Chloroprene Latex

Polarogram of latex, containing 4.5 mg thiuram/ml. 1 - thiuram in supporting electrolyte; 2,3 and 4 - thiuram in supporting electrolyte with increasing quantities of KOH.

It can be seen that the half-wave potential of thiuram remains constant, whereas that of sulfur is moved to more negative values. The reproducibility of the method was determined from 9 analyses of latexes with 7.3 mg thiuram/ml. The error of the method was $\pm 3.6\%$ with a probability of 95%.

There are 8 figures, 1 table and 12 references: 4 German, 1 Norwegian, 3 Soviet, 2 Czech and 2 English.

ASSOCIATION: Kaučuk, n.p., Výzkumný ústav syntetického kaučuku, Gottwaldov
(Kaučuk n.p., Research Institute for Synthetic Rubber, Gottwaldov)

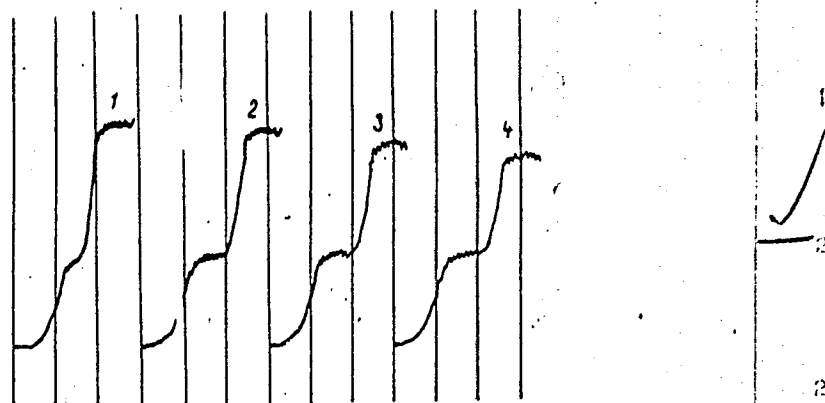
SUBMITTED: March 30, 1960

Card 4/5

Z, 009/61/000/001/006/006
E.12/E153

Polarographic Analysis of Tetraethyl-thiuram-disulfide in Chloroprene Latex

Fig. 8



Obr. 8. Polarogra ny latexu obsahujícího 4,5 mg thiuramu v 1 ml

Card 5/5

L 00713-67 EWP(j) WW/JW/RM

ACC NR: AP6019424

(A)

SOURCE CODE: CZ/0009/66/000/002/0094/0096

AUTHOR: Kresta, Jiri; Ambroz, Ludvik

ORG: Research Institute of Macromolecular Chemistry, Brno (Vyzkumny ustav makromolekularni chemie)

TITLE: Preparation and properties of polyvinyl fluoride--I. Investigation of the physical and chemical properties of vinyl fluoride

SOURCE: Chemicky prumysl, no. 2, 1966, 94-96

TOPIC TAGS: vinyl compound, fluoride, fluid density, gas density, vapor pressure

ABSTRACT: The authors measure the vapor pressure of monomeric vinyl fluoride and the density of liquid and gaseous vinyl fluoride as functions of temperature and compare their data with those in the literature. Vinyl fluoride of 99.9% purity was catalytically synthesized from HF and C₂H₂. The density measurements were made in a pressurized glass capillary dilatometer with a volume of 10.25 ml. The vapor pressure was measured in a 250 ml autoclave. The critical temperature was found to be 55.4°C with a critical density of 0.318 g/ml. Experimental results give a critical pressure of 53.0 kp·cm⁻². Orig. art. has: 3 figures, 3 tables.

SUB CODE: 11, 07/ SUBM DATE: 03Aug65/ ORIG REF: 002/ OTH REF: 005

Card 1/1 vlr

UDC: 679.574

ULBRECHTOVA, Vera; KRESTA, Jiri

Polarographic determination of sulfur in chloroprene latex.
Chem listy 57 no. 12: 1282-1284 D '63.

1. Vyzkumny ustav syntetického kaučuku, Kaučuk, n.p.,
Gottwaldov.

KIGESTA, Vaclav; KOUBIK, Milan

Removal of detergents from waste water by adsorption precipitation. Chem prum 14 no.6:287-290 Je '64.

1. Research Institute of Water Resources Management, Prague.

KRESTA, Vaclav, inz.; KOUBIK, Milan

Determination of the efficiency of phenol waste water purification plants. Vodni hosp 14 no. 3:103-106 '64.

1. Research Institute of Water Resources, Prague.

KRESTA, Vaclav

Elimination of synthetic detergents from industrial waste water.
Chem prum 13 no.6:281-284, Je '63.

1. Vyzkumny ustav vodohospodarsky, Praha.

ZOROL'KOV, I.I.; KRESTAN, E.Sh.; PAPASHNIKOV, L.M.; PARAMONOVA, G.D.;
EFROS, I.N.

Hydrolysis with co-ordinated reaction parameters and the return
of the tail hydrolysate to charge. Gidroliz. i lesokhim.prom.
11 no.7:20-24 '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirovoy promyshlennosti (for all except Efros). 2. Sazezhskiy
gidroliznyy zavod (for Efros)
(Hydrolysis)

KOROL'KOV, I.I.; KRESTAN, E.Sh.; BATIKOV, L.S.; ZOTAGINA, S.A.

Relation between the value of the hydrolysis module for the hydrolyzate yield on the plant production capacity and costs. *Gidroliz. i lesokhim. prom.* 14 no. 1:19-22 '61. (MIRA 14:1)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirtovoy promyshlennosti (for Korol'kov, Krestan). 2. Lobvinskiy gidroliznyy zavod (for Batikov, Zotagina).
(Wood--Chemistry) (Hydrolysis)

KOROL'KOV, I.I.; KRESTAN, E.Sh.; UL'YANOVSKAYA, R.I.

Introducing a hydrolysis method with alternate flow. *Gidroliz.*
1 *lesokhim. prom.* 15 no.7:12-14 '62. (MIRA 16:8)

(Hydrolysis)

KHESAN, E.S.; KURB'ROV, I.I.

Investigating the process of super-extraction of...
hydrolysis. Gidroliz. i lesokha; tom. 18 n. 113-114. (1978:3)

1. Gosudarstvenny nauchno-issledovatel'skiy institut...
i sul'fitno-spirovoy promyshlennosti.

KRESTAN, E.Sh.; KOROL'KOV, I.I.

Investigating the process of sugar separation in case of the use
of a side feeding tube for percolation. *Gidroliz. i lesokhim.* 18
no.2:6-9 '65. (MIRA 18:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirovoy promyshlennosti, Leningrad.

L 51811-65 EWP(c)/ENA(d)/EWP(v)/T/EWP(k)/EWP(h)/EWP(l) Pp-4

ACCESSION NR: AP5016859

CZ/0014/64/000/009/0340/0340

AUTHOR: Krestan, Martin

20
B

TITLE: Synchronizing the stepping of two uniselectors

SOURCE: Sdelovaci tehnika, no. 9, 1964, 340

TOPIC TAGS: automation equipment,¹⁴ static test, electron tube, electronic circuit

ABSTRACT: Four diagrams, each accompanied with a brief description, are presented of various designs of a system of two stepping selectors for acquiring several paths in various types of automated equipment, such as static testers of multi-system tubes. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: EC, DP

NO REF SOV: 000

OTHER: 000

JPRS

Card 1/1

KRESTAN, N.N.; CHAMOV, F.I.; SHCHETININ, V.N.; LEVINSKIY, Yu.V., red.;
ZAZUL'SKAYA, V.F., tekhn. red.

[Album of apparatus and equipment for industrial painting shops]
Al'bum oborudovaniia i apparatury okrasochnykh tsekhov. Moskva,
Goskhimizdat, 1962. 323 p. (MIRA 16:3)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po khimii.
(Painting, Industrial--Equipment and supplies)

YEVGRAFOV, N.M.; KRESTAN, N.N.; PLAKSIN, B.V.; SHAPIRO, G.I.

Automation of the painting of gondola cars. Lakokras, mat. 1 ikh prim. !
no.2:57-62 '63. (MIRA 16:4)
(Railroads--Freight cars--Painting) (Automation)

GRESTEL, H.

Pressure tanks according to the cork bag principle. . . 111.

REVISTA CONSTRUCȚIILOR ȘI A MATERIALELOR DE CONSTRUCȚII. (Asociația Științifică a Inginerilor și Technicienilor din România și Ministerul Construcțiilor și al Materialelor de Construcții) București, Rumania. Vol. 11, no. 3, Mar. 1969.

Monthly List of East European Accessions (EEAI) 19, Vol. 8, no. 9, Sept. 1969.

Encl.

SARATEANU, D.; SURDAN, C.; SORODOC, G.; ANAGHOCSTE, B.; in colaborare cu
BERCAN, A.; KRESTEL, R.

Investigations of ovine para-rickettsial abortion. (Study of the
experimental disease and investigations of active immunization).
Stud. cercet. inframicrobiol. 12 no.4:441-450, '61.

1. Comunicare prezentata la Institutul de inframicrobiologie al
Academiei R.P....
(RICKETTSIAL DISEASES veterinary) (ABORTION veterinary)
(SHEEP diseases)

SURDAN, C.; SARATEANU, D.; SORODOC, G.; ATHANASIU, P.; ANAGNOSTE, B.;
BERCAN, A.; KRESTEL, R.

Experimental study of pararickettsial pneumonia of calves. Studii cerc
inframicrobiol 12 no.4:451-465 '61.

1. Institutul de inframicrobiologie al Academiei R.P.R. (for all except
Bercan, Krestel) 2. Institutul de seruri si vaccinuri Pasteur, Buduresti
(for Bercan and Krestel) 3. Membru al Comitetului de redactie "Studii
si cercetari de inframicrobiologie" (for Sarateanu).

+

KRETEL, Svetlana

Contributions to the study of plants in the Moldavia and Carpathian
(Crisana region). Studi cerc geol nr. 1:1974-86 p. 164

1. Chair of Paleontology of the Faculty of Geology and Geography of
the Bucharest University.

KRESTEL, S.

1. "On the Geologic Volcanism in the upper part of the Malifloro Mountains," Geological Journal sp 7-12.
2. "New Data on the Structure of Malifloro Mountains of Northern Icaria, Greece," Geological Journal sp 1-10.
3. "The Volcanism of the Lower and Upper Limits of the Malifloro Mountains in the Western Carpathians," Journal of Geology sp 1-10.
4. "The Structure of the Malifloro Mountains in the Volcanism of Malifloro," Journal of Geology sp 1-10.
5. "Contributions to the Study of the Upper Volcanic and Tertiary Basins of the Icaria de Malifloro Region (South West of Greece)," Journal of Geology sp 1-10.
6. "Malifloro Data concerning the Volcanism of the Malifloro Mountains," Journal of Geology sp 1-10.
7. "Malifloro Data concerning the Volcanism of the Malifloro Mountains," Journal of Geology sp 1-10.
8. "Contributions to the Study of the Malifloro in the Volcanism of Malifloro," Journal of Geology sp 1-10.
9. "Concerning the System of the Malifloro Mountains," Journal of Geology sp 1-10.
10. "Geological Observations in the Lower Basin of the Icaria," Journal of Geology sp 1-10.
11. "The Plateaus and Erosion Levels of the Carving Carthians and Sub-carthians (the Sector between these included in the West and East in the East)," Journal of Geology sp 1-10.
12. "Plateaus Geology, Geomorphological Observations," Journal of Geology sp 1-10.
13. "Contributions to the Geomorphological Study of the Malifloro Mountains," Journal of Geology sp 1-10.

ZELENIN, N.I.; SHALTYKO, G.Ye.; CHERNYSHEVA, K.B.; TATARKINA, G.V.; FAYNBERG, V. S.; YANKOVSKAYA, T.A.; Primali uchastiye: SOKOLOVA, Z.N.; KULESHOVA, A.A.; KRESTENKO, M.N.; BOBROV, V.V.; PIMENOVA, F.G.

Developing methods for the cold fractionation of shale tar. Part 5.
Using light tar as wood impregnating oil. Khim. i tekhn.gor.sl. i
prod. ikh perer. no.12:278-284 '63. (MIRA 17:2)

1. Leningradskiy inzhenerno-ekonomicheskii institut i Leningradskiy in-
stitut inzhenerov zheleznodorozhnogo transporta.

NIKOL'SKIY, N.P.; KUPRIN, V.A.; KRESTENKO, N.I. (Novosibirsk)

What hampers the shortening of car detention time during loading operations. Zhel.dor.transp. 42 no.7:40-44
J1 '60. (MIRA 13:7)

1. Nachal'nik Tomskoy zheleznoy dorogi (for Nikol'skiy)
 2. Nachal'nik gruzovoy sluzhby Tomskoy zheleznoy dorogi (for Kuprin).
 3. Glavnyy inzhener sluzhby dvizheniya Tomskoy zheleznoy dorogi (for Krestenko).
- (Railroads--Freight cars)

OGORODNIK, N.I. (g.Novosibirsk); FLEYSHMAN, B.A., dotsent (g.Novosibirsk);
KRESTENKO, N.I. (g. Novosibirsk)

Traffic flow organization on the Tomsk Railroad. Zhal.dor. transp.
43 no.2:28-33 F '61. (MIRA 14:4)

1. Nachal'nik sluzhby dvizheniya Tomskoy dorogi (for Ogorodnik).
2. Glavnyy inzh.sluzhby dvizheniya Tomskoy dorogi (for Krestenko).
(Railroads---Rolling stock) (Railroads---Traffic)

Handwritten: Krestev, K.I.

LEYBOV, R.M., professor, doktor tekhnicheskikh nauk; KRESTEV, K.I.,
inzhener.

Experience in operating the RUV-type ("section switching relay")
leakage protection. Bezop.truda v prom. 1 no.8:5-8 Ag '57.
(MLRA 10:8)

1. Donetskiiy industrial'nyy institut im. N.S. Khrushcheva.
(Electric relays)
(Electric currents, Leakage)

LEYBOV, R.M., prof.; KRESTEV, K.I., inzh.

Discriminatory group protection against current leakage in the
electric system of a mine section. Ugol' Ukr. 3 no.6:14-16
Je '59. (MIRA 12:11)

1. Donatskiy industrial'nyy institut.
(Electricity in mining)

KRESTICH, O. [Krestych, O.]

We are increasing capacity by reconstructing and extending livestock buildings. Sil'.bud. 10 no.2:8-10 F '60.

(MIRA 13:5)

1. Predsedatel' kolkhoza imeni Shchorsa Voznesenskogo rayona, Nikolayevskoy oblasti.

(Voznesensk District--Farm buildings)

N.

KRESTIN, F., starshiy nauchnyy sotrudnik

Let's regulate the location and construction of rural libraries.
Sel'. stroi. 15 no.7:29 J1 '61. (MIRA 14:8)

1. Nauchno-issledovatel'skiy institut sel'skogo stroitel'stva.
(Rural libraries)

KRESTIN, F.N., starshiy nauchny; sotrudnik

Modern building for a rural library. Sbor. nauch. soob.
NIIsel'stroia no.3:7-11 '60. (MIRA 15:6)
(Rural libraries)

MARKOV, L.I.; ISTOMIN, G.V.; KRESTIN, G.I.; KESSEL', I.V.;
POLYANTSEV, V.A., red.

[Guzeripl' Logging Camp]Guzeripl'skii lespromkhoz. [n.p.]
TSentr. nauchno-issl. in-t mekhanizatsii i energetiki les-
noi promyshl. 1962. 5 p. (MIRA 16:4)
(Guzeripl' region--Lumbering)

L 33054-66 EWT(m)/EWP(w)/T/EWP(t)/ETI JD

ACC NR: AP602/171

SOURCE CODE: UR/0369/66/002/001/0010/0014

AUTHOR: Yaroma, S. Ya. (Editorial colleague); Krestin, G. S. H3
B

ORG: Physicomechanics Institute, AN UkrSSR, L'vov (Fiziko-mekhanicheskiy institut AN UkrSSR)

TITLE: Determination of the modulus of cohesion of brittle materials by compression of notched discs

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 1, 1966, 10-14

TOPIC TAGS: test method, compressive strength, brittleness, tensile test, shear stress, stress analysis, cyclic load, flat plate model

ABSTRACT: A solution to the problem of the limit equilibrium of a disc with a notch placed symmetrically relative to the center, compressed by two forces directed along the axis of the notch. The solution is used as the basis of a method for determination of the modulus of cohesion K of brittle materials for which experimentation by tensile testing of ordinary flat notched specimens is often very difficult. In the solution, the method of successive approximations is used to solve the problem of the stress state of the disc at the ends of the notch. To solve the problem of determining the modulus of cohesion, samples in the form of notched cylinders are compression tested, and the breaking load is substituted in the following formula: $\pi \lim_{r \rightarrow 0} \sqrt{r} \sigma_y(r, P_{kp}) = K$,

($P_{kp} = P_{or}$) to determine K . The authors have used this method with samples of concrete. Ye. I. Perederiyenko took part in the preparation and conducting of the experiments. Orig. art. has: 2 figures and 11 formulas. [JPRS]

SUB CODE: 20 / SUBM DATE: 24Apr65 / ORIG REF: 004

Card 1/1 *pld*

0975 1761

-KRESTINA, Irina Fedorovna; BOLDYSHEVA, Margatira Nikolayevna;
FEDOTOVSKIY, A.P., red.; SYCHEVA, V.A., tekhn. red.

[Fur farmers on the "Tundra" Collective Farm] Zverovody
kolkhosa "Tundra". Murmansk, Murmanskoe knizhnoe izd-vo
1961. 33 p. (MIRA 16:6)
(Murmansk Province--Fur farming)

KRESTININ, N.; YAKUBOVICH, A., inzh.

New asbestos cement products. Stroitel' no.10:15-18 0 '58.

(MIRA 11:11)

1. Glavnyy inzhener zamestitel' direktora Nauchno-issledovatel'skogo
instituta Asbesttsement.

(Asbestos cement)

RAMEYEV, M.K.; KRESTININ, V.A.; RASHCHEPKIN, K.Ye.

Mechanical application of repair coatings on pipelines. Transp. i
khran. nefiti i nefteprod. no.8:25-26 '65. (MIRA 18:9)

1. Nauchno-issledovatel'skiy institut po transportu i khraneniyu
nefti i nefteproduktov.

KRESTININ, V.M., inzh.

Equipment for applying glue on wallpaper [Suggestion by V.M.
Krestinin]. Rats. i izobr. predl. v stroi. no.6:62-66 '58.

(MIRA 11:10)

(Paper hanging--Equipment and supplies)

STOYANOV, K., prof.; KRESTINOV, G., prof.; SAYEV, S., doktor

Our experience in the reanimation of patients from a state of
clinical death. Khirurgiia 39 no.9:10-14 S'63 (MIRA 17:3)

1. Iz kafedry khirurgii Instituta usovershenstvovaniya vrachey
(dir. - prof. K. Stoyanov) i kafedry voyenno-polevoy khirurgii
Vysshego voyenno-meditsinskogo instituta (nachal'nik - prof.
G. Krestinov), Bolgariya.

KRESTINSKAYA, N.N.; MEYTINA, R.A.

Changes in the functions of external respiration in patients
with tumors of the cardia and esophagus. Grud. khir. 6 no.4:91-
93 J1-Ag '64. (MIRA 18:4)

1. Otdeleniye khirurgii pishchevoda (zav. - prof. Yu.Ye.Berezov),
laboratoriya funktsional'noy diagnostiki (zav. - kand.med.nauk
G.G.Gel'shteyn) Instituta serdechno-sosudistoy khirurgii (dir. -
prof. S.A.Kolesnikov, nauchnyy rukovoditel' - akademik A.N.
Bakulev) AMN SSSR, Moskva. Adres avtorov: Moskva, V-49, Leninskiy
prospekt Institut serdechno-sosudistoy khirurgii.

KRESTINSKAYA, T.V.

Receptors of the mammary gland. Arkh. anat., Moskva 29 no.4:54-58
July-Aug 1952. (CML 23:2)

1. Of the Department of Morphology of the Nervous System (Head --
Corresponding Member of the Academy of Medical Sciences USSR Prof. N.G.
Kolosov), Institute of Physiology imeni I. P. Pavlov, Academy of Sciences
USSR.

Krestinskaya, T.V.

USSR/Medicine - Histology

Card 1/1 Pub. 22 - 19/45

Authors : Krestinskaya, T. V.

Title : Effect of Roentgen rays on the nervous elements of the cornea

Periodical : Dok. AN SSSR 103/2, 243-246, Jul 11, 1955

Abstract : A study of the effect of Roentgen rays on the peripheral innervation of the cornea is presented. Rats were used for the study. Nine references: 1 USA, 1 Brit., 1 Germ. and 6 USSR (1889-1952). Illustrations.

Institution : The First Leningrad Medical Institute imeni I. P. Pavlov

Presented by : Academician K. M. Bykov, February 28, 1955

AUTHOR:

Krestinskaya, T.V.

20-1-14/44

TITLE:

An Analysis of Radiation Damage Caused to the Eye Cornea
(Analiz lucheвого povrezhdeniya rogovitay glaza)

PERIODICAL:

Doklady AN SSSR, 1957, Vol. 116, Nr 1, pp. 52 - 55 (USSR)

ABSTRACT:

The present paper investigates the character of the reaction of the epithelium and the fibrous-like basis of the cornea caused by the influence exercised by X-rays. It is further intended to study the development with respect to time of these reactive changes and their dependence upon the intensity of the irradiation. The conjunctiva of white mice served as experimental object. Altogether 85 animals were investigated, 21 of which were not irradiated. Only the right eye of all experimental animals was irradiated. The screen-off left eyes of the experimental animals and the eyes of the not irradiated animals served as control objects. The conditions for irradiation are given. Irradiation took place once with doses of 3600, 1800 and 750 r and a dosage output of 416 r/min. Samples for investigation were taken after 1, 5, 10, 15, 20, 30, 45, 60, and 90 days after irradiation. Irradiation of the cornea with

Card 1/3

An Analysis of Radiation Damage Caused to the Eye Cornea

20-1-14/44

3600 r already in the first days after irradiation causes a certain increase of the basis layer of the cells of the epithelium of the peripheric zone of the cornea and a certain expansion of the vessels within the domain of the limbus. 15 days after irradiation very characteristic changes developed in the epithelium of the cornea. On about the 5th day the cells of the basis layer in the peripheric zone of the cornea become much larger. On this occasion also cells with 2 and more cores are formed. Parallel to this disorientation of all layers of the epithelium in this zone is observed. Somewhat later the extremely large and multicore cells form also in the intermediate and in the central zone. Already on the 15th day after irradiation residues of the anomalous cells are found in the surface layers of the central zone. In all other parts of the cornea epithelium they disappear more quickly. About 90 days after irradiation the state is nearly normal again, though, however, a certain irritation remains. The process of recovery takes place more quickly in the case of irradiation with doses of 1800 r and 750 r. There are 4 figures, and 15 references, 10 of which are Slavic.

Card 2/3

An Analysis of Radiation Damage Caused to the Eye

14/44

- ASSOCIATION: First Leningrad Medical Institute named I.P. Pavlov
(Pervyy Leningradskiy meditsinskiy institut im. I.P. Pavlova)
- PRESENTED: May 20, 1957, by K.H. Bykov, Academician
- SUBMITTED: May 10, 1957
- AVAILABLE: Library of Congress

Card 3/3

NATOCHIN, Yu.V.; KRESTINSKAYA, T.V.; BRONSHTEYN, A.A.

Localization of the action of desoxycorticosterons in the nephron
of the mammalian kidney. Dokl.AN SSSR 132 no.5:1177-1178
Je '60. (MIRA 13:6)

1. Institut evolyutsionnoy fiziologii im. I.M.Sechenova Akademii
nauk SSSR. Predstavleno akademikom V.A. Engel'gardtom.
(KIDNEYS) (CORTICOSTERONS)

BRONSHTEYN, A.A.; KRESTINSKAYA, T.V.

Cytochemical study of the activity of succinic dehydrogenase in the mitochondria of quiescent and excited neurons of the spinal ganglia. Arkh. anat. gist. i embr. 40 no.5:39-46 Mr '61. (MIRA 15:4)

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Adres avtorov: Leningrad, K-21. Staro-Pargolovskiy pr., 52,

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AN SSSR G.M. Kreps) AN SSSR i Institut eksperimental'noy meditsiny
(dir. - deystvitel'nyy chlen AMN SSSR prof. D.A. Biryukov) AMN
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SECTIONAL AND PROPERTIES INDEX

1-1

63c

Adsorption processes. II. V. N. KRESTIN-SHALA (J. Russ. Phys. Chem. Soc., 1929, 61, 2111-2122).—Adsorption of crystal-violet and of benzoic and acetic acids on wood charcoal is an exceedingly slow process, which does not attain equilibrium after the lapse of 3 days. The velocity of adsorption is conditioned by the velocity of diffusion of the adsorbed substance into the pores of the adsorbent. As a result, the influence of variable factors, such as mass of adsorbent taken, volume of solution, and time, on the value of x/m depends on changes in the velocity of diffusion. Benzoic acid is irreversibly adsorbed on wood charcoal, so that adsorption equilibrium is not attained for such systems; ethyl alcohol provokes only partial elution of adsorbed acid. Equimolecular quantities of acetic acid and of benzoic acid are adsorbed at limiting saturation of the adsorbent.

H. TRUSKOWSKI.

METALLURGICAL LITERATURE CLASSIFICATION

FROM SYNONYMS	SYNONYMS	RELATIONS	RELATIONS
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z	A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

