"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKHVARGER, F. D.

PA 152T4

USSR/Chemistry - Microchemistry Oct 49
Air Analysis

"Use of Electrolysis for Determination of Microquantities of Lead, Copper, and Zinc During Investigations of the Air Medium," F. D. Shikhvarger, Cen Sci Res Sanitation Inst, 6¼ pp

"Zavod Lab" Vol XV, No 10 p.1165-71

Simultaneous presence of microquantities of more than one metal (or its vapor) in air or dust during colorimetric or nephelometric analysis presents difficulties not encountered when only one metal is present. Author developed apparatus

[redacted] 152T4

USSR/Chemistry - Microchemistry (Contd) Oct 49

for accurate and rapid separation of microquantities of lead, copper, and zinc by electrolysis followed by colorimetric or nephelometric analysis. Gives photograph of apparatus.

[redacted] 152T4

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

MOVSUMZADE, M.M.; SHIKHZAMANOVA, S. [deceased]

Hypochlorite oxidation of olefins. Uch.zap.AGU no.3:33-40 ' 58.
(MIRA 12:1)

(Olefins) (Calcium hypochlorite) (Oxidation)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

MOVSUMZADE, M.M.; SHIKHZAMANOVA, S.G. [deceased]

Effect of chloride of lime on vinyl ethyl and vinyl isopropyl ethers. Azerb.khim.zhur. no.1:17-24 '60. (MIRA 14:9)
(Calcium hypochlorite) (Ethers)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

MOVSUMZADE, M.M.; SHIKHZAMANOVA, S.G. [deceased]

Action of calcium hypochlorite on vinyl butyl and vinyl phenyl ethers. Azerb.khim.zhur. no.2:75-81 '60. (MIRA 14:8)
(Ether) (Calcium hypochlorite)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

MOVSUMZADE, M.; SHIKHZAMANOVA, S. [deceased]; MELIKOV, T.

Action of chloride of lime on vinyl ethers. Azerb.khim.zhur. no.4:57-62 '60. (MIRA 14:8)
(Vinyl ether) (Calcium hypochlorite)

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124-57-2-2489D

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 2, p 137 (USSR)

AUTHOR: Shikida, I. F.

TITLE: The Seismically Excited Oscillations of a Building (Kolebaniya zdaniy pri seysmicheskom vozdeystvii)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Physical-Mathematical Sciences, presented to the Geofiz. in-t AN SSSR (Institute of Geophysics, Academy of Sciences, USSR), Moscow, 1956

ASSOCIATION: Geofiz. in-t. AN SSSR (Institute of Geophysics, Academy of Sciences, USSR), Moscow

1. Earthquakes 2. Structures--Oscillations

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

24375

S/142/60/003/005/002/015
E192/E382

7,2550

AUTHORS: Davydov, S.I. and Shikin, G.A.

TITLE: Transfer of Signals of Varying Frequencies Through a Tunable Selective System

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Vol. 3, No. 5, pp. 435 - 444

TEXT: Signals of varying frequency and filters which are used for the separation of these signals are becoming of importance in radio-engineering; the filters are characterised by the fact that their resonant frequency is variable; such filters can be referred to as tunable selective filters. The transfer of such signals through "fixed" selective filters has been analysed by a number of authors but the problem of a tunable filter has not been investigated. At attempt is made in the following to study this problem. The basic formula in the analysis is the Duhamel integral:

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Transfer of Signals ....

$$u_{\text{вых}}(t) = \int_0^t e(s)r(t-s)ds \qquad (1)$$

where $u_{\text{вых}}(t)$ is the voltage at the output of the selective system,
$e(t)$ is the input voltage and
$r(t-s)$ is the impulse response of the system, the impulse being applied at a time $t = s$.

For a Gaussian selective filter with variable resonance frequency the impulse response is in the form (Ref. 8 - N.M. Sedyakin, Radiotekhnika i elektronika, 1959, Vol. 4, No. 3)

$$r_\partial(t) = \begin{cases} K_0\sqrt{\frac{\alpha}{\pi}}\exp\left[-\alpha(t-t_0)^2 + j\int_0^t \omega_0(\xi)d\xi\right] & \text{at при } t>0, \\ 0 & \text{"} \quad t<0, \end{cases} \qquad (3)$$

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Transfer of Signals ....

provided the impulse is applied at time $t = 0$; in the above,

K_o is the transfer coefficient of the system at the resonance frequency,

α is a parameter determining the bandwidth Δf of the receiver at the level e^{-1} so that

$$\Delta f = 2\sqrt{\alpha/\pi} ,$$

t_o is the delay time of the system, and

$\omega_o(t)$ is the instantaneous value of the resonance frequency of the system.

If the resonance frequency of the Gaussian filter varies linearly at a rate γ , Eq. (3) can be written as

$$r_\partial[(t-s), s] = K_0\sqrt{\frac{\alpha}{\pi}}\exp\left\{-\alpha(t-t_0-s)^2+j\left[\omega_0(t-s)+\pi\gamma(t^2-s^2)\right]\right\}, \qquad (4)$$

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The input signal is assumed to be in the form

$$e(t)=\begin{cases}E(t)\exp[i(\omega_c t+\pi\vartheta t^2+\theta)] & \text{at } t>0;\\ 0 & \text{при } t<0,\end{cases} \qquad (5)$$

where $E(t)$ is the envelope of the input voltage,
ϑ is the rate of change of the input signal frequency,
θ is the initial phase of the input voltage.

The formula for the output voltage can now be written as

$$u_{\text{вых}}(t)=K_0\sqrt{\frac{\alpha}{\pi}}\int_0 E(s)\exp\left\{-\alpha(t-t_0-s)^2+j\left[(\omega_c-\omega_0)s-\right.\right. \qquad (6)$$
$$\left.\left.-\pi(\gamma-\vartheta)s^2+\omega_0 t+\pi\gamma t^2+\theta\right]\right\}ds,$$

where ω_0 and ω_c are the resonance frequency of the system and the signal frequency at the instant $t = 0$.

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In general, the integral in Eq. (6) can be expressed in terms of the tabulated functions of the probability integral $W(Z)$, where Z is a complex argument. It can now be assumed that the envelope of the input signal is in the form:

$$E(t) = E_o \exp\left[a + bt + ct^2\right] \tag{8}$$

where E_o is the amplitude and

a, b, c are constant coefficients.

The final formula for the output voltage can approximately be expressed as

$$u_{\text{вых}}(t) = \frac{E_0 K_0}{2}\sqrt{\frac{\alpha}{\alpha - c + j\pi(\gamma - \delta)}}\, W(Z_1)\exp[-\alpha(t-t_0)^2 + a + j(\omega_0 t + \pi\gamma t^2 + \theta)]. \tag{10}$$

where Z_1 is given by

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$$Z_1 = \frac{2a(t-t_0)+b+j(\omega_c-\omega_0)}{2\sqrt{-a+c-j\pi(\gamma-\vartheta)}}, \qquad (9a)$$

These formulae can be used for the analysis of various cases. If a signal step of variable frequency is applied to the filter, it can be assumed that in Eq. (10) a = b = c = 0 . In this case, the output voltage is given by

$$u_{\text{вых}}(t) = \frac{E_0 K_0}{2\rho} e^{-\alpha(t-t_0)^2} e^{j(\omega_c t + \pi\gamma t^2 + \theta - \psi)} \cdot W\left[\frac{p - j\sqrt{\alpha}(t-t_0)}{\rho} e^{-j\psi}\right]. \qquad (11)$$

This formula was used to construct the envelopes of the output voltage for various values of the parameter p . Some of these envelopes are illustrated in Fig. 1, where

$$\delta = (t - t_0 - t')/\tau_0/2 ,$$

where $t' = (\omega_c = \omega_0)/2\pi(\gamma - \vartheta)$; τ_0 represents the

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duration of the impulse response of the system. If a rectangular radio pulse of varying frequency is applied to the filter, the input signal is in the form:

$$e(t) = \begin{cases} E_0 e^{j(\omega_c t + \pi \alpha t^2 + \theta)} \text{ при } 0 \leqslant t \leqslant \tau_1; \\ 0 \quad \text{остальных } t, \end{cases} \qquad (14)$$

remaining

where τ_1 is the duration of the input signal.

This signal can be represented as a sum of two continuous voltages $e_1(t)$ and $e_2(t)$, one of which is applied at a time $t = 0$, while the second one is in antiphase and is switched-on at $t = \tau_1$. The output signal is therefore given by the superposition of two functions of the type represented by Eq. (11). By using the resulting formulae, it was possible to evaluate the envelopes of the output signal and these are illustrated in Fig. 3. If the input signal is in the form of a Gaussian pulse which is represented

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by:

$$E(t) = E_o e^{-\beta(t-t_1)^2} \qquad (16)$$

where β is a parameter determining its duration τ_1, the output voltage is shown to be in the form:

$$u_{\text{вых}}(t) = \frac{E_0 K_0}{\rho} e^{-h_0^2} \cdot e^{-\frac{[\sqrt{\alpha}(t-t_0-t_1)h_1-h_2]^2}{\rho^2}} e^{i[\omega_0 t+\pi\gamma t^2+\theta-\psi+\varphi(t)]}, \quad (19) \qquad (19)$$

where p_o is the relative detuning between the frequency of the system ω_c' at time $t = t_1$. On the basis of Eq. (19) it is easy to determine the maximum amplitude of the output pulses, their duration and the instantaneous frequency of the output signal.

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E192/E382

Transfer of Signals ....

There are 7 figures and 9 references: 7 Soviet and 2 non-Soviet. The two English-language references are:
Ref. 6 - G. Hok, J. Appl. Phys., 1948, 19, No. 3 and
Ref. 7 - H.W. Batten, R.A. Jorgenson, A.B. Macnee and W.W. Peterson, PIRE, 1954, 42, No. 6.

ASSOCIATION: Kafedra teoreticheskoy radiotekhniki Leningradskogo elektrotekhnicheskogo instituta svyazi im. M.A. Bonch-Bruyevicha (Chair of Theoretical Radio-engineering of Leningrad Electrotechnical Telecommunications Institute im. M.A. Bonch-Bruyevich)

SUBMITTED: July 13, 1959

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

ACC NR: AP6036756 SOURCE CODE: UR/0020/66/171/001/0073/0076

AUTHOR: Shikin, I. S.

ORG: Scientific Research Institute of Mechanics of the Moscow State University im. M. V. Lomonosov (Nauchno-issledovatel'skiy institut mekhaniki Moskovskogo gosudarstvennogo universiteta)

TITLE: Homogeneous anisotropic cosmological model with magnetic field

SOURCE: AN SSSR. Doklady, v. 171, no. 1, 1966, 73-76

TOPIC TAGS: cosmology, gravitation, Maxwell equation, space time

ABSTRACT: The article considers a homogeneous axially-symmetrical solution of Einstein's gravitation equation and Maxwell's equations for the case when the space is filled with ideal substance, and a magnetic field directed along the symmetry axis is present. The chosen co-moving system of space-time coordinates is one in which the substance is at rest. The co-moving system is at the same time synchronous, and the matter moves along geodetics. The presence of the magnetic field is manifest in the space-time geometry and greatly influences the character of the metric. The case of closed and open model for dustlike matter is considered in detail. Parametric solutions are obtained for the open, the plane, and the closed models of the universe. The solution has the form of a trochoid in the presence of a magnetic field and a

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ACC NR: AP6036756

cycloid in the absence of a magnetic field. The constants of the parametric equations are determined. The results can be extended to include the case when there is no matter. This report was presented by Academician L. I. Sedov 20 January 1966. Orig. art. has: 22 formulas.

SUB CODE: 20/ SUBM DATE: 17Jan66/ ORIG REF: 005

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SOV/20-122-1-8/44

10(7)

AUTHOR: Shikin, I. S.

TITLE: On the Exact Solutions of the Equations of One-Dimenisonal Gas Dynamics With Shock Waves and Detonation Waves (O tochnykh resheniyakh uravneniy odnomernoy gazodinamiki s udarnymi i detonatsionnymi volnami)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 33-36 (USSR)

ABSTRACT: L. I. Sedov (Ref 1) found an exact solution of the equations of the one-dimensional non-steady motion of an ideal perfect not heat-conductive gas in which the velocity v at any moment t is a linear function of the distance r from the center, from the axis, or from the symmetry plane. The expressions for this solution are given explicitly. Keller (Ref 2), V. P. Korobeynikov, and Ye. V. Ryazanov (Ref 5) connected this solution with a shock wave which propagates in a gas at rest. The present paper describes a more general way of connecting the above mentioned solution with a shock wave or detonation wave which propagates in a gas at rest (constant initial pressure p_1 and initial density $\varrho_1(r)$.

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On the Exact Solutions of the Equations of One-Dimensional Gas Dynamics With Shock Waves and Detonation Waves

The shape of the function $\varrho_1(r)$, that of the function $\varphi(\mu r)$ and the law for the motion of the discontinuity surface will be determined from the conditions on the shock wave or detonation wave. 1) The flow behind the shock wave may be described by the aforementioned formulae. The corresponding conditions for the shock wave are explicitly given, and an equation for the arbitrary function $\varphi(\mu r_2)$ is deduced. By solving this equation, the pressure behind the shock wave and the radius of the shock wave may be determined. An expression is given also for the density behind the shock wave. 2 special cases are then investigated. The solution obtained may be applied to point explosions in a medium of a certain initial density and of an initial counterpressure. This solution may also be applied to piston problems. Finally, a numerical example is discussed in short. The author thanks L. I. Sedov for suggesting this problem and for his interest in this paper. There are 5 references, 4 of which are Soviet.

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SOV/20-122-1-8/44

On the Exact Solutions of the Equations of One-Dimensional Gas Dynamics With Shock Waves and Detonation Waves

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: April 26, 1958, by L. I. Sedov, Academician

SUBMITTED: April 24, 1958

Card 3/3

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244300

AUTHOR: Shikin, I. S.

TITLE: General theory of stationary motions in relativistic hydrodynamics

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 2, 1962, 296-298

TEXT: The author considers relativistic stationary adiabatic motions of an ideal gas with an entropy varying from streamline to streamline. He demonstrates that each such motion can be reduced to a non-relativistic motion of a certain "auxiliary" gas. The components $\underline{v}_\alpha = wu_\alpha/mcn$ (w is the heat function, n the number of particles in the unit proper volume) of the "pseudo-velocity" are introduced due to I. M. Khalatnikov (ZhETF, 27, 529, (1954)) and F. I. Frankl' (ZhETF, 31, 490 (1956)). The Mach number $M = \sqrt{v_\alpha^2}/\omega$ (v_α is defined by the relation $u_\alpha = v_\alpha/c\sqrt{1 - v_\alpha^2/c^2}$) of the original gas and the Mach number $\tilde{M} = \sqrt{\underline{v}_\alpha^2}/a$ of the auxiliary gas are

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General theory of stationary...

interrelated by $\tilde{M}^2(1 - M^2\omega^2/c^2) = M^2(1 - \omega^2/c^2)$, where ω and a are the sonic velocities of the original and the auxiliary gas, respectively. $M < 1$ implies $\tilde{M} < 1$, and conversely. The results allow to apply the non-relativistic theorem of Tsemplen (cf. R. V. Polovin, ZhETF, 36, 956 (1959)) to relativistic hydrodynamics. L. I. Sedov is thanked for assistance. There are 8 references: 7 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: A. H. Taub, Phys. Rev., 74, 328 (1948).

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: August 28, 1961, by L. I. Sedov, Academician

SUBMITTED: August 15, 1961

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AUTHOR: Shikin, I. S.

TITLE: An interpretation of nonsteady relativistic hydrodynamics in the Minkowski space

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 142, no. 3, 1962, 564-567

TEXT: The author considers a one-dimensional plane nonsteady relativistic flow of an ideal gas. Such a motion can be regarded as a plane-parallel steady non-relativistic flow of an auxiliary gas (cf. I. S. Shikin, DAN, 142, No. 2 (1962)). If the entropy of the gas is constant, there is a linear equation due to I. M. Khalatnikov (ZhETF, 27, 529 (1954)), which agrees with Chaplygin's equation for the potential of the flow of the auxiliary gas (cf. L. D. Landau, Ye. M. Lifshits, Mekhanika sploshnykh sred - Mechanics of dense media -, M., 1954). In this paper, an analogous equation is derived for the case of variable entropy. Starting from the equations

$$n\frac{d}{ds}\left(\frac{w}{n}u_k\right)=-\frac{\partial p}{\partial x_k}, \quad (1) \qquad \frac{d}{ds}\left(\frac{w}{n}\right)-\frac{1}{n}\frac{dp}{ds}=0, \quad (2) \qquad \frac{\partial(nu_k)}{\partial x_k}=0. \quad (3)$$

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($k = 1,4$), the author introduces the following notations: ϑ for the angle between the velocity of the auxiliary gas flowing in the (x_1, x_4) plane, and the x_4-axis, ψ for the stream function, $\eta = i\vartheta$, $1/n = z'(\psi)\zeta(p)$, $\zeta(p) = \exp\int(w'(p) - 1)w^{-1}dp$. The result reads

$$(\omega^2/c^2)z_{yy} - (1 - \omega^2/c^2)z_y - z_{\eta\eta} = 0,$$

where ω is the sonic velocity in the relativistic gas and $y = \ln(w(p)\zeta(p))$. K. P. Stanyukovich (DAN, 139, No. 3 (1961)) is referred to. There are 7 references: 6 Soviet and 1 non-Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Moscow State University imeni M. V. Lomonosov)

PRESENTED: September 15, 1961, by L. I. Sedov, Academician

SUBMITTED: September 7, 1961

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Pd-1/Pe-5/Pi-4/Ps-4/Pab-10 IJP(q)/AEDC(a)
ACCESSION NR: AP5001978 S/0020/64/159/006/1240/1243

AUTHORS: Shikin, I. S.

B

TITLE: Riemann waves in relativistic magnetohydrodynamics

SOURCE: AN SSSR. Doklady, v. 159, no. 6, 1964, 1240-1243

TOPIC TAGS: relativistic magnetohydrodynamics, magnetohydrodynamic equation, Riemann wave, Alfven wave, entropy wave, magnetosonic wave

ABSTRACT: General magnetohydrodynamic equations are considered for a nonviscous non-heat-conducting substance with ideal conductivity and for simple Riemann waves. The equations considered are the energy-momentum conservation law, the induction equation, and the equation for ideal electric conductivity. The heat function is assumed to be either dependent on the pressure and on the number of particles, in which case the system of magnetohydrodynamic equations is not closed and must be supplemented by the particle-number con-

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ACCESSION NR: AP5001978

servation law, or a function of the pressure only, in which case the magnetohydrodynamic equations constitute a closed system. The propagation of a Riemann wave is analyzed for both types of heat functions in question. The various types of resultant waves are described. These are tangential waves, tangential discontinuities, entropy waves, Alfven waves, and magnetosonic waves, the conditions for the occurrence of which are defined briefly. This report was presented by L. I. Sedov. Orig. art. has: 37 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut mekhaniki Moskovskogo gosudarstvennogo universiteta im. M. V. Lomonosova (Scientific-Research Institute of Mechanics, Moscow State University)

SUBMITTED: 01Jun64 ENCL: 00

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Pe-5/Ps-4/Pi-4 IJP(c) GS UR/0000/64/004/000/0005/0013
ACCESSION NR: AT5009748

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B+1

AUTHOR: Gogosov, V.V.; Shikin, I.S.

TITLE: Some problems of relativistic magnetohydrodynamics

SOURCE: Soveshchaniye po teoreticheskoy i prikladnoy magnitnoy gidrodinamike. 3d, Riga, 1962. Voprosy magnitnoy gidrodinamiki (Problems in magnetic hydrodynamics); doklady soveshchaniya. v. 4. Riga, Izd-vo AN LatSSR, 1964, 5-13

TOPIC TAGS: shock wave, relativistic magnetohydrodynamics, magnetohydrodynamic shock wave

ABSTRACT: F. Hoffman and E. Teller were the first to formulate the relationships existing within shock waves of relativistic magnetohydrodynamics (Phys. Rev., 1950, 80, 692). A. I. Akhiyezer and R. V. Polovin utilized evolutionary considerations to prove that there exist fast and slow magnetohydrodynamic shock waves (ZhETF, 1959, 36, 6, 1845) without solving, however, the relativistic equations. The present paper shows how one can solve these equations by choosing an appropriate coordinate system (the magnetic field and the velocity are within the same plane perpendicular to the plane wave front of the shock wave) and then

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applying the known nonrelativistic method for the solution of shock equations, developed earlier by I. Bazer and W. B. Ericson (Astrophys. J., 1959, 129, 3, 758). Orig. art. has: 22 formulas and 1 figure.

ASSOCIATION: None

SUBMITTED: 11Aug64 ENCL: 00 SUB CODE: ME

NO REF SOV: 010 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIN, I.S.

Riemann waves in relativistic magnetohydrodynamics. Dokl. AN SSSR 159 no.6:1240-1243 D '64 (MIRA 18:1)

1. Nauchno-issledovatel'skiy institut mekhaniki Moskovskogo gosudarstvennogo universiteta. Predstavleno akademikom L.I. Sedovym.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

1. SHIKIN, N.I.; NOVIKOV, S.S.; BERDNIKOVA, N.G.

2. USSR (600)

4. Alkanes

7. Contact-catalytic conversion of alkanes and cyclanes at higher temperature and increased hydrogen pressure, N.I. Shikin, S.S. Novikov, N.G. Berdnikova, Dokl. AN SSSR 89 no. 6, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953. Unclassified.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIN, P. F.

Rubber Abst.
Vol. 32 No. 1
Jan. 1954
Vulcanized Natural Rubber

3
① Mate

370. Acid process for the separation of rubber from artificial leather. P. F. SHIKIN. *Legkaya Prom.*, 1949, 9, No. 7, 25; *Chem. Zentr.*, 1950, II, 2880; *Chem. Abs.*, 1953, 47, 9043. The following procedure gives the rubber content of artificial leather insoles. Heat a 10-g. sample with 100 cc. 15% sulphuric acid for 2 hr. on a water bath; after washing with water, boil the residue for 15 min. with 10% caustic soda and then wash until the wash water is neutral to phenolphthalein. The loss of weight when this residue is ashed is equal to the rubber content of the sample. 64X2.42

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIN, S. S.

"Influence of Certain Natural and Economic Conditions on the Selection of the Type of Electric System in the Lower Reaches of the Amu Darya." Cand Tech Sci, Inst of Power Engineering, Acad Sci Uzbek SSR, Tashkent, 1954. (KL, No 4, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIN, S.S., kand. tekhn. nauk; NEPOMNYASHCHIY, V.A., inzh.; FAL'KOVSKIY, N.I., inzh.

Electrical properties of saline and alkaline soils. Energ. i elektrotekh. prom. no.3:46-48 Jl-S '65. (MIRA 18:9)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIN, S.S.

Electric resistance of soils and ground wire systems of power distribution in the Amu Darya Delta. Trudy Inst.energ.AN Uz.SSR no.10:125-161 '57. (MIRA 10:11)
(Amu Darya Delta--Electric lines--Underground)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIN, S.S., kand.tekhn.nauk; NEPOMNYASHCHIY, V.A., inzh.; FAL'KOVSKIY, N.I., inzh.

Operation of grounding systems in salinated soils. Energ. i elektrotekh. prom. no.2:33-36 Ap-Je '65. (MIRA 18:8)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

IMAS, V.A.; KUDRINA, S.A.; PETROV, N.P.; RUBANOV, I.V.; SHIKIN, S.S.

Manufacture of high-voltage porcelain from Uzbekistan raw materials. Report No.1. Izv.AN Uz.SSR.Ser.tekh.nauk no.4: 30-45 '60. (MIRA 13:8)

1. Institut geologii AN UzSSR i Institut energetiki i avtomatiki AN UzSSR.
(Electric insulators and insulation)
(Uzbekistan—Porcelain)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

IMAS, V.A.; KUDRINA, S.A.; PETROV, N.P.; RUBANOV, I.V.; SHIKIN, S.S.

Experiment in the manufacture of high-voltage porcelain from Uzbekistan raw products. Report No.2: Experimental masses. Izv.AN Uz.SSR Ser.tekh.nauk no.5:43-54 '60. (MIRA 14:9)

1. Institut geologii AN UzSSR i Institut energetiki i avtomatiki AN UzSSR.

(Uzbekistan--Porcelain)
(Electric insulators and insulation)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

MOROZOV, K.P.; SHIKIN, S.S.; SAKHIBOV, Sh.D.

Using volt-ampere characteristics in measuring reactive power consumed by the network. Izv.AN Uz.SSR. Ser.tekh.nauk no.4:16-23 '62. (MIRA 15:7)

1. Institut energetiki i avtomatiki AN UzSSR.
(Electric measurements)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIN, S.V.

DRUZHININ, N.S.; TSYLBOV, P.P.; SHKOL'NIK, K.A.; SHCHUKIN, S.M., dotsent, retsenzent; SHIKIN, S.V., kandidat pedagogicheskikh nauk, retsenzent; SHELKOVNIKOV, G.I., inzhener, redaktor; MODEL', B.I., tekhnicheskiy redaktor; POPOVA, S.M., tekhnicheskiy redaktor

[Course in mechanical drawing] Kurs cherchenia. Izd. 2-e, ispr. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry. Pt.1. [Geometric drawing; mechanical drawing technique and geometric construction] Geometricheskoe cherchenie; tekhnika cherchenia i geometricheskie postroenia. 1954. 220 p. (MLRA 7:9)
(Mechanical drawing)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

DRUZHININ, N.S.; TSYLBOV, P.P.; SHCHUKIN, S.M., dotsent, retsenzent; SHIKIN, S.V., kandidat pedagogicheskikh nauk, retsenzent; SHELKOVNIKOV, G.I., inzhener, redaktor; POPOVA, S.M., tekhnicheskiy redaktor

[Course in drawing] Kurs cherchenia. Moskva, Gos. nauchno-techn. izd-vo mashinostroit. lit-ry. Pt.2.[Projection drawing (perpendicular, axonometric projection and technical drawing)] proektsionnoe cherchenie (priamougol'nye, aksonometricheskie proektsii i tekhnicheskoe risovanie). 1954. 323 p. (MLRA 8:7)
(Mechanical drawing)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

DRUZHININ, Nikolay Sergeyevich; TSYLBOV, Petr Petrovich; SHKOL'NIK, Konstantin Abramovich; SHCHUKIN, S.M., dotsent, retsenzent; SHIKIN, S.V., kand.pedagog.nauk, retsenzent; SHELKOVNIKOV, G.I., inzh., red.; SMIRNOVA, G.V., tekhn.red.

[Course of drawing] Kurs cherchenia. Izd.3., ispr. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Pt.1. [Geometrical drawing; drawing practice and geometrical constructions] Geometricheskoe cherchenie; tekhnika cherchenia i geometricheskie postroeniia. 1960. 176 p. (MIRA 13:7)
(Geometrical drawing)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

DRUZHININ, Nikolay Sergeyevich; TSYLBOV, Petr Petrovich; SHCHUKIN, S.M., dotsent, retsenzent; SHIKIN, S.V., kand.pedagog.nauk, retsenzent; SHELKOVNIKOV, G.I., inzh., red.; YEGORKINA, L.I., red.izd-va; SMIRNOVA, G.V., tekhn.red.

[Course in engineering drawing] Kurs cherchenia. Izd.2., perer. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Pt.3. [Mechanical drawing] Mashinostroitel'noe cherchenie. 1960. 267 p. (MIRA 13:12)

(Mechanical drawing)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

DRUZHININ, Nikolay Sergeyevich; TSYLBOV, Petr Petrovich; SHCHUKIN, S.M., dotsent, retsenzent; SHIKIN, S.V., kand.pedagog.nauk, retsenzent; SHELKOVNIKOV, G.I., inzh., red.; YEGORKINA, L.I., red.izd-va; SMIRNOVA, G.V., tekhn.red.

[Course in mechanical drawing] Kurs cherchenia. Izd.2., ispr. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry. Pt.2. [Projectional drawing; orthogonal, azonometric projections, and technical sketching] Proektsionnoe cherchenie; ortogonal'nye, aksonometricheskie proektsii i tekhnicheskoe risovanie. 1960. 311 p. (MIRA 13:9)

(Mechanical drawing)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

S/503/61/012/000/006/007
D072/D314

AUTHOR: Shikin, V.B.

TITLE: A study of a cylindrical diode under magnetron conditions

SOURCE: Akademiya nauk kazakhskoy SSR. Astrofizicheskiy institut. Izvestiya, v.12, 1961, 95-98

TEXT: N. A. Kozyrev is said to have noted a north-south asymmetry of rotating planets. The present author has attempted to obtained a similar effect with a rotating electron cloud. The experiments were carried out with a cylindrical anode and a concentric cathode. A pair of measuring metal probes (needles) was placed near the anode and the cathode, as shown in Fig.1 (aa' and bb'). The needles were parallel to the axis of the diode and were located symmetrically with respect to the equatorial cross-section. The tube was then placed in a solenoid so that the magnetic field was parallel to the axis of the diode. The current in the solenoid was measured by the ammeter A_1, while the filament current was measured by the ammeter A_2 and the other current by the milliammeter m. For each anode voltage the solenoid current

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was adjusted until the magnetron effect appeared and the readings of the millivoltmeters mV_1 and mV_2 were noted. The magnetic field was then reversed by reversing the solenoid current and the millivoltmeter readings were again noted. The magnetic field was then varied by small steps through the critical (cut-off) value and for each magnetic field the above procedure was repeated. The results obtained are shown in Fig.2, where the points represent the millivoltmeter readings for one direction of H and the crosses the corresponding readings in the opposite direction. The reversal of the magnetic field H had no effect on the anode current. It is quite clear from these graphs that the potential difference across the measuring probes depends on the direction of the magnetic field and that the dependence is opposite for the two pairs of probes. It appears that these results indicate a deformation of the rotating electron cloud. This deformation is definitely and unambiguously related to the direction of the magnetic field or the direction of the angular velocity of the electron cloud, i.e. the phenomenon can be schematically illustrated by Fig.3, where the shaded regions indicate the electron cloud. The author reports

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that he has been unable to explain this effect. It is suggested that the effect is analogous to that discovered by N.A.Kozyrev and mentioned above. There are 3 figures.

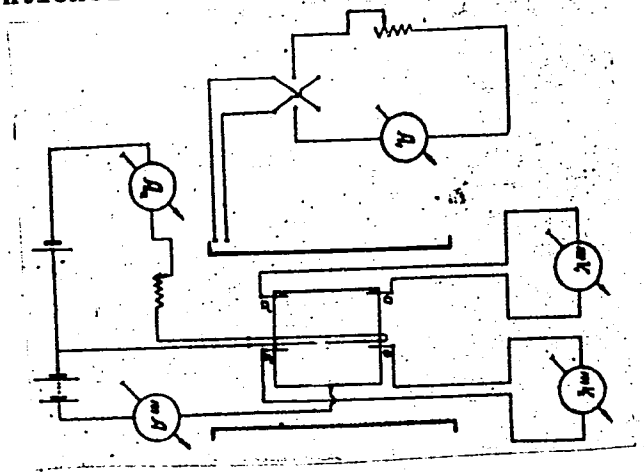

Fig.1

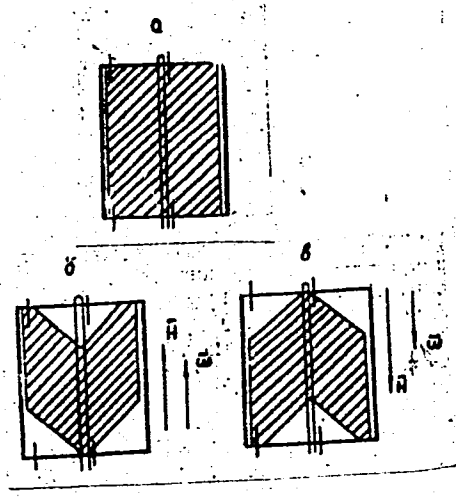

Fig.3

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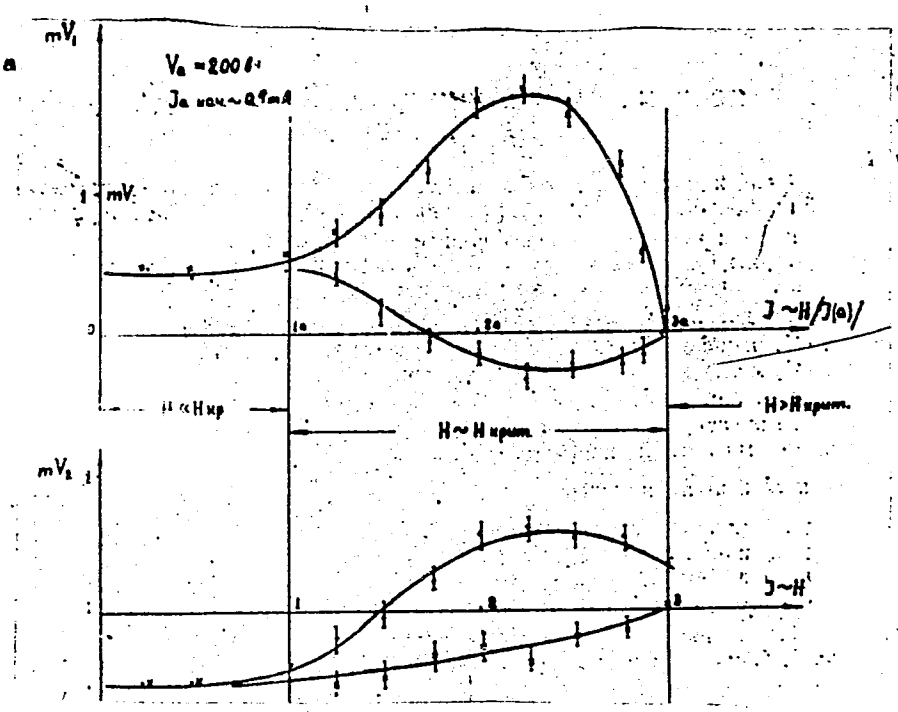

Fig. 2

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ACCESSION NR: AP4011729 S/0181/64/006/001/0007/0015

AUTHORS: Slezov, V. V.; Shikin, V. B.

TITLE: Coalescence of pores in the presence of body sources of holes

SOURCE: Fizika tverdogo tela, v. 6, no. 1, 1964, 7-15

TOPIC TAGS: hole, hole source coalescing holes, nucleating center, damped source, undamped source

ABSTRACT: In considering methods of freeing holes, particularly the behavior of groups of pores where there exists a body source of holes, the authors have started with the following assumptions: 1) the temperature interval is such as to secure congelation of gaseous products of splitting (i.e., empty pores will form); 2) the process of fluctuating formation of nucleating centers and their growth from supersaturated solution have finished, and the phenomenon of coalescence becomes an essential process; 3) the pores are spherical and rather widely spaced; 4) the source of the holes is uniform in time. This study is a continuation of the work of I. M. Lifshits and V. V. Slezov (ZhETF, 35, 479, 1958) and uses the symbols employed in that previous work. The authors consider the two cases of damped sources and undamped sources and define the limits of applicability of formulas for

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each. "In conclusion, we sincerely thank I. M. Lifshits for his interest in the work and for valuable suggestions. The authors also thank A. M. Kosevich, Ya. Ye. Geruzin, and Z. K. Saralidze for their useful discussions." Orig. art. has: 2 figures and 32 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN UkrSSR, Khar'kov (Physical and Technical Institute AN UkrSSR): Khar'kovskiy gosudarstvenny*y universitet (Kharkov State University)

SUBMITTED: 03Jun63 DATE ACQ: 14Feb64 ENCL: 00

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

ACCESSION NR: AP4039662 S/0181/64/006/006/1735/1743

AUTHORS: Lifshits, I. M.; Shikin, V. B.

TITLE: Diffusion viscous flow of porous bodies

SOURCE: Fizika tverdogo tela, v. 6, no. 6, 1964, 1735-1743

TOPIC TAGS: diffusion mobility, viscous flow, porous medium, polycrystal, grain boundary

ABSTRACT: The deformation of porous bodies was investigated by studying the diffusion viscous flow mechanism of polycrystals. The boundaries of the polycrystal grains served as both a source and a drain for the diffusing vacancies. Quantity α was taken as the ratio of the average distance between the pore centers to the average grain size, and the work dealt with $\alpha \sim 1$. All pores were assumed to have an outlet to damaged boundaries. During sintering the system passed from large to small porosities. The small porosity limit of the diffusion viscosity process was investigated by studying ρ, the average density of the substance in a small element containing a large number of grains. P_{ik} is the average stress tensor with Laplacian pressures compressing each pore, and V_i is the transmission speed of the substance. The flow process leads to a determination of the dependence between the

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ACCESSION NR: AP4039662

P_{ik} and V_{ik} tensors where V_{ik} is $V_{ik}=\frac{1}{2}\left(\frac{\partial V_i}{\partial x_k}+\frac{\partial V_k}{\partial x_i}\right)$, and for a quasistatic flow P_{ik} is $P_{ik}=P_0(\rho)\delta_{ik}+\alpha_{iklm}V_{lm}$; $\rho V_{ii}=-\frac{\partial\rho}{\partial t}$ with the "viscous" tensor α_{iklm} determined by the size and form of the grains, $P_0 = P_0(\rho)$ is the density function. In the simplest case of an isotropic structure α_{iklm} leads to two scalers. The model studied (see Fig. 1 on the Enclosure) required consideration of the inner action of pores, which is determined by finite spacing between the pores and is characterized by the parameter $X = \frac{r_0}{R}$ (where r_0 is the average pore radius, $R^3 = V$ is the volume of the substance per pore). The total flow to a pore then is $j=j_0(1+\nu X+\ldots)$, where j_0 is the average flow to an isolated pore in an unlimited medium with the equilibrium corresponding pressure P of the vacancy concentration at infinity, and ν is a coefficient of distribution dependent on the structure of the surfaces made amorphous, on the geometry of the pores, etc. To determine ν a more exact analysis of the diffusion flows must be made by studying the potentials, which may be written in the form of the Kirchhoff potentials. Orig. art. has: 3 figures and 21 equations.

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ACCESSION NR: AP4039662

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR, Khar'kov (Physico-technical Institute, AN UkrSSR); Khar'kovskiy gosudarstvenny*y universitet (Kharkov State University)

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SUBMITTED: 02Jan64

OTHER: 000

SUB CODE: SS

NO REF SOV: 005

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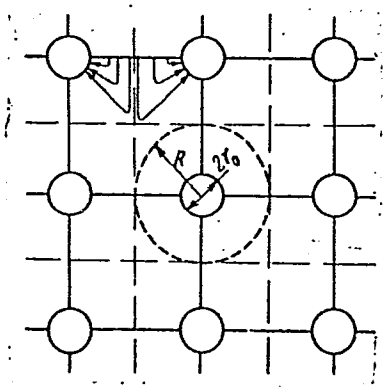

Fig. 1. Disposition of a cell, taken as a model of a porous body, with a cubic type of polycrystal.
r_0 is the pore radius, R is the external radius of a cell.
The fine dash lines are traces of membranes through which none of the substance is transported; i.e., $j_n = 0$.

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L 12641-65 EWT(m)/EWP(w) EM/DT

ACCESSION NR: AP4044953 S/0181/64/006/009/2780/2790

AUTHORS: Lifshits, I. M.; Shikin, V. B.

TITLE: On the theory of diffusion-viscous flow of polycrystalline bodies

SOURCE: Fizika tverdogo tela, v. 6, no. 9, 1964, 2780-2790

TOPIC TAGS: viscous flow, diffusive motion, polycrystal, stress relaxation, relaxation time

ABSTRACT: The paper is a continuation of Lifshits's earlier work (ZhETF, v. 44, 1349, 1963) on the same subject. Here the authors deal with a polycrystalline body consisting of grains in the form of infinitely long prisms of square cross section, so that only one grain need be considered. Three problems are tackled: 1) viscous flow under a constant load (two pistons applied to opposite sides of a grain compressing it and two other pistons stretching it with the

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same force applied to the other two sides); 2) relaxation of stresses for a given initial deformation; 3) Hertz's problem of convex bodies in contact under pressure with allowance for diffusion. The relaxation phenomena in the initial non-steady-state stages of diffusion-viscous flow are discussed and simple relationships are obtained for the relaxation rate. Orig. art. has: 2 figures, and 52 formulas.

ASSOCIATION: Khar'kovskiy gosudarstvenny*y universitet (Khar'kov State University)

SUBMITTED: 13Apr64 ENCL: 00

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

L 04145-67 EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6026684 SOURCE CODE: UR/0181/66/008/008/2360/2363

AUTHOR: Shikin, V. B.

ORG: Khar'kov State University im. A. M. Gor'kiy (Khar'kovskiy gosudarstvennyy universitet)

TITLE: Diffusion-viscous flow of ionic polycrystals

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2360-2363

TOPIC TAGS: ionic crystal, polycrystal, crystal deformation, VISCOUS FLOW, SPACE CHARGE

ABSTRACT: This article shows that diffusion-viscous flow of ionic polycrystals may be described with the same degree of generality as the diffusion-viscous flow of metallic polycrystals. The size of the space charges occurring in each of the grains of the polycrystal during flow is calculated. All the results obtained in diffusion-viscous flow theory refer to metal polycrystals whose vacancies have no charge. In the case of ionic polycrystals which are also capable of diffusion viscous deformation, two types of charged vacancies, differing in charge sign and size of diffusion factor should be considered. This article describes these two types. The study is made not with relative vacancy concentration, but with the corresponding chemical potentials. A series of boundary conditions are formulated and analyzed showing

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ACC NR: AP6026684

that the general conclusion of I. M. Lifshits and Ya. Ye. Geguzin (FTT, 7, 62, 1965) pertaining to metal flow is also extended to the diffusion-viscous flow of ionic polycrystals. A certain volumetric potential difference occurring within each grain is a specific concomitant of diffusion-viscous flow. The charge distribution found is an example of "diffusion segregation" in multicomponent systems. The appearance of charges enriched by an impurity component may always be expected if there are directed diffusion flows and inequality in partial diffusion factors. The author thanks I. M. Lifshits and Ya. Ye. Geguzin for discussing the results. Orig. art. has: 20 formulas.

SUB CODE: 20/ SUBM DATE: 05Jan66/ ORIG REF: 004

Card 2/2

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L 40796-65 EPA(s)-2/EWT(m)/EPF(n)-2/EWG(m)/EWP(t)/EWP(b) Pt-10/Pu-4
IJP(c) RWH/JD/JG/RM
ACCESSION NR: AP4047872 S/0279/64/000/005/0098/0100

AUTHOR: Suvorovskaya, N. A. (Moscow); Shikhova, V. V. (Moscow); Shmarinova, I. A. (Moscow)

TITLE: Separation of lithium from alkaline and alkaline-earth metals by method of ion exchange

SOURCE: AN SSSR. Izvestiya. Metallurgiya i gornoye delo, no. 5, 1964, 98-100

TOPIC TAGS: ion exchange sorption cycle, metal separation, lithium, alkaline earth metal, alkaline

ABSTRACT: The authors discuss the separation of Li from alkaline ions and Mg in a sorption cycle which proved convenient and effective. For that purpose, they used "RF" cationite that contains monooxyphenyl and dioxyphenyl phosphate groups and is obtained by the polycondensation of monoresorcin phosphate with formaldehyde. A collective sorption of potassium, sodium, magnesium and lithium ions occured at a filtering rate of 1 ml/min. An optimal filtering rate of 2 ml/min secures complete separation of Li. The chemical affinity of the alkaline metal ions being separated to the "RF" ionite grows in the series Li Na K. Orig. art.

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L 40796-65

ACCESSION NR: AP4047872

0

has: 4 tables

ASSOCIATION: None

SUBMITTED: 25Jan64 ENCL: 00 SUB CODE: MM, GC

NR REF SOV: 004 OTHER: 001

Card 2/2

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

ACC NR: AP6029096 SOURCE CODE: UR/0118/66/000/006/0047/0049

AUTHOR: Shikhov, V. Yu. (Engineer); Stovba, L. I. (Engineer)

ORG: none

TITLE: Using electronic computers for designing metal-cutting operations in multitool machining

SOURCE: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 6, 1966, 47-49

TOPIC TAGS: metal machining, electronic computer, special purpose computer

ABSTRACT: The shortcomings of linear mathematical models and methods of linear programing are discussed. A new method that obviates these shortcomings was developed in the Rostov Institute of Farming Machinery and the Rostov University. The new "cyclic correction" method includes techniques formerly used for approximately finding the optimal set of machines; a share of the

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ACC NR: AP6029096

operation cost, which depends on metal-cutting conditions, is adopted as an optimizing criterion. An analytical expression of the target function (given in the article) is bounded by: productivity, permissible torque, tool strength, machine-part strength, machine ratings, machine kinematics. A source plan of machining is step-by-step corrected by the above method which, among other things, eliminates the errors due to preliminary estimation of set-up tool endurance. Orig. art. has: 1 figure and 6 formulas.

SUB CODE: 13, 09 / SUBM DATE: none

Card 2/2

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

CA SHIKINA, A.P.

15

The role of mineral fertilizers in rubber productivity of forms of kok-saghyz plant. A. P. Shikina. *Izvest. Akad. Nauk Kazakh. S.S.R., Ser. Fiziol. Rastenii*, No. 2 (Whole No. 30), 22-33(1947).—The tetraploid form of the plant in all stages of growth gives higher root wt. than the diploid form. The rubber-latex content is variable, however. The greatest differences show up when mineral-deficiency conditions are obtained. The tetraploidal form has larger latex vessels and produces larger-diam. globules of rubber latex and higher mol. wt. of the rubber hydrocarbon (as shown by higher viscosity).

G. M. Kosolapoff

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

[Ways of increasing potato yields] Puti povysheniia urozhaia kartofelia. Alma-Ata, Akademiia nauk Kazakhskoi SSR, 1954. 36 p. (Kazakhstan--Potatoes) (MIRA 12:1)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.; KORZUNOVA, Ye.D.; LYSENKO, M.K.

Effect of the pruning of potato plants on the development and chemical composition of tubers. Trudy Inst.bot.AN Kazakh SSR 1:194-200 '55. (MLRA 9:11)

(Kazakhstan--Potatoes)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

The effect of conditions of growing potatoes on the content of solanine in the tubers. A. P. Shikina and E. D. Korzunova. *Izvest. Akad. Nauk Kazakh. S.S.R., Ser. Biol.*, No. 9, 49-51(1955)(in Russian).—The highest content of solanine is found in Smyslovskii, Early Rose, and Majestic brands of potatoes (37-40 mg. %), the lowest (16-18 mg. %) in Lorch and Kaiadin varieties. Younger tubers contain more solanine than the older tubers. Insufficient irrigation and high temp. tend to increase the content of solanine and thus to spoil the taste properties of potatoes. Sufficient irrigation during the hot months combats this tendency.

G. M. Kosolapoff

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

Biochemical characteristics of some varieties of potato grown in the Southern zone of Kazakhstan. A. P. Shikina and E. D. Korzunova. *Izvest. Akad. Nauk Kazakh. S.S.R., Ser. Biol.* 1955, No. 10, 66-86.—Analytical data are given for a no. of potato varieties grown in the indicated area. Starch content ranges from 76.33% to 82.11%; nitrogenous substances from 1.2% to 2.12%; solanine from 16.32 mg. % to 44.58 mg. %; ascorbic acid from 130.28 mg. % to 193.26 mg. %. In storage the content of sol. carbohydrates in the tubers increases significantly from low values to 10-15%, while starch declines correspondingly. Some varieties show an increase of ascorbic acid content in storage, specifically at the beginning of sprouting.

G. M. Kosolapoff

1

Inst. Botany, AS KazSSR

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

COUNTRY : USSR

CATEGORY : Cultivated Plants, Potatoes, Vegetables, Cucurbits.

ABS. JOURN. : Referat., No. 1, 1959, No. 1654

AUTHOR : Shikina, A.P.; Korzunova, Ye.D.

INST. : Kazakh Academy of Sciences

TITLE : The Quality of Tubers of Some Potato Varieties Cultivated Under Conditions of Southern Kazakhstan.

ORIG. PUB. : Izv. AN KazSSR, Ser. botan. i pochvoved., 1958, Vyp. 1, 70-75

ABSTRACT : Presented is data on productivity, amount of dry substances, starch, protein, solanin and vitamin C in the tubers of a number of potato varieties which were tested in the course of 3 years in the botanical garden of the Academy of Sciences of the Kazakh Socialist Soviet Republic. The highest crop of the levelled tubers was given by the Katadin variety. Morning rose, Lorch and Southern were found to be unstable to superheating of the soil and quickly degenerated. The highest starch content was noted in tubers of Berlichingen and Ulyanovski varieties, while

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

Changes in the carbohydrate and nitrogenous substances content of different kok-saghyz types during their development. Izv. AN Kazakh. SSR. Ser. bot. i pochv. no.1:36-42 '59. (MIRA 13:6)
(Kok-saghyz)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

Effect of chemical potato germination inhibitors on the seed qualities of tubers and the productivity of plants sown during the summer. Izv. AN Kazakh.SSR.Ser.Bot.i pochv. no.1:15-26 '60. (MIRA 13:6)
(Growth inhibiting substances)
(Potatoes)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A. P., (USSR)

"The Phosphorylase and Phosphorylase and Phosphoglucomutase Activities of Potatoes."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 10-16 Aug 1961.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

Effect of organic-mineral fertilizers on the yield, carbohydrate assimilation, and quality of potatoes. Izv. AN Kazakh. SSR. Ser. bot. i pochv. no.1:3-14 '61. (MIRA 14:4)
(Potatoes—Fertilizers and manures)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

Activity of phosphorylase, phosphoglucomutase and amylase in potatoes in relation to the nutrition of the plants. Trudy Inst. bot. AN Kazakh. SSR. 12:169-177 '62. (MIRA 15:5)
(Enzymes) (Starch)
(Alma-Ata Province--Potatoes)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

Dynamics of phosphorus compounds in the ontogenesis of the potato. Trudy Inst. bot. AN Kazakh.SSR 16:136-156 '63 (MIRA 17:8)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, A.P.

Effect of the mountain climate of the Trans-Ili Alatau on the activity of some enzymes of carbohydrate and phosphorus metabolism in potatoes. Trudy Inst.bot.AN Kazakh.SSR 20:81-92 '64. (MIRA 18:1)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SMIRNOV, Ye. S.

"Data on the Serological Diagnosis of Type A_1 Influenza in 1950-1952. Problema Grippa is Ostrykh Katarrov Venkhnikh Dykhatel'nykh Putey, Moscow, 1952, pp. 28-30.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, E. .

USSR/Medicine - Virus Diseases, Influenza Mar 53

"Etiology and Laboratory Diagnosis of Influenza," A. A. Smorodintsev, N. S. Klyachko, T. Ya. Luzyanina, M. A. Morozenko, Ye. S. Shikina, I. A. Yuress, V. P. Korotkova, Div of Virology, Inst of Exptl Med, Acad Med Sci USSR; Inst of Epidemiol imeni Pasteur

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 3, pp 69-78

At present, the subtype A_1 predominates in the USSR. The antigenic structure of A1 isolated during the past few years is polymorphic: it is necessary to supplement cross-neutralization by cross-adsorption of antibodies according to a new method developed by the authors. Smorodintsev's rapid method of diagnosing influenza by the reaction of complement fixation is effective in 50% of the cases on sputum examined during the first week after infection; it is less effective on serum. The reaction of hemoagglutination is effective in 40% of the cases when carried out under proper conditions with the use of human erythocytes of the O group. It is necessary to produce and supply diagnostic preparations [literally "Diagnostica"] equally suitable for hemoagglutination and complement fixation (dry A, A_1, and B diagnostica from eluates or infected chicken embryos); to provide dry purified anti-influenza horse sera suitable for both hemoagglutination and complement fixation; to supply from a central point through donor stations, human O-erythrocytes.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, E.S.

Data on serological diagnosis of influenza. Trudy AMN SSSR 28: 172-183 '53. (MLRA 7:8)

1. Iz otdela virusologii Instituta eksperimental'noy meditsiny AMN SSSR.

(INFLUENZA, diagnosis, serol.)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SMORODINTSEV, A.A.; BOICHUK, L.M.; SHIKINA, E.S.; BATANOVA, T.B.; BYSTRYAKOVA, L.V.; PERADZE, T.V.

Clinical and immunological response to live tissue culture vaccine against measles. Acta virol.Engl.Ed.Praha 4 no.4:201-204 Jl'60.

1. Virological Laboratory, The Pasteur Institute of Epidemiology, Microbiology and Hygiene, Leningrad; The Leningrad Scientific Research Institute of Pediatrics; and the Children's Infections Clinic of the Medical Pediatric Institute, Leningrad, U.S.S.R.
(MEASLES immunol)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SMORODINTSEV, A.A.; BOYCHUK, L.M.; SHIKINA, Ye.S.; BYSTRYAKOVA, L.V.; PERADZE, T.V.

State of immunity in children vaccinated with live vaccine against measles. Vop. virus. 7 no. 1:59-67 Ja-F '61. (MIRA 14:4)

1. Virusologicheskaya laboratoriya Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni L. Pastera.
(MEASLES)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SMORODINTSEV, A.A.; BOYCHUK, L.M.; SHIKINA, Ye.S.

Isolation and study of measles virus strains. Trudy Len.inst. epid.i mikrobiol. 17:6-12 '58. (MIRA 16:2)

1. Virusologicheskaya laboratoriya Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera.
(MEASLES--MICROBIOLOGY) (TISSUE CULTURE)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, Ye.S.; BOYCHUK, L.M.; MESHALOVA, V.N.

Biological properties of the measles virus during its prolonged cultivation in tissue cultures. Trudy Len.inst.epid.i mikrobiol. 19:21-33 '59. (MIRA 16:2)

1. Iz virusologicheskoy laboratorii Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera (rukovoditel' - chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev).
(MEASLES) (TISSUE CULTURE)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

BOYCHUK, L.M.; SHIKINA, Ye.S.

Resistance of tissue cultures of the measles virus to storage under refrigeration and to lyophilic drying. Trudy Len.inst. epid.i mikrobiol. 19:48-53 '59. (MIRA 16:2)

1. Iz virusologicheskoy laboratorii (rukovoditel' - chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev) Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera.
(MEASLES--MICROBIOLOGY) (LYOPHILIZATION)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, Ye.S.; BOYCHUK, L.M.; KURNOSOVA, L.M.

Reactogenic and immunogenic characteristics of smultaneous vaccination conducted with a live antiparotitis vaccine and a killed poliomyelitis vaccine. Trudy Len.inst.epid. i mikrobiol. 19:115-123 '59. (MIRA 16:2)

1. Iz virusologicheskoy laboratorii (rukovoditel' - chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev) Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera.
(MUMPS—PREVENTIVE INOCULATION) (POLIOMYELITIS VACCINE)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, Ye.S.; BOYCHUK, L.M.

Accumulation of complement fixation antibodies in children vaccinated with a live antimeasles vaccine. Trudy Len.inst.epid.i mikrobiol. 2:32-42 '61. (MIRA 16:2)

1. Iz virusologicheskoy laboratorii (rukovoditel' - chlen-korrespondent AMN SSSR, prof. A.A. Smorodintsev) Leningradskogo instituta epidemiologii i mikrobiologii imeni Pastera.
(MEASLES--PREVENTIVE INOCULATION)
(ANTIGENS AND ANTIBODIES)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SMORODINTSEV, A.A.; BOYCHUK, L.M.; SHIKINA, Ye.S.; BYSTRYAKOVA, L.V.; PERADZE, T.V.

State of immunity in children vaccinated with a live vaccine against measles. Trudy Len.inst.epid.i mikrobiol. 22:7-20 '61. (MIRA 16:2)

1. Virusologicheskaya laboratoriya Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera.
(MEASLES--PREVENTIVE INOCULATION) (IMMUNITY)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, Ye.S.; MESHALOVA, V.N.; PEYSEL', S.G.; CHIRKOVA, O.O.

Experience in the production of antimeasles horse serums and gamma globulin. Trudy Len.inst.epid.i mikrobiol. 22:55-63 '61. (MIRA 16:2)

1. Iz virusologicheskoy laboratorii Leningradskogo instituta epidemiologii i mikrobiologii (rukovoditel' - chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev) i immunologicheskoy laboratorii Leningradskogo instituta vaktsin i syvorotok (rukovoditel' - prof. A.V. Ponomarev).
(GAMMA GLOBULIN) (SERUM) (MEASLES)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

BOYCHUK, L.M.; SHIKINA, Ye.S.; PISAREVA, N.A.

Titration of antimeasles antibodies in donor serums and gamma globulin. Trudy Len.inst.epid.i mikrobiol. 22:64-73 '61. (MIRA 16:2)

1. Iz virusologicheskoy laboratorii (rukovoditel' chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev) Leningradskogo instituta epidemiologii i mikrobiologii imeni Pastera.
(ANTIGENS AND ANTIBODIES) (GAMMA GLOBULIN) (SERUM)

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SMORODINTSEV, A.A.; BOYCHUK, L.M.; SHIKINA, Ye.S.; MESHALOVA, V.N.; LUGININA, N.M.; BYSTRYAKOVA, L.V.; PETROVA, M.N.

Reactogenic and immunogenic properteis of live tissue measles vaccine. Trudy Len.inst.epid.i mikrobiol. 19:3-20 '59. (MIRA 16:2)

1. Iz virusologicheskoy laboratorii (rukovoditel' - chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev) Leningradskogo instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera.
(MEASLES—PREVENTIVE INOCULATION) (VACCINES)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINA, Ye. S.; NIKITIN, M. I.; MESHALOVA, V. N.; TAROS, L. Y.; AMINOVA, M. G.; REVENOK, N. D.; SAFAROV, D. I.; SMORODINTSEV, A. A.; BOYCHUK, L. M.

"The Safety and Epidemiological Effectiveness of Live Measles Vaccine Developed in Leningrad."

Report submitted at the International Symposium on Biological Standardization, Opatija, Yugoslavia, Sept 63.

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SMORODINTSEV, A. A.; BOYCHUK, L. M.; SHIKINA, Ye. S.; MESHALOVA, V. N.; TAROS, L. Yu.
AMINOVA, M. G.; REVENOK, N. D.; SAFAROV, D. I.

"Experience in the USSR in the prevention of measles by use of live vaccine."

report presented at Symp on Applied Virology, Boca Raton, Fla., 30 Nov-2 Dec 64.

Pasteur Inst of Epidemiology and Microbiology, Leningrad.

APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8"

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PHASE I BOOK EXPLOITATION SOV/4207

Penoplastmassy; sbornik statey (Foam Plastics; Collection of Articles) Moscow, Oborongiz, 1960. 182 p. Errata slip inserted. 5,050 copies printed.

Ed.: A.A. Moiseyev, Candidate of Technical Sciences, V.V. Pavlov, and M.Ya. Borodin; Managing Ed.: A.S. Zaymovskaya, Engineer; Ed. of Publishing House: I.A. Suvorova; Tech. Ed.: V.I. Oreshkina.

PURPOSE: This book is intended for engineers and technicians planning and manufacturing products and structures using lightweight fillers, and for workers of the foam plastic industry.

COVERAGE: The volume contains 13 studies on foam plastics and foaming agents. Some of the studies provide data on the technology of producing foam plastics from polystyrene and polyvinyl chloride, and data on thermosetting polymers (phenol rubber compositions, polyurethane foam, polyepoxy foam, and foam plastic sheets based on organic silicon resins). Other studies contain data on the composition of foam plastics, the effect of technological factors and volumetric weight on the physical, mechanical, and dielectric properties of foam plastics, and on the fields of application of foam plastics. Several studies deal with the production technology of radomes and reflectors for antenna installations in aircraft units. It is stated in the foreword that the Soviet Union produces and uses foam plastic sheets based on thermoplastic and thermosetting polymers of rigid, elastic, foamy, and porous structure. Fifteen such plastics including some of their specifications and applications are listed. There are no bibliographies but the authors cite Soviet and other authorities including A.A. Berlin, the author of Osnovy proizvodstva gazonapolnennykh plastmass i elastomerov (Principles of Production of Gas Filled Plastics and Elastomers) published by Goskhimizdat in 1954.

Rogov, L.V., and V.V. Pavlov. Production of Polystyrene Foam Based on Different Foaming Agents 45

This study presents experimental data on the physical and mechanical properties of polystyrene foam produced using four different foaming agents. It describes the properties of the foaming agents, the composition of the foam plastic sheets, and pressing conditions for different compositions.

Sudareva, V.Ya. Hollow Foam Plastic Sheets 50

This study presents experimental data on hollow and compact foam plastic sheets. It is concluded that either type of foam can be used as filler for various structures and that the use of such fillers will reduce the weight and cost of the product.

Shikina, T.V. and V.V. Pavlov. Making Products From Polystyrene Foam Using Polymer and Monomer Pastes 53

The following conclusions were reached: 1) polystyrene foam with polymer and monomer paste is suitable for products of various depth and diameter requiring no mechanical processing or some processing of the inner contour 2) the physical and mechanical properties of this foam do not differ from those of foam plastic sheet PS-1, except in specific impact strength which is approximately two times lower than in the foam plastic sheet PS-1 3) the high fluidity of polymer and monomer pastes permits pressing and polymerization at low specific pressures and consequently eliminates the use of heavy hydraulic presses 4) polymer and monomer paste contains 50 percent cheaper styrene consequently lowering the cost of the finished product.

Sudakov, V.N. Industrial Experience Producing Foam Plastic Sheets by the Pressing Method 81

The author lists the advantages and disadvantages of the pressing method and describes the steps in manufacturing foam plastic sheets by this method. He concludes that the use of foam plastic sheets under industrial conditions has shown that the pressing method is suitable for the production of materials of high physical and mechanical properties. Furthermore, the output of finished products can be increased by installing several molding presses at each story of a multistory press and by forming the intermediate products in multistory containers and molds.

Popov Poplov, V.A. and V.A. Kontrat'yeva. Foam Plastic Sheets Based on Phenol Formaldehyde Resin and Its Combinations With Rubber and Fillers 91

This is a detailed study of foam plastic sheet production based on phenol formaldehyde lacquer resin (foam plastic sheet FP) and on combinations of this resin with acrilnitrile (foam plastic sheet of the FK type). In the Soviet Union these foam plastics are produced by the non-pressure method and are among the most commonly used products.

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SHIKINA, Ye.S.; LAMSKAYA, T.A.

Effectiveness of the complement fixation reaction and the hemagglutination inhibition reaction in the diagnosis of clinically pronounced forms of mumps. Trudy Len. inst. epid. i mikrobiol. 16:90-97 '58. (MIRA 16:8)

(MUMPS) (COMPLEMENT FIXATION)
(BLOOD—AGGLUTINATION)

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SMORODINTSEV, A.A.; SHIKINA, Ye.S.; KOZELETSKAYA, M.N.; TIMIROVA, L.A.; BELOV, G.S.

Results of commercial preparation of a live antimumps vaccine. Trudy Len. inst. epid. i mikrobiol. 16:116-122 '58. (MIRA 16:8)

1. Iz virusologicheskoy laboratorii (zav. - chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev) Instituta epidemiologii, mikrobiologii i gigiyeny imeni Pastera i laboratorii grippa (zav. - Yu. K. Petrov) Leningradskogo instituta vaktsin i syvorotok.

(MUMPS--PREVENTIVE INOCULATION)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKINOV, Nikolay Mikhaylovich; KARDAKOVA, Ye.A., red.; SKLYAROVA, Ye.I., tekhn.red.

[Principal means of saving electric power] Osnovnye puti ekonomii elektricheskoi energii. Kirov, Kirovskoe knizhnoe izd-vo, 1960. 87 p. (MIRA 13:12)

1. Direktor Kirovskogo filiala Vsesoyuznogo zaochnogo energeticheskogo instituta (for Shikinov).
(Kirov Province--Electric power)

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SHIKINOV, N.M., inzh.

Criteria for appraising the extent of collective-farm electrification. Elektrichestvo no.6:6-8 Je '62. (MIRA 15:6)
(Rural electrification)

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

LAVROV, N.V., akademik, doktor tekhn. nauk. Prinimali uchastiye: KARBIVNICHIY-KUZNETSOV, V.B.; SKORIK, L.D.; PRIDATKIN, A.A.; SHIKIROV, K.Sh.; retsenzent; BAKLITSKAYA, A.V., red.

[Fundamentals of the combustion of gaseous fuel] Osnovy goreniia gazoobraznogo topliva. Tashkent, Izd-vo AN UzSSR, 1962. 417 p. (MIRA 18:6)

1. Sekretar' Otdeleniya tekhnicheskikh nauk AN UzbekSSR (for Lavrov).

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKIROVA, D.

Manic syndrome in severe luminal poisoning. Suvrem. med., Sofia 8 no.12: 113-116 1957.

1. Iz Okruzhnata bolnitsa--Sofiia (Gl. lekar: Khr. Manchev).
(PHENOBARBITAL, pois.
causing manic synd. (Bul))
(PSYCHOSES, MANIC DEPRESSIVE, etiol. & pathogen.
phenobarbital pois. (Bul))

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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

Country : USSR B-6
CATEGORY :

ABS. JOUR. : RZBiol., No. 1, 1959, No. 365

[illegible] : [illegible]; Kolesova, N. N.;

TITLE : Composite Studies of Biological Runoff of the Volga River in the Area of the Town of Kuybyshev (Procedures and Organization of

ORIG. PUB. : Tr. Kuybyshevsk. med. in-ta, 1957, 7, 3-21

ABSTRACT : Data on hydrology, biomass of plankton, [illegible], gas regimen, biological and mineral [illegible]

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Rukhlyadev, Yu. P.

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SHIKLEYEV, S.M.

Flow of organic matter and minerals in the Volga River near Kuybyshev. Trudy probl. i tem. sov. no.7:101-102 '57. (MLRA 10:4)
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"APPROVED FOR RELEASE: 08/25/2000 CIA-RDP86-00513R001549420008-8

SHIKLOBALOVA, L. P.

B

25

*666. **The Surface Tension of Molten Salts.** (In Russian.) V. K. Semenchenko and L. P. Shiklobalova. *Journal of Physical Chemistry* (U.S.S.R.), v. 21, June 1947, p. 707-714.

A procedure is described for measuring the surface tension of molten salts. The binary systems Li_2SO_4-NaCl, Li_2SO_4-KCl, Li_2SO_4-RbCl, and Li_2SO_4-CsCl were investigated from 900° to 1100°C. Results indicate that the behavior of ions in salt mixtures is a function of a numerical factor which varies directly with the ion charge and inversely with the crystal radius.

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