

AKOL'ZIN, L.Ye.; LISHBERGOV, V.D.; SHCHUKINA, G.F.; TSOY, D.; DUGIN,  
Ye.V., otv.red.; DUKALOV, M.P., red.; BUBYR', V.A., red.; TIUTYUNIK,  
Ya.I., red.; MOHIN, M.I., red.; PANCHENKO, A.I., red.; VARSHAVSKIY,  
I.N., red.; BELYAYEV, F.R., red.; RABINKOVA, L.K., red.izd-va;  
KOROVENKOVA, Z.A., tekhn.red.

[Standard cross sections of mine workings] Tipovye secheniya gornykh  
vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu.  
Vol.1. [Cross section of timber-supported workings for 1, 2, and  
3-ton cars] Socheniya vyrabotok, zakreplennykh derevom dlia 1, 2  
i 3-tonnykh vagonetok. 1960. 345 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mining engineering)

AKCL'ZIN, L.Ye.; BEDILO, V.Ye.; BOROZDOV, I.A.; LISHBERGOV, V.D.; TSOY, D.;  
DUGIN, Ye.V., otv.red.; DUKALOV, M.F., red.; BUBIR', V.A., red.;  
TYUTYUHNIK, Ya.I., red.; MONIN, M.I., red.; PANCHENKO, A.I., red.;  
BELYAYEV, F.R., red.; RABINKOVA, L.K., red.izd-va; KOROVENKOVA,  
Z.A., tekhn.red.

[Standard cross sections of mine workings] Tipovye secheniiia  
gornykh vyrabotok. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po  
gornomu delu. Vol.3. [Cross section of workings lined with  
concrete and artificial stone for 2 and 3-ton cars] Secheniiia vy-  
rabotok, zakreplennykh betonom i iskusstvennym kamnem, dlia 2- i  
3-tonnykh vagonetok. 1960. 447 p. (MIRA 13:11)

1. Moscow. Gosudarstvennyy proyektnyy institut Yuzhgiproshakht.  
(Mining engineering)

TSOY, D.M.

~~Utilization of Polosukhin's antishock solution in collapse in food poisoning. Terp. arkh. 30 no.12:64-66 D '58. (MIHA 12:1)~~

1. Iz kafedry infektsionnykh bolezney (zav. - prof. K.V. Bunin)  
I Moskovskogo ordena Lenina Meditsinskogo instituta imeni I. M. Sechenova.  
(SHOCK, etiol. & pathogen.  
food pois., Polusukhin solution ther. (Rus))  
(FOOD POISONING, compl.  
shock, Polusukhin solution ther. (Rus))  
(PLASMA SUBSTITUTE, ther. use,  
Polusukhin solution in shock caused by food pois. (Rus))

Topic: ~~Anti-epidemic drugs~~

Drugs for preventing the possible complications from measles among rural populations. Document no.: 111-122 Je '57. (NLM 12:9)

I. Iz Atbasarocy rayonnyy bol'ničsy Akmolinskoy oblasti Kazakh SSR  
date: (SULFOAMIDES) (RASL...)

USSR, Cultivated plants - grains.

Abs Jour : Ref Zhur - Biol., No 4, 1958, 15530

Author : I.V. Tsoy, P.V. Petkilev

Inst :  
Title : Supplemental Corn Pollination in the Transvolga Region.  
(Dopolnitel'noye opyleniye kukuruzy v usloviyah  
Zavolzh'ya).

Orig Pub : S. kh. Povolzh'ya, 1957, No 6, 33-35

Abstract : On the dark chestnut soils of the Transvolga region the supplemental pollination applied three times during the period of the appearance of corn fibers in 75% of the plants increased the yield by 16%, the quantity of cobs with formed grains by 10% and the grain output by 6.5%. Supplemental pollinization is nearly twice as effective with deep plowing than with the ordinary tilling.

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1. TSOY, I. V.
2. USSR (600)
4. Wheat
7. Characteristics of the yield of different varieties of spring wheat and its variation. Sel. i sem. 20, No. 5, 1953.

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

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0

SHAKIROV, A.Sh., kand.med.nauk, TSOY, L.A., mladshiy nauchnyy sotrudnik.  
Boris Isaevich Berliner; on his 50th birthday. Ortop.travm. i protez.  
19 no.3:80 My-Je '58 (MIRA 11:7)  
(BERLINER, BORIS ISAEVICH, 1907-)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0"

ARAKEL'YAN, G.V., inzh.; TSOY, L.G., inzh.

Timber carriers without ballast. Sudostroenie 27 no.11:8-10  
(MIRA 15:1)  
N '61.  
(Timber--Transportation)  
(Freighters)

USSR/ Farm Animals. Small Horned Stock.

Abs Jour: Ref Zhur-Biol., No 9, 1958, 40467.

Author : Tsoy, L. I., Sapargaliyev, G. S.

Inst : Not given.

Title : The Influence of Different Levels of Feeding on  
the Productivity of the Fine-Wool Sheep.

Orig Pub: Ovtsevodstvo, 1957, No 8, 36-39.

Abstract: After weaning, 30 young rams of the Soviet Merino breed were divided into three groups of 10 heads each, and were subjected to differential feeding up to 2 years of age. During the whole period of experimentation, the young rams of the 1st group were fed an average of 155 kg. of concentrates, 116 kg. of hay, 78 kg. of silage, 251 kg. of mangel and 148 kg. of skimmilk. The animals of the 2nd group were fed (in kg.): 144, 156, 78, 254, and 133, respectively. The

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USSR/ Farm Animals. Small Horned Stock.

Abs. Jour: Ref Zhur-Biol., No 9, 1958, 40467.

Abstract: animals of the 3rd group (a control one) were each given 78 kg. of concentrates and 99 kg. of hay. At the age of 13 months, the animals of the 1st group had an average live weight of 87.1 kg., wool yield 8.41 kg., production of pure wool 3.60 kg., and wool length 8.88 cm. The 2nd group yielded 80.2, 8.30, 3.31, and 8.83, respectively. The yield of the 3rd group was: 66.8, 5.21, 2.24, and 8.05. The authors explain the higher wool yield in the 1st and 2nd groups by a considerable increase of the cutaneous area and of the density of wool under the influence of full-value rations.

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"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0

GALIMZHANOV, K.G., inzh.; ZONDUNOV, A.N., inzh.; TSOY, N.D., inzh.

Multiple blasting with electric short-delay action detonators.  
Bezop.truda v prom. 5 no.1:26-28 Ja '61. (MIRA 14:2)  
(Blasting)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0"

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0

TSOY, N.D., gornyy inzh.; IVLIYEV, N.K., gornyy inzh.

Block blasting at the Bustrukha mine. Gor. zhur. no.6:48-52 Je '58.  
(Mining engineering) (MIRA 11:6)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0"

Tsoy N.D.

127-58-6-13/25

AUTHORS: Tsoy, N.D., and Ivliyev, N.K., Mining Engineers

TITLE: Mass Blasting of a Block in the Bystrushinsky Mine (Massovyy vzryv bloka na Bystrushinskem rudniku)

PERIODICAL: Gornyy Zhurnal, 1958, Nr 6, pp 48-52 (USSR)

ABSTRACT: This is a detailed description of the mass blasting of a block in the Bystrushino mine. The authors present calculations for using explosives, electric current and also give the exact timing of all preparatory operations. There are 3 figures and 2 tables.

AVAILABLE: Library of Congress  
Card 1/1 1. Explosives-Applications

TSOY, N. G.

TSOY, N. G.

"Free oscillations of systems of crossed girders taking into account torsion." Acad Sci Ukrainian SSR. Inst of Structural Mechanics. Kiev, 1956.  
(Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya letopis', No. 15, 1956. Moscow.

21030

S/058/61/000/005/048/050  
A001/A101

24.1860

AUTHOR: Tsoy, P.I.

TITLE: Scattering of plane sonic waves by a spherical obstacle (for short wavelengths)

PERIODICAL: Referativnyy zhurnal. Fizika, no 5, 1961, 415, abstract 5Zh703  
("Nauchn. tr. Tul'sk. gorn. in-t", 1958, v 1, 193 - 205)TEXT: The author gives the asymptotic solution of the problem on diffraction of plane sonic wave on a solid sphere, when the wavelength is small in comparison with the sphere radius. The known solution of the problem, in the form of a series in spherical functions, is transformed to the form of the function varying according to an exponential law  $e^{-r^2}$ . The rapid convergence of the series obtained is shown by investigating this function.  
Yu. Konenkov

[Abstracter's note: Complete translation.]

Card 1/1

Cand. Physicomath Sci.

TSOY, P. I.

Dissertation: "Propagation of Sound in the Presence of an Obstacle."

21/22/50  
Sci. Res. Inst. of Mechanics and Mathematics,  
Moscow Order of Lenin State U. imeni.

M. V. Lomonsov.

SO Vecheryaya Moskva  
Sum 71

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0

BARTOSHEVICH, Ye.N.; TSUKER, M.B.; LESHCHINSKAYA, Ye.V.; SOKOLOVA, I.S.;  
MARTYNNENKO, I.N.; ANDREYEVA, L.S.; ASHMARINA, Ye.Ye.

Poliomyelitislike paralytic diseases in children inoculated  
with live Sabin vaccine. Vest. AMN SSSR 18 no.6:16-21 '63.  
(MIRA 17: 1)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0"

BUDNITSKIY, A.B.; VENIKOV, V.A.; GIZILA, Ye.P.; GREBEN', I.I.;  
IYERUSALIMOV, M.Ye.; KALNIBOLOTSKIY, M.L.; KONDRA, B.N.;  
LOYEV, Ye.G.; NESTERENKO, A.D.; PAVLOV, V.M.; POSTNIKOV, I.M.;  
POBEGAYLO, K.M.; RADCHENKO, L.A.; SVECHNIKOV, L.V.; SYROMYATNIKOV,  
I.A.; FEDOSEYEV, A.M.; FEDCHENKO, I.K.; KHODOROV, S.Ye.;  
CHIZHENKO, I.M.; TSUKERNIK, L.V.

Professor Vasili Grigor'evich, 1904 -; on his 60th birthday.  
(MIRA 17:4)  
Elektrichestvo no.4:93-94 Ap '64.

26.2181  
4.9400

21777  
S/170/61/004/004/008/014  
B113/B214

AUTHOR:

Tscoy, P. V.

TITLE:

Boundary value problem for a generalized system of energy-  
and mass transport equationsPERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 4, 1961, 69-74  
TEXT: In this paper, a solution is sought for a general system of energy-  
and mass transport equations.

$$\left. \begin{array}{l} \frac{\partial u_1}{\partial t} = a_{11}^2 \nabla^2 u_1 + a_{12}^2 \nabla^2 u_2 + b_1(x, y, z, t) \\ \frac{\partial u_2}{\partial t} = a_{21}^2 \nabla^2 u_1 + a_{22}^2 \nabla^2 u_2 + b_2(x, y, z, t) \end{array} \right\} \quad (1*)$$

for semibound three dimensional media with boundary conditions of the  
second kind  $u_k(x, y, z, 0) = f_k(x, y, z)$  and  $\left. \frac{\partial u_k}{\partial x} \right|_{x=0} = \varphi_k(y, z, t);$

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Boundary value problem for a ...

( $k = 1, 2, x \geq 0, -\infty < y < \infty, -\infty < z < \infty$ ). By applying to this system of equations the two-sided Fourier transform with respect to  $y, z$ , the cosine Fourier transform with respect to  $x$ , and the one-sided Laplace transform with respect to  $t$ , one obtains

$$\begin{aligned} & (\rho + a_{21}^2 p^2) \bar{U}_1(\xi, \eta, \zeta, p) + a_{12}^2 p^2 \bar{U}_2(\xi, \eta, \zeta, p) = \\ & = - \sqrt{\frac{2}{\pi}} [a_{11}^2 \bar{\Phi}_1(\eta, \zeta, p) + a_{12}^2 \bar{\Phi}_2(\eta, \zeta, p)] + \\ & \quad + \bar{\theta}_1^*(\xi, \eta, \zeta, p) + F_1^*(\xi, \eta, \zeta) \quad \left. \right\} (1^{**}) \\ & a_{21}^2 p^2 \bar{U}_1(\xi, \eta, \zeta, p) + (\rho + a_{22}^2 p^2) \bar{U}_2(\xi, \eta, \zeta, p) = \\ & = - \sqrt{\frac{2}{\pi}} [a_{21}^2 \bar{\Phi}_1(\eta, \zeta, p) + a_{22}^2 \bar{\Phi}_2(\eta, \zeta, p)] + \\ & \quad + \bar{\theta}_2^*(\xi, \eta, \zeta, p) + F_2^*(\xi, \eta, \zeta) \end{aligned}$$

where  $\bar{U}_k^*(\xi, \eta, \zeta, p) = u_k(x, y, z, t)$ ;  $\bar{\theta}_k^*(\xi, \eta, \zeta, p) = \theta_k(x, y, z, t)$ ;

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Boundary value problem for a ...

$F_k^*(\xi, \eta, \zeta) = f_k(x, y, z); \bar{\Phi}_k(\eta, \zeta, p) = \varphi_k(y, z, t), p^2 = \xi^2 + \eta^2 + \zeta^2.$   
 The principal determinant of the system (1\*\*) is of the form  
 $D(\xi, \eta, \zeta, p) = p^2 + p(a_{11}^2 + a_{22}^2)p^2 + (a_{11}^2 a_{22}^2 - a_{21}^2 a_{12}^2)p^4.$  Eq. (1\*\*) also  
 gives  $U_k^*(\xi, \eta, \zeta, p) = \frac{D_k(\xi, \eta, \zeta, p)}{D(\xi, \eta, \zeta, p)}$ . For the determination of  $u_1(x, y, z, t)$

a start is made from

$$\begin{aligned} \bar{U}_1^*(\xi, \eta, \zeta, p) &= \frac{-\sqrt{\frac{2}{\pi}} [(p^2 + a_{22}^2 p^2) \bar{\Phi}_1^*(\eta, \zeta, p) - a_{12}^2 p^2 \bar{\Phi}_2^*(\eta, \zeta, p)]}{D(\xi, \eta, \zeta, p)} + \\ &+ \frac{(p + a_{22}^2 p^2) \bar{U}_1^*(\xi, \eta, \zeta, p) - a_{12}^2 p^2 \bar{U}_2^*(\xi, \eta, \zeta, p)}{D(\xi, \eta, \zeta, p)} + \\ &+ \frac{F_1^*(\xi, \eta, \zeta)(p + a_{22}^2 p^2) - a_{12}^2 p^2 F_2^*(\xi, \eta, \zeta)}{D(\xi, \eta, \zeta, p)}, \end{aligned} \quad (A)$$

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Boundary value problem for a ...

where  $\bar{\Phi}_i^*(\eta, \zeta, p) = a_{i1}^2 \bar{\Phi}_1(\eta, \zeta, p) + a_{i2}^2 \bar{\Phi}_2(\eta, \zeta, p)$  ( $i = 1, 2$ ). Taking into account

$$\frac{Q_m(p)}{R_m(p)} = \sum_{k=1}^n \frac{Q_m(p_k)}{R_n(p_k)} \exp(p_k t), \quad (4)$$

for rational functions with poles of the first order, and by applying the inverse Fourier transform with respect to  $\eta, \zeta$ , the inverse cosine transform with respect to  $\zeta$ , and the inverse Laplace transform with respect to  $p$ , and making use of the convolution theorem for Fourier transforms, one obtains the solution of

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Boundary value problem for a ...

$$\begin{aligned}
 u_1(x, y, z, t) = & \sum_{k=1}^2 \frac{1}{(2c_k V \pi)^3} \times \\
 & \times \left\{ - \int_0^t \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \frac{[\lambda_k \dot{\varphi}_1(\beta, \gamma, \tau) - \mu_k \dot{\varphi}_2(\beta, \gamma, \tau)]}{V(t-\tau)^3} \times \right. \\
 & \quad \times E_k(x, y, z, t; 0, \beta, \gamma, \tau) d\tau d\beta d\gamma + \\
 & + \int_0^t \int_0^{\infty} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \frac{[\lambda_k \theta_1(\alpha, \beta, \gamma, \tau) - \mu_k \theta_2(\alpha, \beta, \gamma, \tau)]}{V(t-\tau)^3} \times \\
 & \quad \times E_k(x, y, z, t; \alpha, \beta, \gamma, \tau) d\tau d\alpha d\beta d\gamma + \quad (5) \\
 & + \frac{1}{V t^3} \int_0^t \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} [\lambda_k f_1(\alpha, \beta, \gamma) - \mu_k f_2(\alpha, \beta, \gamma)] \times \\
 & \quad \times E_k(x, y, z, t; \alpha, \beta, \gamma, 0) d\alpha d\beta d\gamma \Big\},
 \end{aligned}$$

where

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Boundary value problem for a ...

$$E_k(x, y, z, t; \alpha, \beta, \gamma, \tau) = \exp \left[ + \frac{(x-\alpha)^2 + (y-\beta)^2 + (z-\gamma)^2}{4c_k^2(t-\tau)} \right] \left[ 1 + \exp \left( - \frac{\alpha x}{c_k^2(t-\tau)} \right) \right];$$

$$\lambda_k = \frac{a_{22}^2 - c_k^2}{a_{11}^2 + a_{22}^2 - 2c_k^2}; \quad \mu_k = \frac{a_{12}^2}{a_{11}^2 + a_{22}^2 - 2c_k^2};$$

$$\varphi_t(\beta, \gamma, \tau) \doteq \bar{\Phi}_t(\gamma, \zeta, p). \quad \text{Eq. (B)} \quad (\text{B})$$

holds. In an analogous manner

$$u_2(x, y, z, t) = \sum_{k=1}^2 \frac{1}{(2c_k \sqrt{\pi})^3} \times$$

$$\times \left\{ - \int_0^t \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \frac{[\nu_k \varphi_2(\beta, \gamma, \tau) - \lambda_k \varphi_1(\beta, \gamma, \tau)]}{\sqrt{(t-\tau)^3}} \times \right.$$

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Boundary value problem for a ...

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$$\begin{aligned}
 & \times E_k(x, y, z, t; 0, \beta, \gamma, \tau) d\beta d\gamma d\tau + \\
 & + \int_0^t \int_0^\infty \int_{-\infty}^\infty \int_{-\infty}^\infty \frac{[\nu_k \theta_2(\alpha, \beta, \gamma, \tau) - \chi_k \theta_1(\alpha, \beta, \gamma, \tau)]}{V(t-\tau)^3} \times \\
 & \quad \times E_k(x, y, z, t; \alpha, \beta, \gamma, \tau) d\tau d\alpha d\beta d\gamma + \\
 & + \frac{1}{Vt^3} \int_0^\infty \int_{-\infty}^\infty \int_{-\infty}^\infty [\nu_k f_2(\alpha, \beta, \gamma) - \chi_k f_1(\alpha, \beta, \gamma)] \times \\
 & \quad \times E_k(x, y, z, t; \alpha, \beta, \gamma, 0) d\alpha d\beta d\gamma \Bigg\}. \tag{6}
 \end{aligned}$$

is obtained for  $u_2$ . If the superposition effects are not considered in the theory of heat and mass transport of a medium,  $a_{12}^2 = a_{21}^2 = 0$  in the

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system of equations (1\*), and this system is decomposed into independent inhomogeneous equations of the type of heat conduction equations. If  $c_1^2 = a_{22}^2$ ,  $c_2^2 = a_{11}^2$  are substituted in the Eqs. (5) and (6), one obtains after some transforms the solution

$$\begin{aligned} u_I(x, y, z, t) = & \frac{1}{(2V\pi t a_{II})^3} \int_0^t \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} f_I(\alpha, \beta, \gamma) E_I(x, y, z, t; \alpha, \beta, \gamma, \tau) d\alpha d\beta d\gamma + \\ & + \frac{1}{(2V\pi t a_{II})^3} \int_0^t \int_0^{\infty} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \frac{\theta_I(\alpha, \beta, \gamma, \tau)}{V(t-\tau)^3} E_I(x, y, z, t; \alpha, \beta, \gamma, \tau) d\tau d\alpha d\beta d\gamma - \\ & - \frac{1}{(2V\pi t a_{II})^3} \int_0^t \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} \frac{\phi_I(\beta, \gamma, \tau)}{V(t-\tau)^3} E_I(x, y, z, t; 0, \beta, \gamma, \tau) d\tau d\beta d\gamma, \quad (9) \end{aligned}$$

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$$\begin{aligned} E_I(x, y, z, t; \alpha, \beta, \gamma, \tau) = & \\ = \exp \left[ -\frac{(x-\alpha)^2 + (y-\beta)^2 + (z-\gamma)^2}{4a_{II}^2(t-\tau)} \right] \left[ 1 + \exp \left( -\frac{\alpha x}{a_{II}^2(t-\tau)} \right) \right]. \end{aligned}$$

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of the inhomogeneous differential equation of heat conduction with the boundary conditions given by Eqs. (2) and (3). Academician A. V. Lykov is thanked for his valuable advice. S. L. Sobolev is mentioned. There are 2 Soviet-bloc references.

ASSOCIATION: Politekhnicheskiy institut, g. Stalinabad (Polytechnic Institute, Stalinabad)

SUBMITTED: October 8, 1960

Card 9/9

TSOV, P. V.

"Analytical solutions of a system of heat- and mass-transfer equations  
for a semi-bounded medium under various boundary conditions!"

Report presented at the 1st All-Union Conference on Heat- and Mass-  
Exchange, Minsk, BSSR, 5-9 June 1961.

TROY, R.I.

S(2) **PRINCIPLES OF BOOK EXPERTISATION** 807/177  
Andrzejewski Sier. Instytut problemów i analiz historycznych  
Siedmioro z elementami polonistycznego analizy, Przeglada (Warszawa  
Klementynka) struktury, Analiza i zastosowanie (Analys and Application) Warszawa  
1995. 351 p. 2 200 copies printed.

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PLATE I BOOK INFORMATION  
Akademija nauk SSSR. Institut polimerni i analiticheskih metod  
Sistematskijj elementnyj polimernyj analis. Primenenie (Review)  
Klimentov. Extraction, Polymerization, Analysis. Academic  
1958. 351 p. 2-200 copies printed.  
Moscow, Izdatelstvo Akademii Nauk SSSR.

**Editor:** D. I. Ryabchenko. **Professor:** Editorial Board: I. P. Al'marsh, Corresponding Member, USSR Academy of Sciences; I. N. Sosulin, Doctor of Chemical Sciences, B. V. Klyuyev, Candidate of Technical Sciences, V. N. Starov, Doctor of Chemical Sciences; M. M. Gavrilova, Candidate of Chemical Sciences, and Dr. Yu. Shlyapnikov, Candidate of Chemical Sciences. **Editor:** N. A. Kuznetsov, Head of Publishing House; Dr. N. Trifunov and T. O. Levitskaya, Markenrich.

**PURPOSE:** This book is intended for scientists, chemists, teachers, and students of higher educational institutions, technical and industrial engineers and other persons concerned with the extraction, preparation, and/or study of rare earth elements.

**SYNOPSIS.** This collection contains reports presented at the June 1956 Conference on Rare Earth Elements at the Institute of Geochemistry and Analytical Chemistry, Academy of Sciences, Khar'kov. The articles treat chemical methods of separating rare earth elements, methods of preparing rare earth areas, ion exchange chromatography, classical analysis, and some industrial applications of rare earths. Authors from contributing authors, the editors mention the following Soviet scientists who are studying rare earth elements, rare earth deposits, extraction methods, and the preparation of oxides and salts: Martsenyuk, Melnikov, Turchinskaya, Malinovskaya, and Slobodova; Bulyonov, Chirkov, and especially, I. A. Ordov, who first observed the micellecular compounds of the rare elements in the pure state, separated many complex substances and determined their specific properties.

TABLE OF CONTENTS

卷之三

**Rekhin, V.M., N.I. Gerasimov, I.P. Kostyuk, and I.A. Ruzanov** (Dnepropetrovsk State University, Dnepropetrovsk, Faculty of Chemistry). Spectrophotometric Investigation of Complex Compounds of Rare Earth Elements  
Bogolyubov, I.B. (Institute of Geochemistry and Analytical Chemistry) and V.I. Vaynshteyn (Moscow), Use of a Multistation Spectrometer in the Determination of Trace Elements in Soil Samples

**PROBLEMS OF RECYCLING OF RARE EARTH ELEMENTS**  
Bogachev, L.P., and V.A. Dobrovolskiy. "Vneseniye na rynok vlastnoy  
industrii stekla, Obrabotka filial' sredstv 'Protektos' po 25 [All-Union  
Scientific Research Institute for Glass, Ukrainian Nauk. i Tekhn. Artovals' No. 23]. Some Problems of Using Rare Earth Elements in the Glass Industry."  
Dobrovolskiy, V.A., N.M. Sverdlova, and Yu.I. Ponomarev. "Osnovnye  
principii i metody vystroeniya reaktsionnykh ustroystv dlya vypolneniya  
reakcii v plazme." In: Elektronika i radiofizika, No. 10, p. 204.

**192**  
M. H. and V. T. J. R. (Institut für Metallurgie, Altona -  
Institute für Metallurgie at Göttingen). Study of the Microstructure and Physico-  
Mechanical Properties of Bare Earth Plates and their Allotria-  
Berthieritically for Polishing Glass on a Conveyor of the Plant Israel P. M.

103

APPROVED FOR RELEASE: 03/14/2001

**CIA-RDP86-00513R001757130007-0"**

Tsoy, R.I.

USSR/Chemical Technology. Chemical Products and their Application.  
Glass. Ceramics. Building Materials.

J-12

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27634

Author : Yu. A. Brodskiy. Yu. M. Tyurin, R.I. Tsoy.

Inst :

Title : Experiment of Application of Polirite to Polishing Glass  
on Conveyers.

Orig Pub: Steklo i keramika, 1956, No 7, 8-11.

**Abstract:** The new polishing material - polirite (P) - has a polishing capacity 2 to 2.5 times greater than the ordinary crocus. The chemical composition of a batch of P is (in %): CeO<sub>2</sub> - 47.35; oxides of other rare earth metals (lanthanum, praseodymium, neodymium etc.) 47.27; SiO<sub>2</sub> - 0.16; Al<sub>2</sub>O<sub>3</sub> - 2.21; Fe<sub>2</sub>O<sub>3</sub> - 0.77; CaO - 0.42; MgO - 0.17; loss on ignition - 1.2. The main polishing component of P is CeO<sub>2</sub>, the content of which in P should be  $\leq$  40%. The presence of CaO in the amount of above 1% decreases the polishing ca-

Card : 1/3

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USSR/Chemical Technology. Chemical Products and their Application.  
Glass. Ceramics. Building Materials.

J-12

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27634

pacity considerably. The temperature of roasting of P is of an essential importance to its polishing capacity, the optimum temperature being 1100°. The test of P was carried out on a conveyor ShS-500, the speed of the band having been 2.42 m/min, and the initial ground glass surface had unevennesses  $U_{max} = 3.0$  to  $3.5 \mu$ ; the polishing capacity of P was 0.3148 g. The pressure on the polisher in 49 polishing benches was 73 g/sq. cm, and it was from 33 to 73 g/sq.cm in other 6 benches. The total glass polishing amounted to  $10.4 \mu$ . Under the same conditions of polishing, but at the band speed of 2.20 m/min, the polishing of glass with crocus, the polishing capacity of which was 0.1916 g, was  $10.5 \mu$ . The substitution of crocus with P under the same conditions of polishing results in a considerable raise of the yield of commercial 1st grade plate glass without any noticeable increase of the thickness of the polished layer

Card : 2/3

-34-

USSR/Chemical Technology. Chemical Products and their Application.  
Glass. Ceramics. Building Materials.

J-12

Abs Jour: Referat Zh.-Kh., No 8, 1957, 27634

of glass. Profile graphs of the glass surface are attached; these graphs show the glass surface at various stages of polishing, starting from a surface with a relief layer 3.0 to 3.5 $\mu$  thick and ending with a completely polished surface. The profile graphs were made with a diamond needle, the vertical magnification being 10,000 to 100,000 times. The conclusion that P works in the last stages of glass polishing more intensively than crocus is arrived at on the basis of the profile graphs.

Card : 3/3

-35-

5(2) FILE: BOOK EXPLOITATION

207/202

5(2)

Amerikanska kniga SSSR. Institut gosudarstvennoi i sotsialicheskoy knizhki  
Beloserebrnye elementy. Polucheniye, analiz, prilozheniya (Rare Earth Elements)  
produktov, Analiz, i uchebnik. Izd. (1e) Moscow, 1959. 553 p.  
5,000 copies printed.

Rep. No. 1. D. I. Pashkevich, Professor; M. N. Strizhev,  
Head, G. I. Levit, Head, M. I. S. G. Novgorodskii, Editorial Board; T. P. Alimova,  
Corresponding Member, USSR Academy of Sciences; V. I. Stepanov, University Doctor of  
Chemical Sciences; R. V. Volnichenko, Candidate of Chemical Sciences; V. V.  
Kazakov, Doctor of Chemical Sciences; N. M. Karginova, Candidate of Chemical  
Sciences; and Yu. S. Shlykunova, Candidate of Chemical Sciences.

Purpose: This book is intended for chemists in general and for geochemists and  
analytical chemists in particular.

CONTENTS: This collection of articles consists of reports presented at the 2nd  
Soviet Conference on Rare Elements held in June 1956 at the Institute of Geochemistry  
and Analytical Chemistry (now V. I. Stepanov). The book may be divided into  
three sections: the characteristics of the elements, uses and production of rare earth  
elements (20%); the methods of analyzing REE and the application of these  
elements; rare earth elements and their structure in the glass and metallurgical  
industry, and their use as catalysts. Conference papers are devoted to the  
application of ion-exchange chromatography in the production of rare earth  
elements. The conference paper also concerned with other methods of  
separating REE on an industrial scale are discussed by N. V. Karginova,  
Yu. S. Shlykunova and N. N. Stepanova. Chemical methods of separating  
the components are discussed by V. V. Kazakov. One is made to the first  
attempt to develop methods of processing rare earth elements by V. P. Volkov, Z. F.  
Zhdanov, A. V. Vinogradov, and G. P. Alekseeva. Quantitative X-ray  
analytical methods are described by E. Ye. Borodina, and chemical analytical  
methods by T. P. Alimova and P. I. Portokalov. The conference paper  
is concerned in rare products and stable materials are discussed at length  
in three articles by A. G. Serein' and his associates. All articles are  
supplemented by bibliographies, tables, and bibliographic references.

Table 1. A. G. Serein' and A. A. Liderman. Spectrochemical determination of rare  
Earth elements in atomic materials. Communication 1. Analysis of Cerium-  
Pr, and Sm in Atomic Materials. Communication 2. Analysis of Cerium-  
Eu and Bi search on Cd. 258

Gribushin, T. I. Determining small amounts of REE in purified REE  
by the method of radiation spectrometry. 262

Rezhnikov, V. M., M. I. S. G. Novgorodskii, T. P. Alimova, and N. A. Stepanova.  
Spectrophotometric Investigation of Composite Compounds of Rare Earth  
Elements 277

Dolgopolskii, I. S. Applying the ion-exchange technique in analysis  
of binary mixtures of rare earth elements 282

Kazakov, V. V., and V. A. Stepanov. Correlation problems in the use of  
Rare Earth Elements in the Glass Industry 290

Teplokhodov, Yu. M., Serein', A. G., and P. A. Brodsky. Process of the Use of  
Volfrum Glass on a Conveyor at the Plant (i.e. P. E. Dem-  
idovskii-Chelyabinsk), and V. I. Stepanov. Study of the Structure and  
Physical-Mechanical Properties of Rare Earth Elements and Their Alloys 309

Tolokonnikova, A. A., and A. A. Serein'. Rare Earth Elements as Catalysts  
in Organic Chemistry. Cerium, Lanthanum and Samarium Oxides 307

Lekha, V. I., N. A. Kostomarov, and Z. A. Tsvetkov. The Use  
of Rare Earth Elements in the Chemistry of Lubricants. The Use  
of Rare Earth Elements in the Chemistry of Lubricants 314

Ribishev, N. N., and V. A. Stepanov. Use of Rare Earth Metals in  
Alloying Ingotous Cast Alloys 323

AVAILABILITY: Library of Congress 21

BRODSKIY, Yu.A.; TYURIN, Yu.M.; TSOY, R.I.

Using "pelirit" for the conveyer polishing of glass. Stek.i ker. 13  
no.7:8-11 Jl '56. (MIRA 9:9)  
(Plate glass) (Gus'-Khrustal'myy--Grinding and polishing)

✓ Viscosity of Industrial glasses. M. V. Gerasimov and R. I. Tsvetkov. Sov. Pat. No. 10, No. 6, 11, Glass Tech., 1955, p. 86, 369).—Extensive data (with glass compositions) obtained by the fibre-elongation method are recorded. J. A. Steiner.

(A)

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CIA-RDP86-00513R001757130007-0"

Tsay, R.L.

✓ Viscosity of commercial glasses within softening and annealing temperature interval. M. V. Gerasimov and

A. S. Slobodkin. Kvant. 16 N 1, p. 1-14, 1954

from  $\eta = \frac{P h^2 g z}{3 V \Delta l}$ , where  $P$  is stretching force in g.,  $l_0$  and  $l$  are initial and final lengths of rod,  $V$  is volume of rod,  $\Delta l$  is elongation of rod in time  $Z$ , and  $g$  is gravity. Results are shown in curves. Total error in measurements ranged from 1 to 9%. R. Z. Krasn.

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0

OKHOTIN, M.V.; TSOY, R.I.

Viscosity of industrial glasses in the interval between the softening point  
and fritting. Stek. i ker. 10 no. 6:11-13 Je '53. (MLRA 6:5)  
(Glass)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0"

OKHOTIN, M.V.; TSOY, R.I.

~~Viscosity of sodium-calcium-aluminum-silicate glasses within the interval  
of 10<sup>15</sup> to 10<sup>17</sup> poises. Steklo i Keram. 9, No.8, 3-6 '52. (MLRA 5:8)~~  
(CA 47 no.18:9581 '53)

GORODINSKIY, G.M.; MINAKOV, A.G.; TSOY, R.I.

Plant control of the surface finish of polished glass.  
Stek. i ker. 13 no.12:9-11 D '56.

(MLRA 10:2)

(Plate glass--Quality control)  
(Reflectometer)

✓ Viscosity of commercial glasses within softening and annealing temperature interval. M. L. KIRKENS AND R. J. ISSEL, U.S.P.T.O., KIRKENS, 10, 161, 11, 14, 1951. The viscosity of glasses of 25 different glasses close in composition to commercial glasses was determined by the method of elongation of thread and calculated from  $\eta = PI_2 l_2 Zg / 3V\Delta l$ , where  $P$  is stretching force (gm),  $l_1$  and  $l_2$  are initial and final lengths of rod,  $V$  is volume of rod,  $\Delta l$  is elongation of rod in time  $Z$ , and  $g$  is gravity. Results are shown in curves. Total error in the measurements ranged from 4 to 8%.

B.Z.K.

(1) ④

108. Viscosity of industrial glasses in the interval between the softening and annealing temperatures. — N. V. OLEKSE and R. I. TSOL (Glass & Ceramics, Moscow, 10, No. 6, 1958). The viscosity of 22 industrial glasses was measured by the method of falling glass balls. A glass ball is set onto a horizontal surface at a temperature of 100°C. The time required for the ball to roll 10 cm is taken as the measure of viscosity. The viscosity of glass is 4 x 10<sup>-4</sup> poise at 100°C. The viscosity of glass is 1.428 x 10<sup>-4</sup> poise at 1450°C.

SOV/124-57-5-5423

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 46 (USSR)

AUTHORS: Shepolev, S. F., Tsoy, S.

TITLE: A Comparative Evaluation of the Analytical Formulae for Calculating Air Curtains (Sravnitel'naya otsenka analiticheskikh formul rascheta vozдушnykh zaves)

PERIODICAL: Tr. In-ta gorn. dela AN KazSSR, 1956, Vol I, pp 133-139

ABSTRACT: A comparison is made of the respective results obtained when the curvilinear axis of an air curtain is calculated by the various theoretical and empirical formulae of a number of different authors. A method is demonstrated for calculating the quantity of outside air that may be expected to penetrate into a given space shielded by an air curtain. Bibliography: 9 references.

I. A. Shepelev

Card 1/1

KKEKIN, A.A.; TSOY, S.; STAKHANOV, A.N.; SOLONITSYN, B.P.

Dust removal in underground mechanical ore crushing plants. Izv. AN  
Kazakh. SSR. Ser.gor.dela no.2:88-95 '60. (MIRA 13:10)  
(Mine dusts) (Dust--Removal)

KEKIN, A.A.; TSOY, S.; STAKHANOV, A.N.

Determination of the statistical pressure in the operation of a  
dust collector consisting of a venturi with a cyclone. Izv. Akad.  
Kazakh.SSR.Ser.gor.dela no.2:85-90 '61. (MIRA 15:2)  
(Dust collectors)

FARAMAZOV, S.A., kand. tekhn. nauk; GINZBURG, M.B., inzh.; PIRUMYAN, M.Ye.,  
inzh.; TSOYREF, M.I., inzh.

Mechanization of the cutting of a high-viscosity polymer. Mekh.  
i avtom. proizv. 19 no.10:11-12 O '65. (MIRA 18:12)

TSURIKOVA, Anna Prokof'yevna; SHUL'GINA, Yelizaveta Fedorovna;  
SIMONOV, A.I., ottv. red.; VAYTSMAN, A.I., red.;  
KOTIKOVSKAYA, A.B., red.

[Hydrochemistry of the Sea of Azov] Gidrokhimiia. Azov-  
skogo moria. Leningrad, Gidrometeoizdat, 1964. 257 p.  
(MIRA 17:6)

TSOV, S. (Alma-Ata); ROGOV, Ye.I. (Alma-Ata)

Calculation theory of ventilation systems. Izv. AN SSSR. Otd. tekhn.  
nauk. Met. i gor. delo no.3:175-179 My-Je '63. (MIRA 16:7)  
(Mine ventilation)

TSOY, S.

Ventilation of high mountain mines. Trudy Inst. gor. dela AII  
Kazakh. SSR 6:209-210 '60. (MIRA 13:12)  
(Mine ventilation)

TSOY, S.

Analytical determination of mine ventilation with a simultaneous  
use of fans. Izv.AN Kazakh.SSR. Ser.gor.dela no.2:84-90 '59.  
(MIRA 13:4)

(Mine ventilation)

Tsy, S.

PHASE I BOOK EXPLORATION

SOT/2271

10(2) Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956.  
Trudy (Transactions of the Conference on Applied Gas Dynamics) Alma-  
Ata, Izd-vo AN Kazakhskoy SSR, 1959. 235 p. Errata slip inserted.  
qrr

Sponsoring Agency: Kazakhstan Gosudarstvenny universitet imeni S.M.  
Kirova.  
Ed.: V.V. Aleksandrovskiy, Tech. Ed.: Z.P. Rorokina; Editorial Board:  
I.A. Yulfa (Resp. Ed.), V.P. Kashkarov, T.P. Lanchyeva, and B.P.  
Ustimenko.

PURPOSE: This book should be of interest to scientists and engineers  
working on problems of applied gas dynamics and may be of use to  
students.

COVERAGE: This book presents reports and brief summaries of the dis-  
cussions which took place at the Conference on Applied Gas Dynamics  
in Alma-Ata in October 1956. The conference was subdivided into three  
areas of applied gas dynamics: jet flows of fluids and gases, the  
aerodynamics of heating processes, and the discharge of a fluid  
from a container. The practical value of the transactions of the Conference  
consists in the development of theory, methods of technical calcu-  
lation and methods for systematic measurement applied to heat-  
ing, furnace, and other industrial processes for which, in most  
cases, aerodynamic phenomena are decisive factors.

Akhatov, N.I. Survey of Articles on Jet Theory by the Chair  
of Hydro- and Aerodynamics of the Leningrad Polytechnical Institute

imenni M.I. Kalinin 107

Shepelev, S.P., and S. Taox. Two-dimensional Jet in the Cross  
Section of an Air Duct 108

Bespalova, I.G. Use of Hydrodynamic Calculating Machines for  
the Solution of Jet Problems 115

Brief Summary of the Discussions 122

Session of October 25, 1956 (morning)

Kabanil'son, B.D. Some Problems in the Aerodynamics of Cylinders  
Combustion Chambers and the Combustion of Coal Dust 123

Ustimenko, B.P. Aerodynamics of Twisted Jets and Cylinders  
Chambers 124

TSOV, S.; SHEPELEV, S.F.

Regulating the distribution of air in mines by air curtains  
through the interaction of meeting air streams. Vest. AN  
Kazakh. SSR 14 no.8:56-66 Ag '58. (MIRA 11:10)  
(Mine ventilation) (Air curtains)

Tsoy, S.

SOV/124-58-11-12408

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 65 (USSR)

AUTHORS: Shepelev, S. F., Tsoy, S.

TITLE: A Plane Air Sheet-jet in the Cross Section of a Mine (Ploskaya vozдушная струя в поперечном сечении выработки)

PERIODICAL: Tr. In-ta gorn. dela. AN KazSSR, 1958, Vol 3, pp 129-146

ABSTRACT: The paper quotes the results of the first stage of an investigation and evaluation of the efficiency and applicability of air curtains for the purpose of regulating air distribution in underground mine workings. During the investigations made on models of mines the form of the axis, the profile of the field of the air velocities of the stream, and the amount of ejected air were determined.

V. N. Gusev

Card 1/1

SHEPELEV, S.F.; TSOY, S.

Air stream flowing steadily from a crevasse into space limited in height by parallel planes. Trudy Inst. gor. dela AN Kazakh. SSR no.3:160-171 '58. (MIRA 11:6)  
(Aerodynamic measurements)

TSOI, S.

Ansell's automatic firedamp indicator (from D. Penman and G.S. Penman "The principles and practice of mine ventilation," 2d. ed., 1947). S. TSoi. Trudy Inst. gor. dela AN Kazakh. SSR no.3: 172-173 '58. (MIRA 11:6)

(Great Britain--Gas detectors)  
(Penman, D.) (Penman, G.S.)

SHEPELEV, S.P.; TSOY, S.

Flat air stream in a cross section of a mine. Trudy Inst. gor.  
dela AN Kazakh. SSR no.3:129-146 '58. (MIRA 11:6)  
(Mine ventilation) (Air curtains)

*TSOY, S.*  
SHEPELEV, S.F.; TSOY, S.

Comparative evaluation of analytical formulas for calculating air  
barriers. Trudy Inst. gor. dela AN Kazakh. SSR 1:133-139 '56.  
(Mine ventilation) (MIRA 11:1)

TSOY, S.  
SHREPELN, S.F.; TSOY, S.

Portable mine gas detectors. Trudy Inst. gor. dela AN Kazakh. SSR  
1:183-185 '56. (MIRA 11:1)  
(Mine gases) (Gas detectors)

SHEPELOEV,S.F., kandidat tekhnicheskikh nauk; TSOY, S., gornyy inzhener.

Effectiveness of ventilation in removing dust when boring in blind  
holes, Bor'ba s sil. 2:150-158 '55. (MIRA 9:5)

1. Institut gornogo dela Akademii nauk Kazakhskoy SSR (for TSoy)  
(MINE VENTILATION) (BORING) (DUST--REMOVAL)

RADCHENKO, G.A., kandidat tekhnicheskikh nauk; BELOBORODOV, P.V., gornyy  
inzhener; TSOY, S., gornyy inzhener

Calculating ventilation of areas in the secondary crushing horizon  
as applied to stage ore crumbling systems. Bro'ba's sil. 2:159-172  
'55. (MIRA 9:5)

1. Institut gornogo dela Akademii nauk Kazakhskoy SSR.  
(MINE VENTILATION) (DUST--PREVENTION)

SHEPELEV, S.F., TSOY, S.

Air shower as a means of protecting the miner from dust. Izv.  
AN Kazakh.SSR.Ser.gor.dela, met. i stroimat. no.11:194-117 '56.  
(MIRA 10:1)  
(Miners--Diseases and hygiene) (Mine dusts)

TSOY, S., gornyy inzhener; SAPITSKIY, K.E., gornyy inzhener; PETROSYAN, A.E.

On the article of A.E.Petrosian "Problem of determining the permissible length of a stope in accordance with ventilation requirements in gas mines of the Donets Basin." Ugol' 28 no.8:46-47 Ag '53. (MLRA 6:7)  
(Mine ventilation)

KEKIN, A.A.; TSOY, S.V.; STAKHANOV, A.N.

Results of studies of a dust collector with preliminary coagulation  
of dust. Trudy Inst.gor.dela AN Kazakh.SSR 8:137-149 '51.  
(MIRA 15:4)  
(Dust collectors)

AZIZBEKOV, Sh.A.; AMIRASLANOV, A.A.; ASLANYAN, A.G.; MUSTAFABEYLI,  
M.A.; SINANYAN, G.A.; TVALCHRELIDZE, G.A.; TSOY, V.;  
KITAYENKO, L.G., red. izd-va; SHMAKOVA, T.M., tekhn. red.

[Geology of lead and zinc deposits in the Caucasus and their  
distribution features] Geologija svintsovotsinkovykh mest-  
rozhdenii Kavkaza i zakonomernosti ikh razmeshcheniya. Otvet.  
red. A.A. Amiraslanov. Moskva, Gosgeoltekhnizdat, 1962. 165 p.  
(MIRA 15:7)

(Caucasus—Lead ores)

(Caucasus—Zinc ores)

CHALYY, K.; TSOY, V.

Radio network in the service of machinery operators. Radio no.7:7  
(MIRA 7:7)  
Jl '54.  
(Radio in agriculture) (Telephone, Wireless)

Tsoy, V.

USSR/Miscellaneous - Radio communications

Card 1/1 : Pub. 89 - 4/29

Authors : Chaliy, K., and Tsoy, V.

Title : Radio communications in the service of mechanization specialists

Periodical : Radio 7, page 7, July 1954

Abstract : The article deals with the system of radio communications between the various Kolkhozes and the newly organized MTS (Machine-Tractor Stations) in Kazakhstan. General information about the type of radio-installations and the range of operation, in the newly opened areas, is given, together with the number of new Kolkhozes, MTS, tractors and mechanized plows. Illustration.

Institution : ...

Submitted : ...

BAGOV, M.S.; TSOY, V.I.; REMNEV, B.F.

Evaluation of the physical properties of cores of fractured rocks.  
Trudy GrozNII no.10:161-170 '61. (MIRA 15:2)  
(Borings)

REMNEV, B.F.; BAGOV, M.S.; TSOY, V.I.

Method of determining the connate water content in cores and  
studying their pore structure. Trudy GrozNII no.10:158-160  
'61. (MIRA 1982)

(Borings)

TSOY, V.P., red.; SHERMAN, R., red.; NAGIBIN, P., tekhn.red.

[Sugar beets] Sakharnaia svekla. Izd. 2., dop. i perer.  
Alma-Ata, Kazakhskoe gos. izdat-vo, 1958. 171 p. (MIRA 12:2)  
(Sugar beets)

1. TSOY, V.P.
2. USSR (600)
4. Agriculture
7. Sugar beet. Alma-Ata, Kazgosizdat, 1952

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

TSOY DYAY O.

TSOY DYAY O: "Stars of the Be type". Leningrad, 1955. Lenin-  
grad Order of Lenin State U imeni A. A. Zhdanov. (Dissertations  
for the Degree of Candidate of Physicomathematical Sciences)

SC: Knizhnaya letopis', No. 52, 24 December 1955. Moscow.

TSOYMAN, G., inzh.

Equation of state for Freon-13. Khol.tekh. 36 no.1:37-39 Ja-F '59.  
(MIRA 12:3)

1. TSentral'nyy proyektno-konstruktorskiy institut, g. Kiyev.  
(Freons)

AUTHOR: Tsoyman, G., Engineer SOV/66-59-1-8/32

TITLE: Equation of State for Freon-13 (Uravneniye sostoyaniya freona-13)

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 1, pp 37-39 (USSR)

ABSTRACT: Freon-13 with its low boiling temperature is receiving growing attention as a low temperature cooling agent. An equation of state for Freon-13 is being presented, satisfying the experimental values of p (pressure), v (volume) and T (temperature) with a high degree of accuracy, which can not be said about the equation worked out by Albright and Martin. The author's equation has been developed on the basis of the procedure worked out recently by Ya. Kazavchinskiy, while the experimental data of Albright and Martin have been utilized, as well as those of Riedel, Ruff and Keim. In accordance with the presented equation of state it is possible to determine the thermo-dynamic properties of Freon-13, up to the point of saturation in the interval of densities from 0 to 1.2 of the critical one. It permits extensive extrapolation in the domain of high and low temperatures. The method of obtaining analytical expressions for elementary functions applied in the derivation of the equation ensures greatest coincidence with the

Card 1/2

Equation of State for Freon-13

sov/66-59-1-8/32

experimental values of p, v, T. The equation can be used for compiling of thermo-dynamic tables and plotting of thermal diagrams.

There are 2 tables and 5 references, 1 of which is Soviet, 2 German and 2 American.

ASSOCIATION: Tsentral'nyy proyektno-konstruktorskiy institut, g. Kiyev  
(Central Planning and Designing Institute of Kiyev)

Card 2/2

TSOYMAN, G. I.

Cand Tec Sci, Diss -- "Investigation of the thermodynamic properties of ammonia and fluorochlorine derivatives of hydrocarbons of industrial importance". Baku, 1961. 26 pp with graphics, 20 cm (Joint Council of the Azerbaydzhan Inst of Petroleum and Chem imeni Azizbekov and inst and installations of the Acad Sci AzSSR on power engr and automation of industrial processes), 250 copies, No charge (KL, No 9, 1961, p 185, No 24378). 61-52332

RABINOVICH, V.A.; TSOYMAN, G.I.

Equation of state and thermodynamic properties of liquid ammonia.  
(MIRA 14:4)  
Inzh.-fiz. zhur. 4 no.1:31-35 Ja '61.  
1. TSentral'noye proyektno-konstruktorskoye byuro No.3, Odessa i  
Institut inzhenerov Morskogo flota, Odessa.  
(Ammonia) (Equation of state)

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"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0

TSOYMAN, G.I.

Caloric properties of undissociated ammonia. Zhur.fiz.khim.  
(MIFI A 14:10)  
35 no.9:2132-2134 '61.  
(Ammonia--Thermal properties)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0"

SOV/76-33-5-6/33

5(4)  
AUTHORS: Kazavchinskiy, Ya. Z., Tsayman, G. I. (Odessa)  
TITLE: The Equation of State of Freon-41 (Methylfluoride) (Uravneniye sostoyaniya freona-41 (metilftorida))  
PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 5,  
pp 992 - 996 (USSR)  
ABSTRACT: In a previous paper (Ref 2)  $\sigma = \alpha_0 + \alpha_1 \tau + \beta \psi$  was derived for the equation of state of a real gas and the methods of analytical determination of the coefficients  $\alpha_0, \alpha_1, \beta$ , and the graphic-analytical determination of the function  $\psi$  was given. This paper uses the experimental data for  $p$ ,  $v$ , and  $T$  obtained by Michels (Ref 3). The equations for three isothermal lines are formulated: the critical isothermal line  $44.6^\circ\text{C}$  (in dimensionless coordinates  $\tau = 1$ ),  $100^\circ\text{C}$  ( $\tau = 1.174351$ ), and  $150^\circ\text{C}$  ( $\tau = 1.331707$ ). The equation of the isothermal lines runs as follows:  $\sigma = \tau + B\omega + C\omega^2 + D\omega^4 + E\omega^6$ . The values for  $B$ ,  $C$ ,  $D$ , and  $E$  are shown in table 1. The graphic-analytical determination of the temperature function  $\psi$  showed that it can be represented with sufficient accuracy by

Card 1/2  $\psi = \frac{1}{\tau^5}$ . On account of these equations of isothermal

The Equation of State of Freon-41 (Methylfluoride)

SOV/76-33-5-6/33

lines the analytical expressions for the elementary functions  $\alpha_0$ ,  $\alpha_1$ , and  $\beta$  were found which are compared to the experimental data in table 2. The equation of state permits an extensive extrapolation towards both sides. The values for  $v''$  of freon-41 were determined on account of the dependences between saturated steam pressure and temperature indicated by Michels (Ref 5). Table 3 shows the values for  $p$  and  $v''$  interpolated for low temperatures. Moreover, the calorific data of freon-41 were computed by means of the equation of state. Tables 4 and 5 show the specific heat and specific inner energy as compared to the values by Michels. There are 5 tables and 6 references, 3 of which are Soviet.

SUBMITTED: August 8, 1957

Card 2/2

S/276/63/000/002/030/052  
A052/A126

## AUTHORS:

Tsozik, G.P., Nenazhivin, G.A., and Zuyev, V.G.

## TITLE:

Machine for mechanized enamel-slip application to steel objects

## PERIODICAL:

Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 2,  
1963, 109, abstract 2B595 (Sb. rabet N.-i. in-ta tekhnol.  
mashinostr. Sovnarkhoz Rostovsk. ekon. adm. r-na, no. I,  
1960, 9-15)

TEXT: An experimental mechanized merry-go-round type installation for enamel-slip application is described on which a simultaneous progressive and rotary motion of workpieces is realized. In the process of progressive motion the workpieces are dipped into a bath with slip. The number of reversing turns is controlled by means of a pulse-counting relay and the speed of the carriage and rotational speed of workpieces are controlled by chokes mounted in the pneumatic system. The slip application to the workpiece surface and the runoff of its excess into the bath take place under constant preset conditions securing high-quality products. By means of easily exchangeable guide blocks a coating can be applied to

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S/276/63/000/002/030/052  
A052/A126

Machine for mechanized...

hollow objects of various configuration. The advantages of the installation are: the possibility of a simultaneous enamel application to the inside and outside surfaces of an object, reduction of the primary coat thickness to 0.1-0.11mm, reduction of the covering enamel layer to 0.2 - 0.22mm, improvement of quality, increase of efficiency by over 100%. The possibility of incorporating the installation in a mechanized line for steelware enameling (320mm maximum size of pieces) is stressed.

L. Kamionskiy

(Abstracter's note: Complete translation.)

Card 2/2

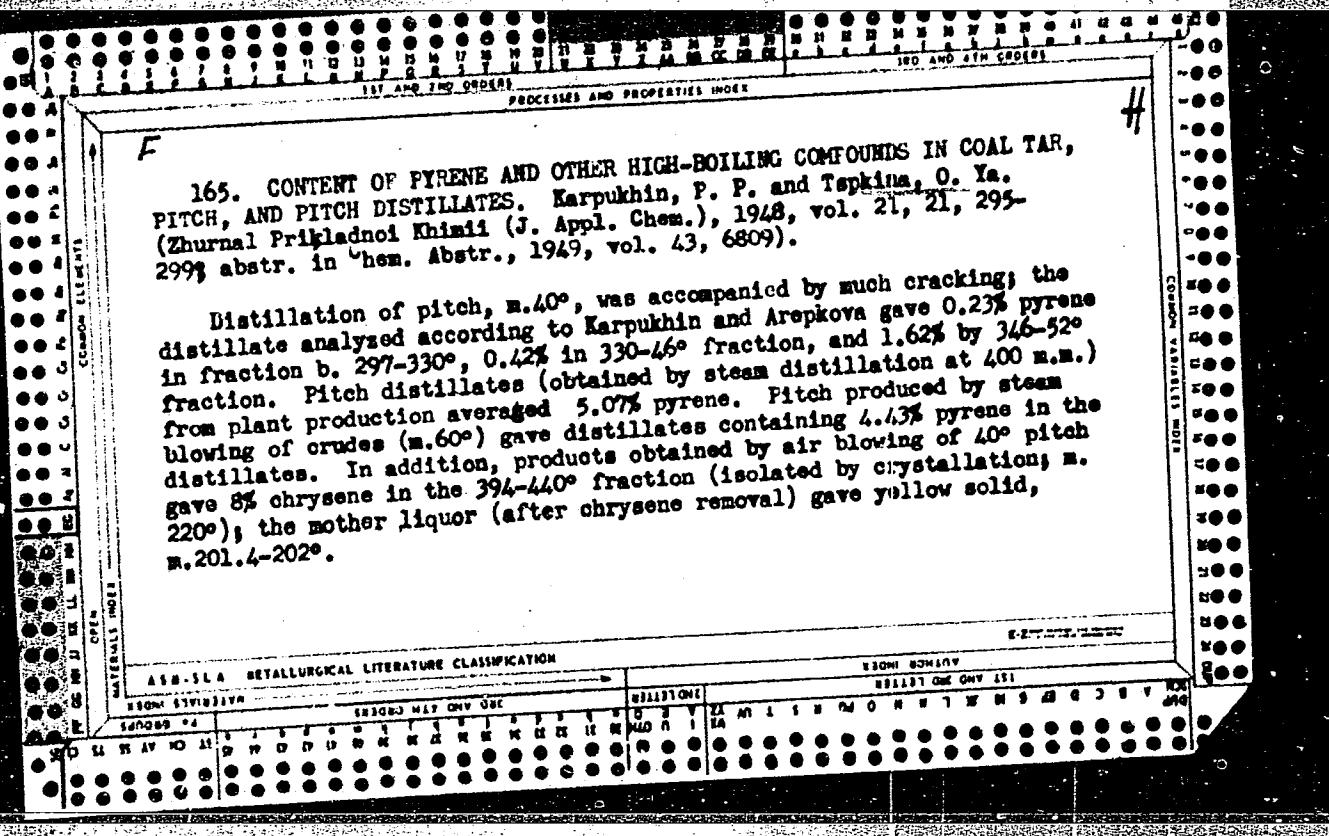
TSPENKO, A.

Bulgarian Architecture. p. 3" (ARCHITEKTURA I STROITELSTVO) Vol. 2, No. 3, 1952,  
Sofiya, Bulgaria.

SO: Monthly List of East European Accessions L.C. Vol. 2, No. 11, Nov. 1953, Uncl.

165. CONTENT OF PYRENE AND OTHER HIGH-BOILING COMPOUNDS IN COAL TAR, PITCH, AND PITCH DISTILLATES. Karpukhin, P. P. and Tsvirkina, O. Ya. (Zhurnal Prikladnoi Khimii (J. Appl. Chem.), 1948, vol. 21, 21, 295-299; abstr. in Chem. Abstr., 1949, vol. 43, 6809).

Distillation of pitch, m.40°, was accompanied by much cracking; the distillate analyzed according to Karpukhin and Arepkova gave 0.23% pyrene in fraction b. 297-330°, 0.42% in 330-46° fraction, and 1.62% by 346-52° fraction. Pitch distillates (obtained by steam distillation at 400 m.m.) from plant production averaged 5.07% pyrene. Pitch produced by steam blowing of crudes (m.60°) gave distillates containing 4.43% pyrene in the distillates. In addition, products obtained by air blowing of 40° pitch gave 8% chrysene in the 394-440° fraction (isolated by crystallization; m. 220°); the mother liquor (after chrysene removal) gave yellow solid, m.201.4-202°.



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 165. CONTENT OF PYRENE AND OTHER HIGH-BOILING COMPOUNDS IN COAL TAR,  
 PITCH, AND PITCH DISTILLATES. Karpukhin, P. P. and Tepkina, O. Ya.  
 (Zhurnal Prikladnoi Khimii (J. Appl. Chem.), 1948, vol. 21, 21, 295-  
 299; abstr. in Chem. Abstr., 1949, vol. 43, 6809).

Distillation of pitch, m.40°, was accompanied by much cracking; the distillate analyzed according to Karpukhin and Arepkova gave 0.23% pyrene in fraction b. 297-330°, 0.42% in 330-46° fraction, and 1.62% by 346-52° fraction. Pitch distillates (obtained by steam distillation at 400 m.m.) from plant production averaged 5.07% pyrene. Pitch produced by steam blowing of crudes (m.60°) gave distillates containing 4.43% pyrene in the distillates. In addition, products obtained by air blowing of 40° pitch gave 8% chrysene in the 394-440° fraction (isolated by crystallization; m. 220°); the mother liquor (after chrysene removal) gave yellow solid, m.201.4-202°.

ASM-LSA METALLURGICAL LITERATURE CLASSIFICATION

ECONOMIC

METALLURGY

TSPLENKOV, Ye.P., kand.sel'skokhoz.nauk; POPOV, G.A., nauchnyy sotrudnik;  
STRUBINSKIY, M.S., nauchnyy sotrudnik

Toxicity of aldrin and dieldrin in the control of the migratory  
and the Italian locust. Zashch. rast. ot vred. i bol. 5 no.1:  
28-29 Ja '60. (MIRA 14:6)

1. Vsesoyuznyy institut zashchity rasteniy.  
(Locusta) (Dieldrin) (Aldrin)

*Tsrnchevich*

H-28

YUGOSLAVIA / Chemical Technology. Food Industry.

Abs Jour : Ref Zhur - Khim., No 12, 1958, No 41384

Author : Tsrnchevich, Gugyshevich

Inst : Not given

Title : Formation of a Marbled Appearance in Tin Cans Containing  
Preserved Stewed Fruits.Orig Pub : Technika, 1957, 12, No. 11, Prehrabena ind., 11, No. 11,  
165-168

Abstract : The causes of corrosion (marbling) of tin and the change in color of the preserved stewed fruits are investigated as well as the preventative measures against the mentioned phenomena. The effect of individual types of fruit on the tin corrosion was studied. The most intensive corrosion was caused by sulfides. In their absence, the tanning substances have no effect on good quality tin. Pectin solutions protect tin from corrosion; however, its normal concentration in fruits is insufficient for the protection of the tin.

Card 1/1

YUGOSLAVIA / Chemical Technology. Food Industry

II-28

Abc Jour : Rof. Zhur-Khimiya, No 12, 1958, 41356

Abstract : 8.7; glucose 6.39; sacharose 0; peotin 0.53; tanning  
substancos 0.5; ascorbic acid 174.2mg%; pH of the juice  
5.1; the ratio of the sugar amount to that of acid 23.1 to  
1. A jam from the fruits of the strawberry tree and from  
thoir mixturo with applos has a good quality.

Card 2/2

S/081/63/000/003/028/036  
B144/B186

AUTHORS: Kabaivanov, Vl., Ts"rnorechki, O.

TITLE: Compatibility of polyvinyl chloride with polyvinyl acetate  
in the presence of a third component

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 3, 1963, 589, abstract  
3T45 (Godishnik Khim.-tekhnol. in-t, v. 7, nos. 1-2, 1960  
(1961), 213-222 [Bulg.; summaries in Russ. and Eng.])

TEXT: It has been established as a result of studying the compatibility  
of polyvinyl chloride [(PVC), molecular weight 40 000] with polyvinyl  
acetate [(PVA), molecular weight 30 700] in the presence of dibutyl  
phthalate (I) and glyptal resin [(GR), molecular weight 1430, that GR  
and particularly I improve the compatibility of PVC and PVA. The  
tensile strength-versus-composition (PVC - PVA) curve shows deviations  
from the monotonic course occurring in the case of PVC:PVA ratios of  
70:30 and 40:60, which is explained by the mutual plasticizing effect  
of the two polymers. [Abstracter's note: Complete translation.]

Card 1/1

S/260/62/000/010/001/002  
1007/1207

AUTHOR: Ts'rnorechki, O. and Arshinkov, I. V.

TITLE: Methods for obtaining ferric oxide ( $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>) of high ferromagnetic properties

PERIODICAL: Referativnyy zhurnal, ctdel'nyy vypusk. 40. Pribory tochnoy mekhaniki i ispytatel'nyye ust'anovki, no. 10, 1962, 3, abstract 40.10.17. "Izv. N.-i. in-t kinematogr. radio", v. 1, 1960, 137-152 [Bulgarian].

TEXT: Description is given of methods for obtaining ferromagnetic materials used as sound-carriers in the manufacturing of sound-recording tapes. By subjecting ferric oxalate (FeC<sub>2</sub>O<sub>4</sub>.2H<sub>2</sub>O) to a one-stage heat treatment, ferric oxide ( $\gamma$ -Fe<sub>2</sub>O<sub>3</sub>) of high ferromagnetic properties is obtained. ✓

[Anstracter's note: Complete translation.]

Card 1/1

S/081/62/000/022/064/088  
B166/B144

AUTHORS: Kabaivanov, Vl., Ts"rnorechki, O., Kuzova, L.

TITLE: Compatibility of nitrocellulose and acetylcellulose in the presence of certain plasticizers and resins

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 490, abstract 22P100 (Izv. N.-i. int kinematogr. i radio, v. 2, 1959-1960(1961),167-174[Bul.; summaries in Russ. and French])

TEXT: Viscometer measurements prove that nitrocellulose (NC) with 11.8 % N and acetylcellulose (AC) with 49.5 % bound CH<sub>3</sub>COOH are incompatible with one another. Tricresyl phosphate and epoxy and glyptal resins are shown to improve considerably the compatibility of NC with AC; in this respect dibutyl phthalate is less effective. [Abstracter's note: Complete translation.]

Card 1/1

8/081/62/000/017/059/102  
B158/B186

AUTHOR:

Ts"rnorechki, Og. St.

TITLE:

The effect of certain factors in the precipitation of ferrous oxide oxalate on the magnetic properties of the  $\gamma\text{-Fe}_2\text{O}_3$  obtained from it

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 17, 1962, 378, abstract 17K207 (Izv. N.-i. in-t kinematogr. i radio, v. 2, 1959-1960 (1961), 47-51 [Bulg.; summaries in Russ. and French])

TEXT: [Abstracter's note: Complete translation.]

Card 1/1

S/081/62/000/017/060/102  
B158/B186

AUTHORS: Peshev, P. D., Ts"rnorechki, Ogn.St.

TITLE: Determining the optimum conditions for thermal processing of ferrous oxide oxalate to  $\beta\text{-Fe}_2\text{O}_3$ .

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 378, abstract 17K208 (Izv. N.-i. in-t kinematogr. i radio, v. 2, 1959-1960 (1961), 53-67 [Bulg.; summaries in Russ. and Ger.])

TEXT: [Abstracter's note: Complete translation.]

Card 1/1

S/081/62/000/017/061/102  
B158/B186

AUTHORS: Peshev, P. D., Ts"rnorechki, Ogn.St.

TITLE: Differential thermal analysis of raw materials for magneto-soft ferrites and ferrites with a rectangular hysteresis loops

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1962, 378, abstract 17K209 (Izv. N.-i. in-t kinemátoogr. i radio, v. 2, 1959-1960 (1961), 75-81 [Bulg.; summaries in Russ. and French])

TEXT: [Abstracter's note: Complete translation.]

✓

Card 1/1

TSRUL'NIKOV, M. S., Cand of Med Sci -- (diss) "Clinic, Diagnosis, and Treatment of the Apoplexy of the Testicles," Moscow, 1959, 16 pp  
(Central Institute for the Advanced Training of Physicians) (KL, 6-60, 126)

KOLAROV, I., inzh.; TS"RVENKOV, N., inzh.

Design of the main beams of crane bridges. Vest.mashinostr. 43  
no.9;28-31 S '63. (MIRA 16:10)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0

TSSHOKHER, V.O.

Seismology in problems of city planning. Trudy FTI Turk.fil.  
(MIRA 16:1)  
AN SSSR no.1:29-35 '49.  
(Earthquakes and building) (City planning)

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757130007-0"

TSSHOKHER, V.O.

Developing norms for earthquake-proof construction. Trudy FTI  
Turk.fil.AN SSSR no.1:36-42 '49.  
(Earthquakes and building)

TSSHOKHER, V.O.

Notes on problems of earthquake-proof construction. Trudy FTI  
Turk.fil.AN SSSR no.1:43-45 '49. (MIRA 16:1)  
(Earthquakes and building)

TSSHOKHER, V. O., prof. (Ashkhabad); AYZENBERG, Yu. B. (Ashkhabad)

Temporary standards for the use of desert (Kara Kum) sand in  
mixed mortars for masonry; for construction in Ashkhabad.  
Trudy FTI Turk. fil. AN SSSR no.2:3-6 '50.

(MIRA 16:1)

1. Zaveduyushchiy Antiseysmicheskim otdelom Turkmenskogo  
filiala AN SSSR (for TSshokher). 2. Zaveduyushchiy labora-  
toriyey stroitel'nykh materialov Antiseysmicheskogo otdela  
Turkmenskogo filiala AN SSSR (for Ayzenberg).

(Ashkhabad—Mortar)

TSSHOKHER, V. O.

Notes on technical specifications TU-58-48 for the design  
of buildings and structures for seismic districts. Trudy FTI  
Turk. fil. AN SSSR no.2:46-52 '50. (MIRA 16:1)

(Earthquakes and building)