

KORBUT, A.V., fel'dshor (selo Lakhva Brestskoy oblasti)

Therapeutic, hygienic, and Red Cross work in the school. Fel'd.  
i akush. 24 no.6:45-46 Je '59. (MIRA 12:8)  
(LAKHVA (BREST PROVINCE)--SCHOOL HYGIENE)

FAKHOLKOV, V.S.; KORJUT, A.Ya.

Vanadium sorption from HF - HCl solutions by anionites. Izv. vys.  
ucheb. zav.; tsvet. met. 5 no.5:100-105 '62. (MIRA 15:10)

1. Ural'skiy politekhnicheskiy institut.  
(Vanadium) (Ion exchange)

PAKHOLKOV, V.S.; KORBUT, A.Ya.

Separating vanadium and uranium in fluorine-bearing solutions with the help of anionites. Izv. vys. ucheb. zav.; tsvet. met. 6 no.3: 116-121 1963. (MIRA 16:9)

1. Ural'skiy politeknicheskiy institut.  
(Vanadium--Metallurgy) (Uranium--Metallurgy)  
(Anions)

KOREUT, B.A., Cand Tech Sci—(disc) "Certain problems of <sup>vibrations</sup> ~~rotation~~,  
strength, and hardness of <sup>a</sup> loom ~~slay~~." Mos, 1953. 23 pp (Min of  
Higher Education. Gos Textile Inst.), 150 copies (LL, 49-58, 123)

-51-

KORBUT, B.A., aspirant.

Proper oscillation frequencies of loom slays. Izv. vys. ucheb. zav.;  
tekh. tekst. prom. no.1:101-112 '58. (MIRA 11:5)

1. Moskovskiy tekstil'nyy institut.  
(Looms)

KORBUT, B.A.

Strength and rigidity of lay beams on looms. Izv.vys.ucheb.  
zav.; tekhn.tekst.prom. no.1:168-175 '59. (MIRA 12:6)

1. Moskovskiy tekstil'nyy institut.  
(Looms--Testing)

KORBUT, B.A.

Batten designed to withstand the effect of the beating-up process.  
Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.3:143-150 '59.  
(MIRA 12:11)

1. Moskovskiy tekstil'nyy institut.  
(Looms)

KORBUT, B.A., kand.tekhn.nauk, dotsent

Stability of a thin-walled sphere resting upon an internal elastic support. *Izv.vys.ucheb.zav.; mashinostr.* no.2:105-107 '62.  
(MIRA 15:5)

1. Dnepropetrovskiy inzhenerno-stroitel'nyy institut.  
(Elastic plates and shells)



KORBUT, B.A.

The stability "in large" of a thin-walled sphere resting, with its internal surface, on an elastic foundation. *Izv. vys. uch. zav. stroi. i arkhitekt. 5 no. 4: 24-27 '62.* (MIRA 15:9)

1. Zaporozhskiy filial Dnepropetrovskogo inzhenerno-stroitel'nogo instituta.

(Elastic plates and shells)

KORBUT, B.A., kand.tekhn.nauk

Clapping of a flapping diaphragm with flexible supports.  
Izv.vys.ucheb.zav.; mashinostr. no.8:23-26 '62. (MIRA 15:12)

1. Dnepropetrovskiy inzhenerno-stroitel'nyy institut.  
(Diaphragms (Mechanical devices))

S/879/62/000/000/055/088  
D234/D308AUTHOR: Korbut, B. A. (Zaporozh'ye)

TITLE: On the 'en gros' stability of a thin-walled sphere whose inner surface is placed on an elastic base

SOURCE: Teoriya plastin i obolochek; trudy II Vsesoyuznoy konferentsii, L'vov, 15-21 sentyabrya 1961 g. Kiev, Izd-vo AN USSR, 1962, 332-335

TEXT: The author uses the theory of shallow shells and Ritz' method, calculating the energy for the disturbed domain (depression) only and investigating the symmetrical form of loss of stability. A formula is deduced for the dimensionless stress

$$\bar{\sigma} = \left[ -\frac{(25 - 9\mu)}{84(1 - \mu)} \frac{1}{k^2} s^2 + \frac{7 - 2\mu}{30(1 - \mu)} - \frac{4}{3(1 - \mu^2)k^2} + \right.$$

Card 1/2

KORBUT, B.A. (Zaporozhye)

"Stability of shells with elastic core subjected to loads and thermal effects".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 Jan - 5 Feb 64.

KORBUT, B.A. [Korbut, B.O.] (Zaporozh'ye)

Stability of a circular plate on a flexible foundation. Prykl.  
mekh. 10 no.4:443-446 '64. (MIRA 17:10)

1. Zaporozhskiy mashinostroitel'nyy institut.

L 12798-56 EWT(d)/EWT(m)/EWT(w)/EWT(v)/EWT(k)/EWA(h)/ETC(m) EJP(c) WW/EM

ACC NR: AT6001079

SOURCE CODE: UR/0000/65/000/000/0017/0023

AUTHOR: Korbut, B. A.; Odnoral, L. G.

22  
21  
B+1

ORG: [Korbut] Zaporozh'ye Machine Design Institute im. V. Ya. Chubar' (Zaporozhskiy mashinostroitel'nyy Institut); [Odnoral] Kiev Polytechnic Institute (Kiyevskiy polytechnicheskiy Institut)

TITLE: Stability of a cylindrical panel on an elastic foundation

SOURCE: Soprotivleniye materialov i teoriya sooruzheniy (Strength of materials and the theory of structures), no. 1, Kiev, Izd-vo Budivel'nyk, 1965, 17-23

TOPIC TAGS: sandwich shell, cylindrical shell, local shell buckling, sandwich panel, sandwich shell buckling

ABSTRACT: The local stability of a cylindrical shell of sandwich construction with an elastic core is investigated. The shell is reinforced on the inner surface by a system of longitudinal and lateral stiffeners so that each rectangle between them represents a panel on an elastic foundation. It is assumed that the panel (movable in the longitudinal direction) is hinged on its contour to perfectly rigid supports, and that the elastic foundation is of the Winkler type with a constant modulus  $\omega$ . The panel is under compression stresses in the direction of its generatrices. The Ritz method is used to determine the upper and lower buckling stresses as related to the radius of the shell and rigidity of the core. An expression for the total energy of the shell, with regard to mutual approach of its edges, is derived by

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ACC NR: AT6001079

introducing nondimensional parameters of stress, deflection, and dimension. The formulas for the lower and upper buckling stresses are obtained from the extremality conditions for the total energy. The values of buckling stresses  $\delta$  for shells with various rigidity parameters  $K = b^2/Rh$  ( $b$  is the width of the panel,  $R$  is its radius, and  $h$  is its thickness) were calculated and plotted in the  $(\delta, \omega)$ -plane. The dependence of the  $\delta$  on  $K$  and  $\omega$ , as well as of the occurrence of the oil-can effect on certain values of  $R$  and  $\omega$  are discussed. Orig. art. has: 1 figure and 19 formulas. [VK]

SUB CODE: 20/ SUBM DATE: 14May65/ ORIG REF: 001/ OTH REF: 003/  
ATD PRESS: 4/82

Card

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L 63866-65 EMT(d)/EMT(m)/EMP(w)/ENA(d)/EMP(r)/EMP(k)/ENA(h) WW/EM/GS  
 ACCESSION NR: AT5017587 UF/OC00/65/000/000/0273/0279

AUTHOR: Korbut, B. A. (Zaporozh'ye) 20  
BT/

TITLE: The stability of a cylindrical shell with an elastic filler under the action of loads and temperature 26

SOURCE: Vsesoyuznaya konferentsiya po problemam ustoychivosti v stroitel'noy mekhanike, Moscow, 1963. Problemy ustoychivosti v stroitel'noy mekhanike (Problems of stability in structural mechanics); trudy konferentsii. Moscow, Stroyizdat, 1965, 273-279

TOPIC TAGS: cylindrical shell, structural mechanics, structural strength, structural property, shell theory

ABSTRACT: The stability of a cylindrical shell of average length is studied under the action of loads (external pressure, axial compression, torsion) and heating. The shell is considered thin, and elastic deformations are investigated with the aid of the equations of a sloping shell. Secondary conditions are: uniform axial and torsional loading. Torsion occurs by means of two concentrated moments, temperature is uniformly distributed along the body of the shell, and heat expansion of the filler material is ignored. The basic differential equations for internal pressure and heating are given in the form

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L 63866-65

ACCESSION NR: AT5017587

$$\frac{D}{r} \nabla^4 \nabla^2 \nabla^2 w + \frac{E}{R^2} \frac{\partial^2 w}{\partial t^2} + \sigma_r \nabla^2 \nabla^2 \frac{\partial^2 w}{\partial y^2} + \sigma_\theta \nabla^2 \nabla^2 w = 0,$$

where  $w$  is deflection,  $\sigma_r$  is the perimeter compressive stress,  $\nabla^2$  is the Laplace operator,  $D$  is the cylindrical stiffness,  $E$  is the modulus of elasticity of the shell,  $r$  and  $R$  are the thickness and the radius of the shell, respectively,  $\sigma_r$  is the coefficient of the filler in the perpendicular direction, and  $\sigma_\theta$  and  $\sigma_y$  are the stresses along the longitudinal and circumferential directions, respectively. The critical stress is derived and compared with the critical stress presented in the literature as a function of shell geometry parameters. It is shown that the critical stress increases with heating and of the shell thickness with heating. The filler material served to increase the critical stress, and the increase of filler stiffness lowered the critical stress. The number of stress waves also increased the number of stress waves in the circumferential direction, but had less effect on half-waves in the longitudinal direction. (Fig. 1 and 2) equations.

ACCOMPLISHMENT: none

Card 2/3

L 63866-65

ACCESSION NR: AT5017587

SUBMITTED: 12Feb65

INCL: 00

SUB CODE: AS

NO REF SOV: 002

OTHER: 003

*mlb*  
Card 3/3

KORBUT, B.A. (Zaporozh'ye); SAKSONOV, S.G. (Zaporozh'ye)

Stability of a cylindrical shell with an elastic filler subjected to axial compression. Prikl. mekh. 1 no.6:119-123 '65. (MIRA 18:7)

1. Zaporozhskiy mashinostroitel'nyy institut.

KORBUT, B.A.; OGURTSOV, B.I.

Bubnov-Galerkin method for systems of equations. Prikl.  
mekh. 1 no.10:138-140 '65. (MIRA 18:12)

1. Zaporozhskiy mashinostroitel'nyy institut. Submitted  
March 1, 1965.

KORBUT, B.A.

Stability of a spherical shell with an elastic filler under the  
action of pressure and temperature. Izv. vys. ucheb. zav.; av.  
tekh. 8 no. 4:97-102 '65 (MIRA 19:1)

KORBUT, B.A.

Stability of a cylindrical shell with an elastic filler. Izv. AN Arm.  
SSR, fiz.-mat. nauk 18 no.4:46-54 '65. (MIRA 18:9)

1. Mashinostroitel'nyy institut imeni Chubarya, Zaporozh'ye.

L 40325-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k) IJP(c) EM/WW

ACC NR: AP6017825

SOURCE CODE: UR/0147/66/000/002/0038/0043

AUTHORS: Korbut, B. A.; Saksonov, S. G.

ORG: none

TITLE: The stability of a cylindrical shell with an elastic filler in the presence of external radial pressure

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 2, 1966, 38-43

TOPIC TAGS: cylindric shell structure, critical pressure, potential energy, Laplace operator, elastic modulus

ABSTRACT: The linear and nonlinear problems of the stability of a cylindrical shell with an elastic filler in the presence of an external radial pressure are examined. The linear equations of mildly sloping cylindrical shells

$$\frac{D}{h} \nabla^2 \nabla^2 w = \frac{1}{R} \frac{\partial^2 \Phi}{\partial x^2} + \frac{q}{h}$$

$$\frac{1}{E} \nabla^2 \nabla^2 \Phi = -\frac{1}{R} \frac{\partial^2 w}{\partial x^2}$$

are used. In the case of a radial external pressure, the external pressure q can be expressed as

$$q = -\sigma_y h \frac{\partial^2 w}{\partial y^2} - \alpha w$$

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Card 2/2

UDC: 539.3+629.13.012.2

L 45107-66 EWT(d)/EWT(m)/EWP(w)/EWP(y)/EWP(j)/T/EWP(k) IJP(c) WW/EM/RM  
ACC NR: AP6003188 SOURCE CODE: UR/0147/65/000/004/0097/0102

AUTHOR: Korbut, B. A.

ORG: none

TITLE: The stability of a spherical shell with an elastic filler under the action of pressure and temperature 26

SOURCE: IVUZ. Aviatsionnaya tekhnika, no. 4, 1965, 97-102

TOPIC TAGS: stress analysis, Laplace equation

ABSTRACT: The article considers the problem of a thin walled spherical shell with an elastic filler, subjected to the action of external pressure and uniform heating (see Fig. 1, b)

Card 1/2

UDG: 539.3



USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

Author : Falienko, T. S.; Merzhvinskaya, I. M.;  
Korbut, G. A.

Inst : ~~NOT~~ given

Title : The Effect of Various Methods of Applying  
Manure and Mineral Fertilizers on the Yield  
of Potatoes

Orig Pub : Udobreniye 1 urozhay, 1958, No 5, 19-21

Abstract : The application of N<sub>30</sub>P<sub>45</sub>K<sub>60</sub> kg/ha in holes during the course of potato sowing in experiments carried out in 1955-1956 increased the yield of tubers by 2.2 and 3.5 t/ha, respectively, in comparison with broadcasting the same fertilizers. The addition to N<sub>30</sub>P<sub>45</sub>K<sub>60</sub> kg/ha of 5 t/ha of manure during the same

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

experiments and of 3 and 6 t/ha in the experiment conducted in 1954, when localized fertilization was practiced, had no effect on the yield. The addition of 20 t/ha of manure to the mixture N<sub>30</sub>P<sub>45</sub>K<sub>60</sub>, placed by broadcasting increased the yield by 20%. The addition of 3 - 6 t/ha of manure had no effect on the yield. Kole placement of the VASKhNIL mixture (All-Union Agricultural Institute im. Lenin) during sowing (3 t of manure, 3 cwt of P<sub>2</sub>O<sub>5</sub> and 3 cwt of lime) and of a mixture enriched with K<sub>60</sub> produced an increase in the yield of potatoes of 2.9 and 11.9 cwt/ha, respectively (control: 158.6 cwt/ha). Mineral fertilizers somewhat diminished the starch content in the tubers. The experiments were carried out on

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USSR / Cultivated Plants. Potatoes, Vegetables, Melons. M-2

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6266

leached-out chernozem containing little humus and turf-podzolic soils in Zhitomirskaya Oblast'. -- V. V. Prokoshev

Card 3/3

KORBUT, G.I.

KDK holder for collector vessels. Der.1 lesokhim.prom. 2 no.6:29-30 Je  
'53. (MLRA 6:5)

1. Ukrleskhim.

(Tree tapping)

KORBIT, G.P.

Method of determining lines of equilibrium potential. Trudy LPI  
no.181:84-91 '55. (MIRA 10:1)

(Electrodeposition)

KORBUT, I.; SMIRNOVA, Z.; TIKHONOVA, I., red.; ABBASOV, T., tekhrad.

[For high crop yields and low cost of production] Za vysokie  
uroshai i niskuiu sebestoinost'; kolhoz "Politotdel" Verkhne-  
Chirchikskogo raiona Tashkentsoi oblasti. Tashkent, Gos.isd-vo  
Usbekskoi SSR, 1960. 33 p. (MIRA 14:12)  
(Tashkent Province--Crop yields)

KORBUT, I.; SMIRNOVA, Z.; TIKHONOVA, I., red.; ABBASOV, T., tekhn. red.

[For high yields and low costs; the "Politotdel" Collective Farm in Verkhne-Chirchik District, Tashkent Province] Za vysokie urozhai i nizkuiu sebestoimost'; kolkhoz "Politotdel" Verkhne-Chirchikskogo raiona Tashkentskoi oblasti. Tashkent, Gosizdat UzSSR, 1960. 33 p. (MIRA 15:9)  
(Verkhne-Chirchik District--Agriculture)

KORBUT, I. F.

ROMANSKAYA, S.V. (Pulkovo); KORBUT, I.F. (Pulkovo); SAKHAROV, V.I. (Pulkovo).

Latitude variation of Pulkovo for 1952.5 - 1954.0. Astron. tsir.  
no. 148:14 Ap '54. (MIRA 7:8)

(Pulkovo--Latitude variation) (Latitude variation--Pulkovo)

ROMANSKAYA, S.V.; SAKHAROV, V.I.; KORBUT, I.F.

Preliminary values of the variations of the latitude of  
Pulkovo from 1951.8 to 1954.4. Izv.GAO 20 no.1:130-131  
'55. (MIRA 13:5)

(Pulkovo--Latitude variation)



ROMANSKAYA, S.V.; KORBUZ, I.J.; SAKHAROV, V.I.

Preliminary values of the variation of latitude at Pulkovo  
(1954.4 -1956.0). Inv.GAO 20 no.4:143-144 '57.

(MIRA 13:4)

(Pulkovo--Latitude variation)

KORBUT, I.F.

PHASE I BOOK EXPLOITATION

SC/5721

Vsesoyuznaya astronomicheskaya konferentsiya.

Trudy 14-y Astronometricheskoy konferentsii SSSR, Kiyev, 27-30 maya 1958 g.  
(Transactions of the 14th Astronomical Conference of the USSR, Held in Kiyev  
27-30 May 1958) Moscow, Izd-vo AN SSSR, 1960. 440 p. Errata slip inserted.  
1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Glavnaya astronomicheskaya observatoriya  
(Pulkovo).

Reap. Ed.: M. S. Zverev, Corresponding Member, Academy of Sciences USSR; Ed. of  
Publishing House: N. K. Zaychik; Tech. Ed.: R. A. Zamaryeva.

PURPOSE: The book is intended for astronomers and astrophysicists, particularly  
those interested in astronomical research.

COVERAGE: This publication presents the Transactions of the 14th Astronomical  
Conference of the USSR, held in Kiyev 27-30 May 1958. It includes 27 reports  
and 55 scientific papers presented at the plenary meeting of the Conference

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Transactions of the 14th Astronomical (Cont.)

SOV/5721

and at the special sectional meetings. An appendix contains the resolutions adopted by the Conference, the composition of the committees, the agenda, and the list of participants at the Conference. A brief summary in English is given at the end of each article. References follow individual articles. The Presidium of the Astronomical Committee (Chairman M. S. Zverev), which supervised the preparation of this publication, expresses thanks to the members of the secretariat: V. M. Vasil'yev, I. G. Kol'chinskiy, A. B. Onegina, and Kh. I. Potter.

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Address by A. A. Mikhaylov, Chairman of the Astronomical Council of the Academy of Sciences USSR

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REPORTS OF THE ASTRONOMICAL COMMITTEE AND SUBCOMMITTEES  
INFORMATION ON ASTRONOMICAL WORK PRESENTED BY VARIOUS INSTITUTIONS

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Transactions of the 14th Astronomical (Cont.)	SOV/5721	
Sakharov, V. I., and I. P. Korbut. A New Zenith-Telescope of the Soviet Latitude Service and Its Test at Pulkovo		246
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Gnudovicheva, N. A. Zenith-Telescope ZTL-180 of the Astronomical Observatory imeni Engel'gardt and the First Series of Observations		284
Kulagin, S. G., Ye. G. Demidovich, and L. D. Kovbasyuk. Observations of Bright Zenith Stars According to the Four-Group [Poltava-Type]		
Card H/46		

S/035/61/000/011/007/028  
A001/A101

AUTHORS: Sakharov, V.I., Korbut, I.F.

TITLE: Determination of fluctuations of Pulkovo latitude from parallel observations with two zenith telescopes

PERIODICAL: Referativnyy zhurnal. Astronomiya i Geodeziya, no. 11, 1961, 13-14, abstract 11A118 (V sb. "Predvarit. rezul'taty issled. kolebaniy shirot i dvizheniya polyusov Zemli", Moscow, AN SSSR, 1960, 34-42, Engl. summary)

TEXT: Since July 1, 1957, latitude observations at Pulkovo have been conducted with two zenith telescopes: ЗТФ-135 (ZTF-135) (D=135 mm, F=1,760 mm) and ЗТЛ-180 (ZTL-180) (D=180 mm, F=2,360 mm) manufactured in Leningrad. Observations with ZTF-135 are being conducted according to an extended program (from dawn to dawn); those with ZTL-180 according to the two-group program. A comparison of the observed latitudes shows that systematic and random errors of both instruments are small. A comparison with latitudes calculated from the data of the International Latitude Service does not practically reveal the systematic z-term with annual period for both instruments. The mean-square error of one

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Determination of fluctuations ...

S/035/61/000/011/007/028  
A001/A101

observation (from data of IGY) turned out to be  $\pm 0".14$  for ZTL-180 and  $\pm 0".18$  for ZTF-135. Hence the conclusion can be drawn that the new domestic zenith telescope ZTL-180 is not inferior in its quality to ZTF-135 which is one of the most precise instruments of this type in the whole world.

Kh. Potter

[Abstracter's note: Complete translation]

Card 2/2

Monthly List of Russian Accessions, Library of Congress. December 1952. Unclassified.

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CIA-RDP86-00513R000824610002-8

KORBUT, L.A.; BUYANOV, A.I.; SVIRSHCHEVSKIY [deceased]; KALASHNIKOV, P.A.,  
redaktor; KUCHUMOV, P.S.; MAUMOV, V.I., redaktor; UDALOV, A.G.,  
tekhnicheskiy redaktor.

[Organisational and technical specifications for tractor work in  
machine-tractor stations] Organizatsionno-tekhnicheskie pravila  
proizvodstva traktornykh rabot v mashinno-traktornykh stantsiyakh.  
Izd. 2oe, perer. i dop. Moskva, Izd-vo Ministerstva sel'skogo  
khoziaistva SSSR, 1955. 336 p. (MIRA 9:4)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye mashinno-traktornykh  
stantsii i mekhanizatsii. 2. Zamestitel' ministra sel'skogo khozyaystva  
SSSR (for Kuchumov).

(Machine-tractor stations)

KORBUT, L.A.

KORBUT, L.A., inzhener, otvetstvennyy red.; DUBROVSKIY, V.A., red.;  
~~FEDOTOVA, A.P., tekhn.red.~~

[Mechanization of agriculture in foreign countries] Mekhanizatsiia  
sel'skogo khoziaistva za rubeshom. Moskva, Gos.izd-vo sel'khoz.lit-ry,  
1957. 220 p. (MIRA 10:12)

(Farm mechanization)



KORBUT, Leonid Alekseyevich; CHERNOV, A.A., red.; YELACIN, A.S.,  
tekh.n.red.

[Technical progress in agriculture] Tekhnicheskii progress  
v sel'skom khoziaistve. Moskva, Izd-vo "Sovetskaisa Rossia."  
1960. 74 p. (MIRA 13:11)  
(Farm mechanization)

KORBUT, L.A.; STEPANOV, M.A., inzh., retsenzent; FAL'KO, O.S.,  
inzh., red.; UVAROVA, A.F., tekhn. red.

[Mechanization of agriculture in Great Britain] Mekhaniza-  
tsiia sel'skogo khoziaistva Velikobritanii. Moskva, Mashgiz,  
1961. 185 p. (MIRA 15:10)  
(Great Britain--Farm mechanization)

KORBUT, L.

Important problems of agricultural mechanization. Vop. ekon. no.8:  
89-95 Ag '63. (MIRA 16:9)  
(Farm mechanization)

KORBUT, L.A.

Decisions of the February Plenum of the CPSU and objectives of  
the machinery industry. Vest. mashinostr. 44 no. 4:3-6 Ap '64.  
(MIRA 17:5)

1. Zamestitel'predsedatelya Vsesoyuznogo ob'yedineniya "Soyuzsel'-  
khoztekhnika".

ROZENBAUM, A.N.; YEVSYUKOV, Yu.M.; DOKTOROV, A.T.; KORBUT, L.A.,  
red.; YEFREMOVA, M.K., red.

[English-Russian dictionary on agricultural machinery]  
Anglo-russkii slovar' po sel'skokhoziaistvennoi tekhnike.  
Moskva, Sovetskaia entsiklopediia, 1965. 379 p.  
(MIRA 18:9)

KOROLEV, Aleksey Nikolayevich, kand.tekhn.nauk; SHUVALOV, S.I., spetsred.;  
NIKOLAYEV, A.M., spetsred.; KORBUT, L.V., red.; PEREDERIY, S.P.,  
tekhn.red.

[Technology of hard cheeses] Tekhnologiya tverdykh syrov.  
Moskva, Pishchepromizdat, 1960. 58 p. (MIRA 14:6)  
(Cheese)

POZHARISKAYA, Lyudmila Semenovna; LIBERMAN, Simon Grigor'yevich;  
GORBATOV, Vasily Matveyevich; KORBUT, L.V., red.;  
SOKOLOVA, I.A., tekhn.red.

[Blood from slaughtered animals and its processing] Krov'  
uboinykh zivotnykh i ee pererabotka. Moskva, Fishcheprom-  
izdat, 1960. 303 p. (MIRA 14:4)  
(Blood as food or medicine)

GUROV, Vyacheslav Alekseyevich; SHVARTS, S.I., spetsred.; KOREUT, L.V.,  
red.; SATAROVA, A.M., tekhn.red.

[Handbook on the endocrine, enzymatic, and special raw materials  
for and the production of organic preparations] Spravochnik po  
endokrinnomu, fermentnomu, spetsial'nomu syr'iu i proizvodstvu  
organopreparatov. Moskva, Pishchepromizdat, 1961. 307 p.  
(MIRA 15:4)

(MATERIA MEDICA, ANIMAL)

(DRUG INDUSTRY)



KRASNOPOL'SKIY, Yakov Iosifovich; KORBUT, L.V., red.; KISINA, Ye.I.,  
tekhn.red.

[Production costs of meat industry, and ways for lowering them]  
Sebestoimost' produktov miasnoi promyshlennosti i puti ee  
snizhenia. Izd.2. Moskva, Pishchepromizdat, 1960. 82 p.  
(MIRA 14:3)

(Meat industry--Costs)

SOKOLOV, Aleksandr Aleksandrovich, dotsent; PAVLOV, Dmitriy Vasil'yevich, dotsent; BOL'SHAKOV, Aleksey Sergeevich, dotsent; ZHURAVSKAYA, Nina Konstantinovna, dotsent; SHOPENSKIY, Andrey Pavlovich, dotsent; DYKLOP, Eduard Petrovich, dotsent; MANERBERGER, A.A., spetsred.; KORBUT, L.V., red.; SOKOLOVA, I.A., tekhn.red.

[Technology of meat and meat products] Tekhnologiya miase i miaso-  
produktov. Moskva, Pishchepromizdat, 1960. 672 p.

(MIRA 14:4)

(Meat industry)

KRYLOVA, Mina Nikolayevna; LYASKOVSKAYA, Yuliya Nazarovna; KORBUT,  
L.V., red.; SOKOLOVA, I.A., tekhn. red.

[Physicochemical methods for studying products of animal  
origin] Fiziko-khimicheskie metody issledovaniia produktov  
zhivotnogo proiskhozhdeniia. Moskva, Pishchepromizdat,  
1961. 233 p. (MIRA 14:5)

(Food--Analysis)

KONNIKOV, Abram Grigor'yevich, Laureat Stalinskoy premii; KORBUT, L.V.,  
red.; SOKOLOVA, I.A., tekhn. red.

[Technology of the manufacture of sausage] Tekhnologiya kolbasnogo  
proizvodstva. 2. izd., ispr. i dop. Moskva, Pishchepromizdat,  
1961. 518 p. (MIRA 14:11)

(Sausages)

CHIRYATNIKOV, Veniamin Ivanovich; KORBUT, L.V., red.; SATAROVA,  
A.M., tekhn. red.

[Boning and sinewing of meat] Obvalka i zhilovka miasa. Mo-  
skva, Pishchepromizdat, 1961. 62 p. (MIRA 15:4)  
(Meat cutting)

OCHKIN, V.A., inzh.-mekhanik; LISITSYN, G.K., konstruktor; GORBATOV,  
V.M., red.; KORBUT, L.V., red.; SATAROVA, A.M., tekhn. red.

[Safety guards for machines and apparatus in meat industry  
enterprises] Ograditel'nye ustroistva mashin i apparatov na pred-  
priyatiakh miasnoi promyshlennosti. Pod red. V.M.Gorbatova.  
Moskva, Pishchepromizdat, 1962. 83 p. (MIRA 15:9)

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promyshlennosti.

(Meat industry--Equipment and supplies)

(Machinery--Safety appliances)

ALEKSEYEV, Sergey Nikolayevich; ~~KORBUT, L.V.~~, red.; SATAROVA,  
A.M., tekhn. red.

[Commercial study of livestock, poultry, and slaughter  
products] *Tovarovedenie skota, ptitsy i produktov uboia.*  
Izd.2., perer. i dop. Moskva, Pishchepromizdat, 1962.  
167 p. (MIRA 16:7)

(Animal products--Specifications)

MOISEYEV, P.A., prof., red.; KOSSOVA, O.N., red.; KORBUT, L.V.,  
red.; SATAROVA, A.M., tekhn. red.

[Papers of the 2d Plenum of the Commission on Fisheries  
Research in the western part of the Pacific Ocean] Sbornik:  
dokladov Komissii po rybokhoziaistvennomu issledovaniiu  
zapadnoi chasti Tikhogo okeana. Pod red. P.A.Moiseeva.  
Moskva, Pishchepromizdat, 1962. 303 p. (MIRA 16:6)

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chasti Tikhogo okeana. Plenum.  
(Pacific Ocean--Fisheries)



YAKOVLEV, Konstantin Konstantinovich; LAZAROVICH, Gutman Solomonovich;  
KOLOSOV, A.M., retsensent; USHAKOVA, G.V., retsensent; KORBUT,  
L.V., red.; SOKOLOVA, I.A., tekhn. red.

[Analyzing the economic activities of meat and dairy industry  
enterprises] Analiz khoziaistvennoi deiatel'nosti predpriatii  
miasnoi i molochnoi promyshlennosti. Moskva, Pishchepromizdat,  
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(Meat industry)

(Dairy industry)

SOROCHKIN, Igor' Mikhaylovich; GRISHIN, Leonid Ivanovich; ZINOVKIN, G.S., retsenzent; BARBASHIN, M.K., retsenzent; KORBUT, L.V., red.; SATAROVA, A.M., tekhn. red.

[Organization of work and wages in meat combines] Organizatsia truda i zarabotnoi platy na miasokombinatakh. Moskva, Pishchepromizdat, 1963. 202 p. (MIRA 16:6)  
(Meat industry--Management)  
(Wages--Meat industry)

CHIRYATNIKOV, Veniamin Ivanovich; BUYANOVA, Anna Stepanovna;  
ASLANOV, V.G., retsenzents; KORBUT, L.V., red.;  
ZARSHCHIKOVA, L.N., tekhn. red.

[Stuffing and tying of sausage] Shpritsevanie i viazka  
kolbas. Moskva, Pishchepromizdat, 1963. 46 p.  
(MIRA 16:10)

(Sausages)

SHNITSER, Solomon Solomonovich; YELISEYEV, I.D., inzh., retsenzent;  
NOVIKOV, V.G., inzh., spets. red.; KORBUT, L.V., red.;  
SOKOLOVA, I.A., tekhn. red.

[Potentials for increasing labor productivity in the meat  
industry] Rezervy rosta proizvoditel'nosti truda v miasnoi  
promyshlennosti. Moskva, Pishchepromizdat, 1963. 193 p.  
(MIRA 17:4)

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[Automation of technological processes in the dairy industry] Avtomatizatsiia tekhnologicheskikh protsessov v molochnoi promyshlennosti. Moskva, Pishchevaia promyshlennost', 1964. 246 p. (MIRA 18:3)

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2. Vsesoyuznyy nauchno-issledovatel'skiy i eksperimental'nyy institut prodovol'stvennogo mashinostroyeniya (for Shabshayevich).
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GORBATOV, Vasil'y Matveyevich; LAGOSHA , Ivan Andreyevich; RODIN,  
A.J., retsenzent; PROZOROVSKIY, V.N., retsenzent; LAPSHIN,  
A.A., spets. red.; KORBUT, L.V., red.; NOZDRINA, V.A., red.

[Handbook on the equipment of meat industry enterprises]  
Spravochnik po oborudovaniyu predpriyatii miasnoi promyshlen-  
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GORBATOV, Vasilii Matveyevich; LAGOSHA, Ivan Andreyevich;  
RODIN, A.I., retsenzent; PROZOROVSKIY, V.N., retsenzent;  
LAPSHIN, A.A., spets. red.; KORBUT, L.V., red.;  
NOZDRINA, V.A., red.

[Handbook of the equipment of meat industry enterprises]  
Spravochnik po oborudovaniyu predpriatii miasnoi pro-  
myshlennosti. Moskva, Pishchevaia promyshlennost'.  
Vol. 1. 1965. 578 p. (MIRA 18:6)

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VLASOV, Nikolay Nikolayevich; GALYATKIN, A.I., retsenzent;  
DROBININ, V.I., retsenzent; KORJUT, L.V., red.

[System of planned preventive maintenance and repair of  
meat industry equipment] Sistema planovogo-predupreditel'nogo  
remonta oborudovaniia miasnoi promyshlennosti. Izd.2., perer.  
i dop. Moskva, Fishchevaia promyshlennost', 1965. 82 p.  
(MIRA 18:9)



DERGUNOVA, Aleksandra Aleksandrovna; PELEYEV, A.I., prof.,  
retsenzent; MANERBERGER, A.A., prof., spets. red.  
KORBUT, L.V., red.

[Processing of guts] Obrabotka kishok. Moskva, Pishche-  
vaia promyshlennost', 1965. 185 p. (MIRA 18:10)

KORRUT, N. F.

Tobacco

Practice of master tobacco growers in raising seedlings. Tabak 13, no. 2, 1952

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SO: Knizhnyy latokis'. No. 4, Moscow, 1956

KOREUT, S. E.

USSR/Medicine - Antibiotics

May/June 53

"Concentration of Penicillin in the Blood, Its Elimination With Urine, and the Immediate Therapeutic Effect Resulting From Treatment With Novocillin of Experimental Syphilis in Rabbits," Prof N. M. Ovchinnikov, K. S. Kutukova, Sr Sci Assoc, and S. E. Korbut, Sci Assoc, Microbiol. Div, Cent Dermato-Venereological Inst, Min Health, USSR.

Vest Vener i Derm, No 3, pp 43-46

Novocillin (the novocain salt of penicillin) is a new drug which prolongs the time that penicillin

271T30

remains in the organism. Since the therapeutic action of penicillin is thereby increased, patients who have syphilis or other disease requiring prolonged treatment, can be taken care of by outpatient clinics. Therapeutic effect of a total dose of 84,000 units of penicillin in the form of novocillin per kg of patient's weight, administered intramuscularly for a period of 7 days, is higher than the effect of an aqueous solution of the same amount of ordinary penicillin administered in the same manner.

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*Korbut, S. Ye.*

OVCHINNIKOV, H.M., professor; KUTUKOVA, K.S., starshiy nauchnyy sotrudnik;  
KORBUT, S.Ye. nauchnyy sotrudnik.

Effect of synthomycin, streptomycin, levomycin, biozycin and ter-  
ramycin on Spirochaeta pallida and the immediate therapeutic results  
in treating syphilis in rabbits. Vest. ven. i dera 30 no.1:32-36  
Ja-F '56 (MIRA 9:4)

1. Iz Tsentral'nogo nauchno-issledovatel'skogo kozhnovenerologicheskogo  
instituta (dir.-kandidat meditsinskikh nauk H.M. Turanov) Ministerstva  
sdravookhraneniya SSSR.

(SYPHILIS

in rabbit, eff. of various antibiotics)

(ANTIBIOTICS, eff.

on syphilis in rabbits)

KARBIT S. P.

11/2

Concentration of penicillin in blood, its excretion by urine and the immediate therapeutic results of experimental syphilis in rabbits treated with bacillus N. M. Osennikov, K. S. Kutukova, and S. B. Korbut. *Vopr. Gerontol. i Geriatr. 31, No. 1, 27-32 (1978) (in Russian; English summary).* After a single injection of 1.5 million units of Bacillus (I), the salt of Penicillin G, and a single of penicillin (II), the concentration of II in the blood is 135% higher after 10-16 days. It is detectable in the urine only after only within 24-48 hrs. The immediate therapeutic results are similar to those of a course of penicillin therapy, but only for 7 days, but the clinical resolution is weaker. However, different properties of penicillin in comparison to the other antibiotics are noted. The authors conclude that

KORBUT, S.Ye.

Novocillin and ekmonovocillin in the treatment of experimental syphilis. Vest.derm. i ven. 33 no.3:58-65 My-Je '59.

(MIRA 12:9)

1. Iz mikrobiologicheskogo otdela (zav. - prof.N.M.Ovchinnikov) Tsentral'nogo nauchno-issledovatel'skogo kozhno-venerologicheskogo instituta (dir. - kand.med.nauk N.M.Turanov) Ministerstva zdoravookhraneniya RSFSR.

(SYPHILIS, exper.

eff. of procaine penicillin & procaine penicillin G - ekmolin prep. in rabbits (Rus))

(PENICILLIN, eff.

procaine penicillin & procaine penicillin G - ekmolin prep., on exper. syphilis in rabbits (Rus))

(ANTISEPTICS, eff.

ekmolin-procaine penicillin G prep., on exper. syphilis in rabbits (Rus))

(FISH LIVER OILS, eff.

same)

KORZUN, V. A.

"Physicochemical Properties of Wood Fibers in Relation to the Content of Lignin."  
Soviet Acad Sci, Forestry Engineering Academy, Leningrad, 1953. Dissertation  
(Referativnyy Zhurnal--Mekhanika Moscow, Feb 54)

SO: SUM 186, 19 Aug 1954



KORBUT, V.A.

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in SO<sub>2</sub> solutions of various concentrations. Trudy LTA no.87:  
13-21 '59. (MIRA 13:4)  
(Chrome steel--Corrosion)

IPAT'YEV, V.V. [deceased]; ZHELTUEHIN, D.V.; KORBUT, V.A.; GUREVICH,  
D.Ya.

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pt.2:57-64 '58. (MIRA 13:4)  
(Sheet steel)

KORBUT, V.A.

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greenhouses and hotbeds. Biul.tekh.-ekon.inform. no.11:64-67  
'59. (MIRA 13:4)

(Agricultural machinery)

KORBUT, V.A.

Automatization of operations in cultivating vegetables in  
green houses and hot beds. Biul.tekh.-ekon.inform. no.12:  
50-53 '59. (MIRA 13:4)  
(Plants--Soilless culture) (Automatic control)

KORBUT, V.A.

System of machinery for hotbeds. Kons.1 ov.prom. 14 no.2:29-32  
F '59. (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo  
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(Agricultural machinery)

ALEKSANDROV, S.V., kand.sel'skokhoz.nauk; BOGUSHEVSKIY, A.A., kand.tekhn.nauk; VASHCHENKO, S.F., kand.sel'skokhoz.nauk; GERASIMOV, B.A., kand.sel'skokhoz.nauk; GROMOV, N.G. [deceased]; KORBUT, V.A.; KUDREVICH, I.A.; MAMAYEV, M.G., kand.tekhn.nauk; NOVIKOV, A.P.; OSMITSKAYA, Ye.A.; SIMANOVSKIY, A.Yu.; SLEPTSOV, S.A.; SPIRIDONOVA, A.I.; TARAKANOV, G.I., kand.sel'skokhoz.nauk; CHENYKAYEVA, Ye.A.; KITAYEV, S.I., red.; FILATOV, N.A., zasluzhennyy agronom RSFSR; GRUDINKINA, A.P., red.; MARTYNOV, P.V., red.; ARTSYBASHEVA, A.P., tekhn.red.; BARBASH, F.L., tekhn.red.

[Vegetable growing under cover] Ovoshchevodstvo zashchishchennogo grunta. Moskva, Izd-vo M-va sel'.khoz.SSSR, 1960. 279 p.

(Vegetable gardening)  
(Hotbeds)

(Greenhouses)

(MIRA 13:12)

KORBUT, V.A., inzh.

Principal tasks of mechanization in vegetable growing. Trakt. 1  
sel'khozmasb. 30 no.11:16-19 N '60. (MIRA 13:12)  
(Agricultural machinery) (Vegetable gardening)

KORBUT, V A.

Promising machinery for vegetable growing. Mekh. 1 elek. sots.  
sel'khoz. 19 no.2:51-54 '61. (MIRA 14:3)  
(Vegetable gardening)(Agricultural machinery)



KORBUT, V.A.

Automatic control of growing plants in artificial media. *Biul.tekh.-  
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CHERNOYARSKIY, A.N., inzh.; KOREUT, V.A., inzh.

Mechanization as the basis for commercial production in animal  
and poultry husbandry. Trakt. i sel'khoz mash. no.12:1-2 E '64  
(MIRA 18:2)

PASECHNIK, M.S., doktor tekhn. nauk; ZHEL'VIS, A.I., kand. tekhn. nauk; ~~KORBUT, V.A.~~; PLATONOVA, M.N.; SHENYAKINA, T.S.; TSINTSIUS, V.M.; STRELE, L.A., red.

[Manual on general chemistry and physicochemical methods of analysis] Uchebnoe posobie po obshchei khimii i fiziko-khimicheskim metodam analiza. [By] M.S.Pasechnik i dr. Pod obshchei red. M.S.Pasechnika i A.I.Zhel'vis (chast' 1). Leningrad, 1965. 204 p. (MIRA 19:1)

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KORBUT, V.A., inzh.

Universalization and standardization of agricultural machinery. Trakt.  
i sel'khoz mash. no.7:1-2 JI '65.  
(MIRA 18:7)

KORBUT, V. M., KARGIN, V. A., TSETLIN, B. L., and ZAYTSEVA, N. G.

"Principles of the Disintegration of Vitreous Polymers by Radiation"

Truly Transactions of the First Conference on Radioaction Chemistry, Moscow,  
Izd-vo AN SSSR, 1958. 330pp.  
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SOV/81-60-2-7085

Translation from: Referativnyy zhurnal. Khimiya, 1960, Nr 2, pp 546 - 547 (USSR)

AUTHORS: Tsetlin, B.L., Yanova, L.P., Sibirskaya, G.K., Korbud, V.M.

TITLE: The Effect of Ionizing Radiation<sup>19</sup> on the Mechanical Properties of Poly-  
vinylchloride<sup>2</sup> and Its Masticated Products

PERIODICAL: V sb.: Deystviye ioniziruyushchik izlucheniy na neorgan. i organ. sistemy. Moscow, AS SSSR, 1958, pp 354 - 361

ABSTRACT: The effect was studied of highly-intensive X-ray radiation on the changes in the mechanical properties of industrial vinyplast (V) sheet and masticated (M) products on the base of polyvinylchloride containing dibutylphthalate in the quantity of 10 - 60 weight %. A dismantable X-ray tube with a cylindrical anode of the TRTs type serves as radiation source. In the case of the irradiation of V the doese intensity was  $6 \cdot 10^{16}$  ev/cm<sup>3</sup> sec and the duration of the irradiation from 1 to 50 hours, and in the case of irradiation of M  $1.8 \cdot 10^{17}$  ev/cm<sup>3</sup> sec and 5 hours, respectively. Samples for thermomechanical tests were prepared in the form of disks of 7 mm in diameter and with a thickness of 1 mm, the specific load for V was 10.2 kg/cm<sup>2</sup> and for M 0.8 kg/cm<sup>2</sup>. The following

Card 1/2

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 9, p 99 (USSR)

SOV/58-59-9-20156

AUTHORS: Tsetlin, B.L., Zaytseva, N.G., Korbut, V.M., Kargin, V.A.

TITLE: The Effect of Ionizing Radiation on Polymeric Glasses

PERIODICAL: In the symposium: The Effect of Ionizing Radiation on Inorganic and Organic Systems. Moscow, AN SSSR, 1958, pp 363 - 375

ABSTRACT: The authors made an experimental study of the processes involved in the radiation destruction of some vitreous polymers. They investigated the changes which the thermomechanical characteristics and the endurance of the polymers undergo as a result of irradiation. They also studied the gas formation and development of dendritic cracks that irradiation causes in polymeric glasses. On the basis of the results obtained, the authors discuss some regularities in the influence that the chemical nature of the polymers exerts upon the direction and rate of the radiochemical changes they undergo. A study of the character of the dendritic cracks which develop in various organic glasses under the action of irradiation, permitted the authors to voice some considerations in support of the hypothesis advanced earlier concerning the adsorption mechanism involved

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18(7)

AUTHOR:

Korbut, V. M.

SOV/20-124-1-20/69

TITLE:

The Influence of the Dosage of a Surface-active Substance on the Surface Plasticization of a Metal in Drawing (Vliyaniye dozirovki poverkhnostno-aktivnogo veshchestva na poverkhnostnoye plastifitsirovaniye metalla pri volochenii)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 72-75 (USSR)

ABSTRACT:

The data determined by the present paper must be considered to be an estimate of the influence exercised by the number of adsorption layers in plasticization. The influence exercised by the dosage of the lubricant was investigated in connection with the drawing of copper- and aluminum rods by means of an 8 mm thick draw-plate. The samples were carefully cleaned by the removal of oxide films and adsorption layers, and grease was removed from the draw plate by means of pure benzene. Resistance against cutting in the very thin surface layer  $\tau_1$  was calculated according to the basic equation for drawing  $F = \tau_1 S_k + P_m \Delta S$ .  $P_m$  denotes the resistance of the metal against changes of volume and shape during drawing.

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The Influence of the Dosage of a Surface-active  
Substance on the Surface Plasticization of a Metal in Drawing

SOV/20-124-1-20/69

In the case of all dosages of the surface-active material, i.e. with an arbitrary number of layers,  $\tau_1$  decreases with an increasing degree of copper deformation. At the same time, the number of layers of the surface-active substance exercises a considerable influence upon the value of  $\tau_1$  if the degree of deformation and the highest possible degree of deformation per passage are given. Also the state of aggregation of the lubricant influences the lubricating effect. A diagram shows the variation of drawing-stress as a function of the number of the mono-layers of stearic- and oleic acid at 20 and 100°. At 20° oleic acid is more effective than stearic acid. Stearic acid and oleic acid reduce drawing stress in the case of 7 mono-layers by 28% and 65% respectively as against treatment without lubricant. At 100° the lubricating effect, on the whole, increases, and these acids then begin to act in the same manner, each of them reducing drawing stress (in 7 mono-layers) by 75-80%. At room temperature stearic acid forms a solid film on the surface of the metal to be deformed, and the molecules of stearic acid do not have the necessary mobility for penetration into the interior of the metal.

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The Influence of the Dosage of a Surface-active                      SOV/20-124-1-20/69  
Substance on the Surface Plasticization of a Metal in Drawing

Similar rules apply also to other metals. A table shows the variation of  $\sigma_1$  in the drawing of aluminum in the presence of various numbers of mono-layers of stearic acid. The second table shows the dependence of the drawing stress of aluminum on temperature and on the degree of deformation (for oleic and stearic acid). The same regularities hold also for alcohols at room temperature. According to the results obtained by the present paper already a small number of adsorption layers of a surface-active substance causes considerable plasticization of the surface layer of the metal and therefore also a decrease of drawing stress. The possibility of chemical reaction between the metal to be deformed and the active components of the external medium increases the effect of plasticization, which indicates a considerable influence of chemisorption phenomena in the effect under investigation. The author thanks V. I. Likhtman and S. Ya. Veyler for their useful advice. There are 2 figures, 2 tables, and 5 references, 4 of which are Soviet.

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3

*Inst Phys Chem AS USSR*

KORBUT, V. M., Cand Chem Sci -- (diss) "Study of the plasticizing action and the role of the mechanical characteristics of lubricating layers in processes of working metals by pressure." Moscow, 1960. 11 pp; (Moscow Order of Labor Red Banner Inst of the Petrochemical and Gas Industry im I. M. Gubkin); 160 copies; price not given; (KL, 32-60, 146)

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SOV/20-130-2-17/69

AUTHORS: Korbut, V. M., Veyler, S. Ya., Likhtman, V. I.

TITLE: The Importance of Adsorption Interactions and of the Mechanical Volume Properties of Lubricant Layers in Pressure Processing of Metals

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 2, pp 307 - 309 (USSR)

ABSTRACT: The authors studied the action of solid and liquid lubricant samples by a method earlier developed in their laboratory. This method is based on the separation of the total tangential stress into two parts in consequence of deformation: a) into the stress  $P_m \Delta S$  needed for the volume deformation of the metal and b) into the stress needed for the elimination of friction - resistance  $\tau S_k$  to the shearing. The first component of the total deformation stress depends on the mechanical properties of the metal, and the second component depends on the mechanical properties of the surface layer in which friction takes place.  $F = P_m \Delta S + \tau S_k$  holds for the total drag stress, where  $\Delta S$  denotes

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4

67563

The Importance of Adsorption Interactions and of the SOV/20-130-2-17/69  
Mechanical Volume Properties of Lubricant Layers in Pressure  
Processing of Metals

the reduction of the sample cross section in dragging,  $S_k$  the contact surface between the instrument and the sample. Results of the measurement of  $\tau$  in various media in the dragging of aluminum rods are listed in table 1. For aluminum, water in solid state ( $-20^\circ$ ) has a better lubricity than in the liquid state. Pure hydrocarbons - octane and dodecane at  $20^\circ$  - are inactive lubricants and are squeezed out in dragging. Solidified dodecane, however, has a good lubricity. Paraffin obtains its optimum lubricity at  $20^\circ$ . The lubricity of paraffin is rapidly reduced by melting. Alcohols are active lubricants at  $+20^\circ$  and  $-20^\circ$  (i.e. in solid and liquid state). This does, however, not apply to fatty acids the lubricity of which increases between  $70$  and  $100^\circ$  due to chemical interaction with the metal. At the melting temperature, the lubricity of cetyl alcohol deteriorates, while those of stearic acid are slightly improved. On solidification, resistance  $\theta$  to the shift in the lubricant volume increases and, consequently, also  $\tau$  rises. In the absence of chemical interaction  $\tau$  and  $\theta$  agree without being identical.

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67563

The Importance of Adsorption Interactions and of the Mechanical Volume Properties of Lubricant Layers in Pressure Processing of Metals SOV/20-130-2-17/69

Finally, the authors point out the influence exerted by the concentration of surface-active additions at various temperatures upon the conditions of dragging. Transformer oil at  $-15^{\circ}$  and the same oil with an addition of oleic acid (20%) at  $+20^{\circ}$  have the same lubricating action. The oxidation products of paraffin, cation-active substances, etc also have similar properties at  $+20^{\circ}$ . There are 1 figure, 2 tables, and 5 Soviet references.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences of the USSR)

PRESENTED: September 19, 1959, by P. A. Rebinder, Academician

SUBMITTED: September 17, 1959

Card 3/3

15-6700

29122  
S/020/61/140/005/019/022  
B101/B110

AUTHORS: Korbut, V. M., Veyler, S. Ya., and Petrova, N. V.

TITLE: Effect of the physicochemical nature of a lubricant on its efficiency in metalworking under pressure

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 5, 1961, 1118-1120

TEXT: The authors studied the effect of lubricants on the pressure deformation of metals. Object of the study was the lubricant film at the interface between metal and instrument. The stress  $\tau$  in the cross section of the lubricant film was chosen as characteristic value for the lubricating effect. Hydrocarbons, alcohols, and organic acids were used as model lubricants. Deformation was performed by drawing of aluminum wire rods. Fig. 1 shows the results. Above the softening point, hydrocarbons, alcohols, and acids behave differently. Explanation: (1) Hydrocarbons are not adsorption-active,  $\tau$  attains values of 8-10 kg/cm<sup>2</sup>. Thus, the hydrocarbons are pressed out of the interface between metal and instrument. Deformation occurs in the outer layer of the metal itself. (2) Alcohols are reversibly adsorbable on metals and, therefore, efficient lubricants. While with liquid hydrocarbons a deformation was only possible up to 7%, up to 36%  
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29122

S/O20/61/147/005/019/022  
B101/B110

Effect of the physicochemical ...

metal deformation was attained with the use of liquid alcohols. (3) Since alcohols are desorbed with increasing temperature,  $\tau$  increases. (4) In acids, however, soaps are formed with increasing temperature, and  $\tau$  drops. (5) In absorption-inactive lubricants, a temperature decrease may improve the lubricating effect. Thus, the drawing force in 7% deformation of aluminum and with the use of transformer oil as a lubricant was 293 kg at 150°C, and only 60 kg at -60°C. (6) While in liquid lubricants the interaction with the metal is decisive for the lubricating effect, the latter depends in solid (plastic) substances on their structural and mechanical properties. The authors thank Professor V. I. Likhtman for advice. There are 1 figure, 2 tables, and 5 Soviet references. X

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry, Academy of Sciences USSR)

PRESENTED: May 18, 1961 by P. A. Rebinder, Academician

SUBMITTED: May 13, 1961

Card 2/2



ACCESSION NR: AT4014057

S/3072/63/000/000/0005/0030

AUTHOR: Korbut, V. M.; Veyler, S. Ya.; Likhtman, V. I.; Rebinder, P. A.

TITLE: Physicochemistry of the lubricating effect during wire drawing

SOURCE: Fiz.-khim. zakonmernosti deystviya emasok pri obrabotke metallov davleniyem. Moscow, Izd-vo AN SSSR, 1963, 5-30

TOPIC TAGS: metal lubrication, wire drawing lubrication, wire drawing, lubricant

ABSTRACT: The physicochemistry of the lubrication process is a very significant problem in the pressure treatment of metals. This problem was discussed and evaluated on the basis of: (1) effect of the media on the process of metal deformation, (2) mechanism of the lubrication effect on pressure treatment (deformation) of metals, (3) the effect of the temperature during pressure treatment and the physicochemical properties of the lubricant during wire drawing, and (4) the effect of the amount of lubricants used. It was concluded that the stresses of the treatment and the shearing strength in the thin surface layer determine the properties of the lubricant. In some cases, the surface properties of the treated metal are also of significance. Some lubricants react chemically

Card 1/2

KORBUT, E. K.; BOCHVAR, A. A.; SVIDERSKAYA, Z. A.

"On the Question of the Expansion of Some Alloys on Solidification," Izvestiya  
Akademii Nauk SSSR Otdeleniye Tekhnicheskikh Nauk (1947) No. 4, pp 409/417.

B-78945, 15 Sep 54

S/028/60/000/010/016/020  
B013/B063

AUTHOR: Korbut, Ye. K.

TITLE: Mechanical Test Methods for Metals

PERIODICAL: Standartizatsiya, 1960, No. 10, pp. 56-57

TEXT: This is a report on new standards referring to mechanical test methods for metals. ГОСТ 9450-60 (GOST 9450-60) was worked out by the Institut mashinovedeniya Akademii nauk SSSR (Institute of Sciences of Machines of the Academy of Sciences USSR) and enforced on January 1, 1961. GOST 9450-60 refers to the hardness test of metals with a square diamond pyramid under a test load of 5 - 500 g. This technique has found wide application in the USSR during the last few years owing to the development of new testing machines (types ПМТ-2 (PMT-2) and ПМТ-3 (PMT-3)). The new standard differs from that for the Vickers hardness test by specifying small test loads and offering many other novelties, such as an auxiliary method for the numerical determination of hardness (note to point 3 of GOST 9450-60), standardization of the purity of the pyramid surface (point 5), instruction for tests on dry surfaces (point 12), for  
Card 1/2

KORBUT, Ye.K.

Improve the quality of steel. Standartizatsiia 24 no.4:10-11  
Ap '60. (MIRA 13:9)

(Steel—Standards)