

IRVANKOV, I.S. inzhener.

Cards preserve tie wood. Put' i put.khoz. no.6:37-38 Je '57.

(MIRA 10:7)

(Railroads--Ties)

LAZARYAN, V.A., prof.; FRISHMAN, M.A.; L'VOY, A.A., kand.tekhn.nauk;
LIPOVSKIY, R.S., insh.; BERMAN, Z.G., insh.; LEVANKOV, I.S., insh.

Wheel and rail interaction forces caused by short-distance unevenness
of the track. Vest.TSNII MPS 19 no.6:9-12 '60. (MIRA 13:9)

1. Dnepropetrovskiy institut inzhenerov sheleznodorozhnogo
transporta.

(Railroads--Rails)

(Car wheels)

LEVANKOV, I. S., Cand. Tech. Sci. (diss) "Investigation of Forces of Interaction of Wheel and Rail, Caused by Slight Unevennesses," Khar'kov, 1961, 16 pp. (Khar'kov Railroad Engr. Inst.)
160 copies (KL Supp 12-61, 269).

LEVANKOV, I.S., inzh.

Interaction of track and rolling stock in areas with short
unevennesses. Trudy DIIT no.30:80-112 '60. (MIRA 14:12)
(Railroads--Track)

VOLOSHKO, Yu.D., kand.tekhn.nauk (Denpropetrovsk); LEVANKOV, I.S.,
inzh. (Denpropetrovsk)

"Problems in the preparation of railroad tracks for high
speed traffic" by O.P.Ershkov. Reviewed by IU.D.Volshko,
I.S.Levankov. Put' i put.khoz. 5 no.11:44 N '61.

(MIRA 14:12)

(Railroads--Track)

(Ershkov, O.P.)

LEVANKOV, I.S., inzh.

Calculating the stresses in the ballast depth and subgrade.
Trudy DIIT no.30:113-117 '60. (MIRA 14:12)
(Railroads--Track)
(Strains and stresses)

FRISHMAN, M.A., prof., doktor tekhn. nauk (Dnepropetrovsk);
LEVANKOV, I.S., kund. tekhn. nauk (Dnepropetrovsk);
CHERKASSKIY, M.M. (Dnepropetrovsk)

Switches laid on reinforced concrete slabs. Zhel. dor. transp.
45 no.6:49-52 Je '63. (MIRA 16:7)

1. Nachal'nik Nizhnedneprovskoy distantzii puti (for Cherkasskiy).
(Railroads--Switches)

BELYKH, K.D., inzh.; LEVANKOV, I.S., kand. tekhn. nauk; LIPOVSKIY, R.S.,
kand. tekhn. nauk

Rise of the outer rail on small radius curves in metallurgical
plants. Vest. TSNII MPS 22 no4:47-49 '63. (MIRA 16:8)

(Railroads, Industrial—Curves and turnouts)

FRISHMAN, M.A., doktor tekhn. nauk, prof.; BELYKH, K.D., inzh.;
VOLOSHKO, Yu.D., kand. tekhn. nauk; LEVANYOV, I.S.

Investigating special railroads in metallurgical plants
operating under heavy loads. Stal' 23 [i.e. 24] no.4:382-383
Ap '64. (MIRA 17:8)

1. Dnepropetrovskiy institut inzhenerov zheleznodorozhnogo
transporta.

GOL'DSHTEYN, M.N., prof.; ZHEREBTSOV, I.V.; TOL'SKAYA, S.Ye.; FRISHMAN, M.A.;
LEVANKOV, I.S.; ROZENBERG, A.M.; BELASHOV, D.A.; TSEPKOVNITSKAYA, A.I.;
LAPIDUS, L.S.; YAKOVLEV, B.V.; GUBENKO, Ye.N.; VICHEREVIN, A.Ye., red.

[Preventing the deformation of tracks and structures overlaying
mine workings.] Preduprezhdenie deformatsii puti i sooruzhenii nad
shakhtnymi podrobotkami. Moskva. Transport, 1964. 65p. (Voprosy
geotekhniki, no.8) (MIRA 18:2)

LEVANOV, A. D.

A. D. LEVANOV, author of Travmaticheskiy retikulit i perikardit krupnogo roga-
logo skota ("Traumatic Reticulitis and Pericarditis of Cattle") Chkalov, Chkal.
izd. 1951. 1 pages. (Chkal. obl. Administration of Agriculture, Administration of
Agricultural Propaganda. Chkal. obl. Scientific-Veterinary Society). Unbound. 1,500
copies.

SO: [REDACTED] Report U-4502; 28 August 1953. [REDACTED]

(From: NEW BOOKS ON VETERINARY MEDICINE Veterinariya, No. 11, pp. 63,64, Nov. 1951,
Moscow, Russian no per.)

LEVANDOVSKIY, G. [Levandovs'kyi, H.], inzh.; KHVOROSTOVSKIY, A.
[Khvorostovs'kyi, A.], inzh.

Tunnel kiln and drier for low-output structural ceramic plants.
Sill'.bud. 12 no.9:19-21 S '62. (MIRA 15:11)
(Ceramic plants) (Drying apparatus)

VAULIN, Yuriy Sergeyevich; KOLTUN, Sergey Ivanovich; ~~LEKMANOV, Aleksey~~
~~Nikolayevich~~; KON'KOV, A.S., dotsent, retsenzent; KATS, I.S., inzh.,
red.; DUGINA, N.A., tekhn.red.

[Design and planned use of dies] Raschet i planirovanie shtampov.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 93 p.
(MIRA 12:12)

(Dies (Metalworking))

244252
11310

S/148/61/000,00 002/0:5
A151/A133

AUTHORS: Tarkenton, I. Ya.; Vavstord, B. A.; Levanov, A. N.; P. -
deyev, A. A.; Ganase, O. A., and Korotnikov, V. P.

TITLE: Selection of suitable functions for the utilization of the
Ritz method in the theory of working metal by pressure

PERIODICAL: Izvestiya vuzovskikh inzhenerov razvedeniya Chernaya metallurgiya,
no. 1, 1961, 73-81

TEXT: The article deals with the application of the Ritz method (N. I.
1957) (Russian) (Faber eine neue Methode zur Lösung gewisser Variationsprobleme
in der mathematischen Physik, Journal für die reine und angewandte Mathematik,
Bd. 155, H. 1, 1905) for the calculation of different practical problems
pressure working. Such problems consist in determining the functions of
displacement components, and the searched for functions are written in a
series:

$$U_k = a_1 f_1(x, y, z) + a_2 f_2(x, y, z) + \dots + a_n f_n(x, y, z), \quad (1)$$

where U_k is any of the coordinate axes; a_i are indefinite constants

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A 611A 33

Selection of suitable functions for the

parameters: $u(x,y,z)$ "suitable" functions reflecting qualitatively the displacements pattern and satisfying the boundary conditions. The problems discussed as examples are: upsetting of cylindrical bodies between flat plates; a parallelepiped between flat plates, and, where the purpose is to determine the propagation of plastic deformation, with a simple axisymmetrical forging used as an example. The mathematical analysis of the individual cases with recommendations: 1) In the first method used, the suitable functions must be selected so as to satisfy completely the boundary conditions corresponding the purpose of investigation. 2) The system of suitable functions describing the deformed state in technological problems can be selected with a series of chosen assumptions (uniform deformation, the hypothesis of flat sections, etc.). 3) When the propagation of displacements and deformation within the body has to be determined in detail, the suitable functions will be more complex and contain two or three variable parameters, and at the same time satisfy the boundary conditions more completely. There are 8 figures and 13 references.

ASSOCIATION: Uralskiy nauchnoissledovatel'skiy tsentr (Ural Scientific Center)
SUBMITTED: April 20, 1969

Doc: 2/2

S/148/61/000/006/003/013
E193/E483

AUTHORS: Tarnovskiy, I.Ya., Levanov, A.N., Skornyakov, V.B.
Marants, B.D.

TITLE: Investigation of contact friction forces during
reduction (by forging)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya
metallurgiya, 1961, No.6, pp.53-59

TEXT: When operations of the squeezing group are used to form a metal component, the working pressure required to effect the plastic deformation, the character of the metal flow and the distribution of stresses and strains depend upon the frictional forces in the area of contact between the tool and the metal being worked. Experimental determination of these forces has been the subject of many investigations in which, however, methods and equipment both complex and inaccurate have been used. In the present paper, its authors describe a simple equipment with the aid of which accurate data on the contact friction forces can be obtained, irrespective of whether static or dynamic loads are used to deform the metal. The equipment (Fig.1a) comprises a measuring block (2), split in the centre and held together by a rod (4) incorporating wire strain
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Investigation of contact friction ... E195/E483

gauges. The measuring block is placed horizontally between the upper (3) and lower (1) plates of a sub-press assembly, so that two test pieces (shown in the diagram by cross-hatching), placed on either side of the measuring block, can be simultaneously deformed. The test pieces must be placed precisely in line and, in the case of cylindrical specimens, a jig (shown in Fig.1b) is used for this purpose. In both the upper and lower heads pins (6 and 7), sliding freely in their bushes, are inserted. One end of each pin is in contact with the test piece, the other presses against a measuring rod (5 and 8), also equipped with wire strain gauges. The position of the measuring block can be changed with the aid of an adjusting pin (9). When pressure is applied to the sub-press, assembled as shown in Fig.1a, the normal forces in the area of contact between the measuring block and the two test pieces balance each other. The sum of the two friction forces is transmitted onto the measuring rod (4). Consequently, the rod is under the action of a force which is twice the contact friction force, acting in a given part of the contact area whose magnitude depends upon the position of the test piece in relation to the plane of contact of two halves of the measuring block. The pressure exerted on the
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S/148/61/000/006/003/013

Investigation of contact friction ...E193/E483

test pieces is transmitted by the pins (6 and 7) onto the measuring rods. Pressure and friction forces are recorded with the aid of an oscillograph. This method can be used for measuring the contact friction forces both during flat deformation and during compression of cylindrical specimens deformed at various rates of strain. By varying the distance S between the centres of the test pieces and the parting plane of the measuring block, the integrated contact friction force can be determined as a function of S and tangential stresses at any point of the contact area can be calculated. In the case of flat, rectangular test pieces, the calculation consists of differentiation of the experimentally determined relationship between the integrated friction force and S . The treatment becomes more complex for a cylindrical test piece, axially compressed. In this case, the relationship between the tangential stresses and the experimentally determined equivalent force $F(s)$ acting on the segment determined by the distance S (Fig.2) is given by

$$F(s) = 2 \int_{r_K}^R \int_{\varphi_0}^{\frac{\pi}{2}} \tau(r) r \sin \varphi \, dr \, d\varphi \quad (1)$$

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S/148/61/000/006/003/013

Investigation of contact friction ... E193/E483

where r and φ are the polar coordinates of points on the contact area, $\tau(r)$ is the sought function of the distribution of the tangential stresses along the radius of the contact area and r_K is the current value of the radius determining the boundary of a given segment along the cord. A method of solving this equation is given and applied to experiments in which the contact friction forces were measured during axial compression of cylindrical lead specimens of 36 mm diameter and 36, 12, 6 and 3 mm high. Thirty tests were carried out for each d_0/h_0 ratio, where d_0 and h_0 denote the diameter and height of the specimens, respectively. The specimens were compressed to approximately 12% reduction in thickness at a strain rate of 6 mm/min. The surface finish of the measuring instrument was ∇_8 . The results are reproduced graphically. Those obtained for specimens with $d_0/h_0 = 1$ are shown in Fig.4, where F (kg, left-hand scale, curve 1), τ (kg/mm², right-hand scale, curve 2) and pressure p (kg/mm², right-hand scale, curve 3) are plotted against S (mm). The results obtained for specimens with $d_0/h_0 = 12$ are shown in the same manner in Fig.7. The results of the present

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Investigation of contact friction ...E193/E483

investigation confirmed the earlier views (Ref.9: I.Ya.Tarnovskiy, A.A.Pozdeyev, O.A.Ganago. "Deformation and forces in pressure forming of metals", Mashgiz, 1959) on the relationship between the friction forces and the geometry of the deformed specimens and on the distribution of these forces in the contact area. They also confirmed the fact (Ref.10: A.I.Tselikov, Stal', 1958, No.5) that the contact friction forces increase as the d_0/h_0 of the specimen increases. There are 7 figures and 10 Soviet references.

ASSOCIATION: Ural'skiy politekhnicheskii institut
(Ural Polytechnical Institute)

SUBMITTED: May 4, 1960

Card 5/9

S/032/61/027/004/023/028
B103/B201

AUTHORS: Skornyakov, V. B. and Levanov, A. M.

TITLE: Special strikers (boyek) for testing the frictional forces
in plastic settling (osadka)

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 4, 1961, 470-471

TEXT: The authors have developed special strikers with a measuring block, which serve for determining full frictional forces and the distribution of tangential stresses over the contact surface in plastic settling (Fig. 1). The following procedure is suggested: two identical samples (cylinders or parallelepipeds) are settled, with one sample being placed on the lower striker 1, and the other on the measuring block 2 immediately above the former sample. The upper striker 3 is placed from above. An accurate superposition of the two samples is achieved by a paired prismatic pattern (Fig. 1 6). The measuring block consists of two halves which are kept together by a dynamometer needle (silozmeritel'naya shpil'ka) 4. Wire strain gauges are glued onto this needle. The pressures arising between the block as well as between the lower and upper sample balance,

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S/032/61/027/004/023/028
B103/B201

Special strikers (boyeK) for ...

whereas the frictional forces sum up and are transmitted via the block halves onto needle 4. In this manner, the needle receives the frictional forces arising on two equal contact surfaces. These normal pressures in equilibrium cause the block halves to be also, among other things, elastically deformed in the direction of the axis of needle 4. With a view to eliminating the effect of these deformations upon the frictional force to be measured, the authors have worked out a design of the block (Fig. 2), that leaves a clearance δ at the contact of the halves, which is larger than the value of the total elastic deformation. δ must be, however, narrow enough, so as to prevent the metal from flowing in. The inserted pins 5 (Fig. 1) permit an elevation adjustment of the block for samples of different sizes. The two strikers 1 and 3 are equipped with measuring pegs 6 and 7 for the measurement of normal pressures. They transmit the pressures onto the measuring rods 8 and 9, where wire strain gauges are also glued on. The magnitude of frictional force and the pressure on the two pegs 6 and 7 are recorded by an oscilloscope at every instant of settling. The curve showing the total frictional force F as a function of the magnitude of displacement S (Fig. 1 a) is obtained by the displacement of the center of the samples with respect to the contact

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Special strikers (boyok) for ...

S/032/61/027/004/023/028
B103/E201

plane of the block halves. The mathematical interpretation of the resulting dependence $F(S)$ allows the determination of magnitude and distribution of tangential stresses over the contact surface. In case of a flat deformation this interpretation bases upon the differentiation of the exponential curves obtained. It is complicated in cylindrical samples and requires cumbersome calculations. The said interpretation is considerably simplified by using a measuring block with annular joint (Fig. 3). A set of inserts and half-rings of different sizes is needed to determine the total frictional force as a function of the magnitude of the inside diameter of the annular plane. A block with a cantilever arrangement of the dynamometer needle is suited for tests of frictional forces on hot steel. The needle is in this case at some distance from the hot samples, and the operation part may be thin. The effect of normal pressures on the block is thus reduced. The authors' tests have proved that durable results can be achieved by their method and their design. There are 3 figures. ✓

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S. M. Kirova
(Ural Polytechnic Institute imeni S. M. Kirov)

Card 3/5

TARNOVSKIY, I.Ya.; LEVANOV, A.N.; SKORNYAKOV, V.B.; MARANTS, B.D.

Investigation of contact friction forces in upsetting
ucheb.zav.; chern.met. 4 no.6:53-59 '61. Izv.vys.
(MIRA 14:6)

1. Ural'skiy politekhnicheskiy institut.
(Forging) (Friction)

LEVANOV, A. N.; TARNOVSKIY, I. Ya.

Gauge for measuring contact stresses in sagging. Zav. lab. 28
no.12:1531-1532 '62. (MIRA 16:1)

1. Ural'skiy politekhnicheskii institut.

(Gauges)

LEVANOV, A.N.; TARNOVSKIY, I.Ya.

Methods of experimental investigation of contact stresses during plastic deformation. Izv. vys. ucheb. zav.; Chern. met. 6 no.6: 73 '63. (MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut.
(Deformations (Mechanics)) (Friction)

TARNOVSKIY, I.Ya.; LEVANOV, A.N.

Studying the epures of contact friction forces and normal pressures
in upsetting. Izv. v/s. ucheb. zav.; chern. met. 6 no.6:121-129
'63. (MIRA 16:8)

1. Ural'skiy politekhnicheskiy institut.
(Forging) (Friction)

TARNOVSKIY, I.Ya.; LEVANOVA, A.N.

Dependence of contact friction forces during upsetting on
the mechanical properties of the metal and the shape of the
deformation center. Kuz.-shtam. proizv. 5 no.11:1-6 N '63.
(MIRA 17:1)

ACCESSION NR: AP4029540

8/0149/64/000/002/0160/0163

AUTHOR: Poksevatkin, M. I.; Tarnovskiy, I. Ya; Levanov, A. N.

TITLE: Experimental investigation of contact stresses in the sagging of technically pure metals

SOURCE: IVUZ. Tsvetnaya metallurgiya, no. 2, 1964, 160-163

TOPIC TAGS: contact stress, pure metal, plastic deformation, friction, Armco iron, copper, zinc, copper

ABSTRACT: In this paper the authors investigate the ratio $\tau_{\text{mean}}:\tau_s$ and the index of the friction forces $\varphi = \tau_{\text{mean}}:p_{\text{mean}}$ ($\tau_{\text{mean}}, p_{\text{mean}}$ are the specific forces of friction in a normal pressure averaged on the contact surface; τ_s is the consistency limit in shear) which most completely characterize the forces of external friction during plastic deformation in the cold sagging of copper, zinc, and Armco iron. The dependences of friction and pressure and the various metals are presented in graphs. The experimental data show: 1) the forces of friction essentially depend on the focus form of the deformation at a given state of the working surface, 2) the ratios between the friction forces and normal pressure depend on the temperature-velocity condition of deformation, mechanical properties of the metal or alloy and especially

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ACCESSION NR: AP4029540

on the change of these properties during deformation, 3) mechanical properties of the metal or alloy on the contact surface can differ considerably from those in the basic volume of the body which is connected with the hardening process and temperature changes. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Ural'skiy politekhnicheskii institut (Ural Polytechnical Institute)

SUBMITTED: 01Oct63

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 002

OTHER: 000

Card 2/2

KIRILLOVA, F.M.; LEVANOV, A.N.; GEBASOV, R.

Plotting diagrams of contact friction forces in plastic upsetting.
Izv. vys. ucheb. zav.; Chern. met. 7 no.3:87-94 '64.

(MIRA 17:4)

1. Ural'skiy politekhnicheskiy institut.

POKSEVATKIN, M. I.; TARNOVSKIY, I. Ya.; LEVANOV, A. N.

New methods of measuring contact stresses during rolling. *Izv. vys.ucheb.zav.; Chern.met.* 7 no. 4:93-96 '64.

Determining contact stresses during metalworking by pressure in connection with the mechanical properties of metals. *Ibid.*:97-102. (MIRA 17:5)

1. Ural'skiy politekhnicheskiy institut.

POKSEVATKIN, M. I.; TARNOVSKIY, I. Ia.; LEVANOV, A. N.; KHASIN, G. A.

Contact stresses during the hot upsetting of carbon and alloyed steels. Izv. vys. ucheb. zav.; Chern. met. 7 no.6:103-108 '64.
(MIRA 17:7)

1. Ural'skiy politekhnicheskiy institut.

KOLMOGOROV, V.L.; TARNOVSKIY, I.Ya.; YERIKLINTSEV, V.V.; LEVANOV, A.N.

Stressed state during the upsetting of a thick strip report No.2. Izv.
vys. ucheb. zav.; Chern. met. 7 no.11:93-99 '64.

(MIRA 17:12)

1. Ural'skiy politekhnicheskiy institut i Ural'skiy nauchno-
issledovatel'skiy institut chernykh metallov.

LEVANOV, A.N.; TARNOVSKIY, I.Ya.; YERIKLINTSEVA, Yu.Ye.; POSEVATKIN, M.I.

Investigating the effect of tool roughness on external friction
during upsetting. Kuz.-shtam. proizvod. 7 no.8:6-9 Ag '65.
(MIRA 18:9)

L 44393-66 EWI(m)/I/EWP(t)/ETI/EWP(k) IJP(c) JD/HW/DJ

ACC NR: AP6023045

SOURCE CODE: UR/0148/66/000/004/0092/0098

AUTHOR: Poksevatkin, M. I.; Tarnovskiy, I. Ya.; Levanov, A. N.; Volkovich, V. A.

ORG: Ural Polytechnic Institute (Ural'skiy politekhnicheskiy institut)

TITLE: Contact pressure during hot upsetting of heat resistant steels and alloys

SOURCE: IVUZ. Chernaya metallurgiya, no. 4, 1966, 92-98

TOPIC TAGS: heat resistant steel, heat resistant alloy, hot upsetting, metal deformation, pressure distribution, surface pressure, friction, temperature dependence

ABSTRACT: Experimental methods and analysis of data are based on an earlier work (Poksevatkin, et al, *Izvestiya vysshikh uchebnykh zavedeniy. Chernaya metallurgiya*, 1964, no. 6). The parameters $\psi = \tau_{av} / \tau_{\theta}$ and $\eta = p_{av} / \sigma_{\theta}$ are given as functions of the ratio of surface contact diameters D to sample heights H at 950, 1050 and 1150°C. Upsetting was done on a friction press and a drop hammer. Values for ψ and η were calculated by averaging the tangential τ_{av} and normal pressures p_{av} over the contact surface, while $\tau_{\theta} = \sigma_{\theta} / \sqrt{3}$, where σ_{θ} is the average value of the flow limit in the deformation volume. The relative compression was 20-30% in the friction press and 15-20% in the drop hammer. Data for heat resisting steels and alloys corresponded to those obtained in the reference cited above for ordinary carbon and alloy steels. A theoretical analysis of

Cord 1/2

UDC: 621.731:669.14.018.45

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ACC NR: AP6023045

contact pressure during plastic deformation is given. During plastic deformation under variable surface friction, the tangential contact pressure τ depended on the normal pressure p and on the contact displacement u . A qualitative graph is shown of τ as a function of u at constant p for both strain hardening and nonstrain hardening materials. The onset of external friction forces was caused by deformation and other mechanical processes. The increase of contact slipping obeyed the law of minimum external and internal work. For internal displacement under constant relative deformation, samples of different thickness (B) to height (H) ratios but constant widths were compared. For complete surface contact, the displacement deformation depended on H , given a constant value of B , or on B/H --given a constant deformation. The magnitude and distribution of surface friction depended on the mechanical properties of the materials and above all on the thin precontact layer. For hot deformation, the change of temperature fields on the contact surface was extremely important. Under upsetting, the increase in τ_{av}/τ_s with D/H was retarded, while P_{av}/σ_s rose sharply with increase in D/H . This was caused by the character of strengthening of the precontact and inner layers during deformation and of the temperature changes on the contact. The changes in τ_{av}/p_{av} , indicating the force of contact friction!, were given as functions of D/H at 950, 1050 and 1150°C. In all cases, τ_{av}/p_{av} had a maximum at about $D/H=5$. This was explained by changes in kinematic conditions and the nonlinear dependence of friction on pressure. Orig. art. has: 6 figures, 2 formulas.

SUB CODE: 11/ SUBM DATE: 05Jan65/ ORIG REF: 005

Cord 2/2 *ec/z*

ЛЕВАНОВ, Д.М.

LEVANOV, D.M., inzh.

Mortars used in construction work carried out at low temperatures.
Nov. tekhn. i pered. op. v stroi. 19 no.9:1-4 S '57. (MIRA 10:11)
(Mortar--Cold weather conditions)

~~LEVANOV, I.N.~~, polkovnik, redaktor; BELYY, B.A., polkovnik, redaktor;
NOVOSELOV, A.P., polkovnik, redaktor; ARISTOV, A.D., redaktor;
VOLKOVA, V.Ye., tekhnicheskiy redaktor

[Marxism-Leninism on war and armies] Marksizm-leninizm o voine i
armii. Pod obshchei red. I.N.Levanova, B.A.Belogo i A.P.Novoselova.
Moskva, Voen.izd-vo M-va obor.SSSR, 1957. 285 p. (MLRA 10:10)

1. Voenno-politicheskaya krasnoznanennaya akademiya imeni V.I.
Lenina
(War) (Armies)

LEVANOV, N. M.
CA

PROCESSES AND PROPERTIES OF REINFORCED CAST IRON AND ITS APPLICATIONS. N. Levanyov. *Vestnik Metallopro.* 1939, No. 12, 11-18; *Foundry Trade J.* 64, 346(1941); *Metals and Alloys* 14, 352, 354 (1941).—The supporting capacity of cast iron members may be increased by incorporating in them during casting a reinforcement of mild steel bars. Exptl. work has shown that the mild steel should have a C content of 0.10 to 0.25%, and should have a perfectly clean surface, free from rust, scale or other contamination. The iron should be poured at a temp. of 2300° to 2510°F. Metallographic examn. shows that the diffusion of C from the cast iron into the steel produces in the latter a surface cementation layer, underlying which is a pearlite zone, while in the central portion the original ferrite-pearlite structure remains unaltered. In the cast iron zone immediately adjacent to the steel, the structure is that of a eutectoid steel. This is followed by a zone having a sorbitic structure, while further away from the reinforcement there is evidence of a reduction in size of the graphite flakes. In furnace construction, where high durability under severe temp. conditions is required, this reinforced cast iron has been found very suitable. In structural engineering reinforced cast iron has been successfully employed for the lining sections of the Moscow underground railway. Under test, these sections of reinforced cast iron were found to have a supporting capacity 40% greater than that of similar sections of cast iron without reinforcement. C. L. B.

ASB-55-A METALLURGICAL LITERATURE CLASSIFICATION

Spetsial'nye metallich'eskie konstruksii gorodskogo stroitel'stva / Special
metallic structures in urban construction. Moskva, Izd-vo Ministerstva
kommunal'nogo Khoziaistva SSSR, 1950. 139 p.

off: Monthly List of Russian Accessions, Vol. 6 No. 11 February 1954

LEVANOV, Nikolay Mikhaylovich, prof., doktor tekhn.nauk; KOSENKO, I.S.,
red.; VARGANOVA, M.M., red.isd-va; SALAZKOV, N.P., tekhn.red.

[Prestressed reinforced concrete] Predvaritel'no napriazhenyi
zhelesobeton. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1960.
505 p. (MIRA 13:5)

(Prestressed concrete)

LEVANOV, N.H. prof.

Prestressed elements founded from molten slag and cast iron.

[Trudy] RISI no.17:55-66 '60.

(MIRA 15:6)

(Building materials)

KOZLOV, Nikolay Yakovlevich, inzh.; LEVANOV, Nikolay Mikhaylovich, dok.tekhn.nauk, prof.; POLUKHIN, Petr Ivanovich; KRASIL'NIKOV, Aleksey Nikolayevich; PANARIN, Nikolay Yakovlevich; FILIPPOV, Boris Ivanovich; MARTYNOV, A.F., red.; GOROKHOVA, S.S., tekhn.red.

[Technology of the manufacture of vibration rolled elements and their use in the construction industry] Tekhnologiya izgotovleniia vibroprokatnykh konstruktsii i ikh primenenie v stroitel'stve. Moskva, Vycshaia shkola, 1963. 310 p. (MIRA 17:4)

1. Nachal'nik Spetsial'nogo konstruktorskogo byuro Prokatdetal' (for Kozlov, Levanov).

LEVANOV, Nikolay Mikhaylovich, prof., doktor tekhn. nauk;
SUVORKIN, Dmitriy Grigor'yevich, dots., kand. tekhn.
nauk; KUZNETSOV, G.F., prof., doktor tekhn. nauk;
GVOZDEV, A.A., prof., doktor tekhn. nauk

[Reinforced concrete elements] Zhelezobetonnye kon-
struktsii. Moskva, Vysshaya shkola, 1965. 871 p.
(MIRA 18:10)

Леванов, В. И.

124-58-9-10577

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 161 (USSR)

AUTHORS: Bykov, V. A. Artem'yev, N. S., Kostichev, Yu. V., Levanov, V. I.

TITLE: On the Consistency of Generalized Plastic Strength Data of Ship building Steels (O skhodimosti obobshchennykh plasticheskikh soprotivleniy sudostroitel'noy stali)

PERIODICAL: Tr. Leningr. korablestroit. in-ta, 1955, Vol 16, pp 50-55

ABSTRACT: Results of tests relative to pure flexure, tension, and torsion are presented for a number of ship-building steels (grades not indicated). The investigation included the conditions in which plastic behavior occurred, also short-term-failure and long-term-strength criteria. A correlation of test results relative to the pure flexure of narrow strips and plate showed a good substantiation of the Henke-Huber-von Mises condition of plasticity

$$\sqrt{\sigma_1^2 - \sigma_2\sigma_1 + \sigma_2^2} = \sigma_0 \quad (1)$$

Card 1/2

A correlation of test results relative to tension and torsion of solid circular specimens shows a substantiation not only of

124-58-9-10577

On the Consistency of Generalized Plastic Strength Data of Shipbuilding Steels
condition (1) but also of the criterion of the maximal tangential stress

$$\sigma_1 - \sigma_3 = \sigma_0 \quad (2)$$

The test results show that relationships (1) and (2) may be used as strength criteria relative to plastic deformation, but that they cannot be expected to serve as failure (ultimate-strength) criteria.

V. S. Namestnikov

1. Steels--Mechanical properties
2. Steels--Test methods

Card 2/2

KRAUZE, G.N.; KUTILIN, N.D.; SYTSKO, S.A.; LEVANOV, V.L., inzh.,
retsezent

[Reducing gears; handbook] Reduktory; spravochnoe posobie. Moskva, Mashinostroenie, 1965. 187 p.
(NIRA 18:2)

LEVANOV, V.Ye.

Raw material resources for the production of chips for industrial purposes in the logging camps of the Karelian A.S.S.R. Nauch. trudy LTA no.95:25-34 '61. (MIRA 16:2)
(Karelia--Lumbering)

L 10762-66 EWI(1)/EWP(m)/EPF(n)-2/EWA(d)/FCS(k)/EWA(1) MW

ACC NR: AP6000017

SOURCE CODE: UR/0208/65/005/006/1096/1106

AUTHORS: ^{44.55} Volosevich, P. P. (Moscow); ^{44.55} Levanov, Ye. I. (Moscow) 137
75

ORG: none

TITLE: One-dimensional self-similar motion of thermally and electrically conducting gas in a magnetic field

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 5, no. 6, 1965, 1096-1106

TOPIC TAGS: MHD, heat conduction, electric conductivity, magnetic field, fluid flow, shock wave

ABSTRACT: The one-dimensional, unsteady ^{1,55} motion of an electrically conducting fluid was studied with special emphasis on ^{2,44,55} thermal conductivity properties of the fluid. Both the thermal conductivity coefficient χ and the magnetic viscosity ν_m are assumed to be functions of the temperature and density. The self-similarity variable is given by $\lambda = r/At^n$, and a set of ordinary differential equations is obtained. Various special cases are discussed, such as the radial component of H

Card 1/2

UDC: 517.9:538.4

L 10762-66

ACC NR: AP6000017

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is set equal to zero, or a sudden isothermal explosion is assumed, and the resulting simplified equations are integrated directly. For H (radial) = 0, the case of a plane piston is considered with a frozen magnetic field. The solution of the resulting equations shows the generation of temperature waves moving ahead of the piston and carrying isothermal magnetic shock waves. The analysis also shows that the magnetic field components, h_z and h_θ , are zero on the piston. The authors thank A. A. Samarskiy for his continuous influence and valuable advice, B. L. Rozhdestvenskiy and S. P. Kurdyumov for evaluations, and also A. A. Ivanov for programming and performing the numerical computations. Orig. art. has: 23 equations and 3 figures.

SUB CODE: 20/

SUBM DATE: 12Jun64/

ORIG REF: 010/

OTH REF: 002

CC
Card 2/2

BERDYBAYEV, Ungarbay Berdybayevich, prof., doktor med.nauk; LEVANOV, Yu.,
red.; OYSTRAKH, V., tekhn.red.

[Fungous diseases in Kazakhstan] Gribkovye zabolevaniia v Kazakh-
stane. Alma-Ata, Kazakhskoe gos.isd-vo, 1959. 238 p.
(MIRA 14:3)

1. Institut kraevoy patologii AN KazSSR (for Berdybayev).
(KAZAKHSTAN--MEDICAL MYCOLOGY)

NUGMANOV, Saken Nugmanovich, dotsent, kand.med.nauk; LEVANOV, Yu. ^M
red.; TURABAYEV, B., tekhn.red.

[Cancer; achievements of Soviet oncology in the study of
malignant tumors. Prevention of cancer] Rakovaya bolezni';
uspekhi sovetskoi onkologii v izuchenii zlokachestvennykh
opukholei. Profilaktika raka. Alma-Ata, Kazakhskoe gos.
izd-vo, 1959. 154 p. (MIRA 13:6)
(CANCER)

SAMARIN, Roman Ivanovich; BERNSHTEYN, V.A., red.; LEVANOV, Yu.M.,
otv. za vypusk; HAGIBIN, P.A., tekhn.red.

[Studies on the history of the public health system in
Kazakhstan] Ocherki istorii zdavookhraneniia Kazakhstana.
Alma-Ata, Kazakhskoe gos.izd-vo, 1958. 161 p. (MIRA 12:8)
(Kazakhstan--Public health)

VELIYEV, B.A.; LEVANOV, Yu.M.

Fractional composition of serum proteins in the aggravation of chronic saturnism. Izv. AN Kazakh. SSR. Ser. med. nauk no.1: 76-79 '63. (MIRA 16:10)

1. Iz vtorogo medob'yedineniya g. Chimkenta (glavnyy vrach zasluzhennyy vrach Kazakhskoy SSR I.P. Basharat'yan) i Instituta krayevoy patologii AN KazSSR (dir. kand. med. nauk B.A. Atchabarov).



LEVANOV, Yu.M.; MATVEYEVA, R.N.

Blood serum proteins in patients with chronic brucellosis. Trudy
Inst.kraev.pat.AN Kazakh SSR 12:231-235 '62. (MIRA 15:11)
(BLOOD PROTEINS) (BRUCELLOSIS)

LEVANOV, Yu.M.

Electrophoretic examination of protein fractions in the blood system of donors. Zdrav. Kazakh. 22 no.10:45-47 '62.

(MIRA 17:5)

1. Iz Instituta krayevoy patologii AN Kazakhskoy SSR (dir.-
kand. med. nauk B.A. Atchabarov).

LEVANOV, Yu.M.

Comparative characteristics of the interpretation of an electrophoregram of blood serum proteins by means of a photoelectrocolorimeter and direct photometry using a densitometer; statistical study. Lab.delo 9 no.3:12-16
Mr '63. (MIRA 16:4)

1. Institut krayevoy patologii (dir. - kand.med.nauk B.A. Atchabarov) AN Kazakhskoy SSR.
(ELECTROPHORESIS) (BLOOD PROTEINS)

LEVANOVA, M.P., metodist

Index of literature on health education. Sov.zdrav. 20 no.2:91-
92 '61. (MIRA 14:5)

(BIBLIOGRAPHY--HEALTH EDUCATION)

RESHETNIKOV, N.S., dots.; LEVANOVA, R.V., inzh.; RASHKOVSKAYA, A.N., inzh.;
ANTONOVA, G.P., tekhnik; ANIKIYENKO, O.M., tekhnik; KORESHKOVA, V.I.
tekhnik; KHOTOVA, T.N., tekhnik; BIRYUKOVA, V.N., tekhnik; PAVLYUKOVA,
S.N., tekhnik; PARAKHINA, N.L., tekhn. red.

[Album of working drawings of parts and units of the TDT-60 tractor]
Al'bom rabochikh chertezhei detalei i uzlov traktora TDT-60. Moskva,
Goslesbumizdat. Pt.2. [Xcept the motor] Krome dvigatelja. 1959. 388 p.
(MIRA 14:12)

1. Khimki. tsentral'nyy nauchno-issledovatel'skiy institut mekhaniza-
tsii i energetiki lesnoy promyshlennosti. 2. Laboratoriya tipovoy
tekhnologii remonta lesozagotovitel'nogo oborudovaniya i organizatsii
remontnykh predpriyatiy TSentral'nogo nauchno-issledovatel'skogo in-
stituta mekhanizatsii i energetiki lesnoy promyshlennosti (for all
except Levanova, Parakhina).
(Tractors--Design and construction)

RESHETNIKOV, N.S., dotsent; LEVANOVA, R.V., inzh.; RASHKOVSKAYA, A.N., inzh.; KHAZOV, I.I., inzh.; ANTONOVA, G.P., tekhnik; ANIKIYENKO, O.M., tekhnik; KORESHKOVA, V.I., tekhnik; KROTOVA, T.N., tekhnik; BIRYUKOVA, V.N., tekhnik; GOROKHOV, M.G., red.1zd-va; PARAKHINA, N.L., tekhn.red.

[Album of working drawings of parts and units of MAZ-200 and MAZ-501 trucks] Al'bom rabochikh chertezhei detalei i uzlov avtomobilei MAZ-200 i MAZ-501. Moskva, Goslesbumizdat. Pts.2-3. 1960. 319 p. (MIRA 14:7)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i energetiki lesnoy promyshlennosti. 2. Nachal'nik laboratorii tipovoy tekhnologii remonta mashin i organizatsii remontnykh predpriyatiy TSentral'nogo nauchno-issledovatel'skogo instituta mekhanizatsii i energetiki lesnoy promyshlennosti (for Reshetnikov). (Motortrucks--Equipment and supplies)

RESHETNIKOV, N.S., dots.; LEVANOVA, R.V., inzh.; RASHKOVSKAYA, A.N.,
inzh.; ANTONOVA, G.P., tekhnik; ANIKIYENKO, O.M., tekhnik;
PINSKAYA, M.Z., red. izd-va; LOBANKOVA, R.Ye., tekhn. red.

[Album of working drawings of basic parts and units of the ZIL-
157 automobile] Al'bom rabochikh chertezhei osnovnykh detalei i
uzlov avtomobilia ZIL-157. Moskva, Goslesbumizdat. Pt.1. [Motor
of the ZIL-157] Dvigatel' ZIL-157. 1961. 118 p.
(MIRA 15:1)

1. Khimki. TSentral'nyy nauchno-issledovatel'skiy institut me-
khanizatsii i energetiki lesnoy promyshlennosti. 2. Nachal'nik
laboratorii tipovoy tekhnologii remonta mashin i organizatsii re-
montnykh predpriyatiy otdeleniya remonta lesozagotovitel'nogo obo-
rudovaniya TSentral'nogo nauchno-issledovatel'skogo instituta me-
khanizatsii i energetiki lesnoy promyshlennosti (for Reshetnikov).
(Motortrucks--Design and construction)

LEVANOVA, R.V., starshiy nauchnyy sotr.; VORONIN, I.N., mladshiy nauchnyy sotr.; ANTONOVA, G.P., tekhnik; ANIKIYENKO, O.M., tekhnik; RESHETNIKOV, N.S., dots.; LEONT'YEV, L.N., mladshiy nauchnyy sotr., otv. za vypusk; BASINKEVICH, I.R., red. izd-va; GRECHISHCHEVA, V.I., tekhn. red.

[Album of working drawings of the basic parts and units of the ZIL-157 motortruck]Al'bom rabochikh chertezhei osnovnykh detalei i uzlov avtomobilia ZIL-157. Moskva, Goslestumizdat. Pt.2.[The chassis except the ZIL-157 engine]Shassi, krome dvigatelya ZIL-157. 1962. 280 p. (MIRA 15:10)

1. Khimki. Tsentral'nyy nauchno-issledovatel'skiy institut mekhanizatsii i energetiki lesnoy proryshlemosti.
(Motortrucks--Design and construction)

LEVANOVA, S.V.; ANDREYEVSKIY, D.N.

Thermodynamic reaction in the dehydrochlorination of tertiary butyl chloride. Neftekhimia 4 no.3:476-480 My-Je '64.

(MIRA 18:2)

1. Kuybyshevskiy politekhnicheskii institut im. V.V.Kuybysheva.

S/0204/64/004/004/0558/0560

ACCESSION NR: AP4044554

AUTHOR: Andreyevskiy, D. N., Levanova, S. V.

TITLE: The isomerization equilibrium of butenes

SOURCE: Neftekhimiya, v. 4, no. 4, 1964, 558-560

TOPIC TAGS: butene-1, butene-2, isomerization, cis-butene, trans-butene, propene, alkene, equilibrium constant, entropy

ABSTRACT: The determination of the equilibrium concentrations of butene-1 in mixtures with cis- and trans-butene-2 is necessary for calculating the course of various reactions, especially the isomerization of the butenes. In the present paper, the equilibrium constants for butene isomers are compared, and the equilibrium concentrations and temperature dependence of the log K values for the isomeric n-butenes are plotted and tabulated. There was good agreement between the experimental findings and data in the literature. The difference in the slope of the log K lines for the isomerization equilibria of the reactions butene-1 \rightleftharpoons trans-butene-2 and butene-1 \rightleftharpoons cis-butene-2 corresponds to a slight difference in the heat of isomerization and to a considerable difference in the entropy values for the transition of butene-1 to the two butene-2 isomers. The variation of the entropy increment

Card 1/2

DEVAKOVA, E.V.; AN OBYAZANNYI, I.S.

Equilibrium of β -chlorobenzene and chloroacetic acid. *Neftokhimiya*
4 no.2:329-336. Apr'64 (USSR 17:8)

1. Kuybyshevskiy politekhnicheskiy institut imeni Kuybysheva.

ANDREYEVSKIY, D.N.; LEVANOVA, S.V.

Equilibrium of the isomerization of butenes. *Neftekhimiya* 7, no. 4:
558-560 J1-Ag '64. (MIRA 17:16)

1. Kuybyshevskiy politekhnicheskiy institut im. V.V. Kuybysheva.

LEVANOVA, T.A. --

"The Transformation of the Characteristics of Corn Hybrids by Direct and Counter Crossings." Cand Agri Sci, Inst of Genetics and Selection, Acad Sci USSR, Khar'kov, 1953 (RZhBiol, No 2, Sep 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481, 5 May 55

LEVAHOVA, T.A.

Morphogenesis of male and female inflorescences in corn. Zhur.ob.
biol. 16 no.6:486-497 N-D '55. (MIRA 9:3)

1. Institut genetiki i selektsii Akademii nauk USSR.
(CORN (MAIZE))

LEVANOVA, V. P.

MT The effect of molecular interaction on the stability of glycoside links in the macromolecule of cellulose toward the action of hydrolyzing agents. I. I. Korol'kov, V. P. Levanova, and V. I. Sharkov. *Colloid J. (U.S.S.R.)* 17, 337-9 (1955) (Engl. translation).—See C.A. 50, 2184. B. M. R.

(2)

Levanova, V.P.

6002

2mny

~~The effect of molecular interaction on the stability of glucose side links in the macromolecule of cellulose toward the action of hydrolyzing agents. I. I. Korol'kov, V. P. Levanova, and V. I. Sharkov (Inst. Hydrolysis and Sulfonation, Leningrad). Kolloid Zhur. 17, 583-4 (1955). Hydrolysis of cellulose (I) from viscose was dissolved in 65% H₂SO₄ in 1 hr. and then dil. with 25% H₂SO₄ to achieve a concn. of 65% H₂SO₄. If the amt. of I used was such that the final concn. of I was 0.25, 10, 20, or 30%, the const. K of hydrolysis at 25° was 0.107, 0.057, 0.044, and 0.033 hr.⁻¹, resp. However, when the more concd. solns. of I were diss. with 65% H₂SO₄ to obtain 0.25% solns., K was still smaller than the K of the initially dil. soln. Thus, the differences in the rate of hydrolysis are due to the fact that the attack of 65% H₂SO₄ on I is more severe the greater the ratio of 65% H₂SO₄ to I and that, when dissolved in 65% H₂SO₄, I is more rapidly hydrolyzed by 65% H₂SO₄. Thus the theory of Konkin et al. (C.A. 48, 13211e), that more concd. solns. of I are hydrolyzed more slowly because of forces between the chains of I, is untenable. I. I. Bikerman~~

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2

LEVAIOVA, V.P.; SHARKOV, V.I.

Effect of salts on the formation and decomposition of sugar in the
hydrolysis of polysaccharides. *Gidroliz. i leskokhim. prom.* 9 no.7:
3-5 '56. (MIRA 12:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirtovoy promyshlennosti.
(Polysaccharides) (Hydrolysis) (Salts)

SHARKOV, V.I.; LEVANOVA, V.P.

Kinetics of hydrolysis and the influence of the addition of salts.
Gidroliz. i lesokhim. prom. 10 no.6:8-10 '57. (MIRA 10:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i
sul'fitno-spirtovoy promyshlennosti.
(Hydrolysis) (Cellulose)

SHARKOV, V.I.; IEVANOVA, Y.P.

Investigating the packing density of various cotton cellulose preparations. *Vysokom.sped.* 1 no.5:730-737 My '59.

(MIRA 12:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitnospirovoy promyshlennosti.
(Cellulose)

SHARKOV, V.I.; LEVANOVA, V.P.

Investigating the packing density of macromolecules in various natural cellulose preparations. Vysokom.sped. 1 no.7:1027-1033 J1 '59.

(MIRA 12:11)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirtovoy promyshlennosti.

(Cellulose)

SHARKOV, V.I.; LEVANOVA, V.P.

Investigating the supermolecular structure of fibres from cellulose hydrate. Vysokom.soed. 1 no.7:1034-1041 J1 '59. (MIRA 12:11)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirto-
voy promyshlennosti. (Cellulose) (Fibers)

5(4)

SOV/69-21-3-22/25

AUTHOR: Sharkov, V.I. and Levanova, V.P.

TITLE: Investigation of the Colloidal Nature of Polysaccharides
by Means of Hydrolysis

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 3, pp 359-363
(USSR)

ABSTRACT: The authors report on a method of studying the colloidal-chemical nature of starch and wood hemicelluloses by means of determination of the rate of hydrolysis. As a specimen of the first group, the authors used potato starch, which, after preliminary treatment and subsequent quantitative hydrolysis by 10% sulphuric acid, rendered 110% glucose, which corresponds to the content of 99.01% polysaccharides. In order to compare the rate of hydrolysis of potato starch under homogeneous and heterogeneous conditions, the authors arranged a series of experiments, for which water-soaked starch samples were heated to temperatures from 50 to 100°C. The first experiments revealed that

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30V/69-21-3-22/25

Investigation of the Colloidal Nature of Polysaccharides by Means of Hydrolysis

at 40 and 50°C the starch granules had increased by 1.6 and 2.7 times in diameter respectively, as compared with their diameter at 20°C. Nevertheless, the solubility of the starch at 50°C did not exceed 0.2%. At 60°C and more, the starch transformed into a homogeneous paste. On cooling the paste to 50°C, a 25% concentration of sulphuric acid, equally heated to 50°C, was added to the samples, so that a solution of 10% sulphuric acid at a concentration of polysaccharides of 0.5% could be obtained. Twenty-four hours later, subsequent to treatment of the samples in the thermostat at 50°C, the authors determined the glucose content of the starch with the ebulliostatic method. With the aid of coefficient 0.9 the amount of established glucose was converted into polysaccharides and was used for the computation of the hour constant of the rate of hydrolysis. For the obtained results

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SOV/69-21-3-22/25

Investigation of the Colloidal Nature of Polysaccharides by Means of Hydrolysis

reference is made to table 1. The table shows that the rate of hydrolysis of granular starch,swelled at a temperature of 50°C, is nearly three times less than the rate of hydrolysis of starch in paste form. Experiments intended to show the difference in the respective rates of hydrolysis at 40°C resulted in the establishment of a still greater discrepancy. The rate of hydrolysis of the paste exceeded by 4-5 times the rate of hydrolysis of granular starch (Table 2). A third series of experiments carried out according to the method of N.I. Klenkova showed a noticeable dependence of the rate of hydrolysis of starch on the circumstances of its preliminary preparation (Table 3). The authors further found a dependence of the rate of hydrolysis of starch paste on the degree of its concentration. Lowering of the concentration resulted in an increase of the

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Investigation of the Colloidal Nature of Polysaccharides by Means
of Hydrolysis

SOV/69-21-3-22/25

rate of hydrolysis, which points to a diminution of the colloidal micelles (Graph 1). Experiments carried out with fir tree wood hemicelluloses showed the same results. Table 4 shows the average values of the constant of the rate of hydrolysis at various concentrations of the hemicelluloses. There are 4 tables, 1 graph and 5 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti, Leningrad (Scientific Research Institute of the Hydrolytic and Sulfite-Alcohol Industry, Leningrad)

SUBMITTED: 19 October, 1957

Card 4/4

5.3510

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SOV/80-32-10-45/51

AUTHORS: Sharkov, V. I., Levanova, V. P.

TITLE: Brief Communications. Determination of the Real Specific Gravity of Cellulose

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 10, pp 2357-2359 (USSR)

ABSTRACT: A modification of Hermans' method (J. Pol. Sci., 1,3, 162 (1946)) is used for the determination of the specific gravity of cellulose. The above method was simplified: Instead of drying cellulose samples with dry air and displacing the latter by carbon tetrachloride vapors, preliminary oven drying at 105° was suggested. The thoroughly dry samples are moistened with absolute ethyl alcohol and washed with CCl₄. Subsequent determination of the specific gravity of cellulose is made by the flotation method equation, as follows: $d_{20^{\circ}} = d_t + K(t^{\circ} - 20)$, where d_t = specific gravity found at the flotation temperature; K = expansion coefficient, equal to $8 \cdot 10^{-5}$. The modified method is simpler and quicker than the Hermans method. There are 2 tables; and 1 U.S. reference (given above).

SUBMITTED: March 17, 1959 Card 1/1

SHARKOV, V.I.; LEVANOVA, V.P.

Mechanochemical method of converting cellulose into a
readily hydrolysable state. *Gidroliz i lesokhim.prom.* 13
no.1:5-7 '60. (MIRA 13:5)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-
spirtovoy promyshlennosti.
(Cellulose) (Hydrolysis)

SHARKOV, V.I.; LEVAHOVA, V.P.

Absorption of KOH by cellulose from water - alcohol solutions.

Zhur.prikl.khim. 33 no.7:1632-1636 J1 '60.
(MIRA 13:7)

(Cellulose) (Potassium hydroxide)

SHARKOV, V.I.; LEVANOVA, V.P. _____

"Amorphous" cellulose. Zhur. prikl. khim. 33 no.11:2563-2571
N '60. (MIRA 14:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gid-
roliznoy i sul'fitnospirovoy promyshlennosti.
(Cellulose)

SHARKOV, V.I.; LEVANOVA, V.P.; ARTEM'YEVA, I.S.

Packing density of some natural holocellulose, Zhur.prikl.khim.
34 no.11:2508-2515 N '61. (MIRA 15:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirtovoy promyshlennosti.
(Holocellulose)

SHARKOV, V.I.; LEVANOVA, V.P.; BOLOTOVA, A.K.

Supermolecular structure of extrastrong cellulose hydrate
fibers. Khim.volok. no.5:32-36 '62. (MIRA 15:11)
(Textile fibers, Synthetic)
(Cellulose)

SHARKOV, V.I.; LEVANOVA, V.P.

Relation between the specific gravity of cellulose and its reactivity
in hydrolysis and ethanolysis. *Vysokom.soed.* 5 no.5:729-734 My '63.
(MIRA 17:3)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spir-
tovoy promyshlennosti.

PHASE I BOOK EXPLOITATION SOV/4402

Zhdanov, A. I., Ye. A. Levanova, N. S. Basina, G. N. Sergeyeva,
and R. P. Khromova

Rukovodstvo po opredeleniyu stoimosti i ekonomicheskoy effektiv-
nosti modernizatsii metallovezhushchikh stankov; rukovo-
dyashchiye materialy (Manual on Determining Cost and Economic
Effectiveness of the Modernization of Metal-Cutting Machine
Tools; Guide Materials) Moscow, Mashgiz, 1958. 52 p. Errata
slip inserted. 3,000 copies printed.

Sponsoring Agency: Moscow. Eksperimental'nyy nauchno-
issledovatel'skiy institut metallovezhushchikh stankov.

Ed.: A. Ye. Prokopovich; Tech. Ed.: A. F. Uvarova; Managing
Ed. for Literature on Metalworking and Tool Making: R. D.
Beyzel'man, Engineer.

PURPOSE: This handbook is intended for personnel of chief-
mechanic sections and design sections of machine-tool
plants.

Card ~~1/4~~

Manual on Determining Cost (Cont.)

SOV/4402

COVERAGE: The handbook contains information on costs and economic effectiveness of the modernization of metal-cutting machine tools. Tables of cutting standards for cutters, drills, milling cutters, gear cutters, and grinding wheels are presented. Several machine-tool plants are mentioned in the text. No personalities are mentioned. There are no references.

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Ch. I. Methods of Determining the Economic Effectiveness of the Modernization of Metal-Cutting Machine Tools	5
Ch. II. Methods of Determining the Cost of the Modernization of Metal-Cutting Machine Tools	8
Ch. III. Methods of Determining the Relative Cost of Parts Manufacture (Performance of the Operation)	11

~~Card 2/4~~

LEVANOVICH, A.K.,dots.

Using "cold" concrete in construction. Sbor.nauch.trud.BLTI
no.10:375-386 '57. (MIRA 11:12)
(Concrete)

SHUBLADZE, K.; VINOKUR, Ya.; LEVANOVSKIY, L.; KOKLYANOV, A.

Current problems in the development of irrigation. Vop. ekon.
no.4:36-44 Ap '61. (MIRA 14:3)
(Irrigation farming)

LEVANOVSKIY, L.B., kand.tekhn.nauk

Seminar on problems in land improvement. Gidr. i mel. 14 no.1:
63-64 Ja '62. (MIRA 15:1)
(Drainage--Congresses) (Irrigation--Congresses)

LEVANOVSKIY, L. B.

124-11-12701

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 54 (USSR)

AUTHORS: Savarenskiy, A. D. , and Levanovskiy, L. B.

TITLE: Field Investigations of the Deformations of Channel Beds in the Lower Reaches of the Amu-Darya, (Polevyye issledovaniya deformatsiy rusel kanalov v nizov'yakh Amu-Dar'i)

PERIODICAL: Tr. Aralo-Kaspiysk. kompleksnoy ekspeditsii A. N. SSSR, 1956, Nr 7, pp 5-46.

ABSTRACT: The paper contains a technical account with a detailed description of the usual techniques, methodology, and conditions of the field work performed.

Card 1/1

LEVANOVSKIY, L. B.

124-11-12702

Translation from: Referativny Zhurnal, Mekhanika, 1957, Nr 11, p 54 (USSR)

AUTHOR: Levanovskiy, L. B.

TITLE: Stable Cross-Sectional Shapes of Channel Beds.
(Ustoychivyye formy poperechnykh secheniy rusel kanalov)

PERIODICAL: Tr. Aralo-Kaspiysk. kompleksnoy ekspeditsii A N SSSR. 1956, Nr 7,
pp 61-69.

ABSTRACT: Preliminary conclusions are presented, stemming from field investigations made on stable sectors of the beds of a number of channels along the lower reaches of the Amu-Darya covering a range of flow rates from 0.1 to 200 m³/sec, widths from 1.8 to 600 m and velocities from 0.2 to 1.4 m/sec. The data obtained are correlated with the empirical hydromorphometric relationships of S. T. Altunin, V. G. Glushkov, A. N. Gostunskiy, Lacey, S. I. Rybkin, and G. S. Chekulayev.
Bibliography: 14 references. V. N. Goncharov

Card 1/1

LEVANOVSKIY, L.B., kand.tekhn.nauk

Results of shearing field tests of soils with intact structure in the
Meshchera lowland. Nauch. zap. MIIVKh 23:137-149 '66.

(MIRA 14:8)

(Meshchera--Soil mechanics)

SHUBLADZE, K.K., kand.sel'skokhozyaystvennykh nauk; LEVANOVSKIY, L.B.,
kand.tekhn.nauk; KOKLYANOV, A.F., inzh.

Fundamental problems in the reclamation of land. Gidr. i mel. 13
no.8:11-20 Ag '61. (MIRA 14:8)

(Drainage)

LEVANOVSKIY, L.B., kand.tekhn.nauk (Moskva)

Drainage of swampy lands. Priroda 51 no.2:73-78 F '67.
(MIRA 15:2)

(Swamps)
(Drainage)

LEVANOVSKIY, L.B. (Moskva)

"Selected works" by A.N. Kostiakov. Reviewed by L.B. Levanovskii.
Priroda 51 no.7:67 J1 '62. (MIR: 15:9)
(Irrigation) (Drainage) (Kostiakov, A.N.)

LEVANOVSKIY, Leonid Borisovich, kand. tekhn. nauk; STANKEVICH,
Vyacheslav Semenovich, kand. sel'khoz. nauk; GORNIK,
M.V., red.; PECHENKIN, I.V., tekhn. red.

[Improvement of swampy soils] Melioratsiia zabolochennykh
zemel'; tematicheskiy sbornik. Moskva, Sel'khozizdat, 1962.
125 p. (MIRA 16:5)

1. Moscow. Vystavka dostizheniy narodnogo khozyaystva SSSR.
Pavil'on "Vodnoye khozyaystvo."
(Drainage) (Swamps)

LEVANOVSKIY, L.B., kand. tekhn. nauk

Land improvement practices on the "Detskoesel'skii" State
Farm. Gidr. i mel. 15 no.7:53-56 J1 '63. (MIRA 16:8)