TERSKOV, I.A.; GITEL'ZON, I.I.; SID'KO, F.Ya.; BELYANIN, V.N.; KOVROV, B.G.; YEROSHIN, I.S.; BATOV, V.A.

Dense continuous cultivation of Chlorella in varying illumination. Probl. kosm. biol. 4:683-686 '65. (MIRA 18:9)

L 14255-66 EWT(1)/FS(v)-3 SCTB DD/RD

ACC NR: AT6003908 SOURCE CODE: UR/2865/65/004/000/0683/0686 51 48

AUTHOR: Terskov, I. A.; Gimel'zon, I. I.; Sid'ko, F. Ya.; Belyanin, V. N.; Kovrov, B. G.; Yeroshin, I. S.; Batov, V. A.

ORG: none 2

TITLE: Dense continuous cultivation of Chlorella under various illumination conditions

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 683-686

TOPIC TAGS: Chlorella, photosynthesis, biosynthesis, plant growth, light absorption, light biologic effect

ABSTRACT: Experiments were performed with a thermophylic strain of Chlorella vulgaris in order to determine optimal lighting conditions for high concentrations of cells during intensive, continuous cultivation. Concentrations of 2×10^9, 3×10^9, and 4×10^9 cells per cc were used. This is equivalent to 20, 30, and 40 g of the dry biomass per liter of suspension. The algae

Card 1/4 2

were cultivated in a flat culture vessel with a working capacity of 1.4 liters, a dark capacity of 0.25 liters, and a total working surface of 0.6 m^2. During the course of the experiment the temperature was held at 36.5 ± 0.7° C, the pH was 7.35 ± 0.4, and the thickness of the layer was 5 mm. Air containing 5% CO_2 was bubbled through the culture medium.

Previous experiments had determined that in a culture containing 30 g of dry weight of biomass per liter, an optical path 0.5 mm long through the suspension absorbed about 90% of all photosynthetically active white-light radiation. This meant that bubbling pl[illegible]d an important role in creating consecutive light and dark phases for each cell. The mm-thick layer of culture was equally illuminated from both sides by gas-discharge lamps (DRL-1000 and ND-2), which produced favorable illumination for photosynthesis. In the experiments, 6 levels of illumination intensity were used, ranging from 0.260 up to 1.202 cal/cm^2/min. As a rule the light intensity was changed from minimum to maximum and then back to minimum. The duration of such a cycle was usually 4 to 5 hours. Deviations from the selected level of intensity did not exceed ± 4%. The duration of the experiments was 6 days.

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000204530008-9"

L 14255-66

ACC NR: AT6003908

The effect of various intensities of illumination on the growth of the algae was based on the increase in the weight of the biomass expressed in grams of dry substance per liter of suspension per diem. In all cases the intensity of production tended to increase with the intensity of illumination up to a certain point. After that, additional increases in illumination failed to bring about additional increases in productivity. The leveling-off point was reached at different light intensities, ranging from 0.361 cal/cm^2/min for low-density cultures (20 g/liter) to 0.791 cal/cm^2/min for high-density cultures (43 g/liter). It is interesting to note that the productivity for different densities was also most identical: ranging from 36—38 g of dry weight per liter of suspension per diem.

The almost identical maximum productivity of the various cultures may be explained by the fact that high concentrations of cells make the medium optically very dense. When the thickness of the culture layer is fixed, the average level of illumination of the cells becomes a function of surface illumination and culture density. The light falling on the cells, along with the productivity of individual cells, drops rapidly as culture density increases. It was found that the intensity of biosynthesis of cells at 20 g/liter is nearly

Card 3/4

L 14255-66 0

ACC NR: AT6003908

three times as great as that of cells at 43 g/liter. Consequently, the total productivity of high-density cultures at high illumination can be increased only by increasing the surface area accepting the light. Orig. art. has 2 figures.
[ATD PRESS: 4091-F]

SUBJ CODE: 06 / SUBM DATE: none

FW

Card 4/4

BELYANIN, V.V., inzh.

Dynamic digging of heavy soils. Izv. vys. ucheb. zav.; mashinostr. no.8:141-147 '65. (MIRA 18:10)

L 14701-66
ACC NR: AP6003992 (A) SOURCE CODE: UR/0145/65/000/008/0141/0147

AUTHOR: Belyanin, V. V. (Engineer) 33

ORG: Moscow Structural Engineering Institute (Moskovskiy inzhenerno-stroitel'nyy institut)

TITLE: Dynamic digging of heavy soils

SOURCE: IVUZ. Mashinostroyeniye, no. 8, 1965, 141-147

TOPIC TAGS: excavation, excavation machinery, earth moving equipment

ABSTRACT: Some aspects of dynamic digging of heavy soils by the method of direct excavation (without preliminary loosening) are discussed. As in the static case (N. G. Dombrovskiy. Povysheniye proizvoditel'nosti odnokovshovykh ekskavatorov, Stroyizdat, M., 1951), a specific resistance to dynamic digging can be expressed as

$$K_2 = \frac{R_d}{S_d}, \ kg/m^2$$

(where S = cross-sectional area of chip, R_d = dynamic shear force). For successful continuous digging, the dynamic excavator force P_d must always exceed R_d. By a

Card 1/3 UDC: 624.131.2

simple multiplication, this equation can be transformed into an energy equation, i.e.,

$$E_d = \frac{R_d s_d}{S_d s_d} = \frac{A_d^{rp}}{V_d}, \quad kgm/m^3,$$

(where A_d^{rp} = energy transferred to ground; V_d = chip volume). This can again be changed to specify specific digging power as

$$Y_d = \frac{R_d v_d}{S_d v_d} = \frac{N_d^{rp}}{i_d}$$

(where v_d = average digging velocity, i = digging intensity m^3/sec; N_d^{rp} = average power developed by tool). A dynamic digging capacity is derived as

$$\Pi = 3600 \frac{N_d \eta_m^d}{K_2} \cdot \frac{t_k^d}{t_{ts}^d} K_{pot}^d, \quad \frac{m^3}{hr}$$

where $N_d = \frac{N_d^{rp}}{\eta_m^d}$, η_m^d = coefficient of energy transfer from the engines to the tool).

Since completely analogous equations hold for static digging, relative coefficients of effectiveness of static and dynamic digging are defined as

$$K_E = \frac{K_2}{K_1} = \frac{R_d S_{cr}}{P_{01} S_d},$$

$$K_E = \frac{K_2}{K_1} = \frac{E_d}{E_{cr}} = \frac{A_d^{rp} V_{cr}}{A_{cr}^{rp} V_d} = \frac{A_d \eta_M^d V_{cr}}{A_{cr} \eta_M^{cr} V_d},$$

$$K_E = \frac{K_2}{K_1} = \frac{y_d}{y_{cr}} = \frac{N_d^{rp} l_{cr}}{N_{cr}^{rp} l_d} = \frac{N_d \eta_M^d l_{cr}}{N_{cr} \eta_M^{cr} l_d},$$

for specific resistance, specific energy, and specific power, respectively (here subscript ct refers to the static case). At the present time, there is disagreement among investigators about the relative merits of dynamic and static digging. After a brief discussion of the factors which affect these coefficients of merit, the author recommends that the goal of future investigations should be to define dynamic digging parameters which would optimize these coefficients. This paper was presented by N. G. Dombrovskiy, Doctor of technical sciences, Moscow Structural Engineering Institute.

SUB CODE: 13/ SUBM DATE: 19Aug64/ ORIG REF: 005

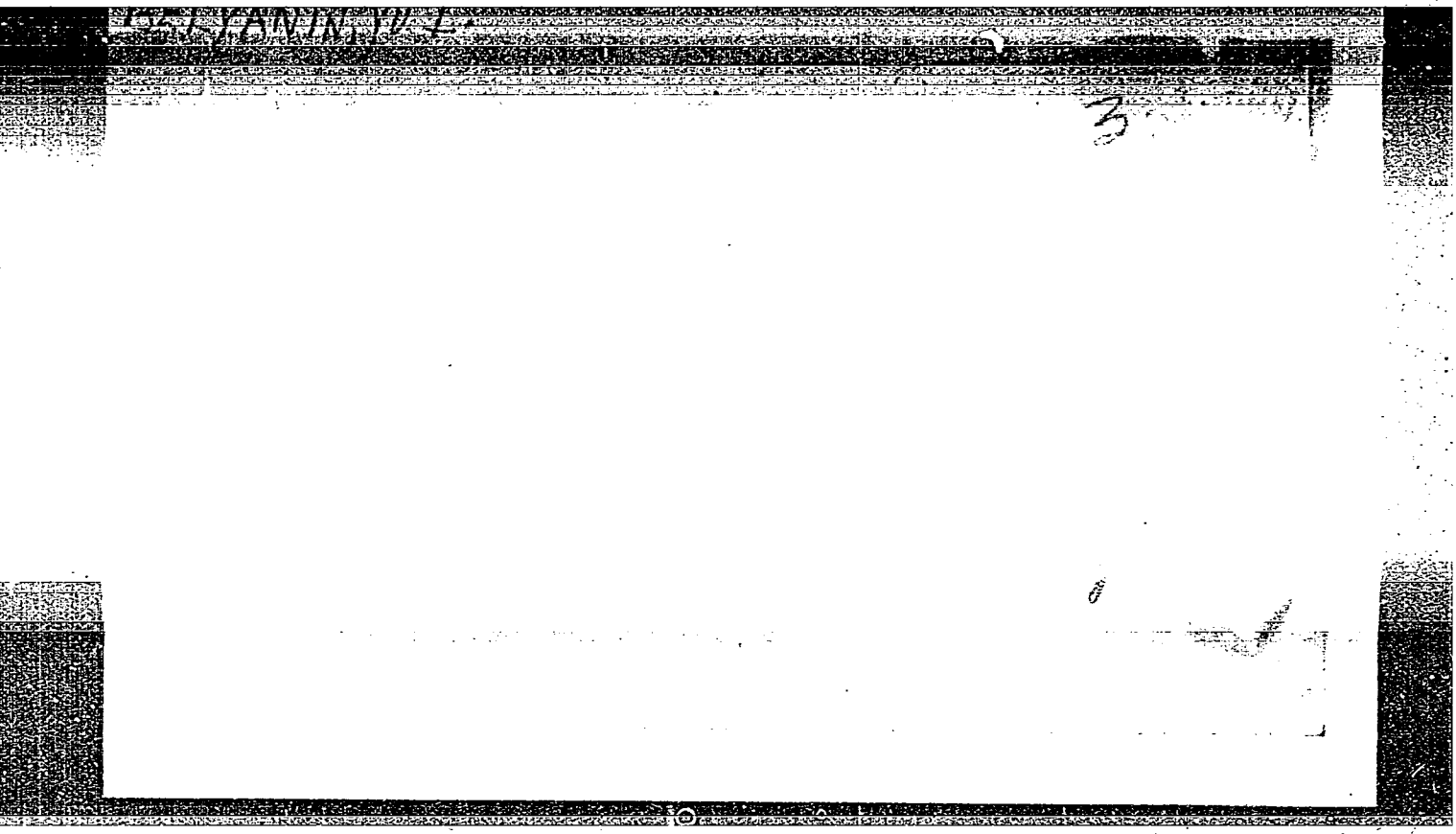
Card 3/3

ZEL'TSERMAN, I.M.; BELYANIN, Ye.G.

Calculating the elastic elements of the drive of a mower. Trakt. i sel'khozmash. 33 no.2:31-34 F '63. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.

(Mowing machines)



PIS'MEN, M.K.; YERMAKOV, V.G.; BELYANIN, Yu.I.

Gasification of oil shale with a solid heat transfer agent.
Gaz. prom. no.9:21-27 S '58. (MIRA 11:10)
(Gas manufacture and works) (Oil shales)

BELYANIN, YU. I.

11(2,7) PHASE I BOOK EXPLOITATION SOV/2416

Gazosnabzheniye vostochnykh rayonov SSSR na osnove gazifikatsii tverdykh topliv (Supplying the Eastern Regions of the USSR With Gas Produced by Solid Fuel Gasification) Moscow, Gostoptekhizdat, 1959. 214 p. 2,000 copies printed.

Ed.: N.V. Shishakov, Doctor of Technical Sciences; Executive Ed.: T. D. Yefremova; Tech. Ed.: A.V. Trofimov.

PURPOSE: This collection of articles is intended for designing, planning, and scientific research personnel, as well as for engineers, technicians, and students specializing in solid fuel gasification.

COVERAGE: This collection of articles describes the problem of supplying the eastern regions of the USSR with synthetic gas derived from the gasification of solid fuels to overcome that area's lack of natural gas. Individual articles discuss the distribution of the region's coal deposits, the quality and types of coal encountered, gasification process, and the economics involved in the production and supply of the synthetic gas product. The author thanks V.S. Al'tshuler, Doctor of Technical Sciences. References accompany each article.

AVAILABLE: Library of Congress (TP755.E92537)

(11)

PIS'MEN, M.K.; YERMAKOV, V.G.; BELYANIN, Yu.I.; YAROSLAV, T.Ye.

Experimental pyrolysis of mazut and shale tar. Gaz. prom. 6 no.11: 18-22 '61. (MIRA 15:1)

(Pyrolysis) (Mazut)

Belyanina, M.V.

OVECHKIN, V.R.; BELYANINA, M.V.

Werdnig-Hoffman familial spinal muscular atrophy in two brothers. Zhur.nevr. i psikh. Supplement:24 '57. (MIRA 11:1)

1. Sverdlovskiy meditsinskiy institut (dir. - prof. A.F.Zverev) i Sverdlovskaya oblastnaya klinicheskaya bol'nitsa No.1 (glavnyy vrach M.S.Levchenko)

(MUSCULAR DYSTROPHY) (SPINAL CORD--DISEASES)

BELYANINA, N.B.

Rhythm of seasonal development in plants and plant communities of the southern slope of the Crimean Mountains. Biul.MOIP. Otd.biol. 67 no.5:90-104 S-O '62. (MIRA 15:10)
(CRIMEAN MOUNTAINS--PLANT COMMUNITIES)

NIKOL'SKIY, G.V.; BELYANINA, T.N.

Population dynamics in some forms of the Atlantic herring.
Zhur.ob.biol. 20 no.3:161-173 My-Je '59. (MIRA 12:8)

1. Laboratory of Ichtiology, Institute of Animal Morphology, Academy of Sciences of the U.S.S.R.
(NORTH SEA--HERRING FISHERIES)

NIKOL'SKIY, G.V.; BELYANINA, T.N.

Effect of the selective action of gill nets on the qualitative composition of the high population. Izv. AN SSSR. Ser.biol. 24 no.6:889-897 N-D '59. (MIRA 13:4)

1. Laboratory of Ichthyology, Institute of Animal Morphology, Academy of Sciences of the U.S.S.R, Moscow.
(FISHING NETS) (FISHERIES--RESEARCH)

BELYANINA, T.N.

Effect of the selective action of entangling fishing gear on the qualitative composition of the fish population. Trudy sov. Ikht. kom. no.13:254-259 '61. (MIRA 14:8)

1. Laboratoriya ikhtiologii Instituta morfologii zhivotnykh AN SSSR.

(Fishing nets) (Fish populations)

BELYANINA, T.N.

Fecundity of Oncorhynchus keta in the Amur River. Nauch.dokl. vys. shkoly; biol. nauki no.4:24-30 '63. (MIRA 16:11)

1. Rekomendovana kafedroy ikhtiologii Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

*

OSTROPOL'SKAYA, Ye.A., kand.med.nauk (Leningrad, ul. S.Perovskoy, d.14, kv.16);
BELYANINA, T.S., kand.med.nauk

Perforated gastric ulcer in newborn. Vest. khir. 80 no.2:102-104 F '58. (MIRA 11:3)

1. Iz Leningradskoy detskoy bol'nitsy im. Pastera (gl. vrach-A.N. Aksenova, zav. khir.otd.-I.Ya.Podoprigora)
(PEPTIC ULCER, in inf. & child
perf. in newborn (Rus)
(INFANT,NEWBORN, dis.
peptic ulcer perf. (Rus)

L 27665-66 EWT(1)

ACC NR: AP6007632 SOURCE CODE: UR/0141/66/009/001/0072/0080

25
B

AUTHOR: Amadziyev, A. M.; Belyanina, V. F.; Myasnikov, L. L.

ORG: Leningrad Ship-Building Institute (Leningradskiy korablestroitel'nyy institut)

TITLE: Detecting 21 atom beams used in frequency standard and radio spectroscopes

SOURCE: IVUZ. Radiofizika, v. 9, no. 1, 1966, 72-80

TOPIC TAGS: frequency standard, radio spectroscope

ABSTRACT: An investigation is reported of the surface ionization of K, Rb, Cs atom beams by texturized W and Pt, and Ta atom beam by Pt and W oxide. The method and equipment of the investigation follow those of N. Ramsey ("Molecular Beams"), R. F. Minturn et al., J. Appl. Phys., v. 31, 876, 1960, and N. Simpson "Instruments for Scientific Investigations". A 10^{-7}-torr vacuum was maintained during the experiments. Plots of ionic current of K, Rb, Cs vs. ionizer temperature, thermionic emission vs. collector potential, Ta beam current vs. emitter temperature, ion-current transient time vs. emitter temperature, and W-oxide ion current vs. operation time at a constant emitter temperature are presented. The ionization coefficient (1.8%) of an electron-bombardment detector is much lower than that (90%) of a surface-ionization detector; however, the latter has the advantage of being practically inertialess. Maximum estimated ionization effective cross-sections are:

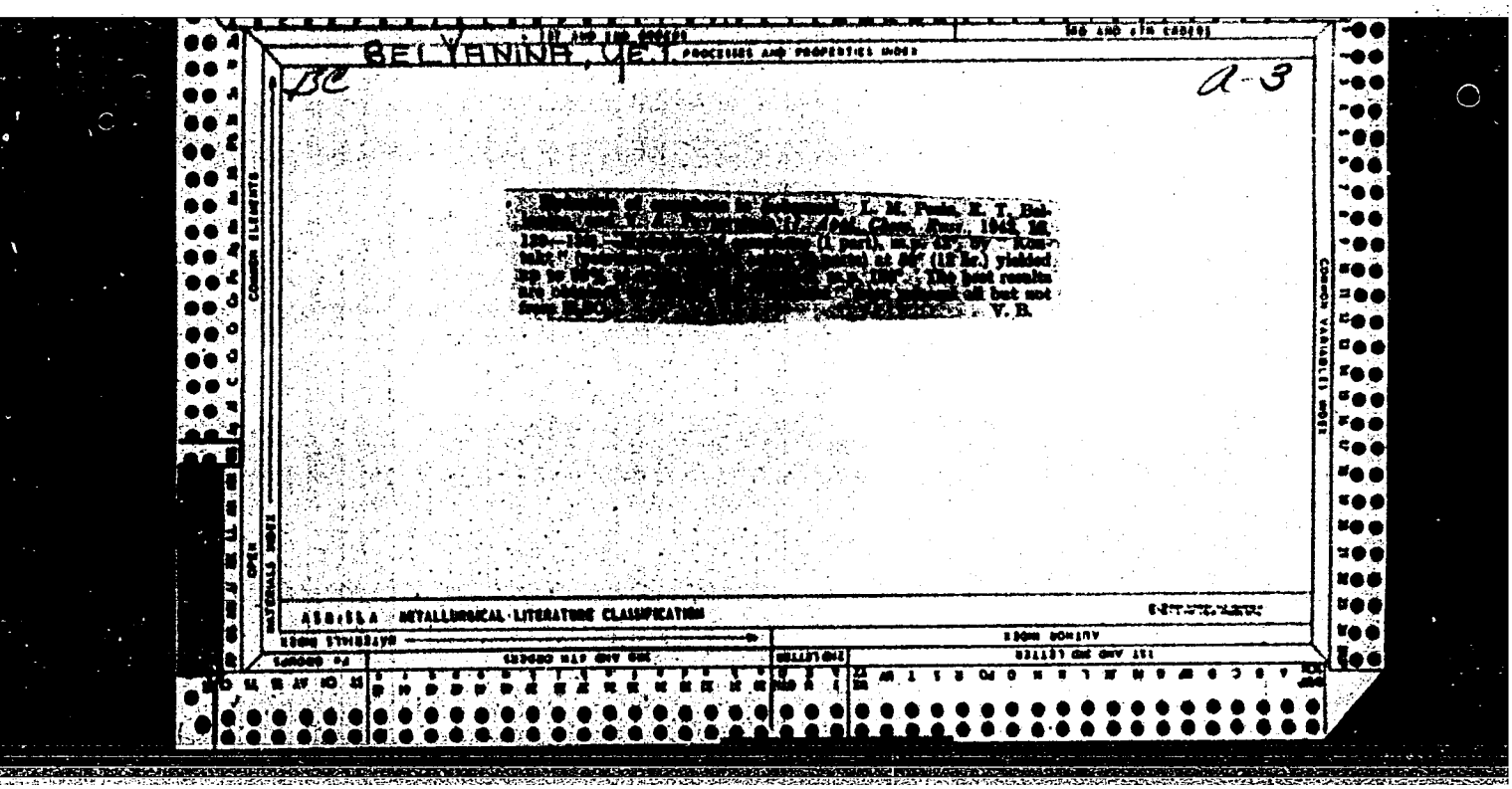
Card 1/2 UDC: 539.282

L 27665-66
ACC NR: AP6007632

for K, 2 x 10^{-16} cm^2; for Rb, 6 x 10^{-15} cm^2; for Cs, 8 x 10^{-15} cm^2. Orig. art. has: 10 figures, 7 formulas, and 2 tables.

SUB CODE: 20, 09 / SUBM DATE: 07Jul65 / ORIG REF: 004 / OTH REF: 002

Card 2/2



FLID, R.M.; KRASOTKIN, A.Ye.; SHPICHINETSKAYA, L.S.; CHIRIKOVA, A.V.; BELYY, A.P.; BARATS, M.I.; KRUPTSOV, B.K.; BELYANINA, Ye.T.

Effect of alcaline admixtures on catalytic oxidation of primary alcohols to aldehydes. Khim.nauk i prom. 3 no.5:683 '58.

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lomonosova.
(Alcohol) (Oxidation) (Catalysts)

AUTHORS: Berlin, A. A., Belyanina, Ye. T. SOV/64-58-6-5/15

TITLE: The Production of Ester Plasticizers by Means of Cationites and Adsorbents (Polucheniye slozhnoefirnykh plastifikatorov s primeneniyem kationitov i adsorbentov)

PERIODICAL: Khimicheskaya promyshlennost', 1958, Nr 6, pp 340-342 (USSR)

ABSTRACT: In connection with the methods of producing plasticizers analyses were carried out regarding new methods of esterification in which no additional purification and distillation is necessary to ensure high quality. In order to obtain plasticizers free from resinous substances, a number of catalysts were tested. Experiments concerning the production of a colorless dibutyl phthalate (DBP) and analogous plasticizers were unsuccessful. According to the references (Ref 1) on cationites as "soft" catalysts of esterification a number of experiments have been carried out. It was stated that the catalytic activity of cationites increases to the degree to which the ion exchange capacity is increased. However, the cationites contaminated the product so that the quality is inferior to that obtained by distillation. The addition of bleaching carbon A, "gumbrine" and clay keel (glina kil),

Card 1/2

The Production of Ester Plasticizers by Means of Cationites and Adsorbents

with sulfuric acid as a catalyst, however, made it possible to obtain a colorless ester. A quantity of five per cent (relative to the acid mixture) of the adsorbent (bleaching carbon A), together with the other components, is added at the time when the original mixture is compounded. A table shows that the polyester plasticizers obtained by the method described are of better quality. There are 1 figure, 3 tables, and 1 reference, 1 of which is Soviet.

BELYANINA YE. T.

79-2-8/64

AUTHORS: Lyubomilov, V. I. , Belyanina, Ye. T.

TITLE: On the Products Forming in the Condensation of n-Butanol in the Presence of Sodium Butilate and a Copper Catalyst (O produktakh, obrazuyushchikhsya pri kondensatsii n-butanola v prisutstvii butilata natriya i mednogo katalizatora)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 2, pp. 326-327 (USSR)

ABSTRACT: In the production of 2-ethylhexanol by means of condensation of n-butanol in the presence of sodium butilate and the dehydrating catalyst (reference 1) the hydrogen eliminated in the reaction has the smell of butyric aldehyde. This aldehyde was proved by the production of 2,4-dinitrophenylhydrazone. It further became evident that in the division of the reaction products the fraction 180-185°C which corresponds to 2-ethylhexanol-1 contains unsaturated compounds. This is characterized by the bromine number. It must be emphasized that in an accurate rectification of the fraction 180-185° C the final fractions show much higher bromine numbers than the average ones. This probable the assumption of an occurrence of the second isomers of 2-ethylhexanol-1. From this fraction the authors separated an unsaturated alcohol of 2-ethylhexanol-1. It is identical with the alcohol obtained by Braun and Mants (reference 2) in the dehydration of octoglycdether. They ascribe to this alcohol the

Card 1/2

On the Products Forming in the Condensation of n-Butanol in the Presence of Sodium Butilate and a Copper Catalyst 79-2-8/64

structure of α-ethyl-β-n-propylallylalcohol. Acid products were separated from the sodium salts formed in the condensation of n-butanol and were investigated. The acid products collected from a number of experiments, 700 g, were rectified in a vacuum. The yield and the properties of the fractions obtained are given in the table. The fraction with the acid number zero represented a colorless liquid, more viscous than the preceding fractions, which is insoluble in water and soluble in organic solvents. On treatment of this fraction with 2 % aqueous alkali and on slight heating it gradually dissolves. On oxidation with sulfuric acid it is eliminated in an unchanged state. Thus the lactone $C_{12}H_{22}O_2$ was separated beside butyric and 2-ethylcapronic acid. There are 1 table, and 4 non-Slavic references.

SUBMITTED: February 4, 1957

AVAILABLE: Library of Congress

Card 2/2

ROZENTAL', L.V.; BELYANINA, Ya.T.; Prinimali uchastiye: CHIKISHEVA, L.I.; SHLENEVA, N.S.

Plasticization of cellulose triacetate films. Plast.massy no.11: 6-8 '61. (MIRA 14:10)

(Cellulose acetate) (Plasticizers)

L 32168-66 EWT(m)/T IJP(c) RM/WW/JWD

ACC NR: AP6012137 (A) SOURCE CODE: UR/0413/66/000/007/0057/0057 39 B

INVENTOR: Khanukayeva, I. A.; Faydel', G. I.; Belyanina, Ye. T.; Shlenova, N. S.

ORG: none

TITLE: Plasticizing graft styrene copolymers with rubber. Class 39, No. 180332

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 57

TOPIC TAGS: plasticizer, styrene copolymer, graft copolymer

ABSTRACT: An Author Certificate has been issued describing a method of plasticizing graft styrene copolymers with rubber using plasticizers. To improve the properties of the [redacted] product, a mixture of esters obtained by esterification of synthetic monobaric alcohols containing C_7—C_9 with synthetic monobasic acids containing C_{10}—C_{13}, C_{14}—20 in the amount of 0.8—3.0% is suggested as the plasticizer. [LD]

SUB CODE: 11/ SUBM DATE: 07Jan63

Card 1/1 UDC: 678.049.13

BELYANINOV, Yu.G., inzh.; SEMENOV, B.N., kand.tekh.nauk

Comparison of the costs of building underground and ground level Kura River crossings. Stroi. truboprov. 6 no.4:28-30 Ap '61. (MIRA 14:6)

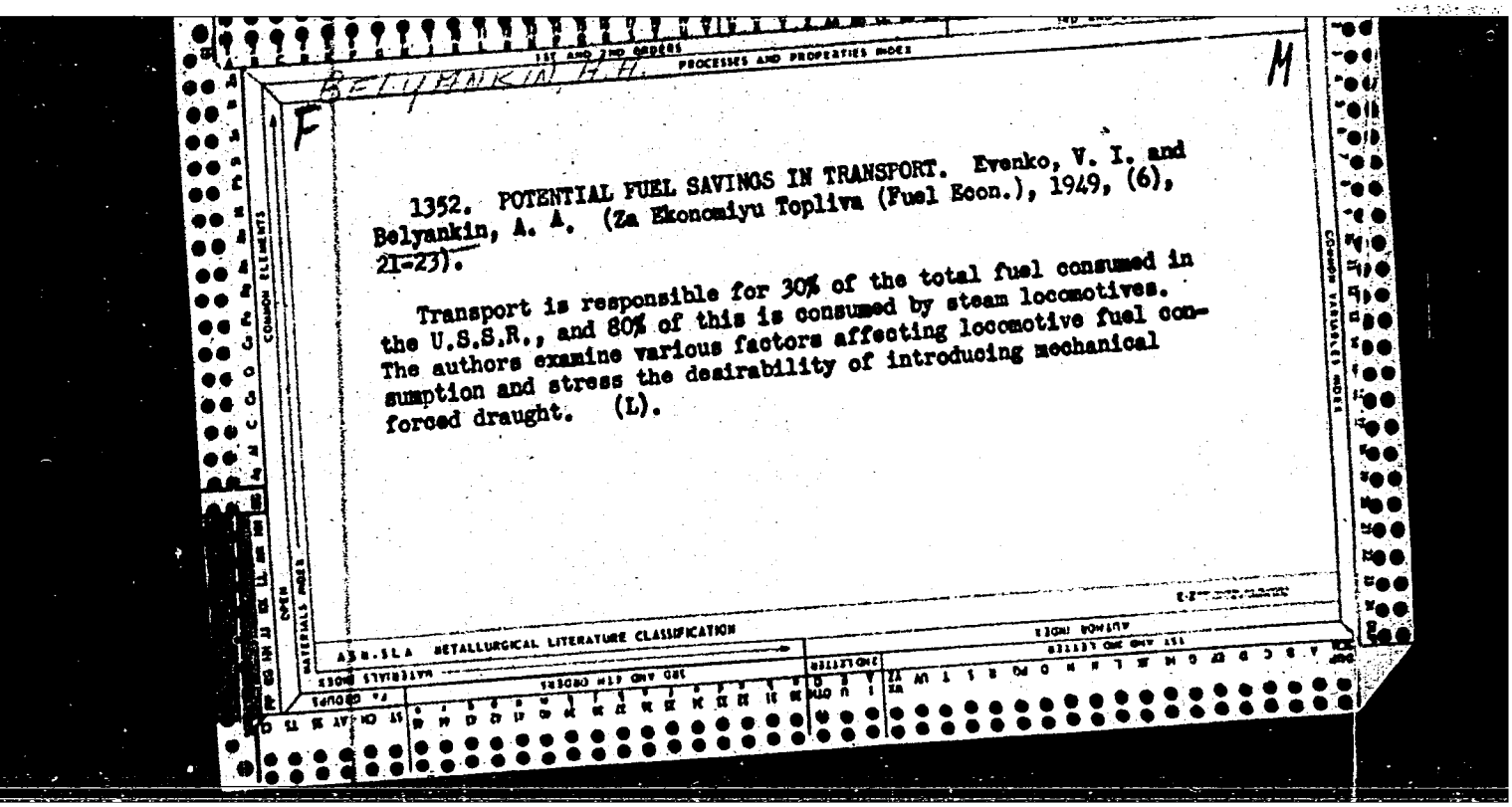
(Czechoslovakia--Construction industry)

RODIONOVA, L.V.; KLIMOVA, A.P.; INGBERMAN, A.B. [deceased]; BELYANINOVA, Z.P.; KITSENKO, G.P., spetsred.; BUKINA, L.N., vedushchiy red.

[Shopless organization of the management at the Marat Confectionery Plant in Moscow] Bestsekhovaia struktura upravleniia na moskovskoi konditerskoi fabrike im. Marata. Moskva, Gos.nauchno-issl.in-t nauchn. i tekhn. informatsii, 1959. 31 p. (MIRA 13:6)
(Moscow--Confectionery)

BELYANK, Yu.L., kandidat tekhnicheskikh nauk

Testing tank vessel strength in operating conditions. Rech.transp. 14 no.9:23-28 S'55. (MLRA 8:12)
(Tank vessels)



BELYANKIN, A.A.

F

M

1352. POTENTIAL FUEL SAVINGS IN TRANSPORT. Evenko, V. I. and Belyankin, A. A. (Za Ekonomiyu Topliva (Fuel Econ.), 1949, (6), 21-23).

Transport is responsible for 30% of the total fuel consumed in the U.S.S.R., and 80% of this is consumed by steam locomotives. The authors examine various factors affecting locomotive fuel consumption and stress the desirability of introducing mechanical forced draught. (L).

YEVENKO, V.I.; BELOV, V.F.; BELYANKIN, A.A.; DOLINZHEV, A.I., redaktor; DROBINSKIY, V.A., redaktor; VERINA, G.P., tekhnicheskiy redaktor.

[Theory and calculations for steam locomotives] Teoriia i raschet parovoza. Moskva, Gos. transp. zhel-dor. izd-vo 1951. 319 p.
(Locomotives) (MLRA 8:2)

BELYANKIN, A.G.

4

PROCESSES AND PROPERTIES INDEX

Synthesis of NO_2 in a high-frequency silent discharge. A. G. Belyankin. *Uchenye Zapiski, Moskov. Ordena Lenina Gosudarst. Univ. M. V. Lomonosova, Fizika* 74, 107-201 (1944). O_2-N_2 mixts. are subjected to silent discharges of 10^8 cycles/sec. If the reaction vessel is cooled with liquid air, much O_3 is formed. If cooling is done with liquid O_2, NO_2 is produced. Its yield has a max. at the equimol. compn. and at 3.3 mm. Hg (the range 1-7 mm. Hg was tested). The rate of synthesis is proportional to $\sqrt{W}$, W being the wattage of the discharge. The gas mixt. was analyzed by gradually warming it and noting the temps. at which the pressure-temp. curve changed its slope.

J. J. Bikerman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

BELYANKIN, A. G.

4

Rate of chemical reaction in a high-frequency silent discharge. A. G. Belyankin. *Uchenye Zapiski, Moskov. Ordena Lenina Gosudarst. Univ. M. V. Lomonosova, Fizika* 74, 205-10(1944).—The kinetic results reported in the preceding abstr. are accounted for by assuming that the oxidation of N_2 to NO dets. the rate of the NO_2 formation.
J. J. Bikerman

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BELIANKIN, A. G.

Laboratory work in physics; a handbook Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1951. 614 p. (55-43185)

QC37.I9 1951

1. Physics - Laboratory manuals.
I. Beliankin, A. G.

IVERONOVA, V.I., professor, redaktor; BELYANKIN, A.G.; CHETVERIKOVA, Ye.S.; YAKOVLEV, I.A.

[Practical work in physics; manual] Fizicheskii praktikum; rukovodstvo k prakticheskim zaniatiiam po fizike. Izd.2.,ispr. Moskva, Gos. izd-vo tekhniko-teoret. lit-ry, 1953. 634 p. (MLRA 7:3)
(Physics--Laboratory manuals)

BELYANKIN, A.G.; MOTULEVICH, G.P.; CHETVERIKOVA, Ye.S.; YAKOVLEV, I.A.; IVERONOVA, V.I., prof., red.; KUZNETSOVA, Ye.B., red.; KRYUCHKOVA, V.N., tekhn. red.

[Laboratory manual on physics] Fizicheskii praktikum. Pod red. V.I.Ivernovoi. Moskva, Fizmatgiz, 1962. 956 p. (MIRA 16:5)

(Physics—Laboratory manuals)

KHLYANKIN, B.S., akademik, redaktor; VLASOV, K.A., redaktor; AFANAS'YEV, G.D., redaktor; PEYVE, A.V., redaktor; PUSTOVALOV, L.V., redaktor; STRAKHOV, N.M., redaktor; YABLOKOV, V.S., redaktor

[Resolution of a conference on sedimentary rocks] Reshenie soveshchaniia po osadochnym porodam. Moskva, Izd-vo Akademii nauk SSSR, 1953. 31 p. [Microfilm] (MLRA 7:10)

1. Chlen-korrespondent AN SSSR (for Strakhov) 2. Akademiya nauk SSSR. Otdeleniye geologo-geograficheskikh nauk.
(Rocks, Sedimentary)

1. BELYANKIN, D. D., Corr Memb of Academy of Science. IVANOV, B.V.

2. USSR (600)

"On Mineral Formation at the Contact of Dines Brick and Magnesite in Lining of an Open-Hearth Furnace," IZ. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 3, 1941. Submitted 29 Oct 1940.

9. [redacted] Report U-1530, 25 Oct 1951

BELYANKIN, D.S. (Deceased)

Geb97

See ILC

BELYANKIN, D.S., akademik; BETEKHTIN, A.G., akademik; BORISYAK, A.A., akademik; GRIGOR'YEV, A.A., akademik; NALIVKIN, D.V., akademik; SHATSKIY, N.S., akademik; VLASOV, K.V.; ZHEMCHUZHNIKOV, Yu.A.; ORLOV, Yu.A.; FEDOROV, S.P.; KUZNETSOV, I.V., red.; MIKULINSKIY, S.R., red.; KUZNETSOVA-YERMOLOVA, Ye.B., red.; KRYUCHKOVA, V.N., tekhn. red.

[Russian scientists; sketches about outstanding workers in natural sciences and technology; geology and geography] Liudi russkoi nauki; ocherki o vydaiushchikhsia deiateliakh estestvoznaniia i tekhniki. Geologiia, geografiia. Moskva, Gos. izd-vo fiziko-matem. lit-ry, 1962. 579 p. (MIRA 15:3)

1. Chlen-korrespondent Akademii nauk SSSR (for Vlasov, Zhemchuzhnikov, Orlov, Fedorov).
(Geology) (Geography)

Belyankin, F. P.

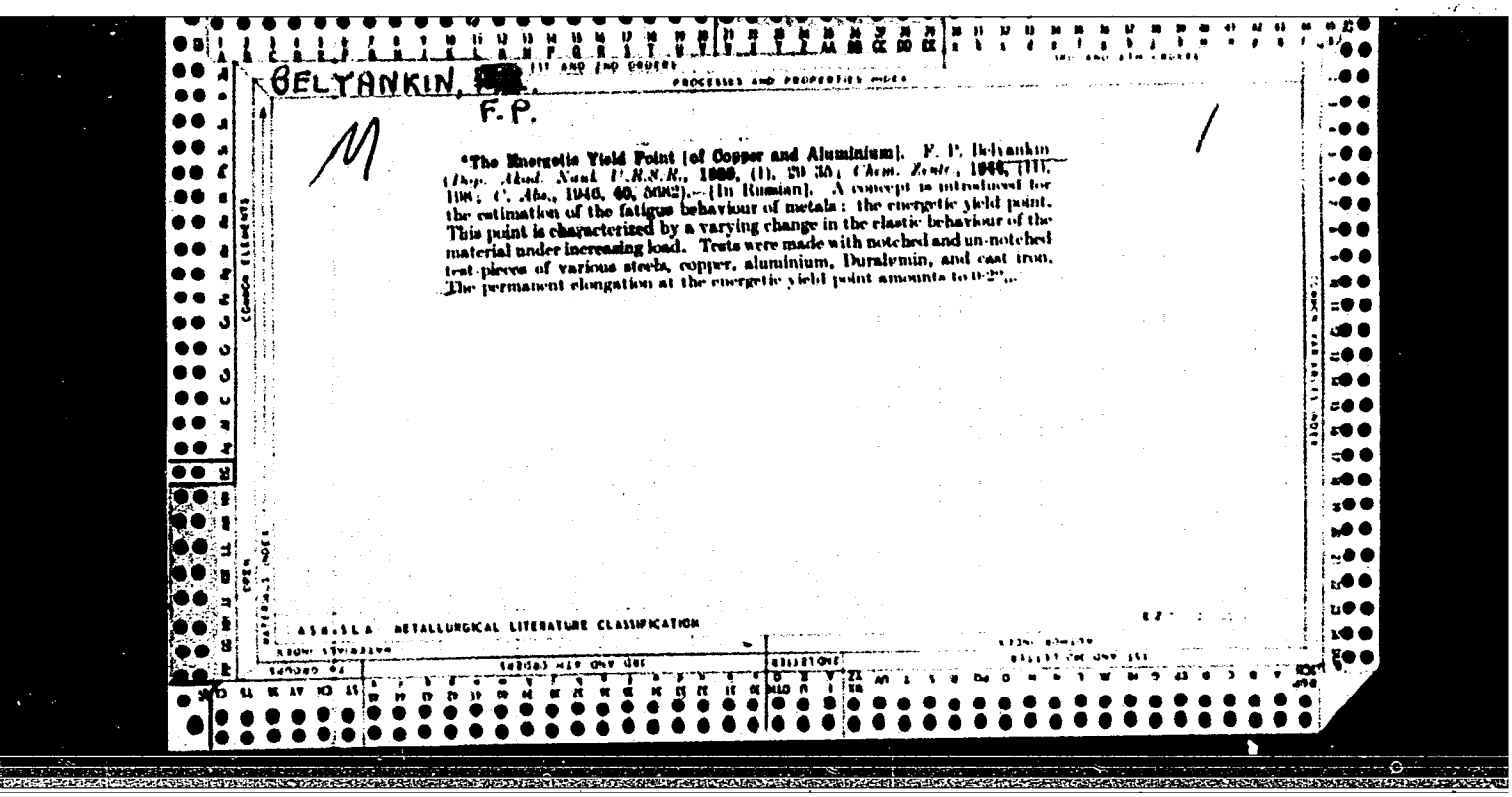
BELYANKIN, F. P.

Issledovaniia prochnosti drevesiny. (In: Vsesoiuznaia konferentsiia po prochnosti aviakonstruktsii. 1st. Moscow, 1933. Trudy, no. 2, p. 106-119, illus., tables, diagrs.)

Title tr.: Investigation of the strength of wood.

TL504.V715 1933

SO: Aeronutical Science and Aviation in the Soviet Union, Library of Congress, 1955



BELYANKIN, [redacted]

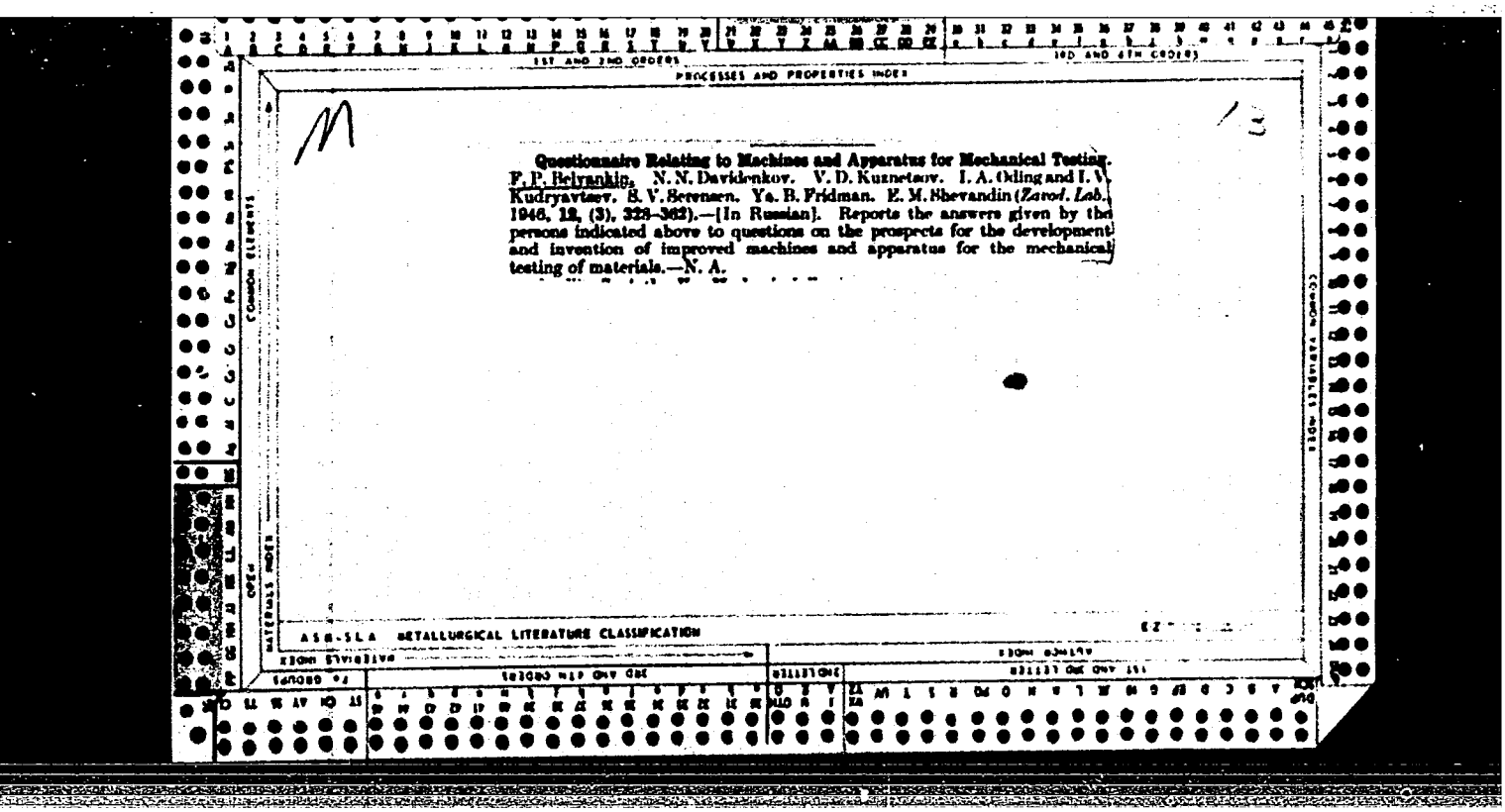
F.P.

M

1

*The Energetic Yield Point [of Copper and Aluminium]. F. P. Belyankin (*Izvest. Akad. Nauk U.S.S.R.*, 1939, (1), 59-85; *Chem. Zentr.*, 1940, I, 198; *C. Abs.*, 1940, 40, 5082).—[In Russian]. A concept is introduced for the estimation of the fatigue behaviour of metals: the energetic yield point. This point is characterized by a varying change in the elastic behaviour of the material under increasing load. Tests were made with notched and un-notched test-pieces of various steels, copper, aluminium, Duralumin, and cast iron. The permanent elongation at the energetic yield point amounts to 0·2%...

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

M

13

Questionnaire Relating to Machines and Apparatus for Mechanical Testing. F. P. Belyankin, N. N. Davidenkov, V. D. Kuznetsov, I. A. Oding and I. V. Kudryavtsev, S. V. Serensen, Ya. B. Fridman, E. M. Shevandin (*Zavod. Lab.*, 1946, 12, (3), 328–362).—[In Russian]. Reports the answers given by the persons indicated above to questions on the prospects for the development and invention of improved machines and apparatus for the mechanical testing of materials.—N. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BELYANKIN, F.P.: GROZIN, B.D., redaktor; SOKOLOVSKIY, L.I., redaktor; RAKHLINA, N.P., tekhnicheskiy redaktor.

[Modern methods of calculating the strength of elements in wood construction] Sovremennye metody rascheta prochnosti elementov dereviannykh konstruktsii. Kiev. Izd-vo Akademii nauk USSR, 1951. 18 p. [Microfilm]. (MLRA 9:6)

1.Deystvitel'nyy chlen AN USSR (for Belyankin). 2.Chlen-korrespondent AN USSR.(for Grozin)
(Building, Wooden)

MAYZEL', Veniamin Mikhaylovich, prof., doktor tekhn.nauk [deceased]; BELYANKIN, P.P., prof., doktor tekhn.nauk, otv.red.; MUSNIK, N.I., tekhred.

[Temperature problem in the theory of elasticity] Temperaturnaia zadacha teorii uprugosti. Kiev, Izd-vo Akad.nauk USSR, 1951. 149 p. (MIRA 12:8)

1. Chlen-korrespondent AN USSR (for Mayzel'). 2. Deystvitel'nyy chlen AN USSR (for Belyankin).
(Elasticity)

KONONENKO, V.O.; BYELYANKIN, F.P., diysnyy chlen.

Parametric vibrations in certain mechanical systems. Dop.AN URSR no.3:212-218 '51. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Kononenko). (Vibration)

VAYNBERH, D.V.; BYELYANKIN, F.P., diysnyy chlen.

Relationship between the problem of plane deformation of a ring reinforcing a plate and the classical theory of bending circular disks and "long" bars on a linear pliable base. Dop.AN URSR no.3:219-222 '51. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Vaynberh).
(Elastic solids)

DRAYHOR, D.A.; BELYANKIN, F.P., diysnyy chlen.

Resistance to wear and fatigue strength of steel depending on mechanical and heat treatment. Dop.AN URSR no.4:264-269 '51. (MLRA 6:9)

1. Akademiyianauk Ukrayins'koyi RSR (for Belyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Drayhor).
(Metals--Fatigue) (Steel)

VAYNBERH, D.V.; BELYANKIN, F.P., diysnyy chlen.

Construction of a partial integral of a heterogenous biharmonic equation of bend in plates under concentrated forces and moments. Dop.AN URSR no.4:274-276 '51. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Belyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Vaynberh).
(Strains and stresses)

POLOSUKHIN, M.O.; BELYANKIN, F.P., diysnyy chlen.

Peculiarities of structure in pressure gas-welded joints and methods of demonstrating them. Dop.AN URSR no.4:277-281 '51. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Belyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Polosukhin).
(Welding) (Metallography)

VAYNBERH, D.V.; BYELYANKIN, F.P., diysnyy chlen.

Plane ring disks and continuous long beams on an elastic base. Dop.AN URSR no.5:353-357 '51. (MLRA 6:9)

1. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Vaynberh).
(Elasticity)

SHAYKEVYCH, V.D.; BELYANKIN, F.P., diysnyy chlen.

Matrix focal relationship applied to frame calculations by the method of nodal deformation distribution. Dop.AN URSR no.4:324-329 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Belyankin). 2. Dnipropetrovs'kyy inzhenerno-budivel'nyy instytut (for Shaykevych). (Framing (Building))

VAYNBERH, D.V.; BELYANKIN, F.P., diysnyy chlen.

Stress in a circular plate revolving around its diameter. Dop.AN URSR no.4: 330-333 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Belyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Vaynberh).
(Disks, Rotating)

DASHKEVYCH, B.P.; MYKHAYLOV, P.A.; BYELYANKIN, F.P., diysnyy chlen.

Professor V.E.Tir's diagram. Dop.AN URSR no.4:351-353 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin). (Metals--Fatigue)

KARPENKO, H.V.; ISHCHENKO, I.I.; MALYNOVS'KA, I.A.; BELYANKIN, F.P., diysnyy chlen.

Effect of the cooling medium on the strength of steel. Dop.AN UkrSR no.5:430-434 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Belyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Karpenko, Ishchenko and Malynovs'ka). (Steel--Heat treatment)

CHERNYAK, M.I.; BYELYANKIN, F.P., deyanyy chlen.

Measurement of plastic deformations in the deformation process. Dop.AN URSR no.6:471-474 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Chernyak).
(Deformations (Mechanics))

CHERNYAK, M.I.; BYELYANKIN, F.P., diysnyy chlen.

Decreasing the fatigue limit of St. 45 steel under cold working of slight intensity. Dop.AN URSR no.6:475-478 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Chernyak).
(Steel) (Metals--Fatigue)

DRAYHOR, D.A.; BYELYANKIN, F.P., diysnyy chlen.

Fatigue limit of steel under simultaneous action of friction and repeated variable loading. Dop.AN URSR no.6:479-482 '52. (MLRA 6:10)

1. Instytut budivel'noyi mekhaniky Akademiya nauk Ukrayins'koyi RSR (for Drayhor). 2. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin).
(Steel) (Metals—Fatigue)

ISHCHENKO, I.I.; BYELYANKIN, F.P., diysnyy chlen.

Surface cold working as a means of combating adsorption and corrosion fatigue. Dop.AN URSR no.6:483-486 '52. (MLRA 6:10)

1. Akademiya nauk Ukrayins'koyi RSR (for Byelyankin). 2. Instytut budivel'noyi mekhaniky Akademiyi nauk Ukrayins'koyi RSR (for Ishchenko). (Metals--Fatigue)

VARVAK, P.M.; BYELYANKIN, F.P., diisnyi chlen Akademiyi nauk URSR.

Method for the approximate solution of a three-dimensional problem in the theory of elasticity. Dop.AN URSR no.4:285-288 '53. (MLRA 6:8)

1. Instutyt budivel'noyi mekhaniky Akademiyi nauk URSR. 2. Akademiya nauk URSR (forByelyankin). (Elasticity, etc.)

BELYANKIN, F.P.

Coefficient of supporting action in bending wooden beams.
Sbor.trud.Inst.stroi.mekh.AN URSR no.18:52-61 '53. (MLRA 9:8)
(Girders) (Elasticity)

BELYANKIN, Fedor Pavlovich; KORNOUKHOV, N.V., otvetstvennyy redaktor; ZIL'BAN, M.S., redaktor izdatel'stva; SHVADOV, L.M., tekhnicheskiy redaktor

[The strength of wood cut with the grain]Prochnost' drevesiny pri skalyvanii vdol' volokon. Kiev, Izd-vo Akademii nauk USSR, 1955. 138 p. (MLRA 9:11)

1. Deystvitel'nyy chlen Akademii nauk USSR i Akademii arkhitektury USSR (for Belyankin). 2. Deystvitel'nyy chlen AN USSR (for Kornoukhov)
(Wood--Testing)

BELYANKIN F.P.

BELYANKIN,F.P.

My impressions of a trip to the Czechoslovak People's Republic.
Visnyk AN URSR 26 no.8:33-38 Ag'55. (MLRA 8:11)

1. Diysniy chlen AN URSR
(Chechoslovakia--Description and travel)

SOV/124-58-7-8176

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 7, p 121 (USSR)

AUTHOR: Belyankin, F.P.

TITLE: A Method of Calculating Wooden Structures With Respect to Their Ultimate-strength Properties and the Problems of Investigating the Long-term Rupture Strength of Wood (Metod rascheta derevyannykh konstruktsiy po predel'nym sostoyaniyam i zadachi issledovaniya dlitel'noy soprotivlyayemosti drevesiny)

PERIODICAL: V sb.: Issledovaniya prochnosti i deformativnosti drevesiny. Moscow, Gos. izd-vo lit. po str-vu i arkhitekt., 1956, pp 5-20

ABSTRACT: A study is made of the ultimate bearing capacity of wood as a function of the form or type of the stressed object, the nature of the stresses present, and the type of load involved. The possibility is noted of determining the long-term rupture strength of wood subjected to flexural stress from its long-term rupture strength as determined experimentally by simple compressive and tensile tests. The view is refuted that one of the unchanging mechanical properties of wood is a lack in it of a long-term

Card 1/2

A Method of Calculating Wooden Structures (cont.)

rupture strength. Various methods are discussed for speeding up the process of determining wood's long-term rupture strength, though note is taken of the fact that its determination must be based on tests extending over long periods of time. An account is given of the different long-term testing methods used for the different operating conditions in which wood performs. Testing apparatus and test specimens are described.

B.N. Ugolev

1. Structures--Mechanical properties 2. Wood--Mechanical properties
3. Wood--Test methods 4. Wood--Testing equipment

BELYANKIN, F.P.

124-58-6-7241

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 6, p 128 (USSR)

AUTHORS: Belyankin, F.P., Kolenchuk, K.I., Yatsenko, V.F.

TITLE: On the Long-time Strength Properties of Wood (O dlitel'nom soprotivlenii drevesiny)

PERIODICAL: Sb. tr. In-ta stroit. mekhan. AN UkrSSR, 1956, Nr 21, pp 103-114

ABSTRACT: The nature of the problem of determining the long-time rupture-strength properties of wood is examined, and means therefor are discussed. The choice of the time reference base to be used in testing to determine these properties is substantiated, and a method is propounded for estimating them (in a multiple-stress condition) from data obtained from tensile and compression tests. Experimental verification of the method's workability is described for a case of pure bending. Experimental rupture-strength curves are given for pine, oak, and beech (tested for tension, compression, cleavage strength along the grain, and pure bending).

1. Wood--Mechanical properties 2. Wood--Test results

B.N.Ugolev

Card 1/1

Belyankin, F.P.

PHASE I BOOK EXPLOITATION 260

Belyankin, Fedor Pavlovich and Yatsenko, Vladimir Filippovich

Deformativnost' i soprotivlyayemost' drevesiny kak uprugo-vyazko-plasticheskogo tela (Deformability and Strength of Wood as an Elastic, Ductile and Plastic Substance) Kiev, Izd-vo AN Ukr. SSR, 1957. 198 p. 2,000 copies printed.

Sponsoring agency: Akademiya nauk Ukrainskoy SSR. Institut stroitel'noy mekhaniki.

Resp. Ed.: Grozin, B.D., Corresponding Member, Ukrainian S.S.R. Academy of Sciences; Ed. of Publishing House: Pokrovskaya, Z.S.; Tech. Ed.: Zhukovskiy, A.D.

PURPOSE: This book is intended for use in laboratories in the testing of construction and machine-building materials. It may also be useful to engineers working in organizations concerned with structural design.

Card 1/6

Deformability and Strength of Wood as an Elastic, Ductile and Plastic Substance 260

COVERAGE: Results are given of a study of the laws of deformation development and of the strength of resilient, ductile, plastic bodies subjected to external forces over a period of time. The results of an investigation into the effects on a body of a prolonged constant load are studied experimentally and theoretically developed. On the basis of the study of deformation development and of the strength of materials under a prolonged constant lead, formulae are derived for the determination of the basic mechanical characteristics of materials subjected to forces for short periods in machine testing with given loading speed and given rate of deformation. There are 28 references,26 of which are Soviet and 2 English.

TABLE OF CONTENTS:

Card 3/6

Card 4/6

AVAILABLE: Library of Congress

Card 6/6

AC/MTL
6-4-58

Belyankin, F. B.

AUTHOR: Belyankin, F. B., Member of the AN Ukrainian SSR. 30-11-11/23

TITLE: The Research Works in the Field of Construction Mechanics (Issledovaniya po stroitel'noy mekhanike).

PERIODICAL: Vestnik AN SSSR, 1957, Vol. 27, Nr 11, pp. 95 - 99 (USSR)

ABSTRACT: In 1919 the Institute for Technical Mechanics was established by the Ukrainian Academy of Science; later on it was given the name of "Institute for Construction Mechanics". The research works mainly developed in two directions. The investigation of the durability of the material and the machines, occurring in construction engineering. With regard to the machine-material the investigation of the dynamic durability of the elements of construction, of metal-fatigue, the resistance to friction and shock was of principal importance. The real structure of metal as a polycrystalline conglomerate was assumed as basis of the statistical theory of metal-fatigue worked out by the Institute. The investigation of corrosion-fatigue and the reduction of durability under the action of repeatedly changed load in the surroundings of surface-active substances was successfully carried out. Much attention was also paid to the investigation of metal-fatigue under the conditions of a simultaneous action of frictional forces and repeatedly changed dead load. An extensive working

Card 1/2

cycle is connected with the problem of the life of individual machine-members. In the field of the construction-mechanics of high-speed machines the investigations are to be mentioned which deal with the durability of the construction of turbine-knots. Of greatest interest (in a theoretical and a practical respect) are B. N. Gorbunov's research works in the field of motor analysis. A. A. Umanskiy developed a method of the initial parameters which may be widely used in the calculation of various technical constructions. Finally the report mentions the production of some testing apparatus (as for example the apparatus for testing metals under complicated stress). The testing devices for metals produced by the institute dispose of increased speed-parameters (5000-8000 revolutions per minute)and parameters for specific exertion of pressure (300 kg/mm^2). A number of original apparatus, starting from the electron-, optical and pneumatic principles, were created for the measurements of vibration and deformation. At present the main interest is devoted to the questions connected with the problems of the equipment of gas turbines; the investigation of the influence of heat upon machines, upon metal-fatigue and others is the next task of the Institute.

AVAILABLE: Library of Congress

Card 2/2

BELYANKIN, Fedor Pavlovich [Bieliankin, F.P.], akademik; DRAYGOR, D.A. [Draihor, D.A.], doktor tekhn.nauk, red.; HUDNITS'KA, P.P., red.; SIVACHENKO, IE.K., tekhred.

[Development of the basic principles of mechanics] Osnovni poniattia mekhaniky v protsesi ikh rozvytku. Kyiv, Vyd-vo Akad. nauk URSR, 1958. 30 p. (MIRA 12:3)

1. Akademiya nauk USSR i Akademiya stroitel'stva i arkhitektury USSR (for Belyankin).
(Mechanics)

BELYANKIN, F.P.

STREL'BITSKAYA, Aleksandra Ivanovna; BELYANKIN, F.P., akademik, otv.red.; REMENNIK, T.K., red.izd-va; RAKHLINA, N.P., tekhn.red.

[Investigating the strength of thin-walled beams beyond the elastic limit] Issledovanie prochnosti tonkostennykh sterzhnei za predelom uprugosti. Kiev, Izd-vo Akad.nauk USSR, 1958. 294 p. (MIRA 11:12)

1. AN USSR (for Belyankin).
(Girders--Testing) (Strength of materials)

BELYANKIN, F.P. [Bieliankin, F.P.] (Kiyev)

History of the development and trends of the activity of the Institute of Structural Engineering at the Academy of Sciences of the Ukrainian S.S.R. Prykl.mekh. 5 no.2:121-135 '59. (MIRA 12:9)

(Engineering--Study and teaching)

BELYANKIN, F.P. [Bieliankin, F.P.], akademik

Plastics as building materials. Visnyk AN URSR 30 no.1:10-14 Ja '59. (MIRA 12:4)
(Plastics) (Building materials)

BELYANKIN, F.P. [Bieliankin, F.P.], akademik

For our machinery industry. Nauka i zhyttia 10 no.2:22-23 F '60. (MIRA 13:6)

1. AN USSR; zaveduyushchiy otdelom prochnosti konstruktsiy Instituta stroitel'noy mekhaniki AN USSR.
(Plastics)

S/032/60/026/06/01/044
B010/B126

15.8000

AUTHOR: Belyankin, F. P.

TITLE: Discussion of Methods of Examining and Testing the Physico-mechanical Properties of Plastics. Answers to the Inquiry Published in No. 1 of the Periodical "Zavodskaya laboratoriya" of 1960

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 6, pp. 655-661

TEXT: The author discusses the above theme, and comes, among other things, to the following conclusions: When the test pieces are produced, their shape and size should be similar to those of the finished product, and the tests should be carried out not on micro- but on ordinary testing machines (with loads of 1 to 10 tons). The method and the "Dinstat" apparatus should only be used up to certain limits and for domestic plastics. Tests carried out in the author's institute showed that with short-term compressions of АСП (DSP) plastics, the value of the limit of stability depends little on the micro- and macro-heterogeneities present in the material tested. The limit of stability changes, however, with a rising rate of test stress

Card 1/3

Discussion of Methods of Examining and Testing the Physicomechanical Properties of Plastics. Answers to the Inquiry Published in No. 1 of the Periodical "Zavodskaya laboratoriya" of 1960

S/032/60/026/06/01/044
B010/B126

increase. Splitting resistance tests (according to OCT (OST) 10110-39) and heat resistance tests according to Martens (OCT HKTП (OST NKTP) 3080) should not be regarded as binding. The flat test pieces used in expansion tests (ГОСТ (GOST) 5704-51 and 4649-55) with right-angled head pieces are not practicable, neither are test pieces (GOST 4649-55, graph 3) whose head pieces are held with a special support (GOST 4649-55, graph 4). Flat test pieces with wedge-shaped heads are recommended (Fig. 1). Those test pieces described in OST 10044-38 and GOST 5704-51 for shearing tests are considered practicable. Those samples recommended for static bending tests in GOST 4648-56 and 5704-51 are impracticable. The author recommends samples with strengthened support head pieces instead (Fig. 2). The shape and size of the samples for impact transverse bending tests (GOST 4647-55) are considered suitable. The optimum rate of increase of stress depends on the mechanical characteristics to be tested, and is explained by the example of the determination of the limit of stability of DSP plastics (Table). On a lasting effect of constant load, those mechanical characteristics of the plastics, which determine the deformation process and the stability

Card 2/3

Discussion of Methods of Examining and Testing the Physicomechanical Properties of Plastics. Answers to the Inquiry Published in No. 1 of the Periodical "Zavodskaya laboratoriya" of 1960

S/032/60/026/06/01/044
B010/B126

with reference to time (creeping), must be examined. Some important facts must be observed here, which the author explains in five points. There are 2 figures, 1 table, and 1 Soviet reference.

ASSOCIATION: Institut stroitel'noy mekhaniki Akademii nauk USSR (Institute for Building Mechanics of the Academy of Sciences of the UkrSSR)

Card 3/3

BELYANKIN, Fedor Pavlovich; YATSENKO, Vladimir Filippovich; GROZIN, B.D., otv.red.; TITOVA, N.M., red.izd-va; LIBERMAN, T.R., tekhn.red.

[Strength and deformability of wooden rods subjected to central and eccentric compression and to simple flexure] Prochnost' i deformativnost' dereviannykh sterzhnei pri tsentral'nom vnetsentrennom szhatii i chistom izgibe. Kiev, Izd-vo Akad.nauk USSR, 1960. 83 p. (MIRA 13:11)

1. Chlen-korrespondent AN USSR (for Grozin).
(Strains and stresses) (Elastic rods and wires)

BELYANKIN, F.P.; PANSHIN, B.I.; LUK'YANCHIKOV, I.K.; POPOV, G.G.; ASHKENAZI, Ye.K.; NIKOL'SKOY, A.M.; KANAVETS, I.F.

Discussion of the methods for investigating and testing physicomechanical properties of plastics. Replies to an inquiry published in issue no.1 of "Zavodskaia laboratoriia", 1960. Zav.lab. 26 no.6:655-678 '60. (MIRA 13:7)

1. Institut stroitel'noy mekhaniki Akademii nauk USSR (for Belyankin). 2. Vsesoyuznyy institut aviatsionnykh materialov (for Panshin, Nikol'skoy). 3. TSentral'nyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (for Luk'yanchikov & Popov). 4. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova (for Ashkenazi). 5. Nauchno-issledovatel'skiy institut plasticheskikh mass (for Kanavets). (Plastics)

KHRENOV, K.K.[Khienov, K.K.], akademik, otv. red.; DANILEVSKIY, V.V. [Danylevs'kyi,V.V., deceased], red.; BELYANKIN, F.P. [Bieliankin, F.P.], red.; DOBROKHOTOV, M.M., red.; PATON, B.Ye., red.; SUKHOMEL, G.Y.[Sukhomel, H.I.], red.; SHVETS', I.T., red.; KUCHEROV, P.S., red.; NESTERENKO, A.D., red.; POKHODZILO, P.V., red. izd-va; YEFIMOVA, M.I., tekhn. red.

[From the history of institutes of the Department of Technology] Narysy z istorii instytutiv viddilu tekhnichnykh nauk. Kyiv, Vyd-vo Akad. nauk URSR, 1961. 167 p. (MIRA 15:7)

1. Akademiya nauk URSR, Kiev, Komisiia z istorii tekhniky.
2. Chlen-korrespondent Akademii nauk USSR (for Kucherov).
3. Akademiya nauk USSR (for Khrenov).
(Academy of Sciences of the Ukrainina S.S.R.]

PATON, Yevgeniy Oskarovich; SAVIN, G.N., akademik, otv. red.; DOBROKHOTOV, M.M., akademik, red.; KHRENOV, K.K., akademik, red.; BELYANKIN, F.P., akademik, red.; PATON, B.Ye., akademik, red.; REMENNIK, I.K., red.; KADASHEVICH, O.A., tekhn. red.

[Selected works; in three volumes] Izbrannye trudy; v trekh tomakh. Kyiv, Izd-vo Akad. nauk USSR. Vol.2. [Welded structures] Svarnye konstruktsii. 1961. 418 p. (MIRA 14:8)

1. Akademiya nauk Ukrainskoy SSR (for Savin, Dobrokhotov, Khrenov, Belyankin, Paton,B.Ye.)
(Structural frames—Welding)

PATON, Yevgeniy Oskarovich; SAVIN, G.N., akademik, otv. red.; DOBROKHOTOV, N.N., red.; KHRENOV, K.K., red.; BELYANKIN, F.P., red.; PATON, B.Ye., red.; REMENNIK, T.K., red. izd-va; KADASHEVICH, O.A., tekhn. red.

[Selected works in three volumes] Izbrannye trudy v trekh tomakh. Kiev, Izd-vo Akad. nauk USSR, Vol.3. [Welding under flux] Svarka pod fliusom. 1961. 557 p. (MIRA 15:4)

1. Akademiya nauk USSR (for Savin).
(Electric welding) (Flux (Metallurgy))

BELYANKIN, F.P., otv. red.; BEZUGLYY, V.D., red.; GROZIN, B.D., red.; DRAYGOR, D.A., red.; GURARIY, M.G., red.; LOGAK, N.S., red.; MITSKEVICH, Z.A., red.; PESIN, L.M., red.; RYBCHEVSKIY, Yu.S., red.; CHERNENKO, L.D., red.; YATSENKO, V.F., red.; KUDRYAVTSEV, G., red.; LUPANDIN, I., red.; SHAFETA, S., tekhn. red.

[Use of plastics in the manufacture of machinery and instruments] Plastmassy v mashinostroenii i priborostroenii. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 573 p. (MIRA 14:12)
(Plastics) (Machinery industry) (Instrument manufacture)

S/169/62/000/002/026/C72
D228/D301

AUTHOR: Belyankin, F. P.

TITLE: Gravitational influence of the moon and sun on tectonic processes in the crust

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1962, 23, abstract 2A164 (Geologichniy zh., no. 1, 1961, 3-24)

TEXT: On the grounds of the study of the wavelike tidal movement of the crust connected with the gravitational influence of the moon and sun, and also on the basis of investigation of crustal deformations due to this effect, J. Darwin's theory about the ebbs and flows of the hydrosphere is applied to the case of wavelike crustal deformations. Proceeding from the theory of thin-walled shells, the character and the regime of force effects in time on a number of characteristic crustal elements are considered. The study of the strain state and its temporal change in different latitudinal belts of the crust under the gravitational influence of the moon and sun shows that the crust's strain state has a complex charac-

Card 1/2

Gravitational influence of ...

ter: Various cases of the superposition of tensile, compressive, folding and shearing stresses arise in different zones. In some latitudes of the crust there are constant stresses acting over a long period of time, as a result of which creep deformations arise in these belts. In other latitudes repeatedly varying forces with different values for the asymmetry coefficient of the cycle of stresses, which cause fatigue destruction as a result of the accumulation of small plastic deformations in time, act on the crust. A number of latitudinal zones with their characteristic processes of the genesis and development of tectonic formations, due to the nature and regime of the gravitational effects of the sun and moon in these belts, are distinguished on the grounds of the conducted investigations. [Abstracter's note: Complete translation.]

Card 2/2

25347
S/021/61/000/007/004/011
D205/D306

15.8510

AUTHORS: Belyankin, F.P., and Dybenko, H.I.

TITLE: Regularities of time variation and deformability of plastics at high temperatures

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR, Dopovidi, no. 7, 1961, 885 - 890

TEXT: The authors give as qualitative results of their experiments: 1) The strength of plastics is the greater the higher the velocity of loading in short-period machine testing. If $\theta_o \to \infty$ the limit of strength tends to a maximum value called the "limit of limits strength"; 2) The strength of plastics at higher temperatures is smaller than at normal temperatures if tests are made with the same velocity of loading; 3) There is a minimal stress which causes failure of the test specimen $t \to \infty$ or $\theta_p \to 0$. This minimal stress is called the "limit of durable resistance" [Abstractor's

Card 1/3

Regularities of time ...

note: θ_o and θ_p not defined in the text]. Experiments were carried out in elastic and elasto-plastic region. Only 'wood layer plastics' (DSP) of three kinds were investigated; DSP-B (with orthotropic anisotropy), DSP-V and DSP-H (with transtropic anisotropy). There is only one example of experimental results given in graphic form. Analysis of these graphs is said to enable determination of necessary principal parameters: "limit of limits of strength", "limit of durable resistance", instantaneous and durable modulus of elasticity and "time bases" for the curve of deformation and that of durable resistance. It is claimed that the experiments show that the temperature dependence of these parameters is best expressed by $y = a \exp(\alpha \cdot \Delta t)$, Δt being the difference between higher and normal temperature, α the temperature coefficient, a any one of the above mentioned parameters. The rest of the paper is concerned with deductions of theoretical formulae for deformations (elastic, elastic + plastic and deformation at rupture) on the basis of temperature dependence as above. Formulae are illustrated by graphs for 20°, 50° and 100°C. It is stated that the experimen-

Regularities of time ...

tal results are in good agreement with these formulae on all principal axes of anisotropy. There are 3 figures and 4 Soviet-bloc references.

ASSOCIATION: Instytut mekhaniky AN URSR (Institute of Mechanics AS UkrRSR)

SUBMITTED: April 5, 1961

X

BELYANKIN, Fedor Pavlovich, akademik; MALASHENKO, Sergey Vasil'yevich, doktor tekhn. nauk; KHOTYANITSEV, Nikolay Pavlovich, starshiy nauchnyy sotr.; MOZNIKER, Riva Abramovna, vedushchiy inzh.; RADZIYEVSKIY, Vadim Antonovich, vedushchiy inzh.; VASILEVSKAYA, Zoya Ivanovna, vedushchiy inzh.; DRAYGOR, D.A., doktor tekhn. nauk, otv. red.; KISINA, I.V., red. izd-va; LIBERMAN, T.R., tekhn. red.

[The R-50 universal vibratory testing unit] Universal'naia vibratsionnaia ispytatel'naia ustanovka R-50. Kiev, Izd-vo Akad. nauk USSR, 1961. 114 p. (MIRA 15:2)

1. Akademiya nauk USSR (for Belyankin).
(Testing machines)

BELYANKIN, Fedor Pavlovich; YATSENKO, Vladimir Filippovich; DYBENKO, Georgiy Ivanovich; KOVALENKO, A.D., akademik, otv. red.; TITOVA, N.M., red. izd-va; KADASHEVICH, O.A., tekhn. red.

[Engineering characteristics of the DSP plastic] Mekhanicheskie kharakteristiki plastika DSP. Kiev, Izd-vo Akad. nauk USSR, 1961. 124 p. (MIRA 15:2)

1. Akademiya nauk USSR (for Kovalenko).
(Plastics--Testing)

BELYANKIN, F.P. [Bieliankin, F.P.], akademik; DYBENKO, G.I. [Dybenko, H.I.]

Characteristics of time-dependent changes in the strength and deformability of plastics at increased temperatures. Dop.AN URSR no.7:885-890 '61. (MIRA 14:8)

1. Institut mekhaniki AN USSR. 2. AN USSR (for Belyankin).
(Plastics)