

VLADIMIROVA, K.S. [Vladymyrova, K.S.]

Phytoplankton and phytobenthos in bodies of water of the Dnieper
Delta. Trudy Inst. gidrobiol. AN URSR no.34:111-154 '58.
(MIRA 12:3)

(Dnieper Delta--Fresh-water flora)

VLADIMIROVA, L.A., inzh.

Using special reservoirs in making slag pumice in the German
Democratic Republic. Stroi.mat. 5 no.9:36-37 S '59.
(MIRA 12:12)

(Germany, East--Slag)

ANISHEVA, V.F.; BELYAYEVA, M.G.; VLADIMIROVA, L.F.; GUTOVSKAYA, A.V.

Data on biochemical studies on the administration of paranitrophenyl ester of dibutylphosphinic acid to experimental animals. Nauch. trudy Kaz. gos. med. inst. 14:77-78 '64. (MIRA 18:9)

1. Kafedra biokhimi (zav. - dotsent L.F.Vladimirova) Kazanskogo meditsinskogo instituta.

C.A. VLADIMIROVA, L.F.

11A

Action of crystalline carboxypolypeptidase on carnosine.
L. F. Vladimirova (State Med. Inst., Kazan, U.S.S.R.).
Biochimie 18, 390-3(1950).—Carnosine is not hydrolyzed
by cryst. carboxypolypeptidase prepd. from cow pancreas.
H. Priestley

VLADIMIROVA, L.F.; MEDVEDEV, N.P.

PH of suppurative wound secretions in various forms of bandaging.
Kaz. med. zhur. no.5:48-49 S.-O '61. (MIRA 15:3)

1. Kafedra obshchey khirurgii (zav. -prof. V.N. Shubin)
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instituta.

(BANDAGES AND BANDAGING)
(WOUNDS)

ACCESSION NR: AP4042471

S/0294/64/002/003/0446/0453

AUTHORS: Labuntsov, D. A.; Kol'chugin, B. A.; Golovin, V. S.; Zakharova, E. A.
Vladimirova, L. N.

TITLE: The study of bubble growth during boiling of saturated water under wide pressure range by means of high speed motion pictures

SOURCE: Teplofizika vy'sokikh temperatur, v. 2, no. 3, 1964, 446-453

TOPIC TAGS: vapor bubble, boiling water, motion picture, wetting angle, water saturation pressure, motion picture camera SKS IM

ABSTRACT: The growth of vapor bubbles from boiling water in a pressure range 1 to 100 bars and 40 to 150 kvolt/m² heat supply was studied by high-speed motion pictures. The light source was a SVDSh-1000 mercury lamp and the SKS-IM camera was a 1000-to-4000 frame/second instrument. Analysis of bubble growth rate shows a functional dependence between bubble radius R and time τ $R/\sqrt{\tau} = \sqrt{2\beta N}$,

where β - numerical coefficient

$$\beta = 2 \left(\cos \frac{\theta}{2} \right) \ln \frac{\Delta}{\nu_A} [(1 + \cos \theta)^2 (2 - \cos \theta)]^{-1/2},$$

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ACCESSION NR: AP4042471

and $N = c \rho \Delta T / r \rho''$ (nondimensional parameter). The experiments were performed in two steps; first, from 1-30 bars, and second, 1-100 bars. Under given conditions of pressure and heat-flow rate, the average growth rate for the bubble

followed the rule $R \sim \tau^{\frac{1}{2}}$, decreasing sharply by increasing the pressure. In general, the results showed excellent agreement with the theoretical prediction above, with a mean value for $\beta = 6$. The wetting contact angle ϕ was also investigated experimentally as a function of the water saturation pressure. The results show a minimum value for $\phi = 30^\circ$ under a saturation pressure of 15 bars. Orig. art. has: 7 formulas, 3 figures, and 1 table.

ASSOCIATION: Energeticheskij institut im. G. M. Krzhizhanovskogo (Institute of Heat Power)

SUBMITTED: 01Feb64

ENCL: 00

SUB CODE: ME,TD

NO REF SOV: 007

OTHER: 017

Card 2/2

L 07559-67 EWT(1) IJP(c) JGS/WW/GD

ACC NR: AT6029317

SOURCE CODE: UR/0000/66/000/000/0156/0166

AUTHOR: Labunstov, D. A.; Kol'chugin, B. A.; Golovin, V. S.; Zakharova, E. A.;
Vladimirova, L. N.

ORG: none

69

B+1

TITLE: Investigation of the mechanism of the nucleate boiling of water using high speed moving picture photography

SOURCE: Moscow. Energeticheskii institut. Teploobmen v elementakh energeticheskikh ustanovok (Heat exchange in power installation units). Moscow, Izd-vo Nauka, 1966, 156-166

TOPIC TAGS: nucleate boiling, high speed photography, heat transfer coefficient

ABSTRACT: The experiments were carried out on a Z-shaped silver plate. The specific heat loads in the experiments varied from 40×10^3 to 150×10^3 watts/m², and the pressure from 1 to 100 bars. The article describes the results of an investigation of the following characteristics of the boiling mechanism: the magnitudes of the bubble densities on the heating surfaces, the values of the breakaway diameters, the macroscopic boundary angles, and the average frequency and rate of growth of the bubbles on the boiling surface. The experimental apparatus consisted of a vertical cylindrical vessel with a removable cover and a condenser. The experimental section

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L-07559-67

ACC NR: AT6029317

was a 99.99% silver plate bent at a right angle, having a thickness of 0.2 mm and a width of 2 mm, and placed on its wide edge. The load on the plate was created by a low voltage direct current. Before the experiments, the surface was given a special preparatory treatment, after which it had a cleanness of Class 8b, GOST 2789-51. The working fluid was distilled water with a salt content of 0.2-0.5 grams/m³. Two series of experiments were made; one on freshly prepared surfaces and the other on surfaces which had been used. The experimental heat transfer data are shown in a table. The following conclusions were drawn: 1) the values of the heat transfer coefficients for surfaces which had been used were lower than those for freshly prepared surfaces; 2) there was observed a sharp decrease in the breakaway diameter with an increase in pressure; 3) the rate of growth of the bubbles slowed down sharply with an increase in pressure; 4) the average macroscopic boundary angles changed only slightly with an increase in pressure. Orig. art. has: 17 formulas, 11 figures and 1 table.

SUB CODE: 20/ STEM DATE: 05Apr66/ ORIG REF: 010/ OTH REF: 013

144
Card 2/2 nst

ROZINA, D.Sh.; VLADIMIROVA, L.P.

Guanidine thiocyanate. Metod.poluch.khim.reak.i prepar. no.4/5:
15-16 '62. (MIRA 17:4)

S/121/61/000/004/007/008
D040/D113

AUTHORS: Vladimirova, L.V., and Mayorova, E.A.

TITLE: Nonmetallic protection materials for machine tool ways

PERIODICAL: Stanki i instrument³², no. 4, 1961, 34-36

TEXT: Results are given of materials' tests conducted in search for substitutes for cardboard, synthetic leather and 65Г (65G) band steel used for the protection of machine tool bed ways. Substitutes are required since cardboard and "dermatin" (synthetic leather) are susceptible to water and cutting fluids, and 65G steel is subject to cracking. Tests were carried out at the chemical laboratory of ENIMS together with the machine-tool laboratory of the Moskovskiy zavod shlifoval'nykh stankov (Moscow Grinding Machine Plant). The tested substitutes were as follows: a polyvinyl chloride plastic of the Vladimirskiy khimicheskii zavod (Vladimir Chemical Plant) produced per standard ВТУ МХП 2024-49 (VTU MKhP 2024-49) specification, sheet polyethylene of the Okhtenskiy khimkombinat (Okhta Chemical Combine), synthetic leather of the Kalininskiy "IK" zavod (Kalinin "IK" Plant), ✓

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Nonmetallic protection materials

S/121/61/000/004/007/008
D040/D113

rubberized fabric of the zavod "Kauchuk" ("Kauchuk" Plant) and tentative compounds with combinations of different resins for a base. The experimental specimens of the materials were prepared by the NII plenochnykh materialov i iskusstvennoy kozhi (NII of Film Materials and Artificial Leather). Materials which passed chemical tests for resistance to all possible cutting fluids, humidity, and fatigue resistance in bending, were further tested on a stand. The test results are given in two tables and show the mechanical properties and weight changes of materials after testing for 45 days. Bands of polyvinyl chloride reliably protected machine ways from dirt without any volumetric changes or traces of destruction. It was concluded that the best substitutes for 65G steel are polyvinyl chloride plastic (per VTU MKhP 2024-49), polyvinyl chloride combined with nitril rubber, and polyethylene. There is 1 figure and 2 tables. ✓

Card 2/2

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Synthesis and properties of 2-amino-3-butene. M. G. Vladimirova and A. A. Petrov (Leningrad Inst. Aviation and Instrument Construction). *J. Gen. Chem. (U.S.S.R.)* 16, 2141-4 (1946) (in Russian). — 2-Butenyl bromide (135 g.) added slowly to 93 g. NH_4SCN in 300 cc. EtOH , the mixt. allowed to stand 2 hrs., dil'd. with H_2O , and the org. layer dist'd., gave 80 g. $\text{MeCH}(\text{NCS})\text{CH}_2\text{CH}_3$, b. $158-9^\circ$, the isomerization occurring during the distn.; the isothiocyanate is resistant to hydrolysis in 20% HCl , for even after 24 hrs. of heating the yield of the amine is poor and many by-products are formed. Best results were obtained by refluxing 45 g. of the product and 180 cc. 20% HCl 8 hrs., sep'g. the aq. layer, evap'g. to dryness, treating with 50% KOH , drying, and dist'g. the amine; this gave 22% 2-amino-3-butene (I), b'm $62.5-3^\circ$, d_4^{20} 0.7497, n_D^{20} 1.4108. The HCl -insol. layer contained appreciable amts. of chlorobutenes, mainly 2-butenyl chloride, evidently formed by a reverse isomerization of the isothiocyanate into thiocyanate and replacement of SCN by Cl , followed by allylic rearrangement. 1 yields: a chlorourate, colorless, (decomp. 190°); chloroplatinate, yellow, m. 203° ; HCl salt, m. $85-100^\circ$; HBr salt, extremely hygroscopic; oxalate, m. $178-9^\circ$ (from H_2O). 1 (7 g.) and 8 cc. conc'd. HBr (d. 1.4), cooled with ice water and slowly treated with 10 g. Br , gave 25 g. 3,4-dibromo-2-aminobutane- HBr , m. $105-7^\circ$; treatment of this with conc'd. NaOH gave the base as a heavy unstable oil (which evolves HBr and resinifies), evidently $\text{BrCH}_2\text{CH}(\text{CH}_3)\text{C}(\text{NH}_2)\text{CH}_3$, which undergoes spontaneous polymerization. The polymer may be obtained by rapid distn. of the dibromide over KOH ; the distillate rapidly polymerized to a solid resin.

G. M. Kosolapoff

A 58-51 A METALLURGICAL LITERATURE

PROCESSES AND PROPERTIES INDEX

1ST AND 2ND CATEGORIES

CA

Order of addition of alcohols to glycidic ethers. M. G. Vladimirova and A. A. Petrov (Leningrad Aviation Instrument Inst.). *J. Gen. Chem.* (U.S.S.R.) 17, 51-4 (1947) (in Russian).—The effect of the nature of the catalyst (RONa or $\text{BF}_3 \cdot \text{Et}_2\text{O}$) on the addn. of alcs. to glycidic ethers was studied. Me or Et glycidic ether was added to 10 parts of the corresponding alc. in which 1-1.5% Na was dissolved. The mixt. was heated 10 hrs. at 100° in a sealed tube; distn. gave products which cor-

responded in their propert. to the α, γ -glycerol diethers, with the following yields: i-Me 55%, Me Et 75%, di-Et 65%; in all cases the products distd. within a 0.5-1.0° range and were pure substances: $\text{MeOCH}_2\text{CH(OH)}$ - CH_2OMe , b_m 164-5°, b_w 85-6°, d_4^{20} 1.0074, n_D^{20} 1.4235; $\text{MeOCH}_2\text{CH(OH)CH}_2\text{OEt}$, b_m 84.5-5°, d_4^{20} 0.9758, n_D^{20} 1.4212; $\text{EtOCH}_2\text{CH(OH)CH}_2\text{OEt}$, b_m 184.5-5°, b_w 106.5-7°, d_4^{20} 0.9508, n_D^{20} 1.4211. When, however, the Me or Et glycidic ethers in 10 vols. of the corresponding alc. were treated with 0.5 cc. $\text{BF}_3 \cdot \text{Et}_2\text{O}$ and allowed to stand in a closed tube at room temp. 24 hrs. there was obtained 55% of the di-Me ether and 62% di-Et ether; these were not pure α, γ -diethers, as shown by their wider boiling ranges, and may have contained up to 15% of the α, β -diethers. Attempts to show this by chem. methods failed: both sets of products on oxidation gave dialkoxyacetones. The BF_3 -catalyzed products had the following constns.: di-Me, b_m 166-70°, d_4^{20} 1.0090, n_D^{20} 1.4215; di-Et, b_m 185-7°, b_w 108-10°, d_4^{20} 0.9530, n_D^{20} 1.4216. In a typical oxidation expt. 0.05 mol. di-Me ether was stirred with an equiv. amt. of $\text{Na}_2\text{Cr}_2\text{O}_7$ in a small vol. of H_2O at 25° 2 hrs. with dropwise addn. of 20% H_2SO_4 ; extn. with Et_2O and treatment of the ext. with 2,4-(NO₂)₂-C₆H₃NHNH₂ gave dimethoxyacetone 2,4-dinitrophenylhydrazone, m. 119-20° (from EtOH). The relatively small effect of the nature of the catalyst is explained by the predominance of the $\text{RO}\dot{\text{C}}\text{H}_2-\dot{\text{C}}\text{H}-\dot{\text{C}}\text{H}_2$ structure in glycidic ethers.

G. M. Kosolapoff

METALLURGICAL LITERATURE CLASSIFICATION

kiewicz-Trochimowski. *Ibid.* 427-9.—Cl alcs. do not react directly with KF, but their acetates do. Sapon. of the corresponding acetates gives the following compds.: $\text{CH}_3\text{FCH}_2\text{OH}$, b. $100-2^\circ$, very toxic; 3-fluoro-1-propanol, b. $127.5-8.0^\circ$; 3-fluoro-2-propanol, b. $106-8^\circ$; 4-fluoro-1-butanol, b. $62.0-3.0^\circ$ (heated in a sealed tube with HBr this gives 1,4-dibromobutane); 1-fluoro-2,3-dibromobutane, b. $102.5-3.0^\circ$. MeMgBr and $\text{CFCl}_2\text{CO}_2\text{Me}$ give diol, b. $41.0-1.5^\circ$; 1-fluoro-1,1-dichloro-2-methyl-2-propanol, b. $41.0-1.5^\circ$; MeMgBr and $\text{CF}_3\text{CO}_2\text{Me}$ give 80% 3,3,3-trifluoro-2-methyl-2-propanol, b. $80.0-1.0^\circ$, m. $18-19^\circ$, forms a hydrate with H_2O ; and $\text{CH}_3\text{FCH}_2\text{Br}$ with MeCOSK in abs. EtOH give 65% AcSCH₂CH₂F, b. $41.0-2.0^\circ$. IV. Synthesis of β -fluoropropionic acid and γ -fluorobutyric acids. *Ibid.* 431-1.—Oxidation of $\text{CH}_3\text{FCH}_2\text{CH}_2\text{OH}$ with $\text{K}_2\text{Cr}_2\text{O}_7$ and H_2SO_4 gives 80% β -fluoropropionic acid, b. $51.0-2.0^\circ$, b. $78.5-0.5^\circ$ (Me ester b. $117.0-18.0^\circ$). Similarly, $\text{CH}_3\text{F}(\text{CH}_2)_2\text{OH}$ gives 75% γ -fluorobutyric acid, b. $60.0-2.0^\circ$ (Me ester b. $135.0-7.0^\circ$). Distn. of this acid at ordinary pressure causes loss of HF and formation of butyrolactone. H. M. L.

CA

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Condensation of alkoxypropenes with acrylonitrile. A. A. Petrov and M. G. Vladimirova (Leningrad Aviation Instr. Inst.). *J. Gen. Chem. (U.S.S.R.)* 17, 1643-8(1947) (in Russian).--Methoxypropene (4.2 g.) and 2.6 g. $\text{CH}_2\text{=CHCN}$ in 10 cc. MePh heated 18 hrs. at 105° gave 15% 4-methoxy-3-cyano-1-butene (I), bp 124.0°; stabilization with pyrogallol during the condensation is necessary. Similar condensation for 12 hrs. at 145° gives 60% I, bp 125.5°, d_4^{20} 1.0325, n_D^{20} 1.4818. Ethoxypropene (12 g.) and 0.6 g. $\text{CH}_2\text{=CHCN}$ heated 14 hrs. at 145° gave 78% 4-ethoxy-3-cyano-1-butene (II), bp 131.0°, d_4^{20} 1.0010, n_D^{20} 1.4775. II (3.8 g.) shaken 15 min with 20 cc. 5% H_2SO_4 at 40°, then satd. with $(\text{NH}_4)_2\text{SO}_4$ and extd. with Et_2O , gave 80% 4-oxocyclohexanecarbonitrile, bp 148.5-0.5°, which gives the usual ketone derivs. (these, however, were not obtained in pure state and no const. are given); the nitrile on standing 10 days in 35% HCl gave 4-oxocyclohexanecarboxylic acid, m. pt. 75°; *p*-nitrophenylhydrazine m. 182-3°. I (3.2 g.), 4 g. NaOH , 5 cc. H_2O , and 15 cc. EtOH boiled 10 hrs. also gave this acid after concn., acidification, and rapid drying. I (0 g.) in 50 cc. EtOH , treated with 7 g. Na , the mixt. dild. with 50 cc. H_2O and concd., and the residue extd. with Et_2O gave 65% 4-methoxy-N-tetrahydrobenzylamine, bp 109.5-10°, d_4^{20} 0.9854, n_D^{20} 1.4912; similar reduction of II gave 60% of the EtO analog, bp 119-19.5°, d_4^{20} 0.9638, n_D^{20} 1.4850. The latter (3.8 g.) in 10 cc. 20% H_2SO_4 neutralized with an equiv. amt. of NaOH yielded an Et_2O -insol. resin, a crumbly, yellow solid, which appeared to be a polymer of the resulting keto amine, $(\text{C}_7\text{H}_{10}\text{ON})_n$; the free keto amine could not be isolated either in the form of a salt or a keto-group deriv.

G. M. Kosolapoff

AD-314 METALLURGICAL LITERATURE CLASSIFICATION

AD-314 METALLURGICAL LITERATURE CLASSIFICATION

VLADIMIROVA, M. G.

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Physico-chemical constants characterizing the formation and composition of the lowest cuprous cyanide complex. M. G. Vladimirova and I. A. Kakovsky (*J. appl. Chem. USSR*, 1950, 23, 580-598).—The elucidation of the composition and the conditions of formation of cyanide complexes at concn. similar to those used in the cyanide treatment of the ores of noble metals is attempted. The measurements have therefore been made at concn. of 10^{-2} – 10^{-3} g.-ion per l., i.e., much lower than in experiments described hitherto in the literature. The standard free-energy changes have been calculated for the following reactions: (i) $\text{Cu}^+ + (\text{CN})^- \rightleftharpoons \text{CuCN}$, (ii) $\text{CuCN} + (\text{CN})^- \rightleftharpoons \text{Cu}(\text{CN})_2$, (iii) $\text{Cu}(\text{CN})_2 + (\text{CN})^- \rightleftharpoons \text{Cu}(\text{CN})_3^-$, (iv) $\text{Cu}(\text{CN})_3^- + (\text{CN})^- \rightleftharpoons \text{Cu}(\text{CN})_4^{2-}$. ΔG val. at 25° for these reactions are –26609, –5769, –2.91, and –61 g.-cal. per g.-mol. The equilibrium constant for the reaction: $\text{CuCN} + \text{HCN} \rightleftharpoons \text{Cu}(\text{CN})_2 + \text{H}^+$ has been determined by (a) measuring the concn. of H^+ by direct titration, (b) preliminary titration with introduction of a known quantity of HCl or H_2SO_4 , (c) potentiometric measurements. All methods give essentially the same value for $K_{111} = \frac{[\text{H}^+][\text{Cu}(\text{CN})_2]}{[\text{CuCN}][\text{HCN}]} = 1.22 \times 10^{-3}$. The identical results obtained in (a), (b), and (c) provide proof that $\text{Cu}(\text{CN})_2$ is the only complex present in analytically measurable quantities. By dissolution of CuCN or CuCNS in HCN at concn. up to 3 g.-mol. per l. no other complex ions are formed except $\text{Cu}(\text{CN})_2$. For the reaction: $\text{CuCNS} + 2\text{HCN} \rightleftharpoons \text{Cu}(\text{CN})_2 + \text{CNS}^- + 2\text{H}^+$, $K_{111} = 1.31 \times$

10^{-3} . So by the interaction between the weak acid HCN and sparingly sol. CuCN or CuCNS a strong acid $\text{HCu}(\text{CN})_2$ is formed. The conductivity measurements for HCN and $\text{HCu}(\text{CN})_2$ are also reported. The value of 389 for the equiv. conductance of $\text{HCu}(\text{CN})_2$ at infinite dilution is close to that for HCl. Hence the mobility (μ) of the $\text{Cu}(\text{CN})_2$ is 39.2 and its transference no, T_+ , is 0.10. The dissociation const. of $\text{Cu}(\text{CN})_2$ was determined by potentiometric measurements with (i) a Cu electrode (1.8×10^{-14}); (ii) an amalgam electrode containing 0.373% of Cu (1.6×10^{-14}); (iii) as (ii) with 0.138% of Cu (2.4×10^{-14}). The mean value of 1.9×10^{-11} is in agreement with that calculated thermodynamically from the reaction between CuCNS and HCN. The order of the solubility product of CuCNS has been determined by potentiometric measurements to be 10^{-12} , and has been calculated from the above dissociation constant to be 4.8×10^{-12} . Similarly the solubility product of CuCN has been calculated to be $L_{\text{CuCN}} = [\text{Cu}^+][\text{CN}^-] = 3.2 \times 10^{-19}$. Finally, from the known dissociation constants, the free energy of formation of $\text{Cu}(\text{CN})_2$ from Cu⁺ and 2CN⁻ has been calculated to be 58399 g.-cal. per g.-mol. at 298° K. J. B. J. ZABA.

BC

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CA

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The physicochemical constants characterizing the formation and composition of the lowest complex copper cyanide
ion. M. G. Vladimirova and I. A. Kakovskii. *J. Applied Chem. U.S.S.R.* 25, 618-32(1950)(Engl. translation).—see *C.A.* 44, 8204d.
R. M. S.

VIADIMIROVA, M.G.

SOV/137-59-3-7088

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 30 (USSR)

AUTHORS: Ipat'yev, V. V., Nizhel'skiy, V. F., Vladimirova, M. G.

TITLE: Atmospheric Oxidation of Cobalt and Alloy of Iron With 13% Cobalt
(Okisleniye v vozdukhke kobal'ta i splava zheleza s 13% kobal'ta)

PERIODICAL: Tr. Leningr. lesotekhn. akad. 1958, Nr 80, part 2, pp 47-56

ABSTRACT: The authors investigated the kinetics of atmospheric oxidation of Co in the 700-1200°C temperature range and of an alloy of Fe with 13% Co (I) in the 600-1100° range by the method of periodic weighing of specimens without removing them from the furnace reaction tube. It was found that the oxidation of Co and I is subject to a parabolic law. Micrographic investigations revealed that at 900, 1000, and 1200° Co scale consists of CoO with small inclusions of Co₃O₄ grains of secondary origin. The I scale at 1000° consists of the three following layers: R₂O₃, R₃O₄, and RO.

O. M.

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S/137/62/000/002/101/14
A060/A101

AUTHORS: Nizhel'skiy, V. F., Vladimirova, M. G.

TITLE: On the problem of oxidation of cobalt in air

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962, 81, abstract 21548
("Nauchn. tr. Leningr. lesotekhn. akad.", 1961, no. 92, pt. 3,
117-119)

TEXT: In the course of oxidation of Co covered with metallic Au, the layer of Co oxide which forms in air at 800 - 950°C grows on account of Co diffusion (by 72%) and on account of O₂ diffusion (28%).

Authors' summary

[Abstracter's note: Complete translation]

Card 1/1

3 4719

S/137/62/000/002/102/14
AC60/A101

18.1152
18.1150

AUTHORS: Vladimirova, M. G., Nizhel'skiy, V. F.

TITLE: Oxidation of molybdenum and its alloys with iron in an air environment

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 2, 1962. 81, abstract 21550
("Nauchn. tr. Leningr. lesotekhn. akad.", 1961, no. 92, pt. 3.
105 - 115)

TEXT: The oxidation of Mo in the temperature range 350 - 550°C proceeds basically according to the parabolic law. Oxides forming on the Mo in the course of oxidation in air consist of MoO₂ and MoO₃. The process of oxidation of Fe-Mo alloys containing 5 and 10% Mo occurs according to the parabolic law and the temperature dependences of the processes may be expressed by the equations

$$\log K = - 39,685/4.57 T + 7.64 \text{ (for the 5\% alloy)}$$

and

$$\log K = - 40,535/4.57 T + 8.04 \text{ (for the 10\% alloy)}$$

The scale on Fe-Mo alloys with 5 and 10% Mo under oxidation in air (700 - 900°C)

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Oxidation of molybdenum and its alloys with...

S/137/62/000/002/102/144
A060/A101

is three-layered and consists of the following layers: Fe_2O_3 , Fe_3O_4 , FeO . The Mo raises the heat-resistance of iron, and the strongest effect is produced by the addition of the first 5% Mo. There are 8 references.

Authors' summary

[Abstracter's note: Complete translation]

X

Card 2/2

VLADIMIROVA, M.G.; KUZNETSOV, Ye.D.

Dynamics of the variation of nitrogen and phosphorus content
in the medium under various conditions of intensive cultivation
of chlorella. Fiziol. rast. 11 no.5:827-837 S-O '64.

(MIRA 17:10)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy
of Sciences, Moscow.

ACC NR: AP6019783

SOURCE CODE: UR/0220/66/035/003/0538/0548

AUTHOR: Vladimirova, M. G.; Ignat'yevskaya, M. A.

ORG: Institute of Plant Physiology im. K. A. Timiryazev, AN SSSR (Institut fiziologii rasteniy AN SSSR)

TITLE: Study of the effect of preservation conditions of Chlorella cultures on their productivity

SOURCE: Mikrobiologiya, v. 35, no. 3, 1966, 538-548

TOPIC TAGS: Chlorella, photosynthesis, algae

ABSTRACT: Algae collections were investigated for photosynthetic activity and the effects of temperature and light on them. More than 100 green species were examined (including 51 Chlorella and 19 Scenedesmus) at 10-12C under constant illumination not exceeding 500 lux from luminescent 15-w lamps. Higher light intensity killed some cultures, particularly Ankistrodesmus and Scenedesmus. As a rule, agar (1%) was employed with Tamiya medium and KNO₃. Chlorococcum, Pleurochloris magna, Haematococcus pluvialis and some Ankistrodesmus, and Scenedesmus species were better preserved in Prat medium. Transplantation was carried out at 25-28C every 1.5-2 months at 1200-1700 lux and stored at 10C. Preservation was also carried out in the dark at 5C and no adverse effects were noted. In other experiments, the initial cultures were trans-

UDC: 582.263 : 579.864

Card 1/2

L 34777-66

ACC NR: AP6019783

planted for 5-6 days at 25-27C and some were stored at 10C, others at 25-27C. In fluid medium, algae were grown under intensive conditions; 100 ml of suspension (300-400 million cells/ml) were transferred to Erlenmeyer flasks (250 ml), and stored under the same conditions. Specimens at 25-27C were transplanted every 6-10 days. Cultures were revitalized at 25-27° for 3-5 days in 100 ml-suspension and 500 ml-Prat or Tamiya fluid medium. In the final stage, algae were cultivated in 250-ml medium continuously illuminated at 10-12000 lux with 1% CO₂ air diffusion at 25-27C. Every experiment was repeated twice, with cell count ranging from 0.3-1.0 million/ml; growth time ranged from 4-6 and occasionally 12 days. Analysis was carried out microscopically and nephelometrically and the dry mass weight was determined. High productivity was revealed by mesophyllic *Chlorella pyrenoidosa* 82 and thermophyllic strains *Chlorella* sp.K., 19 H/B, *Chlorella* sp. (p-strain 1), *Scenedesmus* sp. (Texas, 22- str. 1) at 10C, 500 lux when transplanted after 1.5-2.5 months. *Pyrenoidosa* 82 revealed reduction in activity after exposure at 25-27C while thermophyllic algae continued to grow well. Their productivity was affected by factors following preservation, namely, intensity of cultivation and composition of intermediate media. Orig. art. has: 7 figures, 3 tables. [14]

SUB CODE: 06/ SUBM DATE: 19Jan65/ ORIG REF: 007/ OTH REF: 019 /
ATD PRESS: 5029

Card 2/2 fv

WJ 50 L 05121-67 EWPC-D/EWPC(D)/EET LIP(G) ID/HR/WR

ACC NR: AP6030895 SOURCE CODE: UR/0080/66/039/008/1689/1693

AUTHOR: Nizhel'skiy, V. F.; Vladimirova, M. G.

146
47
B

ORG: Leningrad Forestry Engineering Academy im. S. M. Kirov (Leningradskaya lesotekhnicheskaya akademiya)

TITLE: Oxidation¹⁶ of cobalt²⁷ in sulfur dioxide²⁷ and carbon dioxide²⁷ gas at high temperatures¹⁶

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 8, 1966, 1689-1693

TOPIC TAGS: cobalt oxidation, sulfur dioxide corrosion, carbon dioxide corrosion, gas corrosion, high temperature oxidation

ABSTRACT: Specimens of 99.9%-pure electrolytic cobalt were tested for oxidation resistance in sulfur dioxide and carbon dioxide at 600-1100 C. The oxidation rate in sulfur dioxide was found to be parabolic and substantially higher than that in air or in carbon dioxide (see Fig. 1). The oxide layer formed in sulfur dioxide at 760-950C consists of cobalt oxides and sulfides (Co₄ S₃). The layer formed at temperatures over 800C strongly adheres to the base metal. The sulfur content in the layer formed at 700C amounts to 10.14% and in the layer formed at 900C, to

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UDC: 546.73+542.943:

L 05721-67

ACC NR: AP6030895

12.61%. Oxidation in carbon dioxide at 900-1100C follows a linear rate. The

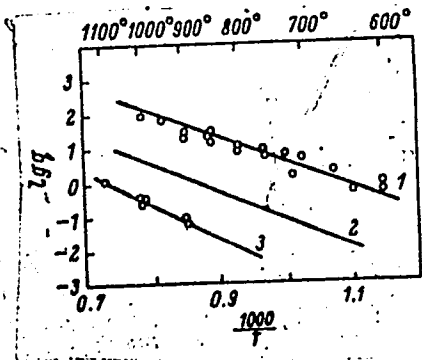


Fig. 1. Temperature dependence of cobalt oxidation rate (mg/cm²·hr) in sulfur dioxide

1 - In air; 2 - in carbon dioxide 3

oxide layer formed in carbon dioxide is a thin film consisting of Co O. Orig. art. has; 9 figures. [W.A. 50] [ND]

SUB CODE: 13, 11/ SUBM DATE: 27 Jun 64/ ORIG REF: 003/ OTH REF: 004

Card 2/2

ACC NR: AP6036768 (A,N) SOURCE CODE: UR/0326/66/013/006/0949/0957

AUTHOR: Semerenko, V. Ye.; Zimin, M. B.; Vladimirova, M. G.; Klyachko-Gurvich, G. L.; Sokolov, M. V.; Nichiporovich, A. A.

ORG: Institute of Plant Physiology im. K. A. Timiryazev, Academy of Sciences, SSSR, Moscow (Institute fiziologii rasteniy Akademii nauk SSSR); Institute of Biophysics, Academy of Sciences, SSSR (Institut biofiziki Akademii nauk SSSR)

TITLE: Photosynthetic productivity and efficient utilization of radiant energy in *Chlorella* as a function of spectral energy distribution in an equal-energy light field

SOURCE: Fiziologiya rasteniy, v. 13, no. 6, 1966, 949-957

TOPIC TAGS: plant metabolism, plant growth, photosynthesis, photosynthetic productivity, photosynthetic active radiation, equal energy field, energy utilization

ABSTRACT: Photosynthetic productivity and the efficiency of utilization of photosynthetically active radiation in *Chlorella* sp. K were studied as a function of spectral energy distribution in an equal-energy field. Evaluation was based on the biomass increase, productivity, biosynthesis of nitrogen compounds, and other factors. An equal-energy light field with an intensity of $32 \cdot 10^3$ erg/cm²·sec was obtained by means of ND-2 neon-arc lamps and L-30 "blue" fluorescent lamps. The

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ACC NR: AP6036768

balance between "blue" (380—535 m μ) and "red" (610—710 m μ) light could be varied at will. It was found that as the spectral composition was shifted from short to long wavelengths (i.e. from "blue" to "red") within the photosynthetically active range, the growth and development rates, and photosynthetic productivity and efficiency of energy utilization increase, while the amount of nitrogen compounds decreases during prolonged cultivation of *Chlorella* suspensions. The highest productivity and energy utilization efficiency were observed with 80% "red," 7.5% "blue," and 12.5% intermediate range (535—610 m μ) radiation. This increase in productivity and efficiency resulting from a shift of radiation balance in the "red" direction is explained by the increase in the number of photons per unit of energy occurring with the increase of wavelength. This may indicate that the growth and development of algae in the energy distribution variants of the present experiment were not limited by photocatalytic systems, and that productivity was completely determined by the photosynthetic process. Orig. art. has: 1 table and 4 figures.[BM]

SUB CODE: 06/ SUBM DATE: 22Sep65/ ORIG REF: 013/ OTH REF: 010/
ATD PRESS: 5109

Card 2/2

20-119-3-58/65

AUTHOR: Vladimirova, M. G.

TITLE: On the Development of Colorless Thiospirilla in a Bacterial Plate Along With Heterotrophic Microorganisms (O razvitii bestsvetnykh tiospirill v bakterial'noy plastinke sovместno s geterotrofnymi mikroorganizmami)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 3, pp. 598-601 (USSR)

ABSTRACT: Among the colorless sulfur bacteria thiospirilla are the least investigated. Earlier (Refs 1 - 6) "bacterial plates" had been studied containing sulfur spirilla in the mud on the ground of cylinders filled with water. The pure cultures could be obtained only with difficulties. In the present work accumulation culture was maintained on an artificial culture medium. A methodical prescription for cultural media is given. A typical plate of spirilla could be obtained by adding to the culture medium samples of water and mud from small ponds in Sokol'niki. The spirilla of which it consisted looked like small mobile cells of a thickness of 1 - 2 μ and of a length of 3,4 - 7,6 μ . In young cultures the main mass of the cells was represented by vibriones two of which often were connect-

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20-119-3-58/65

On the Development of Colorless Thiospirilla in a Bacterial Plate Along
With Heterotrophic Microorganisms

ed and which because of their movements reminded of the cells of spirilla. Nearly all cells have S-shape in the grown-up state. The plate is a thin band, not longer than 2 mm, of a grey - white color and with some downwards outgrowths, which can be seen best at lateral illumination. It formed best with a pH of the agar = 6,0 - 7,0. No formation could be observed at higher pH-values than 7,5. The plate developed well between 18 and 30°, optimum temperature was at 25 - 27°. At 48° the development stopped. The culture could develop only in the dark. Light killed it. The plate shifts during the development. It raises up to 37 mm above the agar and then lowers down to 15 cm. This can be explained by the demand of a certain concentration of oxygen or food. There were also small amounts of bacilli and cocci in the spirilla culture. Their number increases with the age of the culture. They seem to be: *Ps. fluorescens*, *M. candidans*, or *M. terragenus* or similar forms (table 2). A method of purification by feeding the original culture purely minerally in a CO₂-, O₂-, H₂S- and N₂-atmosphere is recommended. On it spirilla cannot develop. They proved to be autotrophic at the addition

Card 2/4

20-119-3-58/65

On the Development of Colorless Thiospirilla in a Bacterial Plate Along
With Heterotrophic Microorganisms

of 0,0001 % of autolyzer yeast and oxidized H_2S to H_2SO_4 on which occasion CO_2 was consumed only in very little amounts (table 3). The bacterial plate described here was cultivated for 4 years on an artificial mineral culture medium in a laboratory. As it was said already it consisted of spirilla and 3 heterotrophic attendants. Attendant Nr 1 and 2 could not develop alone on the used culture medium. Attendant Nr 3 alone developed weakly and could not assimilate CO_2 in the liquid mineral culture medium. The spirilla are to be placed to the colorless thiospirilla. They develop rapidly and form a normal plate on the agar - water - culture medium only under the presence of the mentioned attendants. Therefore, symbiosis exists between the microorganisms forming the plate. There are 3 tables, and 6 references, 5 of which are Soviet.

Card 3/4

20-119-3-58/65

On the Development of Colorless Thiospirilla in a Bacterial Plate Along
With Heterotrophic Microorganisms

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

PRESENTED: January 6, 1958, by V. N. Shaposhnikov, Member, Academy of
Sciences, USSR

SUBMITTED: December 3, 1957

AVAILABLE: Library of Congress

Card 4/4

SEMENKO, V.Ye.; VLADIMIROVA, M.G.; POPOVA, M.A.

Culture of *Chlorella pyrenoidosa* in pulsed light. *Fiziol. rast.* 7
no.4:459-465 '60. (MIRA 13:9)

1. K.A. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy
of Sciences, Moscow. (Algae) (Light--Physiological effect)

VLADIMIROVA, M.G.

Studies on autotrophic properties of Spirillum developing in the form of a bacterial layer in Van Niel's medium. Mikrobiologiya 29 no.1:28-33 Ja-F '60. (MIRA 13:5)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V. Lomonosova.
(SPIRILLUM culture)

VLADIMIROVA, M.G.

Study of the heterotrophic properties of Spirilla growing in the form of layers on a Van Niel medium. Mikrobiologiya 29 no.2:248-252 Mr-Apr '60. (MIRA 14:7)

1. Biologo-pochvennyy fakul'tet Moskovskogo gosudarstvennogo universiteta imeni M.V.Lomonosova.

(SPIRELLACEAE)

(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)

SEMENENKO, V.Ye.; VLADIMIROVA, M.G.

All-Union Conference on the Cultivation of Unicellular Algae.
Fiziol. rast. 8 no.4:518-520 '61. (MIRA 14:11)
(Algae)

VLADIMIROVA, M. G.

Dynamics of the development of bacterial microflora during the cultivation of Chlorella. Mikrobiologiya 30 no.3:431-435 My-Je '61. (MIRA 15:7)

1. Institut fiziologii rasteniy AN SSSR imeni K. A. Timiryazeva.

(ALGAE) (PSEUDOMONADACEAE)

SEMENENKO, V.Ye.; VLADIMIROVA, M.G.

Effect of the conditions of space flight in a spaceship on
the viability of the Chlorella culture. Probl.kosm.biol. 1:190-
204 '62. (MIRA 15:12)

(SPACE FLIGHT--PHYSIOLOGICAL EFFECT)
(ALGAE--CULTURES AND CULTURE MEDIA)

17.055

39289

S/216/62/000/002/002/002

1016/1216

AUTHOR: Nichiporovich, A. A., Semenenko, V. E. and Vladimirova, M. G.
TITLE: Intensification of the photosynthetic productivity of a culture of unicellular algae
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya biologicheskaya, no. 2, 1962, 163-172

TEXT: Unicellular algae could be used for food and for regeneration of O₂ in space flights if the photosynthetic productivity of the algal cultures were considerably improved. The present study deals with means of increasing the photosynthetic productivity of such cultures, mainly by increasing the rate of photosynthesis per unit volume of culture. Light is the major factor affecting photosynthetic productivity of dense algal suspensions. However, stronger illumination raises the temperature of the culture slowing down the growth of the mesophilic algae. Experiments with thermophilic algae have shown that with these forms, much higher photosynthetic productivity could be achieved employing higher illumination coefficients. There are 11 figures.

ASSOCIATION: Institut fiziologii rasteniy im. K. A. Timiryazeva, Akademii nauk SSSR (Institute of Plant Physiology im. K. A. Timiryazev, Academy of Sciences USSR)

SUBMITTED: December 8, 1961

Card 1/1

VLADIMIROVA, M.G.; SEMENENKO, V.Ye.; NICHIPOROVICH, A.A.

Comparative study on the productivity of various forms of
unicellular algae. Probl.kosm.biol. 2:314-325 '62 (MIRA 16:4)
(ALGAE--CULTURES AND CULTURE MEDIA)

SEMENENKO, V.Ye.; VLADIMIROVA, M.G.; NICHIPOROVICH, A.A.

Some principles of the intensification of the photosynthetic
productivity of some cultures of unicellular algae. Probl.kosm.
biol. 2:326-339 '62. (MIRA 16:4)
(ALGAE--CULTURES AND CULTURE MEDIA)
(PHOTOSYNTHESIS)

SEMENENKO, V.Ye.; VLADIMIROVA, M.G.

First results of the experiments with Chlorella culture exposed
in space on the second spaceship. Isk.sput.Zem. no.12:56-62
'62. (MIRA 15:8)

(Space biology)

SEMENENKO, V.E.; [Semenenko, V.Ye.]; VLADIMIROVA, M.G.

Conditions of the cosmic flight on a satellite ship, and their influence on the viability of the culture of Chlorella. Analele biol 16 no.3:115-122 My-Je '62.

KUZNETSOV, Ye.D.; VLADIMIROVA, M.G.

Changes in the mineral composition of the culture medium in the
cultivation of Chlorella. Fiziol.rast. 12 no.1:33-38 Ja-F '65.
(MIRA 18:3)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR, Moskva.

NICHIPOROVICH, A.A.; SEMENENKO, V.Ye.; VLADIMIROVA, M.G.

Intensification of the photosynthetic productivity of cultures
of unicellular algae. Izv. AN SSSR. Ser. biol. no. 2:163-172
Mr.-Ap'62. (MIRA 16:7)

1. Institut fiziologii rasteniy imeni Timiryazeva AN SSSR.
(ALGAE—CULTURES AND CULTURE MEDIA)
(PHOTOSYNTHESIS)

SEMENENKO, V.Ye.; VLADIMIROVA, M.G.

Effect of cosmic flight conditions in the spaceship on the
viability of Chlorella. Fiziol. rast. 8 no.6:743-749 '61.
(MIRA 16:7)

1. Timiriazev Institute of Plant Physiology, U.S.S.R. Academy
of Sciences, Moscow.

(Space flight—Physiological effect)
(Algae)

VLADIMIROVA, Mariya Grigor'yevna; GREKHOVA, Lidiya Ivanovna;
ARASHKEVICH, V.M., retsenzent; OKUN', R.M., red. izd-va;
LAVRENT'YEVA, L.G., tekhn. red.

[Harmful substances and the control of their content in
the air of gold-recovery plants] Vrednye veshchestva i
kontrol' soderzhaniia ikh v vozduke zolotoizvlekatel'nykh
fabrik i zavodov. Moskva: Gosgortekhnizdat, 1963. 43 p.
(MIRA 16:11)

(Gold--Metallurgy) (Air--Pollution)
(Metalworkers--Diseases and hygiene)

VLADIMIROVA, M.K.; AFONSKAYA, N.Ye.

Early symptoms of meningitis in children with tuberculosis. Sov.med.
20 no.11:56-60 N '56. (MLRA 10:1)

1. Iz Malakhovskogo klinicheskogo detskogo tuberkuleznogo sanatoriya
Moskovskoy oblasti (dir. M.K.Vladimirova)
(TUBERCULOUS MENINGITIS, in inf. and child
diag.)

VLADIMIROVA, M. K., DR.

Tuberculosis - Hospitals and Sanatoriums

Organization, regimen, treatment, and care in pediatric tuberculosis sanatoriums.
Med. sestra No. 6, 1952

9. Monthly List of Russian Accessions, Library of Congress, September 1952 ~~1959~~, Uncl.

VLADIMIROVA, M. K. DR.

Children - Hospitals and Asylums

Organization, regimen, treatment, and care in pediatric tuberculosis sanatoriums. Med.
sestra No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1958² Unclassified.

MAYEVSKAYA, V.M., kand.tekhn.nauk; VLADIMIROVA, M.M., inzh.

Classification of Karaganda Basin coals according to their
tendency toward spontaneous combustion. Vop.bezop.v ugol'.shakh.
4:180-188 '64. (MIRA 18:1)

V. H. ... M. N.

...

YERHOVA, Z.V.; VLADIMIROVA, M.V.

Effect of x-rays on aqueous solutions of acids. Atom. energ. 5
no.5:546-549 N '58. (MIRA 12:1)
(Alpha rays) (Hydrogen peroxide)

VLADIMIROVA, M.V.; YERSHOVA, Z.V.

Effect of α -radiation on sulfuric acid solutions of methylene blue. Mechanism of α -radiolysis. Radiokhimiia 5 no.4:479-485 (MIRA 16:10) '63.

(Methylene blue, Effect of radiation on)

S/844/62/000/000/026/129
D244/D307

AUTHORS: Vladimirova, M. V. and Yershova, Z. V.

TITLE: Radiolysis of aqueous sulphuric acid solutions under the action of α radiation

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 162-166

TEXT: The object of the present work was to investigate the evolution of gases resulting from α irradiation of aqueous H_2SO_4 solutions of various concentrations and the influence of certain acceptors (glucose, methylene blue, H_2) on the initial yields of H_2 , O_2 and H_2O_2 . Po^{210} dissolved in the solutions was used as the source of α rays. The dosage varied from 2×10^{14} to 2×10^{16} ev/ml.sec. It was found that the yield of H_2 increases somewhat with the increasing H_2SO_4 concentration (0.4 to 4.0 M) and the yields of O_2

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Radiolysis of aqueous ...

S/844/62/000/000/026/129
D244/D307

become lower. The initial yield of H_2 in 0.4 M H_2SO_4 remains constant for a wide range of absorbed energy (5 to 400×10^{18} ev/ml), and concentration of Po^{210} (from 1 to 100 mcuries/ml). Glucose (0.005 M) and methylene blue (7×10^{-5} M) begin to interact with OH in the 'track' region as suggested by the increased initial yields of H_2O_2 and H_2 . In the presence of H_2 (0.1 M) the yield of H_2O_2 increases. The reactive capacity of the various acceptors with OH radicals decreases in the order methylene blue, Tl^+ , glucose, H_2 .

There are 1 figure and 4 tables.

Card 2/2

VLADIMIROVA, M. V., Cand. Chem. Sci. (diss) "Effect of Alpha Radiation on Aqueous Solutions of Sulfuric Acide." Moscow, 1961, 12 pp. (Acad. of Sci. USSR, Instit. of Electro-Chemistry) 120 copies (KL Supp 12-61, 255).

VLADIMIROVA, M. V. ; YERSHOVA, Z. V.

Action of alpha radiation from polonium on concentrated sulfuric acid solutions. Radiokhimiia 2 no.4:495-499 '60. (MIRA 13:9)
(Polonium) (Sulfuric acid) (Alpha rays)

21(4)

SOV/89-5-5-6/27

AUTHORS: Yerashova, Z. Y., Vladimirova, M. Y.

TITLE: The Effect Produced by α -Radiation Upon Aqueous Solutions of Acids (Deystviye α -izlucheniya na vodnyye rastvory kislot)

PERIODICAL: Atomnaya energiya, 1958, Vol 5, Nr 5, pp 546-549 (USSR)

ABSTRACT: The effect produced by the α -radiation of polonium (0,09 - 1,5 mC/ml) upon a 0,8 n aqueous sulfuric acid was investigated.

The polonium was precipitated from a nitric acid solution on copper powder, after which it was distilled in a vacuum. The distillate was dissolved in a 6n nitric acid. This solution was used as initial product for the experiments to be carried out. A certain part of this solution was dried by evaporation in a quartz bowl, the residues were dissolved in freshly prepared 0,8 n sulfuric acid and stored in a glass vessel (Pyrex glass). The radiation-chemical yield of hydrogen peroxide is considered as criterion for the purity of the polonium sulfate solution.

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The latter is determined by the number of hydrogen peroxide molecules which are liberated in the unit volume by 100 eV

SOV/89-5-5-6/27

The Effect Produced by α -Radiation Upon Aqueous Solutions of Acids

absorbed energy. The average quadratic error committed when determining the yield amounted to $\pm 10\%$. The hydrogen peroxide was determined by means of the apparatus $\phi \ni K-14$ according to the photocolorimetric method. The average quadratic error in this case amounted to $\pm 6 - 9\%$. The energy E in eV/ml absorbed during the time T (in hours) was determined from the relation $E = 7,06 \cdot 10^{17} \cdot A \cdot T$, where A denotes the activity of the solution in mC/ml, which was measured by means of a scintillation counter. It was found by experiment that within the range of polonium concentrations of from 0,09 to 1,5 mC/ml the radiation-chemical yield of hydrogen peroxide is at first equally high, viz. $1,20 \pm 0,12$ molecules per 100 eV absorbed energy. The hydrogen peroxide concentration tends towards a limiting value. The limiting equilibrium concentration of hydrogen peroxide in 0,8 n sulfuric acid amounts to $\sim 5 - 8 \cdot 10^{18}$ molecules/ml. There are 3 figures, 1 table, and 2 references, 2 of which are Soviet.

Card 2/3

L-39091-66 EWT(m)

ACC NR: AP6022880

SOURCE CODE: UR/0186/66/008/002/0226/0232

AUTHOR: Vladimirova, M. V.; Kulikov, I. A.; Shulyatikova, L. G.

ORG: none

TITLE: Alpha- and beta-¹⁹radiolysis of aqueous solutions of light and heavy water

SOURCE: Radiokhimiya, v. 8, no. 2, 1966, 226-232

TOPIC TAGS: alpha radiation, beta radiation, heavy water, radiation effect

ABSTRACT: The effect of various substances on the yield of hydrogen formed under the influence of α radiation (emitted by dissolved polonium) and β radiation (emitted by dissolved tritium) in ordinary and heavy water (D_2O) containing 3×10^{-3} M Fe^{2+} was studied. The criterion of capture of H and D radicals was the value of the initial hydrogen yield. The yields of radical products of radiolysis, obtained from the dependence of the oxidation of iron on the absorbed energy, showed the presence of a considerable isotope effect. The influence of the hydrogen radical acceptors NO_3^- , NO_2^- , and UO_2^{2+} on the hydrogen and deuterium yields in the α and β radiolysis of light water and α radiolysis of heavy water was determined. It was found that the decrease of H_2 yield is different in these two media. This is due to the difference in the radii of the Gaussian distribution of the H and D radicals, and also to the difference in the rate constants of the reactions between the radicals and the acceptors. Orig. art. has: 5 figures, 3 tables, and 9 formulas.

SUB CODE: 07/ SUBM. DATE: 23Nov64/ ORIG REF: 005/ OTH REF: 010 UDC: 541.15
Card 1/1 *20/eqe*

L 06994-67 EWT(m) IJP(c)
ACC NR: AP6021527

SOURCE CODE: UR/0089/66/020/006/0509/0510

AUTHOR: Vladimirova, M. V.; Batalov, A. A.; Kulikov, I. A.; Shulyatikova, L. G.

ORG: none

TITLE: New method of chemical dosimetry¹⁹ of reactor radiation 44
B

SOURCE: Atomnaya energiya, v. 20, no. 6, 1966, 509-510

TOPIC TAGS: water cooled nuclear reactor, reactor neutron flux, hydrogen, iron, radiation detector/ VVR reactor

ABSTRACT: This is an abstract of paper no. 85/3450 submitted to the editor and filed, but not published. On the basis of experimental data on the yield of H₂ and Fe³⁺ for different radiators, the authors have established relations between this yield and the linear energy transfer of the recoil γ quanta and protons in mixed fluxes of fast neutrons and γ quanta. The dosimetry procedure described is based on determining, following equal irradiation time in the reactor, the concentration of the hydrogen and trivalent iron in two solutions. One solution is gas-free H₂SO₄ (0.8 N), and the other is the same liquid but saturated with oxygen and mixed with FeSO₄. Previously obtained plots of the hydrogen yield against the ratio of the yields and concentrations of H₂ and Fe³⁺ (Atomnaya energiya v. 17, 222, 1964) make it possible to determine the hydrogen yield for the mixed radiation, and then to calculate the absorbed energy and from it finally the rate of oxidation of iron. The procedure was tested for a mixed stream of α particles from Po²¹⁰ and β particles from H³ and used for

Card 1/2

UDC: 539.12.04

L 06994-67

ACC NR: AP6021527

dosimetric measurements in the channels of the VVR reactor. A formula for the ratio of the γ and neutron doses in the reactor is obtained. The proposed method for determining the absorbed energy in water-cooled reactors can be used for the range $(0.5 - 5) \times 10^5$ rad. Orig. art. has: 2 figures and 3 formulas.

SUB CODE: 18/ SUBM DATE: 02Sep65/ ORIG REF: 002

Card 2/2 LC

VLADIMIROVA, N.A.; ARTAMONOVA, V.G.

Use of the some forms of physiotherapy in the first and second stages of the vibration disease. Vop. kur., fizioter. i lech. fiz. kult'. 30. no.3:215-219 My-Je. '65. (MIRA 18:12)

1. Kafedra fizicheskoy terapii Tsentral'nogo instituta usovershenstvovaniya vrachey (zav.- dotsent A.P. Speranskiy) i kafedra professional'nykh zabolevaniy (zav.- prof. Ye.TS. Andreyeva-Galanina) Leningradskogo Sanitarno-gigiyenicheskogo meditsinskogo instituta. Submitted February 26, 1964.

VLADIMIROVA, H.A.

Effect of an ultrahigh-frequency electric field on the course
of experimental radiation sickness in animals. Med.rad. 4
no.7:14-20 J1 '59. (MIRA 12:9)

1. Iz kafedry fizioterapii (zav. - prof.V.A.Militsyn) i kafedry
meditsinskoy radiologii (zav. - prof.V.K.Modestov) Tsentral'-
nogo instituta usovershenstvovaniya vrachey.
(RADIATION INJURY exper.)
(ELECTRICITY eff.)

VLADIMIROVA, N.A.

Study of the mechanism of the action of a UHF electric field with
the aid of radioactive isotopes. Nauch. rab. asp. i klin. ord.
no.6:150-153 '60. (MIRA 14:12)

1. Kafedra fizicheskoy (zav. prof. V.A.Militsyn) Tsentral'nogo instituta
usovershenstvovaniya vrachey.
(ELECTRICITY--PHYSIOLOGICAL EFFECT)
(RADIOACTIVE TRACERS)

VLADIMIROVA, N. A., Cand Med Sci -- (diss) "Effect of electrical field at ultra-high frequency on the course of experimental radiation sickness." Moscow, 1960. 15 pp; (Ministry of Public Health USSR, Central Inst for Advanced Training of Physicians); 280 copies; price not given; (KL, 21-60, 129)

VLADIMIROVA, N.A.; ARTAMONOVA, V.G.

Use of some types of physiotherapy in the first and second stages of vibration disease. Trudy TSIU 72:69-81 '64.

(MIRA 18:11)

1. Kafedra fizicheskoy terapii (zav. dotsent A.P. Speranskiy) i kafedra professional'nykh zabolevaniy (zav. prof. Ye.TS. Ardreyeva-Galinina) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

SEMUSHINA, T.N.; VLADIMIROVA, N.I.

Use of branchy yeasts in the production of hydrolytic alcohol.
Gidroliz. i lesokhim. prom. 14 no.4:7-9 '61. (MIRA 14:5)

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

ANDREYEV, K.P.; VLADIMIROVA, N.I.; REZUKHINA, A.V.; ZINGEL', M.A.;
FINKEL', G.M.

Flotation method of isolating yeasts from yeast beer.
Gidroliz.i lesokhim.prom. 13 no.3:11-14 '60.
(MIRA 13:7)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-
spirtovoy promyshlennosti (for Rezukhina). 2. Sukhonskiy
sul'fitno-spirovoy zavod (for Finkel').
(Yeast) (Flotation)

SEMUSHINA, T.N.; VLADIMIROVA, N.I.

Selecting strains of yeast for new sulfite and yeast plants.
Gidroliz. i lesokhim. prom. 14 no.7:12-13 '61.

(MIRA 14:11)

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

(Yeast)

PONIZOVSKIY, A.M.; SHARGORODSKIY, S.D.; STAVROV, S.N.; VLADIMIROVA, N.M.

Thenardite in the Marfovka Lake, Crimea. Izv. Krym. otd. Geog.
ob-va no.5:275-276 '58. (MIRA 14:9)
(Marfovka Lake--Thenardite)

5 (2)
AUTHORS: Ponizovskiy, A. M., Vladimirova, N. M. SOV/20-126-1-26/62
TITLE: The Solubility of the Na, Mg || Cl, HCO₃ - H₂O System (Rastvorimost' sistemy Na, Mg || Cl, HCO₃ - H₂O)
PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 97 - 98 (USSR)
ABSTRACT: Only few data exist on the topic mentioned in the title (Refs 1,2). The authors investigated the mentioned system at ~0° and P_{CO₂} = 4 atm. An autoclave of viniplast which was produced in a refrigerator of the type "Dnepr" served for this purpose. Magnesium chloride of the type ch. (pure), sodium chloride ch. d. a. (pure, pro analysi), and basic magnesium carbonate of the type ch. were used as initial substances. The data of the solubility of the system are given in table 1 and figures 1 and 2. The equilibrium diagram of the mentioned system contains 4 crystallization fields of the following salts: sodium bicarbonate (more than 50% of the area), magnesium carbonate pentahydrate, sodium chloride and magnesium chloride hexahydrate (Fig 2). Sodium car-

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The Solubility of the Na, Mg || Cl, HCO₃ - H₂O System SOV/20-126-1-25/62

bonate is in the mentioned system as well as in the ternary system NaCl-NaHCO₃-H₂O which is an ingredient of the first displaced in the solutions by sodium chloride (Figs 1 and 2). The sodium carbonate field will considerably increase with the increase of P_{CO₂} at the expense of the magnesium carbonate

field. The sodium- and magnesium chloride fields will remain practically unchanged. The results obtained will be, besides the theoretical interest, also a physical-chemical basis for the production of sodium carbonate by means of magnesium carbonate. This method is assumed to be suitable as well for the production of potash. There are 2 figures, 1 table, and 2 Soviet references.

ASSOCIATION: Institut mineral'nykh resursov Akademii nauk USSR, Simferopol'
(Institute of Mineral Resources of the Academy of Sciences
UkrSSR, Simferopol')

PRESENTED: November 24, 1958, by I. I. Chernyayev, Academician

SUBMITTED: October 19, 1958

Card 2/2

PONIZOVSKIY, A.M. [Ponyzovs'kyi, A.M.]; SHARGORODSKIY, S.D. [Shargorods'kyi, S.D.]
STAVROV, S.N. [Stavrov, S.M.]; VLADIMIROVA, N.M. [Vladymyrova, N.M.]

Thenardite and mirabilite in Lake Marfovka. Dop. AN URSR no.6:651-653
'58. (MIRA 11:9)

1. Institut mineral'nykh resursov AN USSR. Predstavil akademik AN USSR
Yu.K. Delimarskiy [IU.K. Delimars'kyi]
(Marfovka, Lake (Kerch Peninsula--Thenardite)
(Marfovka, Lake (Kerch Peninsula--Mirabilite)

PONIZOVSKIY, A.M.; MELESHKO, Ye.P.; VLADIMIROVA, N.M.

Hydrochemistry of salt lakes in the Kerch Peninsula.

Izv.vys.ucheb.zav.;geol.i razv. 3 no.2:125-134 F '60.

(MIRA 15:5)

1. Institut mineral'nykh resursov AN USSR.
(Kerch Peninsula--Salt deposits--Analysis)

GAMPER, N.M., kand.sel'skokhoz.nauk; VLADIMIRSKAYA, N.S.

Toxicity of chlorophos in the control of locusts. Zashch.rast.ot
vred.i bol. 7 no.5:36 My '62. (MIRA 15:11)

1. Vsesoyuznyy institut zashchity rasteniy.
(Locusts--Extermination) (Chlorophos)

VLADIMIROVA, N.V., ordinator

Application of prosthesis in congenital hypoplasia of one
arm and leg. Protez. i protezostr. no.10:145-148 '64.

(MIRA 18:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut
protezirovaniya i protezostroyeniya.

KAVETSKAYA, A.G.; LAPOVA, A.I., starshiy inzhener-agrometeorolog;
SUKNEVA, Ye.V., starshiy inzhener-klimatolog; VLADIMIROVA,
N.V., inzh.-agrometeorolog; KURIYEV, M.I., inzh.-agrometeorolog;
TSERTSVADZE, Sh.I.; CHIRAKADZE, G.I., dotsent, starshiy nauchnyy
sotrudnik; BABAYEV, A.D., otv.red.; USHAKOVA, T.V., red.; VOLKOV,
N.V., tekhn.red.

[Concise agroclimatic reference book on the Azerbaijan S.S.R.]
Kratkii agroklimaticheskii spravochnik po Azerbaidzhanskoj SSR.
Leningrad, Gidrometeor.izd-vo, 1959. 67 p. (MIRA 13:2)

1. Azerbaydzhanskaya S.S.R. Upravleniya gidrometeorologicheskoy
sluzhby. 2. Zaveduyushchiy otdelom agrometeorologii Tbilisskogo
Nauchno-issledovatel'skogo gidrometeorologicheskogo instituta
(for TSertsavadze). 3. Nachal'nik Upravleniya gidrometeorologicheskoy
sluzhby Azerbaydzhanskoy SSR (for Babayev).
(Azerbaijan--Crops and climate)

AUTHOR: Vladimirova, O.

4-58-6-15/37

TITLE: ~~Magic Resins~~ (Volshebnyye smoly)

PERIODICAL: Znaniye - sila, 1958, Nr 6, pp 20-21 (USSR)

ABSTRACT: For the prevention of boiler scale formation when supplying boilers with "hard water (for the supply of ships with fresh water, and for the purifying of industrial waste water, etc.), ion exchange resins (ionoobmennyye smoly), which are particular kinds of polymers, are used. The ionites are acids or chemical bases by nature, but in contrast to ordinary acids and alkaline solutions they do not dissolve in water. There are 4 drawings.

1. Ion exchange resins--Applications 2. Boilers--Scale--Counter measures

Card 1/1

VAL'SHONOK, O.S.; VLADIMIROVA, O.F. [Vladymyrova, O.F.]

Dynamics of electroencephalographic disturbances in experimental disorders of cerebral blood circulation. Fizol. zhur. [Ukr.] 10 no.2:190-195 Mr-Apr '64. (MIRA 18:7)

1. Ukrainskiy nauchno-issledovatel'skiy psikhonevrologicheskiy institut, Khar'kov.

VLADIMIROVA, O.V. [Vladymyrova, O.V.]

Hydrolytic enzymes of actinomycetes and their role in decomposing
organic matter in the soil. Mikrobiol. zhur. 27 no.3:81-84 '65.
(MIRA 18:6)

Методика определения содержания трифенилметана

Анализатор метод для определения трифенилметана.
Вестник 42 no.10:99-90 (1965).

(1965:2:10)

1. Moskovskiy tekhnologicheskiy institut yuzhnoy i molekulyarnoy promyshlennosti. 2. Sblenkorrespondent Vsesoyuznoy aktsionnoy obshchestva yuzhnoy yuzhnoy nauki i nauki Leningra (for Orlov).

RYBALTOVSKIY, O.V.; VLADIMIROVA, P.A.

Simple method for trichinascopy of pork. Veterinariia 39 no.9:
66-67 S '62. (MIRA 16:10)

1. Moskovskiy tekhnologicheskii institut myasnoy i molochnoy
promyshlennosti.

RYBALTOVSKIY, O. V. and VLADIMIROVA, P. A. (Moscow Technological Institute of the Meat and Dairy Industry).

"Simplest method of pork trichinellascopy"

Veterinariya, vol. 39, no. 9, September 1962, p. 66

VLADIMIRSKAYA, R.A.

KOLGINA, L.P.; OR'YEV, L.G.; VLADIMIRSKAYA, R.A.

Composition and texture of collectors in the Berezovo lower
Cretaceous. Geol. nefti 2 no.4:29-35 Ap '58. (MIRA 11:5)
(West Siberian Plain--Petroleum geology)
(West Siberian Plain--Gas, Natural--Geology)

VLADIMIROVA, R. S.

"Qualitative and Quantitative Composition of Phytoplankton and the Microphytobentos of the Lower Dnieper," this is included in the table of contents of the book The Prospects of the Biological System of the Kakhovskiy Reservoir and the Lower Dnieper, compiled by the Hydrobiological Institute ~~XXXX~~ No. 31, and published by the Publishing House of the Ukrainian Academy of Sciences in Kiev, 1953. (page 42)

D-51895

VLADIMIROVA, S.

~~Festival of girls. Rabotnitsa 35 no.7:2 J1 '57.~~
(Youth--Congresses) (Women)

(MIRA 10:8)

ACC NR: AP7002727

SOURCE CODE: UR/0065/67/000/001/0023/0026

AUTHOR: Sentyurikhina, L. N.; Tropkina, G. N.; Oparina, Ye. M.; Yevtyukhina, R. M.;
Vladimirova, S. L.

ORG: VNII NP

TITLE: Pastes and suspensions of molybdenum disulfide in various dispersion media

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 1, 1967, 23-26

TOPIC TAGS: lubricant, solid lubricant, lubricant filler additive, silicone lubricant, molybdenum disulfide, grease

ABSTRACT: Pastes and suspensions of MoS_2 in oils or synthetic dispersion media (e.g., silicones) are manufactured in various concentrations: pastes which usually contain over 50% MoS_2 and suspensions; highly concentrated (50—20%); medium concentrated (20—1%) and low concentration suspensions with MoS_2 content below 1%. The study reported was mainly devoted to the investigation of the lubricating properties of high and medium concentration suspensions and pastes, as little attention has been given to their study in spite of their wide-spread use. Rheological properties (the so-called strength limit), colloidal stability, antiwear effect, coefficient of friction and the longevity of films were determined. It was found that pastes and suspensions, which can be prepared with MoS_2 and a surfactant in a nonstructured or structured modification (the

UDC: 621.893

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ACC NR: AP7002727

latter having a three-dimensional solid phase network structure), do not differ significantly in their coefficients of friction and longevity of films. (Structuring is achieved by introducing a surfactant, i.e., a soap, usually lithium stearate on heating, when soaps swell in the ambient oil and produce the three-dimensional network). The high strength limit, especially in structured suspensions, is detrimental for the antiwear effect because of a decrease in the mobility of the lubricant. The colloidal stability determined by centrifuging increases with the concentration of MoS_2 and the viscosity of the system. The structural activity of soaps is stronger in low concentration suspensions than in highly concentrated ones. The addition of MoS_2 increases the antiwear effect of lubricating oils, e.g., the introduction of this solid lubricant into TsIATIM-221 grease increases the longevity of its films by 10-12 times under a 8600 kg/cm^2 load. Structured systems with a low MoS_2 -content, such as VNII NP-242, VNII NP-220 and nonstructured high MoS_2 -content pastes VNII NP-225 and VNII NP-232 are widely used at the present time. Lubricants with low MoS_2 content are usually applied in rolling friction joints; lubricants with high MoS_2 content are used in gliding friction and in threaded joints. Orig. art. has: 3 tables and

4 figures.
SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 003/ ATD PRESS: 5111

Card . 2/2

ALEKSANDROV, A.D.; VLADIMIROVA, S.M.

Deformation of a polyhedron with fixed faces. Vest. LGU 17
no.13:138-141 '62. (MIRA 15:7)
(Surfaces, Deformation of)

VLADIMIROVA, S.N.

Methods for chemical preparation of paleontological objects. Biol.
MOIP. Otd.geol. 39 no.5:150-151 S-0 '64.

(MIRA 18:2)

MUSAKIN, A.P.; VLADIMIROVA, T.M.; IN'KOVA, Ye.N.; OSIPOV, V.A.

Some problems in the synthesis of tagged compounds. Radio-
khimia 1 no.6:734-737 '59. (MIRA 13:4)
(Carbon--Isotopes) (Potassium cyanide)
(Citric acid)

BALABAYEVA, M.D.; VLADIMIROVA, T.V.; GALIMYAN, I.S.; ZHURAV, R.G.;
ROGOVIN, Z.A.

Infrared spectroscopic study of the ion exchange of graft
copolymers of cellulose and polyacrylamide with
 Fe^{+3} and Cu^{+2} ions. Vysokom. soed. 7 no.2:205-210 F '65.
(MIRA 18:3)

1. Moskovskiy tekstil'nyy institut.

VLADIMIROVA, S.N.

Method for the chemical preparation of fauna using acetic acid. Izv. AN SSSR. Ser. geol. 30 no.8:116-118 Ag '65.

(MIRA 18:9)

1. Geologicheskij institut AN SSSR, Moskva.

SECRET

SOV/63-4-2-35/39

5(3)

AUTHORS: Rogovin, Z.A., Vladimirova, T.V.

TITLE: The Synthesis of the Mixed Nitric Nitrophenyl Ester of Cellulose

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr 2, pp 284-285 (USSR)

ABSTRACT: New derivatives of cellulose may be produced by utilizing the phenyl groups contained in the macromolecule of cellulose. The nitration of the cellulose phenyl ester is carried out by a mixture of nitric and phosphoric acid and phosphoric anhydride. The formed mixed ester dissolves in the nitration mixture. All free hydroxyl groups may be esterified by changing the esterification conditions. At relatively low temperatures only two nitro-groups may be introduced into the phenyl nucleus. The phenyl ester is resistant to nitric acids at normal and raised temperatures and to 2 n-solution of NaOH at raised temperature.

APPROVED FOR RELEASE: 03/14/2001 CIA-RDP86-00513R001860220005-7

Card 1/2

There is 1 table and 1 Soviet reference.

SOV/63-4-2-35/39

The Synthesis of the Mixed Nitric Nitrophenyl Ester of Cellulose

ASSOCIATION: Moskovskiy tekstil'nyy institut (Moscow Textile Institute)

SUBMITTED: October 6, 1958

Card 2/2