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materials in liquid-metal media are described along with methods and results of corrosion tests in liquid sodium, potassium, lithium, lead, bismuth, tin, gallium, and some other liquid media and melts. Results of various mechanical tests carried out in the development of structural materials to be used in units employing liquid-metal heat carriers are discussed. Comprehensive study of the corrosion properties and mechanical properties of these materials has enabled the authors to make some suggestions on the selection of steels and alloys which can be used in power plants operating with liquid-metal heat carriers. No personalities are mentioned. There are 231 references, mostly non-Soviet.

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AVAILABLE: Library of Congress

SUBJECT: Metals and Metallurgy

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

S/129/61/000/003/001/011
E073/E535

109220 also 2608, 1418

AUTHOR: Balandin, Yu. F., Candidate of Technical Sciences

TITLE: Thermal Fatigue of Metals

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1961, No.3, pp. 2-8 + 1 plate

TEXT: This is a review article dealing with only some of the problems relating to thermal fatigue. In discussing the causes and features of thermal fatigue it is stated that sufficiently simple correlation does not exist between the resistance to thermal fatigue, the number of cycles until cracks occur and other mechanical or thermophysical characteristics of materials. There is also no standard method of carrying out thermal fatigue tests. Changes in the structure may occur even after the first thermal loading cycles. These phenomena have been studied most extensively on metals for which the crystal lattice does not have a cubic structure (zinc, cadmium, tin, magnesium, uranium and their alloys). In these anisotropic materials, cyclic loading led to plastic deformation, which mostly occurred in the individual grains even after the first thermal cycle. With increasing number of cycles the number of grains with slip lines increased and the plastic

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Thermal Fatigue of Metals

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deformation in the individual grains becomes more pronounced. In addition to plastic deformation inside the body of the grain, deformation also occurred on the boundaries. Changes in the structure occur more quickly in metals with a more pronounced difference in the coefficient of linear expansion in the various directions. Particularly in the case of uranium, the appearance of a substructure as a result of grain refining is characteristic. In isotropic materials, only type I thermal stresses are observed, although in heterogeneous alloys of such metals type II stresses due to differing properties of the individual phases may also have an important influence. If the maximum temperature of the cycle is above the recrystallization temperature, formation of new grains is possible, whereby the mechanism of appearance of these grains differs from ordinary recrystallization after work hardening. Particularly, the formation of new coarse grains during thermal fatigue tests of nichrome is considered as a process of unification of grains which are strongly distorted in the initial state. Plastic deformation after a sufficiently large number of heating and cooling cycles may bring about the formation of microcracks (pores).

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During thermal fatigue tests, the pores coarsen although their number decreases as a result of coagulation of adjacent vacancies. The formation of micro-defects is considerably accelerated by the various admixtures in the material. For instance, in pure uranium practically no cavities were detected, which is in contrast to uranium contaminated with admixtures. Distribution of internal micro-pores in the neighbourhood of foreign inclusions was also observed in nickel-base alloys. The change in shape of anisotropic materials depends a great deal on texture. It can be considered as a process depending on the stress distribution and on the resistance to plastic deformation of the material at various temperatures. The influence of the type of lattice on the change in shape may be linked with the dependence of the yield point on temperature. In studying the changes in shape of isotropic metals and alloys, a qualitative difference can be observed, namely, that specimens of one type of material (iron, low and medium alloy steel) usually become shorter during the tests, whilst specimens of other materials (aluminium, copper, nickel, austenitic steels) usually become longer. The first group contains metals and alloys with a body-centered cubic lattice; whilst the second group with a face-centered cubic ..

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Thermal Fatigue of Metals

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lattice. Cracks usually form on the surface of specimens after a certain number of cycles. The crack formation on the surface is attributed to the fact that the thermal stresses at these locations reach a maximum and also that corrosion processes lead to the occurrence of stress concentrations. An increase in the maximum test temperature usually leads to an appreciable decrease in the number of cycles until crack formation occurs, as can be seen from a diagram which is quoted from the work of H. E. Lardge (Symp. on met. mat. for service at temp. above 1600°F, June, 1955). This is attributed to an increase in the thermal stresses caused by the larger temperature gradient. The same applies to an increase in the cooling speed. The sensitivity of stress concentrators increases on changing over to harder materials and, therefore, more exacting demands have to be met as regards the surface quality of the material. According to D. I. Kostenko (Ref.33), rough machined specimens may have a number of cycles to failure (crack formation) several times lower than equal specimens with a ground surface. Apparently steels of the ferritic and pearlitic class with a body-centered cubic lattice have the highest resistance to thermal fatigue. Of carbon and low alloy steels, those steels which have

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lower carbon contents and also steels with low silicon contents will have a higher resistance to thermal fatigue. As regards the effect of heat treatment, it was found (Refs.34 and 35) that the number of cycles until occurrence of cracks increased with the grain dimensions. However, other authors obtained results contradictory to the above. In his experiments, V. M. Stepanov found that austenitic steel sheet and nickel-base alloy steel sheet withstand 10 to 80% less thermal cycles in the work hardened state than in the annealed state. This is basically in agreement with the results obtained by L. F. Coffin (Ref.20). D. I. Kostenko (Ref.33) found that work hardening has a favourable effect on increasing the resistance to thermal fatigue (by about 20%). There are 6 figures, 1 table and 38 references: 22 Soviet and 16 non-Soviet.

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E073/E535

18.8200 1413

AUTHOR: Balandin, Yu.F.

TITLE: Investigation of the long-run effect of cyclic thermal stresses at elevated temperatures

PERIODICAL: Fizika metallov i metallovedeniye, v.12, no.4, 1961, 519-525

TEXT: The influence of temperature within the range 500 to 1000°C was investigated on a chromium-nickel steel Х18Н22В2Т2 (Kh18N22V2T2) and the nickel-base alloy ЭИ 437Б (EI437B). Prior to the investigations the material was austenised and aged for ensuring high strength at temperatures up to 700°C. The plasticity at this temperature, particularly in gradual fracture, was low. The long duration cyclic thermal stresses were simulated by periodic loading of the specimens to a given value of deformation with subsequent holding of the material in the deformed state at a high temperature. For this purpose 3 mm diameter specimens were stretched by using special clamps in accordance with a method described in earlier work (Ref.2:Sb.Metallovedeniye, v.4, Sudpromgiz, L., 1960). In the experiments the cycle was as

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follows: deformation by 0.3%, maintaining under load for 50 hours. The plot of the dependence of the resistance to thermal fatigue (number of cycles to failure) on the test temperature (°C) is shown in Fig.1 (curve 1 - steel Kh18N22V2T2; curve 2 - alloy EI437B). The author considered it of interest to compare the resistance to thermal fatigue at various temperatures with the creep strength and stress relaxation of the same materials. The creep strength decreases with increasing temperature but the plasticity increases. An objective criterion for evaluating the plasticity under long-duration loading is the deformation at the section corresponding to uniform creep. Relaxation tests were made on ring-shaped specimens as proposed by I.A.Oding; the tests were made for a given initial deformation which was maintained constant (0.3%) at all temperatures. The magnitude of the elastic deformation, which changed into plastic deformation during stress relaxation, was measured. The following conclusions are arrived at:
1. The resistance to long-duration thermal fatigue is low at temperatures approaching the temperature of the greatest strengthening during ageing;
2. It is assumed that the drop in the number of cycles to failure

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on increasing the temperature is due to more intensive sliding along the grain boundaries and the subsequent increase of the number of cycles to failure is due to migrations of grain boundaries;
3. The resistance to long-run thermal fatigue depends qualitatively on the plasticity during creep failure, and it depends particularly on the deformation at the section corresponding to uniform creep.
There are 4 figures, 2 tables and 8 references: 4 Soviet-bloc and 4 non-Soviet-bloc. The English-language references read as follows: Ref.4: Rachinger W.J. Inst. Met., 1952, 81, 33;
Ref.5: Fazan B., Sherby O., Dorn J. J. Metals., 1954, 6, 1919;
Ref.6: Couling S., Roberts C. J.Metals., 1957, 9, 1252;
Ref.8: Chen C., Machlin E. J.Metals, 1957, 9, 829.

SUBMITTED: March 20, 1961

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

S/032/61/027/001/016/037
B017/B054

1.9600

AUTHORS: Balandin, Yu. F. and Zolotukhina, M. A.

TITLE: New Method of Testing the Resistance of Constructional Materials to Thermal Fatigue

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 63-66

TEXT: The method suggested by G. P. Lazarev (Ref. 3) to determine the deformation of cylindrical constructional materials was modified to determine their thermal fatigue. Test specimens were heated in a furnace to a given temperature, and subsequently cooled by running water. The number of cracks, their shape, their distribution over the surface, and their size were microscopically determined; the thermal fatigue of the test material was determined from the growth of cracks. The thermal fatigue of ЭИ 726 (EI 726) steel was tested on cooling from 700° to 10°C and from 900° to 10°C. A comparison of the curves showed that cracks grew earlier and faster on cooling from higher temperatures. The new method permits a comparative investigation of constructional materials of different chemical compositions and thermal treatments. There are 2 figures and 3 references:

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New Method of Testing the Resistance of Constructional Materials to Thermal Fatigue

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2 Soviet.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

L0984

S/659/62/009/000/018/030
I103/I203

AUTHOR: Balandin, Yu. F.

TITLE: Behaviour of materials under con ditions of prolonged cyclic thermal stresses

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam v. 9. 1962 Materialy Nauchoy sessii po zharoprochnym splavam (1961 g.), 133-139

TEXT: Investigations of metallic samples under conditions of prolonged cycles of temperature variations are rather difficult and therefore a mechanical imitation of temperature variations was chosen for this investigation. Cr/Ni steels, ЭИ-694(EI-694), ЭИ-726(EI-726)×18H22B2T2(Kh18N22V2T2) and the ЭИ-437Б (EI-437B) nickel-base alloy were investigated. From the results it was concluded that: 1) The resistance to prolonged cyclic thermal stresses is not characterized by the strength of the metal, and 2) only the smallest number of thermal cycles can be endured by heat-resisting allos at a temperature close to that of its highest strengthering during aging. In the discussion, N. M. Sklyarov expressed the opinion that the thermal fatigue of metals cannot be attributed to only one single physical process. Tohere are 3 figures and 1 table.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

S/126/62/013/001/011/018
E021/E580

11.1130

AUTHORS: Balandin, Yu.F. and Bratukhina, V.A.

TITLE: Study of the initial stage of thermal fatigue by the method of microhardness measurements

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.1, 1962, 122-125

TEXT: A chromium-nickel steel 1Х13Н16Б (1Kh13N16B) containing niobium was used. The steel was austenitized at 1150°C, cooled in water, and aged for 10 hours at 600°C. Cylindrical samples (15 mm diameter, 25 mm length) were cut from the steel and longitudinal grooves (0.5 mm depth, 1 mm radius) cut in the samples. The surface cold work from the mechanical treatment was removed by heating for 12 min at 1150°C in sealed tubes. Testing was carried out by periodic heating of unloaded samples to 600°C and cooling in running water. 5 to 250 cycles were used. The samples were then halved in their length. One half was heated for 10 min at 1150°C and microsections were then cut from both halves. To ensure that no cold-work remained, a 100 μ layer was removed from the surface by electrolytic polishing. Microhardness

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDIN, Yu. F.; KUSNITSYNA, Z. I.

Investigating deformations and failure in EI437B alloys during creep. Fiz. met. i metalloved. 14 no.4:618-624 O '62.
(MIRA 15:10)

(Heat-resistant alloys—Testing)
(Creep of metals)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDIN, Yu.F.

Comparison of the results of tests of short duration and protracted tests for thermal fatigue. Zav. lab. 29 no.6:746-748 '63. (MIRA 16:6)

(Metals, Effect of temperature on)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDIN, Yu.F.

Time dependence of the resistance to thermal fatigue. Zav. lab. 29 no.10:1222-1225 '63. (MIRA 16:12)

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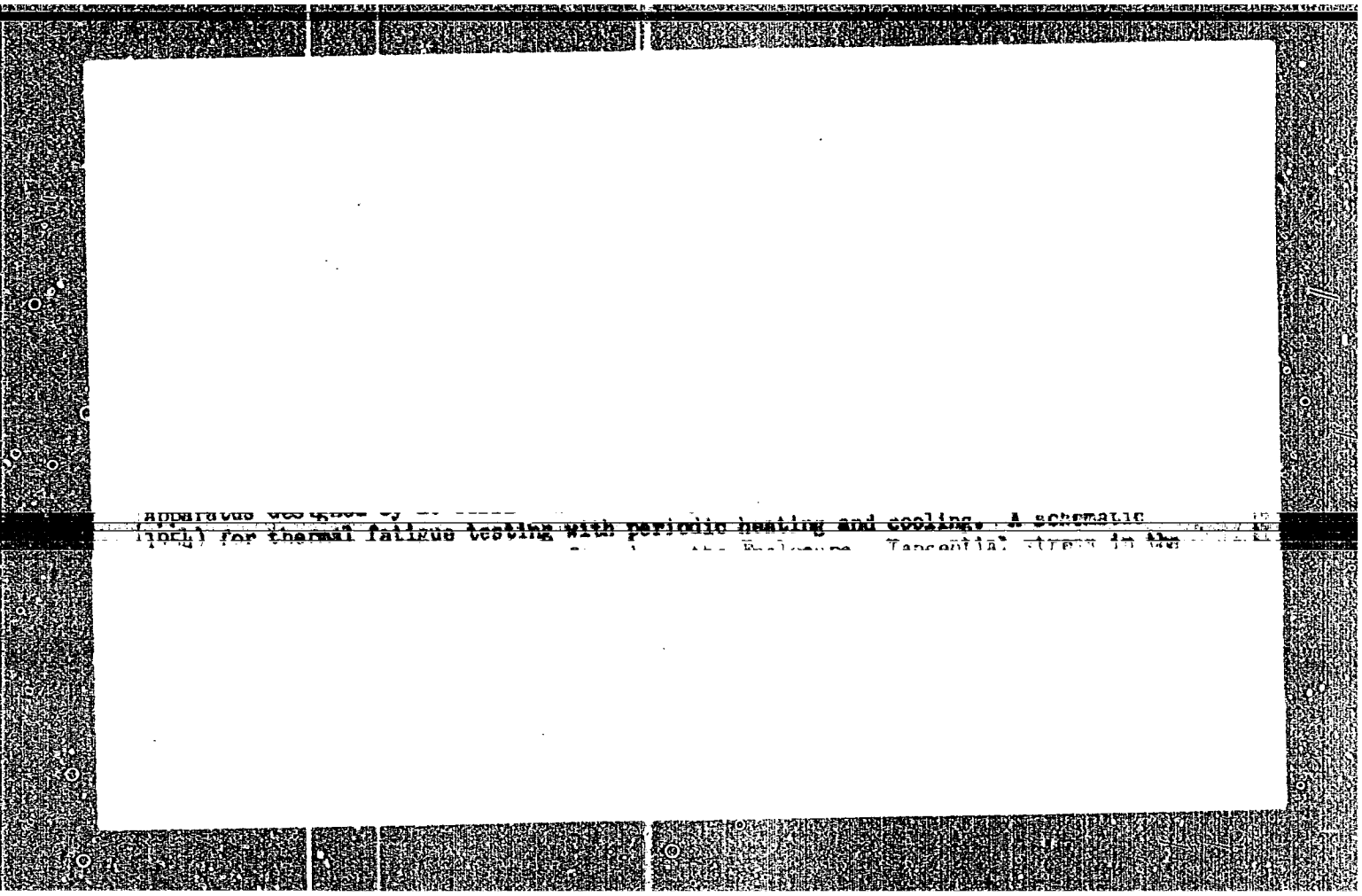

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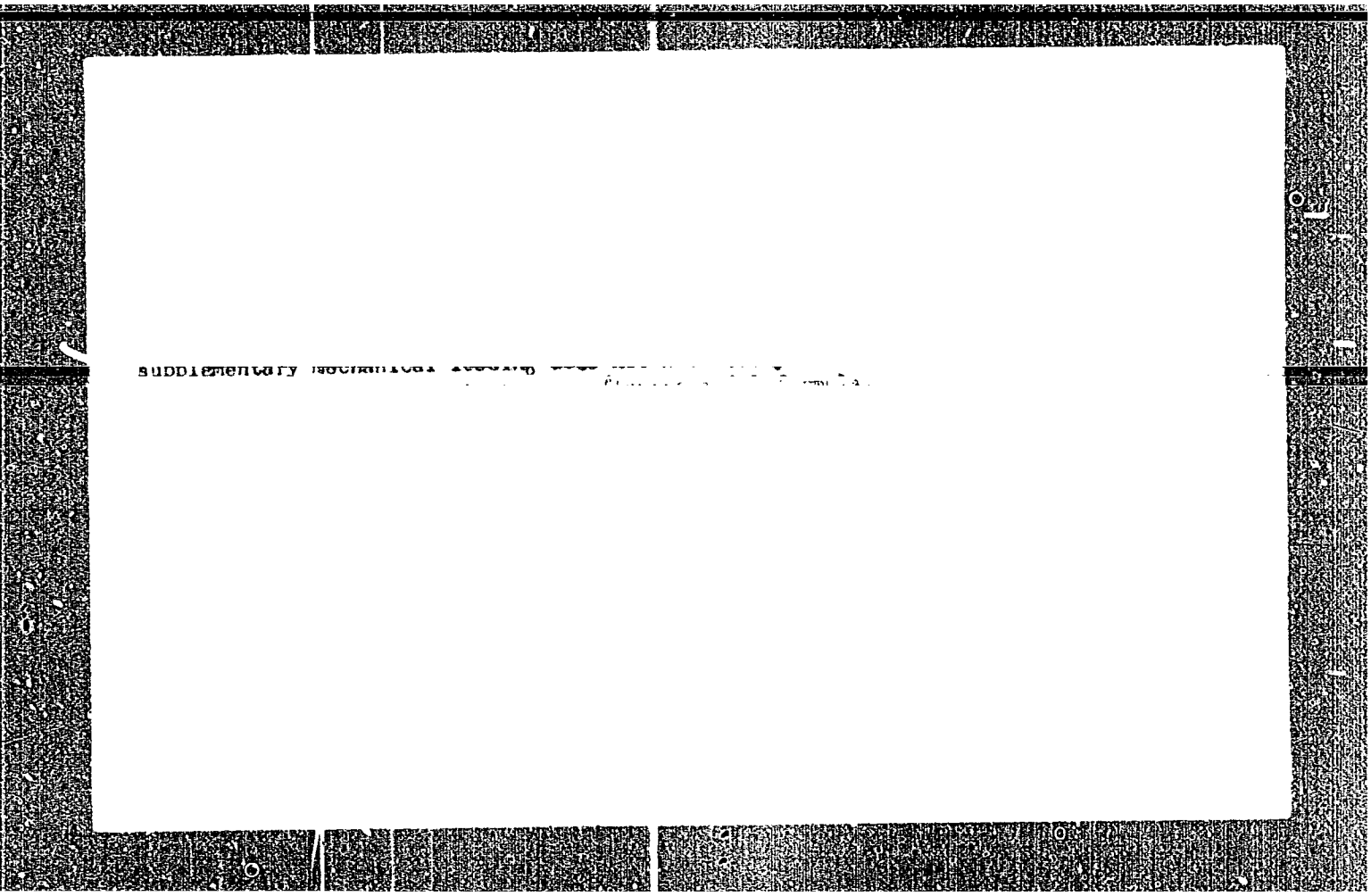

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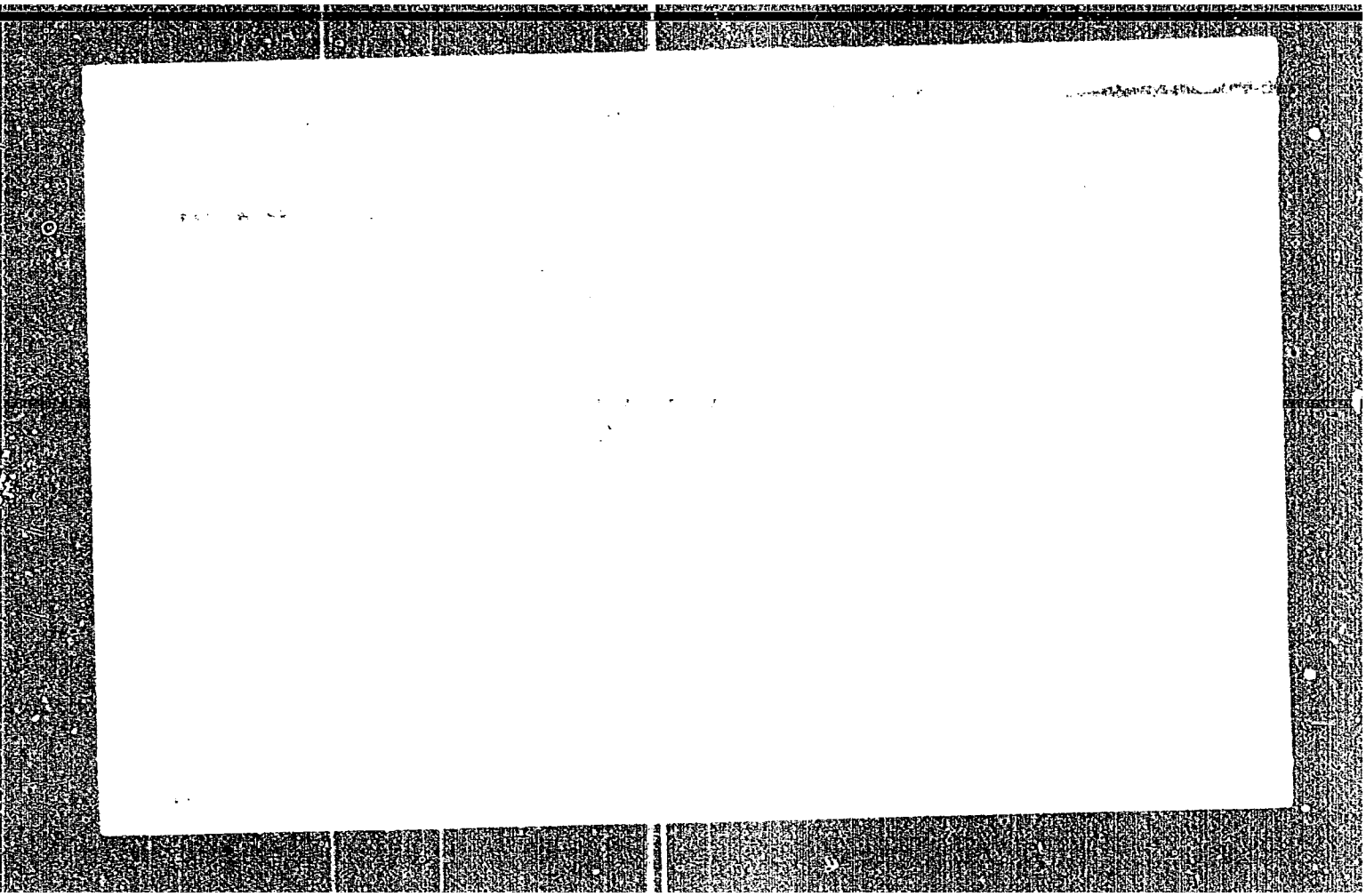

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BALAN[illegible], [illegible].F.; G[illegible], [illegible].V.

Thermal fatigue test under the supplemental action of a mechanical load. Zav. [illegible] no.10:1254-1255 '64. (MIRA 18:4)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDIN, Yu. N.

6735. Balandin, Yu. N. Metodika tekhnicheskogo normirovaniya. Dlya prakt. zanyatly studentov na 1954/55 ucher. God. Sost. Yu. N. Balandin. M., 1955. 23 s. ; 1 otd. l. tabl. 22 sm. (Mosk. Ordena Lenina s.-kh. akad. m. K. A. Timiryazeva. Kafedra organizatsii sots. s.-kh. predpriyatly). 1.500 ekz, B. ts. --Na obl. sost. ne ukazan.-- (55-2844) 631.15: 658.54

SO: Knizhnaya Letopis' No. 6, 1955

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

TOPROVER, G.S., professor; BALANDINA, A.I., kandidat meditsinskikh nauk.

Exclusion by resection and demucosation of the pyloric antrum in complicated ulcers of the duodenum. Vest.khir. 76 no.7:103-105 Ag '55. (MLRA 8:10)

1. Iz gospital'noy khirurgicheskoy kliniki (zav.prof. G.S. Toprover) Stalingradskogo meditsinskogo instituta

(STOMACH, surg.
exclusion & demucosation of pyloric antrum in duodenal ulcers)
(PEPTIC ULCER, surg.
exclusion & demucosation of pyloric antrum in duodenal ulcers)

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

USSR / General Problems of Pathology. Shock. U-4

Abs Jour : Ref Zhur - Biol., No. 10, 1958, No 46759

Author : Kropogorskiy, A. S.; Balandina, A. I.
Inst : Stalingrad Institute of Medicine.
Title : Traumatic Shock and Its Control in the Light of I. P. Pavlov's Teachings.

Orig Pub : Sb. nauchn. rabot teor. i klinich. kafedr Stalingr. med. in-ta, Stalingrad, 1956, 110-123.

Abstract : No abstract.

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, A.I., dots.

Problem of preoperative treatment of the surgeon's hands with a solution from a diocide preparation of the All-Union Chemicopharmaceutical Scientific Research Institute. Khim. i med. no.10:43-46 '59. (MIRA 13:2)

1. Iz gospital'noy khirurgicheskoy kliniki (zav. - prof. V.S. Yurov) Stalingradskogo meditsinskogo instituta.
(SURGERY, ASEPTIC AND ANTISEPTIC) (DIOCIDE)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

KARPOV, A.N.; BALANDINA, A.I., otv. za vypusk

[What is koniology?] Chto takoe koniologiia. Stalingrad, Stalingradskii gos.med.in-t, 1959. 26 p. (MIRA 14:2)
(Dust)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

KREPKOGORSKIY, A.S., dots.; GERUSOV, Yu.M., dots.; BALANDINA, A.I., dots.

Professor Vladimir Sergeevich IUrov. Vest.khir. 82 no.2:155 F '59. (MIRA 12:2)

(BIOGRAPHIES,
IUrov, Vladimir S. (Rus))

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

YAVOROVSKAYA, V.Ye.; MOSOLOV, A.N.; BALANDINA, A.M.

Cultural and various antigenic properties of strains of the virus isolated from patients with rheumatic fever. Vop. virus. 5 no. 6:695-701 N-D '60. (MIRA 14:4)

1. Kafedra mikrobiologii Novosibirskogo meditsinskogo instituta i revmatologicheskaya laboratoriya.
(RHEUMATIC FEVER) (VIRUSES)

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

DREYZIN, R.S.; YAVOROVSKAYA, V.Ye.; BALANDINA, A.M.; SHURIN, S.P.; VOROB'YEVA, N.N.; MOSOLOV, A.N.; ZALESSKIY, G.D.; ZHDANOV, V.M.

Group of new virus strains, the so-called R virus. Vop. virus. 6 no.5:521-532 S-O '61. (MIRA 15:1)

1. Institut virusologii imeni D.I.Ivanovskogo AMN SSSR, Moskva i Novosibirskiy meditsinskiy institut, Novosibirsk.
(VIRUSES)

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

ZALESSKIY, G.D.; VOROB'YEVA, N.N.; YAVOROVSKAYA, V.Ye.; SHURIN, S.P.; BALANDINA, A.M.; ZHDANOV, V.M.; DREYZIN, R.S.

Study of filtrable viruses isolated from rheumatic patients. Vest.AMN SSSR 17 no.9:85-93 '62. (MIRA 15:12)
(RHEUMATIC FEVER—MICROBIOLOGY) (VIRUSES)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

DRYZIN, R.S.; ZUBOVA, Z.F.; YAVOROVSKAYA, V. Ye.; BOCHAROV, Ye.F.; FOKINA, G.I.; BALANDINA, A.M.; ROZDIA, E.E.; VOROB'YEVA, N.N.; ZALESSKIY, G.D.; ZHDANOV, V.M.

Serological properties and pathogenicity of the R-virus in suckling mice. Vop. virus 9 no.4:462-468 Jl-Ag '64

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR, Moskovskiy nauchno-issledovatel'skiy institut virusnykh preparatov i Novosibirskiy meditsinskiy institut.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BUSALOV, A.A.; BALANDINA, A.S.

Pentotal sleep in the postoperative period. Khirurgiia, Moskva no.3:3-10 Mar 51. (CLML 20:7)

1. Of the Clinic of General Surgery (Head--Prof. A.A. Busalov), Yaroslavl' Medical Institute.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BUSALOV, A. A;BALANDINA, A. S.

Novocain-pentothal anesthesia in gastric surgery. Khirurgiia, Moskva no.4:18-27 Apr. 1952. (CLML 22:2)

1. Of the Hospital Surgical Clinic (Director -- Prof. A. A. Busalov), Yaroslavl' Medical Institute.

Approved for Release: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, A.S.; NYABOMA, L.S.; SOLOV'YEV, N.N.

Effect of pentothal sodium on tissue and organs in experimental conditions. Khirurgiia, Moskva no.11:52-55 Nov 1953. (CIML 25:5)

1. Of the Faculty Surgical Clinic (Head -- Prof. A. A. Busalov), Yaroslavl' Medical Institute.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

NIKHAYLOV, N.V.; MAYBORODA, V.I.; KARGIN, V.A.; MIRONOVA, Ye.A.; BALANDINA, I.N.

New data on the kinetics of the ripening of viscose. Colloid.J. (U.S.S.R.) 14, 61-9 '52 [in English].
(CA 47 no.19:10221 '53)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDIN, R.; BALANDINA, K.

A "wonder discovery" which was no wonder at all. Znan.-sila 35 no.2:14-15 F '60. (MIRA 13:5)
(Heat pumps) (Semiconductors)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, L.I. (Leningrad, Kronverskaya ul., d.23/59. kv.63)

Plastic surgery of traumatic finger stumps using free skin flaps. Vest.khir. no.6:118-119 '61. (MIRA 15:1)

1. Iz 2-y khirurgicheskoy kliniki (zav. - prof. G.A. Gomzyakov) Leningradskogo instituta usovershenstvovaniya vrachey im. S.M. Kirova i bol'nitsy im. V.I. Lenina (gl. vrach - K.A. Shelomentseva) g. Leningrada.

(FINGERS--WOUNDS AND INJURIES) (SKIN--TRANSPLANTATION)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

IEMROV, Viktor Ivanovich; [illegible], L.I., red.

[Free skin grafting; indications and techniques] Svobodnaia peresadka kozhi; pokazaniia i tekhnika. Leningrad, Meditsina, 196[illegible]. 145 p. (MIRA 17:10)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

ACC NR: AP6018101 SOURCE CODE: UR/0365/66/002/001/0108/0110

AUTHOR: Sharnin, A. A.; Balandina, L. I.; Yakimenko, T. R.

ORG: Ural Scientific Research Chemical Institute (Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut)

TITLE: Corrosion of certain metals and alloys in molten aluminum sulfate

SOURCE: Zashchita metallov, v. 2, no. 1, 1966, 108-110

TOPIC TAGS: aluminum compound, alloy, corrosion, aluminum, copper, lead, iron, titanium, steel, bronze, corrosion resistant metal, corrosion resistance/AD aluminum, MI copper, AZh9-4 bronze, OF6.60.15 bronze, S-1 lead, VT-1 titanium, 1Kh18N9T steel, E1-448 steel, E1-432 steel, E1-943 steel

ABSTRACT: To find a corrosion-resisting material for making crystallizers which are severely corroded in production, tests were conducted to determine the rate of corosion of various metals and alloys in molten aluminum sulfate. Plate specimens were washed with a soda solution and alcohol and suspended on teflon supports. The tested materials were AD aluminum, MI copper, bronzes AZh9-4 and OF6.(-0.1, S-1 lead, gray iron, VT-1 titanium, and steels 1Kh18N9T, E1-448, E1-432 and E1-943. As the most resistant of the tested materials, steel E1-943 and copper MI were tested to determine corrosion resistance of weld joints. Specimens of steel E1-943 were welded with electrodes from the same grade of steel (nominal composition of welding rod in %: C ≤ 0.06, Mn ≤ 0.6 Si ≤ 0.6, S ≤ 0.2, P ≤ 0.03, Cr = 22-25, Ni = 26-29, Cu = 2.5-3.5, and Ti = 56 [sic]. Welding copper specimens was done with copper electrodes. Surfaces of the weld joints were ground even with the base metal. The corrosion resistance of weld joints of steel E1-943 is approximately the same as the base metal. For copper they corrode at a significantly higher rate than the base metal. Weld joints of copper and steel E1-943, heat-affected zones and all remaining surfaces of the specimens were

Card 1/2 UDC: 620.193.4

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

L [illegible]

ACC NR: AF6018101

corroded uniformly. According to the corrosion scale of weld joints, the weld joints of steel E1-943 are in the category of the sufficiently resistant, while joints of copper are in the category of relatively resistant. Orig. art. has: 2 tables [ORIG]

SUB CODE: 13, 11 / SUBM DATE: 03Jul65 / ORIG REF: 003

Card 2/2

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

S/004/60/000/02/02/006

AUTHORS: Balandin, R.; Balandina, M.

TITLE: The "Miracle" That Never Was

PERIODICAL: Znaniye-Sila, 1960, No 2, pp 14 - 15

TEXT: The authors discuss a heating-cooling apparatus designed in the Moscow plant "Santekhnika" and demonstrated by the plant director V. Potapov. Newspapers had published articles that this apparatus had an efficiency factor of 200%. Apparently this erroneous assumption was made because only the actual amount of electricity consumed was counted, neglecting the amount of heat taken from air. The apparatus is based on the principle of ordinary heat pumps. The Soviet physicist Professor V.A. Mikhel'son designed a heat pump already in 1920. The heat pump absorbs the amount of heat contained even in a cold medium and transfers it to the place where it is needed, e.g., to a room to be heated. The apparatus utilizes thermal energy collected from the cold medium as well as electric power; seen in this light, the heat emitted by the apparatus is always lower than the energy consumed. The heat is simply transferred from one point to another and for this a certain amount of electricity is needed. Thermo-

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dynamic laws set certain limits to the efficiency of such a process, which is practicable only if there are no too great differences of temperature between the cold medium and the object to be heated. Thus the much publicized miracle proved a miscalculation and it needed the authority of scientists like Academicians L.A. Artsimovich, P.L. Kapitsa and I.Ye. Tamm ("Pravda" of November 22, 1959 "Irresponsible Chase in Quest of Scientific Sensations") to convince the public that such a miraculous device does not exist. The apparatus is the first heating and cooling device operating on semiconductors with considerable possibilities. There is no motor and the design is simple. With certain improvements it can well become one of the most economical electric heating appliances. There is 1 figure.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

KHUDYAKOVA, T.A.; NEMTSEVA, L.I.; BALANDINA, M.A.

Chronoconductometric determination of ethylene oxide in the presence of methacrylic acid and iron salts. Zhur.prikl. khim. 35 no.4:824-827 Ap '62. (MIRA 15:4)

1. Gor'kovskiy politekhnicheskiy institut, kafedra analiticheskoy khimii.

(Ethylene oxide) (Conductometric analysis)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

ZLOBINA, T.I.; BALANDINA, M.Ya. (Kemerovo)

Results of work performed in a hospital for patients with acute colds. Zdrav. Ros. Feder. 7 no.9:31-32 S '63.
(MIRA 16:10)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, N.

Results of the photography contest "Pushkin and our present" organized by the A.S.Pushkin Museum and "Sovetskoe foto."
Sov.foto 22 no.6:40 Je '62. (MIRA 15:6)

1. Zaveduyushchaya ekspozitsionnym otdelom Gosudarstvennogo muzeya A.S.Pushkina.
(Photography—Competitions)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, N.A. (Moskva)

Reduction of the analyzer in machine translating. Probl. kib. no.9:265-278 '63. (MIRA 17:10)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

[illegible], M. I.

"Physico-chemical analysis of the system: Acetic acidnitric acid". Miskibzh'ian, S. P., Trifonov, N. A., Fedos'ev, N. N. and Balanina, M. I. (p. 441)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii) 1949, Vol. 19, No. 3.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, N.I.

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. B-8
Equilibrium. Physicochemical Analysis. Phase Transitions.

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 7494

Author : Kovalenko, K.N. and Balandina, N.I.
Inst : Rostov-on-the-Don University
Title : Physicochemical Analysis of Amine-Containing Systems

Orig Pub : Uch. zap. Rostovsk. n/D. un-ta, 1955, Vol 25, No 7, 13-18

Abstract : The viscosity, density, and surface tension (at 0,25, and 75°) of the quinaline-aniline (I) system have been investigated. It was found that chemical reaction takes place in the system leading to the formation of a compound which dissociates in solution. In the region 25-80 mole percent I, the mixture does not crystallize but forms a vitreous mass, which made it impossible to obtain a complete melting-point diagram. The viscosity and density (at 25, 50, and 75°) and the surface tension (at 25 and 50°) of a dimethyl aniline-I mixture have been investigated.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

USSR/ Physical Chemistry - Thermodynamics. Thermochemistry. B-8
Equilibrium. Physicochemical Analysis. Phase Transitions.

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 7494

It is shown that no chemical reaction takes place when the components are mixed, dissociation of the associated molecules taking place on mixing.

Card 2/2

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

KOVALENKO, K.N.; BALANDINA, N.I.

Solid - liquid and liquid - vapor equilibrium in the system dioxane - acetic acid. Uch.zap. ROU 41:39-43 '58. (MIRA 15:1)
(Dioxane) (Acetic acid) (Phase rule and equilibrium)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BARDIN, M.B.; BALANDINA, N.S.; TODOROVA, G.I.

Amperometric determination of palladium by means of thiourea using a rotating platinum electrode. Zhur.anal.khim. 19 no.10:1228-1233 '64. (MIRA 17:12)

1. Kishinev State University.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

USSR/Biology - Physiology FD-2252

Card 1/1 Pub 17-3/20

Author : Balandina, O. A.

Title : Unconditioned and conditioned sudoriferous reflex reactions in man

Periodical : Byul. eksp. biol. i med. 3, 10-14, Mar 1955

Abstract : Observed unconditional and conditional response of sweat glands in man to heat stimulus and metronome, respectively. Studied sudoriferous reactions by means of microscopy, directly observing secretions of sweat glands on the palm side of the fingers. Table; photomicrograph. Five references; all USSR, 3 since 1940.

Institution: Chair of Normal Physiology (Head-Prof. P. G. Snyakin) of the Moscow Medical Stomatological Institute (Director-Prof. G. N. Beletskiy)

Submitted : March 30, 1954. Presented by V. N. Chernigovskiy, Member of the Academy of Medical Sciences USSR

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, O.A., kand. biol. nauk.

Perspiration reaction of a skin graft as an indication of the re-establishment of neural connections with the cerebral cortex. Stomatologiia 38 no.1:74-77 Ja-F '59. (MIRA 12:3)

1. Iz kafedry normal'noy fiziologii (zav. - prof. P. G. Snyakin) i kafedry propedevtiki khirurgicheskoy stomatologii (zav. - dots. G. A. Vasil'yev) Moskovskogo meditsinskogo stomatologicheskogo instituta(dir. - dots. G. N. Beletskiy).
(SKIN GRAFTING) (NERVOUS SYSTEM)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, O.B.; KLENOV, V.B.; LEVSH, I.P.

Studying contracted gas flow in liquids and determining specific gravity of gas-liquid emulsion. Izv. AN Uz. SSR. Ser. tekh. nauk no.5:41-51 '58. (MIRA 11:12)

1.Sredneaziatskiy politekhnicheskiy institut.
(Fluid dynamics) (Absorption of gases)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

5(4) SOV/80-32-5-17/52

AUTHORS: Levsh, I.P., Balandina, O.B.

TITLE: The Bubbling of Air Through a Layer of Viscous Liquid

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 5, pp 1029-1039 (USSR)

ABSTRACT: The determination of the hydraulic resistance during bubbling is necessary for the calculation of rectification columns, bubbling absorbers, etc. In the article the bubbling of air through a layer of aqueous glycerol solution with a viscosity of 1-80 centipoise at a layer height of 0.3 - 70 cm is investigated. The viscosity of the solutions was determined by an Ostwald viscosimeter, the surface tension by a Rebinder apparatus. First the hydraulic resistance of the wetted grid is determined, then that of a 0.3 cm, 5 cm, 10 cm layer, etc. The air speed was 2, 4, 6, 8, 10, 12, 14 and 16 m/sec. The character of the bubbling at constant air consumption depends on the viscosity of the liquid. At 1-10 centipoise the air first forms a tongue in the liquid, later on it moves in spirals, in the upper part of the apparatus foam is formed. At 60-80 centipoise large bubbles are formed, the size of which increases with the viscosity. The curves Δr-μ show a clear maximum for μ = 5-10 centipoise. The

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increase of the viscosity from 1 to 10 centipoise increases the hydraulic resistance of the layer 1.2 - 1.3 times, a further increase lowers the resistance due to the saturation of the system by gas and the lowering of the specific gravity. The comparison of the calculated and experimental data shows an error of ± 15%. The drived equation (28) can be used in a wide range of values. At a layer height H<5-10 cm and high gas consumption the value of hydraulic resistance is affected by foam, the resistance of which must be connected with the surface tension. There are: 3 diagrams, 3 graphs, 2 tables and 13 Soviet references.

ASSOCIATION: Kafedra protsessov i apparatov khimicheskoy tekhnologii Srednеaziatskogo politekhnicheskogo instituta (Chair of Processes and Apparatus of Chemical Technology[Soviet]Central Asia Polytechnical Institute)

SUBMITTED: August 13, 1957

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, O.B.; LEVSH, I.P.

Effect of surface tension on the hydraulic resistance of a liquid layer during bubbling. Uzb. khim. zhur. no.4:17-24 '60. (MIRA 13:9)

1. Sredneaziatskiy politekhnicheskiy institut.
(Surface tension) (Bubbles)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, S. M., BORDOVSKIY, G. A., SHUTTE, N. M., GRINGAUZ, K. I.

"On the results of the charged Particle Three-Electrode Trap Experiments in the second Radiation Belt and in the Outermost Belt of Charged Particles"

Soviet papers presented at Plenary Meetings of Committee on Space Research (COSPAR) and Third International Space Sumposium, Washington, D. C., 23 Apr - 9 May 62.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, S. M.

GRINGAUZ, K. I., BEZRUKIKH, V. V., BALANDINA, S. M., OZEROV, V. D., RYTCHINSKY, R. Ye.

"Direct Observations of Solar Plasma Streams at a Distance of ~1,000,000 KM from the Earth on February 17, 1961, and Simultaneous Observations of the Geomagnetic Field"

Soviet Papers Presented at Plenary Meetings of Committee on Space research (COSPAR) and Third International Space Symposium, Washington, D. C., 23 Apr - 9 May 62

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

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L 16950-63 EWT(1)/FCC(w)/FS(v)-2/BDS/EEC-2/ES(v) AEDC/AFFTC/ASD/
AFMDC/ESD-3/APGC Pe-4/Pn-4/Po-4/Pq-4 TT/Bk

ACCESSION NR: AT3006864 S/2560/63/000/015/0092/0097

AUTHOR: Gringauz, K. I.; Balandina, S. M.; Bordovskiy, G. A.; Spyutte, N. V.

TITLE: On the results of tests with three-electrode charged-particle traps in the second and in the outermost radiation belts of the charged particles

SOURCE: AN SSSR. Iskusst. sputniki Zemli, no. 15, 1963, 92-97

TOPIC TAGS: second radiation belt, outermost radiation belt, radiation belt, three electrode trap, trap, soft electron flow

ABSTRACT: Three-electrode traps, identical in design to those placed in the second Soviet space satellite, were irradiated with electrons of energies previously attributed to the soft electrons in the second and the outermost radiation belts surrounding the earth. The purpose of the experiment was to prove the contention that the absence of high negative currents in the traps during the

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passage of spaceships through the second radiation belt was not accidental and to evaluate the errors in determining the electron flows in the outermost belt. A schematic of the experiment is shown in Fig. 1 of the Enclosure. The electron flow formed by electron gun 1 was focused by means of cylinder 2. Variation in cylinder voltage in relation to plate 3 made it possible to regulate the electron energy in the range from 150 ev to 40 Kev. Control measurements of the value of the total current were made by means of special probe 4. The degree of electron-flow focussing was checked by means of luminiscent screen 5. Trap 6 was able to turn in relation to the direction of electron flow and its internal and external grid voltages could be altered during the experiment. Measurements confirm that the coefficient of secondary-electron emission decreases with an increase in primary electrons. The negative collector current decreases in absolute value with an increase in the electron energy in the incident flow. At the same time, in an incident flow, variations in internal grid potential within the range of -150 to -200 v have no effect on collector

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ACCESSION NR: AT3006664

current. The authors conclude that the values of electron flows up to 40 Kev determined by means of three-electrode traps are only two to three times lower than the actual values and that, consequently, the evaluation of such electron flows by means of these traps is correct. This confirms the contention that soft electron flows in the second radiation belt do not exceed 2×10^{-7} e.cm^{-2}·sec^{-1} to 3×10^{7} e·cm^{-2}sec^{-1}. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 20Apr62 DATE ACQ: 29Jul63 ENCL: 01

SUB CODE: GE, AS NO REF SOV: 007 OTHER: 010

Card 3/4

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

GRINGAUZ, K.I.; BEZRUKIKH, V.V.; BALANDINA, S.M.; OZEROV, V.D.; RYBCHINSKIY, R.Ye.

Direct observation of solar plasma streams at a distance about 1,900,000 km. from the earth on February 17, 1961, and simultaneous observations of the geomagnetic field. Isk/sput. Zem. no.15:98-101 '63. (MIRA 16:4)
(Solar radiation) (Plasma (Ionized gases))
(Magnetism, Terrestrial--Observations)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

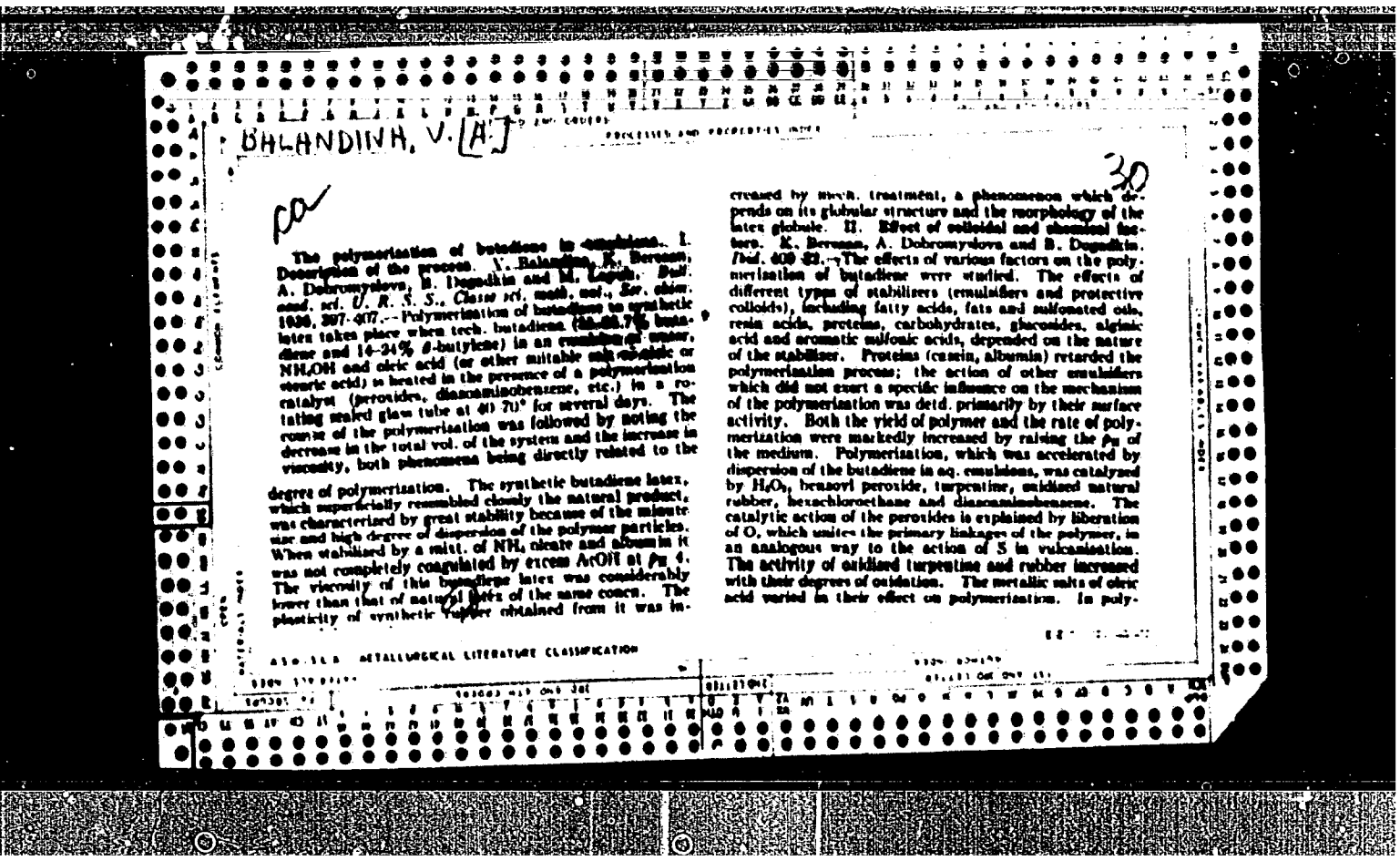
"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A., kand.med.nauk; YEVDOKIMOVA, Ye.V., kand.med.nauk

Conference of the Novosibirsk Institute of Sanitation Research.
Gig.i san. 25 no.11:96-97 N '60. (MIRA 14:1)
(NOVOSIBIRSK—PUBLIC HEALTH RESEARCH)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010



BALANDIN, V. [A.]

30

The polymerisation of butadiene in emulsions. I. Description of the process. V. Balandin, K. Berezan, A. Dobromyslova, B. Dogadkin and M. Lapsh. *Bull. acad. sci. U. R. S. S., Classe sci. math. nat., Sér. chim.* 1936, 397-407.—Polymerisation of butadiene to synthetic latex takes place when tech. butadiene (85-88.7% butadiene and 14-24% β-butylene) in an emulsion of water, NH_4OH and oleic acid (or other suitable emulsifying agent, stearic acid) is heated in the presence of a polymerisation catalyst (peroxides, diaminoazobenzene, etc.) in a rotating sealed glass tube at 40° 70° for several days. The course of the polymerisation was followed by noting the decrease in the total vol. of the system and the increase in viscosity, both phenomena being directly related to the degree of polymerisation. The synthetic butadiene latex, which superficially resembled closely the natural product, was characterised by great stability because of the minute size and high degree of dispersion of the polymer particles. When stabilised by a mixt. of NH_4 oleate and albumin it was not completely coagulated by excess AcOH at p_H 4. The viscosity of this butadiene latex was considerably lower than that of natural latex of the same concn. The plasticity of synthetic rubber obtained from it was increased by mech. treatment, a phenomenon which depends on its globular structure and the morphology of the latex globule. II. Effect of colloidal and chemical factors. K. Berezan, A. Dobromyslova and B. Dogadkin. *Ibid.* 409-22.—The effects of various factors on the polymerisation of butadiene were studied. The effects of different types of stabilisers (emulsifiers and protective colloids), including fatty acids, fats and sulfonated oils, resin acids, proteins, carbohydrates, glucosides, alginic acid and aromatic sulfonic acids, depended on the nature of the stabiliser. Proteins (casein, albumin) retarded the polymerisation process; the action of other emulsifiers which did not exert a specific influence on the mechanism of the polymerisation was detd. primarily by their surface activity. Both the yield of polymer and the rate of polymerization were markedly increased by raising the p_H of the medium. Polymerisation, which was accelerated by dispersion of the butadiene in aq. emulsions, was catalyzed by H_2O_2, benzoyl peroxide, turpentine, oxidised natural rubber, hexachloroethane and diaminoazobenzene. The catalytic action of the peroxides is explained by liberation of O, which unites the primary linkages of the polymer, in an analogous way to the action of S in vulcanisation. The activity of oxidised turpentine and rubber increased with their degrees of oxidation. The metallic salts of oleic acid varied in their effect on polymerisation. In poly-

A.S.M.-I.C.I. METALLURGICAL LITERATURE CLASSIFICATION

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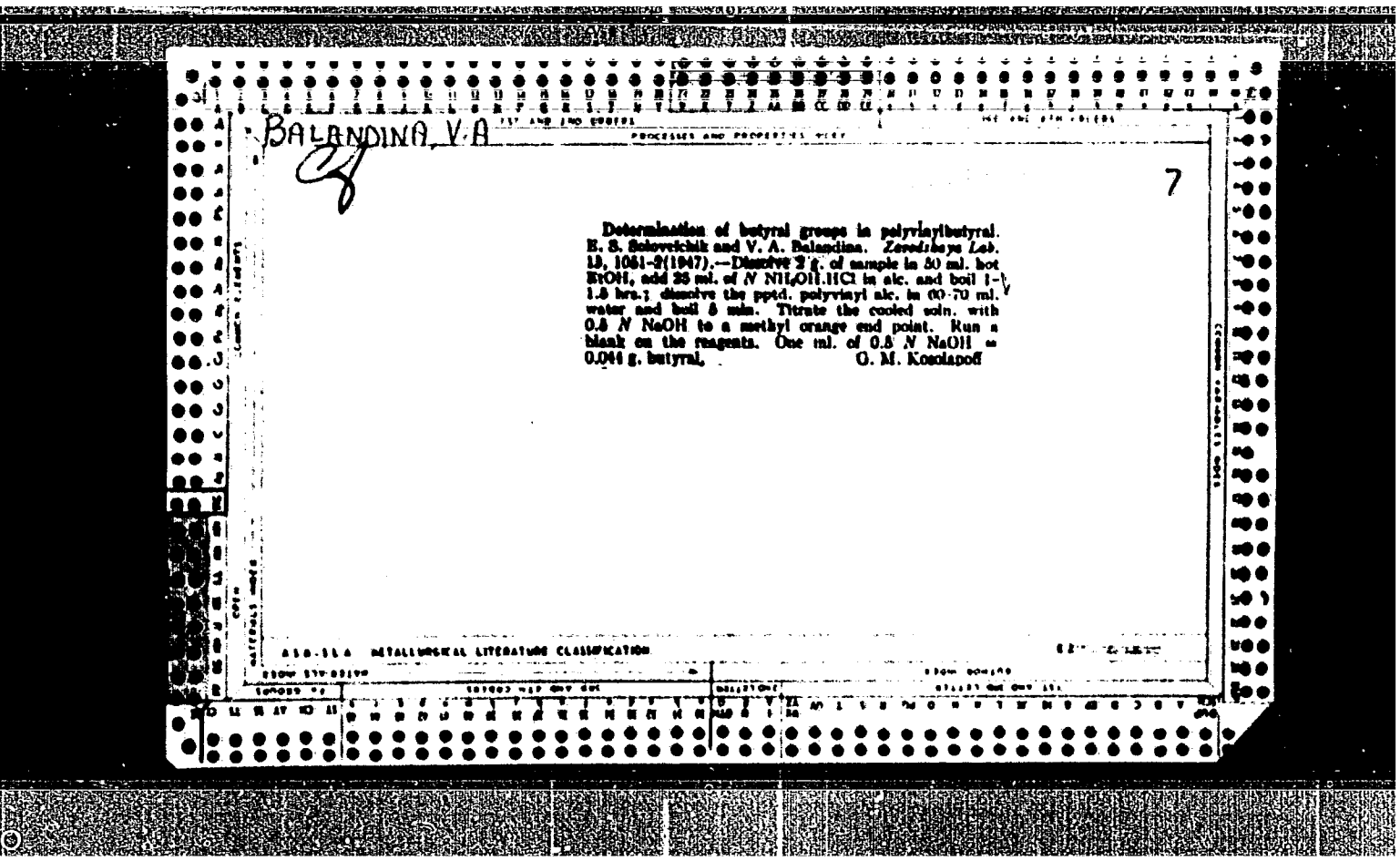
merization in emulsions with H_2O_2 as catalyst, Al, Mg and Ca nitrates did not inhibit the process in concns. exceeding the threshold of coagulation; Pb, Ni, Zn, Cr and Fe salts, in concns. close to the threshold value inhibited the process; Mn and Cu salts stopped it completely. Phosphates of alkali metals accelerated polymerization; phenols and primary and secondary amines inhibited it; tertiary amines promoted the formation of soft polymers. III. Polymerization in the presence of diazoaminobenzene as catalyst. V. Balandina, K. Berezan, A. Dobromyslova, R. Dogadkin and M. Lapuk. *Ibid.* 433-53 (in German 453-3). The rate of polymerization of butadiene in emulsions and the yield of polymer depended on the proportion of diazoaminobenzene (I) used as catalyst. Its optimum concn. was 1.5-2%, based on the butadiene; above this the yield and quality of the polymer were much lower. Expts. in an autoclave at temps. of 40°, 50° and 60° showed that the polymerization of butadiene is a chain or autocatalytic reaction. The changes in the physico-chem. and mech. properties (plasticity, strength, mobility, and degree of swelling) of the polymer with the progress of polymerization are briefly reviewed. Differences in the properties of soft and hard rubber are due to differences in mol. structure. — John Livak

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010



BALANDINA, V.A

7

Determination of butyral groups in polyvinylbutyral. E. S. Sokovchik and V. A. Balandina. *Zavodskaya Lab.* 13, 1061-2(1947).—Dissolve 2 g. of sample in 50 ml. hot EtOH, add 25 ml. of *N* $NH_4OH.HCl$ in alc. and boil 1-1.5 hrs.; dissolve the ppted. polyvinyl alc. in 60-70 ml. water and boil 5 min. Titrate the cooled soln. with 0.5 *N* NaOH to a methyl orange end point. Run a blank on the reagents. One ml. of 0.5 *N* NaOH = 0.044 g. butyral. O. M. Kosolapoff

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

USSR/Chemistry - Cellulose Acetates Apr 48
Chemistry - Cellulose Butyrates

"Determination of Acetate and Butyrate Groups in Acetobutyrates of Cellulose," L. S. Soloveychik, V. A. Balandina, 3 pp

"Zavod Lab" Vol XIV, No 4

Acetobutyrates of cellulose are completely saponified by sulfuric acid without heating. Residues of acetic and butyric acids in the triether are readily determined with accuracy of ± 1% by distillation and subsequent alkali titration.

4/49T25

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA,V.A. [translater]; BOGDANOVA,O.K.[translater]; VASSERBERG,V.E., [translater]; KIPERMAN,S.L.,[translater]; BALANDIN,A.A., akademik, redaktor; RUBINSHTEYN,A.M., professor, redaktor; SATAROVA,M.V., redaktor; OGANDZHANOVA,N.A., redaktor; IOVLEVA,N.A., tekhnicheskiy redaktor

[Catalysis, catalysts for organic reactions; translated from the English] Kataliz, katalizatory organicheskikh reaktsii. Perevod s angliiskogo Balandinoi i dr. Moskva, Izd-vo inostrannoi lit-ry, 1955. 336 p.

(Catalysts) (MLRA 9:2)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A. [translator]; VYSOTSKIY, Z.Z. [translator]; BALANDIN, A.A., akademik, redaktor; RUBINSHTEYN, A.M., professor, redaktor; OGANDZHANOVA, N.A., redaktor; BELEVA, M.A., tekhnicheskiy redaktor

[Advances in catalysis and related subjects. Translated from the English] Kataliz, issledovanie gomogennykh protsessov. Perevod s angliiskogo V.A.Balandinoi i Z.Z.Vysotskogo. Pod red. A.A Balandina, A.M.Rubinshteina. Moskva, Izd-vo inostr.lit-ry, 1957. 252 p.
(Catalysis) (MLRA 10:9)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A.; NOVIKOVA, Ye.M.

Determination of combined butyric and acetic acids in cellulose acetobutyrate with a small butyric acid content. Plast. massy no.12: 53-54 '60. (MIRA 13:12)

(Butyric acid) (Acetic acid)
(Cellulose acetate)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

GURVICH, D.B.; BALANDINA, V.A.; BRICHKIN, N.I.; NOSKOVA, M.P.; MALIKOV, V.I.

Device for automatic determination of moisture content by means of Fischer's reagent. Plast.massy no.11:39-43 '61. (MIRA 14:5)
(Titrimeters)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

GURVICH, D.B.; BALANDINA, V.A.; KOSMAKOVA, R.V.

Direct determination of vinyl acetate content in its copolymers with vinyl chlorides. Plast.massy no.12:51-53 '61.
(MIRA 14:12)
(Vinyl acetate polymers)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A.; DAVYDOVA, Z.F.

Determination of acenaphthylene in a mixture with acenaphthene.
Plast.massy no.3:65-66 '62. (MIRA 15:4)
(Acenaphthlene) (Acenaphthene)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

S/191/62/000/006/012/016
B101/B138

AUTHORS: Gurvich, D. B., Balandina, V. A.

TITLE: Determination of the fluorine ion content in polymers by electrometric titration and ion-exchange chromatography

PERIODICAL: Plasticheskiye massy, no. 6, 1962, 54-58

TEXT: Experiments were conducted (1) to titrate fluoride electrometrically with aluminum-nichrome electrodes, and (2) to determine it by means of ion exchange chromatography. (1) Here S. K. Chirkov's method (Zav.lab., no. 7, 783 (1948)) of bonding fluorine Na_3AlF_6 and electrometric titration of the Al ion surplus by sodium fluoride solution proved to be best. 200 - 300 mg organofluorine or organofluorochlorine substance was molten with four to five times the amount of alkali metal at ~500°C for 5 hr. The melt dissolved in aqua dest. and the fluorides and chlorides determined: 50 ml solution was mixed with 20 ml H_2O and methyl orange, neutralized with HCl (1:1) or 5% NH_3 solution up to weaky pink coloring,

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Determination of the ...

and mixed with 3 ml HCl (1:1), ~30 g NaCl and 20% CH_3COONa solution. 10 ml 0.05 mole $AlCl_3$ solution was added to the solution, and pH = 3.8 - 4.2 was obtained. The electrode wires (electrode distance = 50 mm) of 220 mm length and ~4 mm diameter were then inserted. After the reaction, the $AlCl_3$ surplus is back titrated by means of 0.25 mole NaF solution up to a potential change of the Al electrode. The percentage of fluorine ion content is $X = [(a-b)F \cdot 0.0057 \cdot 100 \cdot 500]/50\,w$, where a = amount in ml of the 0.25 mole NaF solution used for the titration of 10 ml 0.05 mole $AlCl_3$ solution, b = amount in ml of the 0.25 mole NaF solution used for the titration of 50 ml analysis solution, F = factor of the 0.25 mole NaF solution, 0.0057 = amount in g of the fluorine ion, corresponding to 1 ml 0.05 mole $AlCl_3$ solution, w = weighed portion of the analysis substance in g. The measuring instrument (Fig. 1) is a two-cascade amplifier, L_1 is a binary 6H15П (6N15P) triode operating with an anode voltage of ~30 v. The initial voltage for L_1 is supplied over the resistors R-3 and R-4. The second cascade consists of two 6П1П (6P1P) valves. A microammeter

Card 2/

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Determination of the...

(100μa) is placed between the anodes L-2 and L-3. Pointer deviation of the microammeter is regulated by the variable resistors R-15 and R-16. R-13 serves for zero adjustment. A rectifier with electronic stabilization and 200-250 v output is used for supply. The valves are supplied with 5.7 - 6.3 v. The instrument requires 40μa. The analysis values were thus obtained with an accuracy of 0.47-0.60% for synthetic mixtures with 37-380 mg fluorine ion. (2) Determination of the fluorine ion by means of ion exchange chromatography. At the contact of H cationite (KU-1 (KU-1), KU-2 (KU-2), CEC (SBS) etc.), a heterogeneous ion exchange occurs: $RSO_3H + Na^+ \rightleftharpoons RSO_3Na + H^+$. For the quantitative determination of the chlorine and fluorine content in aqueous solutions the following reaction occurred: $2RSO_3H + NaF + NaCl \rightarrow 2RSO_3Na + HF + HCl$. The acids formed were titrated with alkali or $AgNO_3$. The cationite sifted to ~70 mesh (≤0.4 mm diameter) was moistened for two days with aqua dest. in order to swell. A 50 mm buret was used as column. The cationite was rinsed in the column with aqua dest. (8-10 ml/min), and the water was drained to ~5 ml above the resin surface. 25 ml analysis substance was

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Determination of the....

added. The filtrate drained at a rate of 8-10 ml/min and was titrated with 0.05 N alkali. For quick determination, 20 g cationite was mixed with 25 ml analysis solution, filtered off and titrated. The F-ion content is: $X = (a \cdot F \cdot 0.00095 \cdot 100 \cdot 500)/25w$, where a = amount in ml of the 0.05 N solution used, F = factor of the 0.05 N alkali solution, 0.00095 = amount of the F-ion in g, which corresponds to 1 ml 0.05 N alkali solution, w = weighed portion in g. Result: From aqueous solutions of fluorides and mixtures of fluorides and chlorides of alkali metals, the corresponding acids are separated quantitatively. The relative error is 0.50 to 0.40% (9.5-19.0 mg fluoride content) for fluorides, 0.76% (8.875-17.75 mg chloride content) for chlorides. There are 2 figures and 4 tables.

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A., kand.med.nauk; KAGANOVICH, D.I., kand.med.nauk; KUZNETSOVA, A.P.

Content of hemoglobin and erythrocytes in the blood of children in Novosibirsk kindergartens. Pediatriia no.7:44-47 '62. (MIRA 15:12)

1. Iz otdela gigiyeny detey i podrostkov Novosibirskogo nauchno-issledovatel'skogo sanitarnogo instituta.
(ERYTHROCYTES) (HEMOGLOBIN) (NOVOSIBIRSK—KINDERGARTENS)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

MATVEYEVA, Ye.N.; KHIN'KIS, S.S.; TSVETKOVA, A.I.; BALANDINA, V.A.

Aging of polyolefins. Thermal oxidative degradation of polyolefins. Plast.massy no.1:2-7 '63. (MIRA 16:2)
(Olefins) (Polymers) (Oxidation)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A.; DEMENT'YEVA, M.I.; KLESHCHEVA, M.S.; TURKOVA, L.D.

Determination of the composition of crude vinyl acetate derived from carbide acetylene. Plast.massy no.4:64-65 '63. (MIRA 16:4)
(Vinyl acetate) (Acetylene)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A.; KLESHCHEVA, M.S.; KUZNETSOVA, G.S.

Determination of the composition of a mixture of acetaldehyde, methanol, and vinyl acetate with the aid of gas-liquid partition chromatography. Plast.massy no.7 61-62 '63. (MIRA 16:8)
(Acetaldehyde) (Vinyl acetate) (Gas chromatography)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.A.; KLESHCHEVA, M.S.; KUZNETSOVA, G.S.; TURKOVA, L.D.

Quantitative evaluation of chromatograms with the aid of a detector of heat conductivity. Zhur.anal.khim. 18 no.7:808-810 Jl '63. (MIRA 16:11)

1. Scientific-Research Institute of Polymerization Plastics and Experimental Plant, Leningrad.

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

ACCESSION NR: AP4020038 S/0032/64/030/003/0278/0281

AUTHORS: Gurvich, D. B.; Balandina, V. A.; Paykina, L. M.

TITLE: Coulometric determination of monomers with control of polymer production

SOURCE: Zavodskaya laboratoriya, v. 30, no. 3, 1964, 278-281

TOPIC TAGS: coulometric titration, potentiometer PPTV 1, potentiometer R 307, milliammeter M82, microammeter M194, battery ZSL 30, polymer, monomer, bromine, styrene, acetate

ABSTRACT: The authors have investigated the possible use of the coulometric method for quantitative determination of content of vinyl acetate, styrene, α-methyl styrene, and total styrene plus α-methyl styrene at various stages in the technological process of polymer and copolymer production and at the final stage of prepared polymer material. They have investigated in detail the conditions for producing bromine from a 0.1-normal solution of KBr in 0.3-normal HCl in the presence of alcohol or of alcohol plus benzene to determine $\geq$ 0.03 mg of monomer that has not participated in the polymerization reaction. They describe an apparatus for coulometric titration and provide an equation to determine the monomer content. The relative error is about 5.5%, and the determination takes

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ACCESSION NR: AP4020038

20-200 seconds. The method may be used during production or after final production of the polymers. In using beaded and frothy polymers to test the method, alcohol or benzene solutions were prepared of the polymers, different quantities of monomer were introduced, and the monomers were separated according to the method described. The relative error did not exceed 3%. Orig. art. has: 3 figures, 3 tables, and 1 formula.

ASSOCIATION: Gosudarstvenny*y nauchno-issledovatel'skiy institut polimerizatsionny*kh mass (State Scientific Research Institute of Polymerized Materials); Eksperimental'ny*y zavod (Experimental Plant)

SUBMITTED: 00 ENCL: 00

SUB CODE: OC, MT NO REF SOV: 001 OTHER: 003

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APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

GURVICH, D.B.; BALANDINA, V.A.; KOSMAKOVA, R.V.

Determining sodium acetate content of polyvinyl alcohol by the conductometric method. Plast. massy no.2:69-71 '64.
(MIRA 17:8)

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

GURVICH, D.B.; BALANDINA, V.A.; IVANYUK, A.G.

Nonbalancing potentiometric method for determining monomers. Zav.lab. 31 no.3:288-290 '65.

(MIRA 18:12)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut polimerizatsionnykh mass i eksperimental'nyy zavod.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V.I.

Biochemical changes in the treatment of hypertension with sleep.
Klin. med., Moskva 30 no.9:89-95 Sept 1952. (CLML 23:2)

1. Of the Faculty Therapeutic Clinic (Director -- Prof. L. A. Varshamov), Saratov Medical Institute.

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"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V. I.

BALANDINA, V. I. "Some biochemical indexes of the blood serum of patients with hypertonic disease and changes in them during treatment with protracted sleep." Min Health RSFSR. Saratov State Medical Inst. Saratov, 1956.
(Dissertation for the Degree of Candidate in Medical Sciences)

So: Knizhnaya Letopis', No. 18, 1956

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

BALANDINA, V. V.

Dissertation: "Effects of Dispersed Components on the Ceramic Properties of Clay for Brick and Tile." Cand Tech Sci, Novocherkassk Polytechnic Inst, Novocherkassk, 1953. (Referativnyy Zhurnal--Khimiya, Moscow, No 5, Mar 54)

SO: SUM 243, 19 Oct 54

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000100

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

Determination of the degree of [redacted] by the grain method [redacted]

APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R000103

"APPROVED FOR RELEASE: Wednesday, June 21, 2000 CIA-RDP86-00513R00010

20-6-26/48

AUTHORS: Azarov, K.P., Balandina, V.V.

TITLE: The Solubility of Iron Oxides in Silicate Melts with or without a Content of Boron (Rastvorimost'okislov zheleza v bornykh i bezbornykh silikatnykh rasplavakh)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 115, Nr 6, pp. 1146 - 1147 (USSR)

ABSTRACT: Numerous processes of silicate-technology (production of special and colored glass, refractory products, cement etc.) are accompanied by the dissolution of iron in melts. The capability of silicate melts to dissolve iron oxides is of special importance in the technology of the enameling of steely and cast iron, for the success of enameling is determined by the interaction processes of the enamel-fundamental-melt with the oxidized metal (scale). The problem of the fundamental enamels without content of boron is also connected with this problem. The present data on the solubility of iron oxides in the fundamental enamels are, however, contradictory. They can be found for a reliable evaluation of the part played by iron oxides, and especially not for an explanation of the connection existing between their solubility and their content in the boronanhydride melt. In this connection investigations were carried out whose purposes were:

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The Solubility of Iron Oxides in Silicate Melts with or without a Content of Boron

1.) to determine the solubility of iron oxide in typically commercial fundamental enamels, a) in those containing boron and b) in those without a content of boron, 2.) to compare the obtained results to the technological indices of the corresponding fundamental coatings. As may be seen from figure 1, the highest solubility of iron oxide (up to 21,0 - 23,3 %) corresponds to the boron-containing fundamental enamels. The solubility in boron-free enamels proved to be 1/2 - 1/3 as high as in the former. Titanium - fundamental enamel no. 121 Ti dissolves more iron oxides than the boron-free enamels, but is in this respect inferior to the boron-containing ones. The same enamel melts, after being molten together with coherent oxides, according to visual estimations of the quality of fundamental coatings obtained the highest evaluations when they had the highest values of the limit of iron oxide - solubility. Due to a reduced solubility the boron-free enamels are easily saturated with iron oxides. In this connection the latter form colloidal solutions and suspensions, which leads to an abrupt increase in the viscosity of the melt. The innermost layer of enamel, adjacent to the oxidized metal, is rapidly saturated with iron oxides while the boron-free coating is burned in. The increase in viscosity

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The Solubility of Iron Oxides in Silicate Melts with or without a Content of Boron

of the melt in this layer hinders the free escape of gas from the steel and from the reaction of the scale with the carbon of the steel, and favors the formation of effervescence and corrosion. The small solubility of iron oxides in boron-free enamels may be connected with: a) a high surface tension of boron-free melts which render the wetting of iron oxides and their dissolution difficult, b) an abrupt increase in viscosity of the boron-free enamels due to structural transformations of various forms of iron and c) a considerable basicity of the boron-free melts which favors the development of the glass-forming FeO_4-groups; these latter, however, consolidate the glass-structure. There are 1 figure and 3 Slavic references.

ASSOCIATION: Novocherkassk Polytechnical Institute imeni S.Ordzhonikidze (Novocherkasskiy politekhnicheskiy institut im. S.Ordzhonikidze)

PRESENTED: by N.V. Belov, Academician , April 4, 1957
SUBMITTED: March 1, 1957
AVAILABLE: Library of Congress

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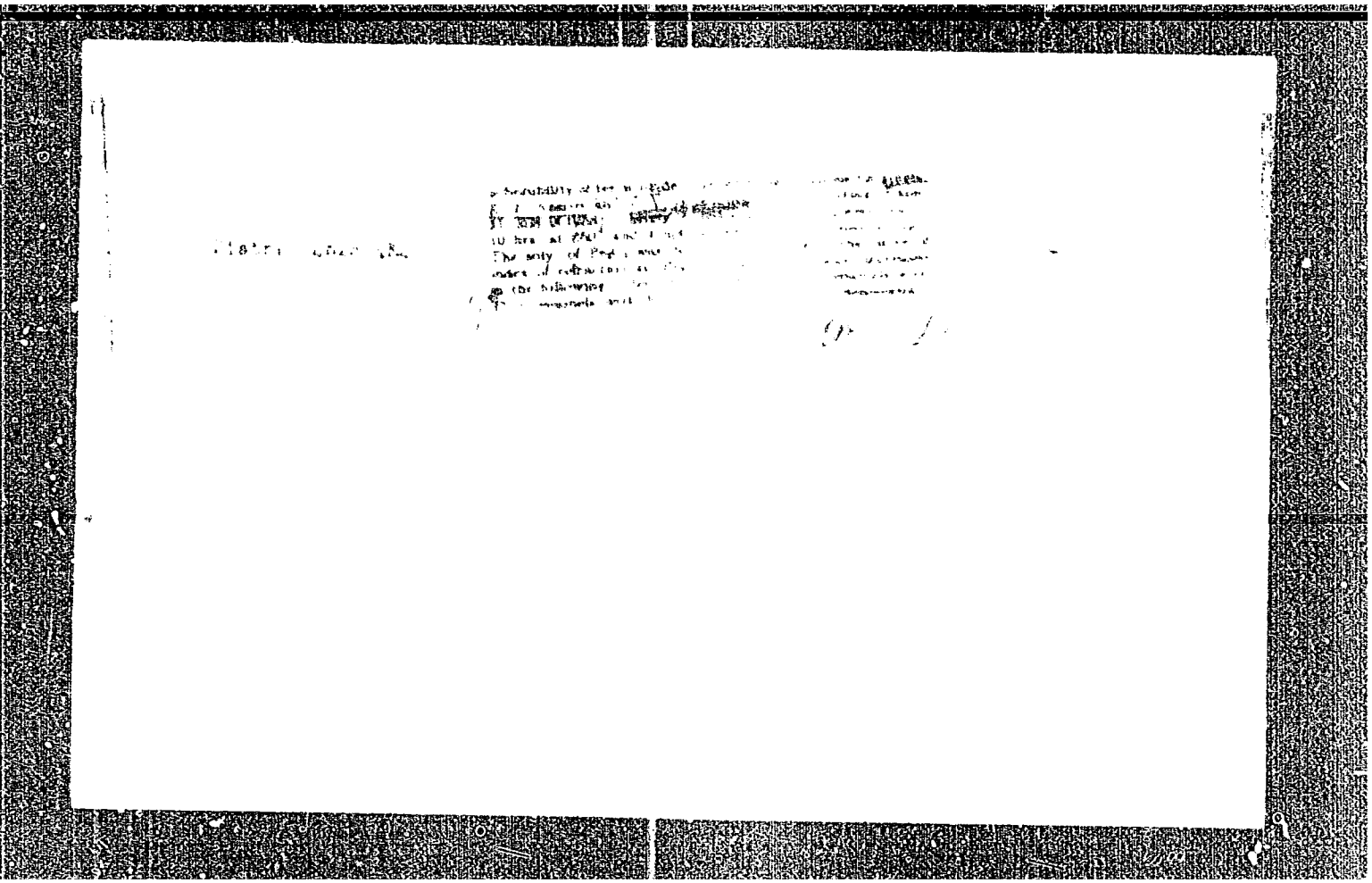

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PAGE 1 [illegible] 83/[illegible]

Tretiy[illegible] soveshchaniye po stekloobrazovaniyu. M, Leningrad, 1973.

Stekloobrazovaniye; trudy Tretiyego soveshchaniya po stekloobrazovaniyu, Leningrad, 16-20 sentyabrya 1973 (Vitrous State; Transactions of the Third All-Union Conference on the Vitreous State, held in Leningrad on November 16-20, 1973) Moscow, Izd-vo AN SSSR, 1976. 538 p. Errata slip inserted. 3,500 copies printed. (Series: Its: Trudy)

Sponsoring Agencies: Institut khimii silikatov Akademii nauk SSSR. Vsesoyuznoye khimicheskoye obshchestvo imeni D.I. Mendeleyeva and Gosudarstvennyy ordena Lenina opticheskiy institut imeni S.I. Vavilova.

Editorial Board: A.I. Arguslitskiy, V.P. Barabanovskiy, M.M. Bezborodov, O.K. Botvinkin, V.V.Fedorov, A.G. Vlasov, K.S. Yevstropyev, A.A. Lebedev, M.A. Matveyev, V.A. Nolmanson, B.I. Stepanov, Ye.A. Porai-Koshits, Ye.K. Tarasov, V.A. Florinskaya, A.K. Tsvetkova, Ed. of Publishing House: I.V. Yevstrop, Tech. Ed.: V.P. Bocharov.

PURPOSE: This book is intended for researchers in the science and technology of glasses.

CONTENTS: The book contains the reports and discussions of the Third All-Union Conference on the Vitreous State, held in Leningrad on November 16-19, 1973. They deal with the methods and results of studying the structure of glasses, the relation between the structure and properties of glass, the nature of the chemical bond and glass structure, and the crystallochemistry of glass. Fused silica, mechanism of vitrification, optical properties and glass structure, and the electrical properties of glasses are also discussed. A number of the reports deal with the dependence of glass properties on composition, the timing of glasses and radiation effects, and mechanical, thermal, and chemical properties of glasses. Other papers treat glass semiconductors and solo borosilicate glasses. The Conference was attended by more than 500 delegates from Soviet and East German scientific organizations. Among the participants in the discussions were B.T. Kolomiets, Ye. V. Kuvshinskiy, Ya.A. Gater, V.P. Prysiazhnikov, Ya. Ye. Geller, O.P. Mchedlov-Petrosyan, G.P. Mikhaylov, S.K. Petrov, A.I. Lazarev, D.I. Lebedev, I.A. Bondar, A.I. Shatilov, E.F. Plastinin, A.Ye. Yermakov, E.V. Potyarova, G.V. Fedorovskiy, V.P. Feofilov, B.G. Zhurkovich, L.G. Pisarev, and O.S. Kolchanova. The final session of the Conference was addressed by Professor T.I. Kitaygorodskiy, Honored Scientist and Engineer, Doctor of Technical Sciences. The following institutes were cited for their contribution to the development of glass science and technology: Gosudarstvennyy opticheskiy institut (State Optical Institute); Institut khimii silikatov AN SSSR (Institute of Silicate Chemistry, AS USSR); Fizicheskiy institut AN SSSR (Physics Institute AS USSR); Fiziko-tekhnicheskiy institut AN SSSR (Physicotechnical Institute AS USSR); Institut fiziki AN BSSR, Minsk (Institute of Physics, Academy of Sciences, Belorussiya SSR, Minsk); Laboratoriya fiziki AN BSSR, Minsk (Institute of Physics Chemistry of Silicates of the Institute chemistry & inorganic chemistry Minsk AN BSSR, Minsk (Institute of General and Inorganic Chemistry, Academy of Sciences, Belorussiya SSR, Minsk), Institut vysokomolekulyarnykh soyedineniy AN SSSR(Institute of High Molecular Compounds, AS USSR), Gosudarstvennyy institut steklovolokna (State Institute for Glass Fibers), Gosudarstvennyy institut elektrotekhnicheskoy stekla (State Institute for Electrical Glass), Sibirskiy fiziko-tekhnicheskiy institut, Tomsk (Siberian Physicotechnical Institute, Tomsk), Leningradskiy gosudarstvennyy universitet (Leningrad State University), Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Institute of Chemical Technology), Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Technological Institut Lensoveta), Belorusskiy politekhnicheskiy institut Minsk (Belorussian Polytechnic Institute, Minsk), Novocherkasskiy politekhnicheskiy institut (Novocherkassk Polytechnic Institute), and Sverdlovskiy politekhnicheskiy institut (Sverdlovsk Polytechnic Institute). The Conference was sponsored by the Institute of Silicate Chemistry AN SSSR (Acting Director - A.S. Gotlib), the Vsesoyuznoye khimicheskoye obshchestvo im. D.I. Mendeleyeva (All-Union Chemical Society Imeni D.I. Mendeleyev), and the Gosudarstvennyy ordena Lenina opticheskiy institut imeni S.I. Vavilova (State "Order of Lenin" Optical Institute Imeni S.I. Vavilov). The 15 resolutions of the Conference include recommendations to organize a Center for the Purpose of coordinating the research on glass, to publish a new periodical under the title "Fizika i khimiya stekla" (Physics and Chemistry of Glass), and to join the International Committee on Glass. The Conference thanks A.A. Lebedev, Academician, Professor of Physics and Mathematics, Member of the editor; B.A. Porai-Koshits, Doctor of Physics and Mathematics, Member of the Organizational Committee; and R.L. Myuller, Doctor of Chemical Sciences, Member of the Organizational Committee. The editorial board thanks O.K. Botvinkin, V.V. Fedorovskiy, I.I. Zhukhlin, B.P. Dobychin, S.K. Petrov, V.A. Ioffe, and D.T. Kolmatyets. References accompany individual reports.

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SHEVCHENKO, V.B.; SOLOVKIN, A.S.; SHILIN, I.V.; KIRILLOV, L.N.; RODIONOV, A.V.; BALANDINA, V.V.

Effect of the nature of the diluent on the extraction of uranyl nitrate by tributylphosphate. Radiokhimiia 1 no.3:257-269 '59. (MIRA 12:10)

(Uranyl nitrate) (Butyl phosphate)

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SHEVCHENKO, V.B.; SOLOVKIN, A.S.; SHILIN, I.V.; KIRILLOV, L.M.; RODIONOV, A.V.; BALANDINA, V.V.

Effect of hydrocarbons of the aliphatic and aromatic series on the extraction of U(VI), Pu(IV), Zr(IV), and Ce(III) with tri-n-butyl-phosphate from nitric acid solutions. Radiokhimiia 2 no.3:281-290 '60. (MIRA 13:10)

(Hydrocarbons) (Extraction (Chemistry))
(Butyl phosphate)

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