S/844/62/000/000/038/129
D214/D307

AUTHORS: Chernova, A. I., Orekhov, V. D. and Proskurnin, M. A. (deceased)

TITLE: Radiochemical nitration of aromatic compounds in aqueous solutions

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 233-236

TEXT: A study of the mechanism of radionitration of aromatic compounds in aqueous solution is described. The nitrations of C_6H_6, C_6H_5COOH, phenolsulfonic acid, salicylic acid and naphthalene-sulfonic acid by irradiating their H_2O solutions, in the presence of HNO_3, with γ rays, were achieved under mild conditions. Spectrophotometric analysis of the nitro products showed a shift to lower frequencies as compared to the spectra of the corresponding com-

Card 1/2

S/844/62/000/000/039/12?
D214/D307

AUTHORS: Zansokhova, A. A. and Orekhov, V. D.

TITLE: The influence of pH on the yields of radiochemical oxida- tion processes in aqueous solutions

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiats. ... Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, ... 237-242

TEXT: The aim of this work was to find an explanation of the ... decrease in the yields of radio-oxidation processes (in ... solutions) in the pH range of 1.5 - 2.5 to 3.0 - ... results show the pH effect to be operative in radiolytic ... of compounds stable to H_2O_2 and of other compounds, in the ... of O_2. Thus HO_2 is not responsible for the pH effect. ... of a 10^{-3} M Fe^{2+} solution (low concentration prevents ... H_2O_2) acidified by H_2SO_4, the yield of Fe^{3+} falls on raising the

Card 1/2

The influence of pH ... [illegible] 344/[illegible] [illegible] 14, B107

[illegible] the OH that is involved in the pH effect. The [illegible] ith SO_4^{-} [illegible] table [illegible]-radicals [illegible] combination of [illegible] primary radi[illegible] H, OH). At [illegible] ber of SO_4^{-} is insufficient [illegible] OH [illegible] becomes lower. The [illegible] theory explains the [illegible] of radiolytic reduction [illegible] at pH > [illegible]

ASSOCIATION: Fiziko-khimicheskiy institut im. [illegible] sico-Chemical Institute im. L. [illegible]

Card [illegible]

L 29541-66 EWT(m)/EWP(j) WW/JW/GG/RM

ACC NR: AP6007773 SOURCE CODE: UR/0195/66/007/001/0049/0054

AUTHOR: Chernova, A. I.; Orekhov, V. D.

ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Nature and kinetics of accumulation of products formed by the radiolysis of benzene in aqueous solutions of sodium nitrate

SOURCE: Kinetika i kataliz, v. 7, no. 1, 1966, 49-54

TOPIC TAGS: benzene, gamma radiation, radiation effect, phenol, organic nitroso compound, organic nitro compound, nitration, hydroquinone, pyrocatechol

ABSTRACT: The qualitative composition and kinetics of accumulation of benzene radiolysis products in a 0.5 M aqueous solution of sodium nitrate were investigated. Co^{60} gamma radiation in doses from 0.05 to 1 Mrad was used. In the initial dose range, the stable products are nitrobenzene (which forms only in the absence of oxygen), nitrophenols, phenol, nitrous acid, and hydrogen peroxide. Radiation-induced nitration of benzene is observed in the range of pH below 6.0 and the oxidation of

Card 1/2 UDC: 541.15 : 547.53

L 29541-66

ACC NR: AP6007773

its molecules continues at higher pH values. As the dose increases, nitrobenzene in an inert atmosphere converts into dinitrobenzene, and nitrophenol changes into dinitrophenol. The main direction of the conversion of phenol is radiolytic nitration; a side direction is a nonradiolytic reaction with nitrous acid, forming nitroso compounds and nitrophenol. At pH values exceeding 6.0, phenol radiolytically oxidizes into hydroquinone and pyrocatechol. At pH values above 7.0, precipitation of insoluble dimerization products is observed. Orig. art. has: 3 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 18Jun64/ ORIG REF: 009/ OTH REF: 007

Card 2/2 PB

CRIMOV, V. F.

Fruit Culture

Fruit tree [illegible]

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

1. OREKHOV, V.F.

2. USSR (600)

4. Grafting

7. Branch grafting, [illegible] No. [illegible], 195[illegible].

9. Monthly List of Russian Accessions, Library of Congress, [illegible] 1953. Unclassified.

OREKHOV, V. G.
Min Higher Education USSR. Moscow Order of Red Banner Construction Engineering Inst imeni V. V. Kuybyshev

OREKHOV, V. G.- "Investigation of the temperature effects on the elements of buttress dams with flat sectional plates." Min Higher Education USSR. Moscow Order of Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev. Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Sciences.)

SO: Knizhnaya Letopis' No. 13, 1956

ORDEKHOV, V.G., kand.tekhn.nauk

Solving a temperature problem for arch dams. Nauch.dokl.vys.shkoly; stroi. no.3:[illegible]-231 '58. (MIRA 12:[illegible])

1. Rekomendovana kafedroy gidrotekhnicheskikh sooruzheniy Moskovskogo inzhenerno-stroitel'nogo instituta imeni V.V. Kuybysheva.
(Dams)

OR[illegible]KHOV, V.G., kand.tekhn.nauk

Computing thermal stresses in the elements of cylindrical structures.
Sbor.trud. MISI no.[illegible]:16-[illegible]. (MIRA 17:7)
(Thermal stresses) (Dams)

OREKHOV, V.G., kand.tekhn.nauk; KOMZIN, B.I., aspir. ; MEDOVIKOV, A.I., inz.

Analyzing the work of apparatus for the investigation of stresses within massive concrete structures. Sbor.trud. MISI no.29:219-2 '59. (MIRA 1 :7)

(Strains and stresses)
(Concrete construction--Testing)

GRISHIN, M.M., prof., doktor tekhn.nauk; OREKHOV, V.G., kand.tekhn.nauk; KOMZIN, B.I., kand.tekhn.nauk

Studies of the temperature cycle and thermal stress condition of hydraulic structure blocks concreted in winter using a circumferential electric heater. Sbor.trud.MISI no.32:39-49 '61. (MIRA 14:7)
(Volga Hydroelectric Power Station—Concrete construction—Cold weather conditions)

OREKHOV, V.G., kand.tekhn.nauk

Study of the effect of thermal action on the quality of contact joints between a slab or shell and a concrete structure. Sbor. trud.MISI no.32:49-57 '61. (MIRA 14:7)
(Concrete construction) (Hydraulic structures)

OREKHOV, V.G., kand.tekhn.nauk; MEDOVIKOV, A.I., inzh.

Some problems in designing devices for measuring deformations and stresses in concrete. Sbor.trud.MISI no.32:58-66 '61. (MIRA 14:7)
(Concrete—Testing)

GROTE, G.V., kand.tekhn.nauk; MALINSKIY, V.F., kand.tekhn.nauk; LISOVSKIY, P.K., inzh.; OREKHOV, V.I., inzh. (Odessa)

Using magnetophone telephones as a means of communication in organizing train traffic. Zhel.dor.transp. 41 no.3:71-73 Mr '59. (MIRA 12:6)

(Railroads--Telephone)

PA[illegible]MSKIY, B.P., dot., [illegible] [illegible], [illegible], [illegible]., IANC[illegible] [illegible]., spets. [illegible].

[illegible]echanizat[illegible] of [illegible] and [illegible] peat winning [illegible] [illegible]tions in White [illegible]ssia[ ] [illegible]ekhaniza[illegible] [illegible] [illegible]nykh i vspomo- gatel'nykh [illegible] [illegible] [illegible] v [illegible] [illegible]. Minsk, 19[illegible]4. [illegible] p. (MIRA [illegible])

1. Institut [illegible].

OREKHOV, V. M.

OREKHOV, V. M. "The Construction of Garages Exploiting the Local Terrain." Academy of Architecture, Ukrainian SSR. Inst of City Building. Kiev, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 19, 1956.

USPENSKIY, [illegible], red., TER-ARUTYUNYANTS, G.O., zam. glav. red., [illegible] ABRAMYAN, Ya.A., red.; [illegible] GOLAI, P.I., red.; KAPLAN, L.Z., inzh., red.; MALYSHENKO, O.A., red.; MEZENTSEV, I.V., red.; BONDARENKO [illegible].I., red.; NELYUBIN, K.P., red.; [illegible] GREBOV, V.M., red.; POGREBOV, S.N., red.; SLIVAK, I.N., kand. tekhn. nauk, red.; STANISLAVSKIY, A.I., red.; [illegible] G.M., red.; [illegible] GOLOVCHENKO, I.A., red.

[Transportation and engineering facilities of cities; an aid to designers] Transportnoe i inzhenernoe oborudovanie gorodov; v pomoshch' proektirovshchiku. Kiev, Budivel'nyk, 19[illegible] [illegible] p. (MIRA 18:5)

1. Ukrainskiy [illegible] nauchno-issledovatel'skiy institut proyektirovaniya gorodov. 2. Gosstroy USSR (for Kaplan, Orekhov). 3. Gosstroy USSR (for Pogrebov). 4. Kiyevskiy inzhenerno-stroitel'nyy institut (for Slivak). 5. Kiyevskiy Gosudarstvennyy institut proyektirovaniya gorodov (for Uspenskiy, Ter-Arutyunyants, Malyshenko, Mezentsev, Bondarenko). 6. Leningradskiy Gosudarstvennyy institut proyektirovaniya gorodov (for Nelyubin). 7. TSentral'nyy nauchno-issledovatel'skiy i proyektnyy institut po grazhdanskim zdaniyam, Moskva (for Golofchenko). 8. Kiyevskoye upravleniye po proyektirovaniyu zhilishchno-grazhdanskogo i kommunal'nogo [illegible]stva (for Plutskiy).

ORKKHOV, V.P.

Developing measuring skills and habits during laboratory works in physics. Uch.zap.RGPI 15:21-44 '58. (MIRA 12:7)
(Physics--Study and teaching)

1 (1) SOV/47-59-3-17/43

AUTHOR: Orekhov V.I. and Govorov M.S. (Kyzzan')

TITLE: Stimulating Students During the Acquisition of Abilities and Skills

PERIODICAL: Fizika v shkole, 1959, Nr 3, pp 37-43 (USSR)

ABSTRACT: This is a summary of recommendations intended to serve as a guide to teachers of physics at public schools. The recommendations are based on the results of experimental teaching of physics in the sixth classes of the 4th school of Kyzzan'. Great attention was paid to general pedagogical methods of arousing the pupils' interest during lessons, to the demonstrational experiments intended to train the pupil for the performance of certain tasks and, finally, to laboratorial work with measuring instruments. The article, accordingly, is divided into three main sections, each of which contains examples taken from the teaching experience of the authors. In the first section, the

Card 1/4

Stimulating Students During the Acquisition of Abilities and Skills

authors set forth general principles which should govern the teacher when he is acquainting his pupils with the use of measuring instruments. As a means to consolidate newly acquired knowledge, the authors recommend in addition to questions and conversation, the performance of some light (10-12 minute) laboratorial tasks, such as the study and use of measuring glasses, use of plummet and level, study of dynamometers and the weighing of objects with them. In order to develop the pupils' measuring skills, the teacher has to give visual demonstrations of the measures in the form of substantial models. This is difficult with measuring units determined indirectly by means of other measuring units. In order to demonstrate, for instance, a kilogram-meter, the teacher should lift a weight of 1 kg to a height of 1 m. Concerning the demonstration of measuring instruments, the authors recommend that at

Stimulating Students During the Acquisition of Abilities and Skills

the beginning and at the end of the demonstration the teacher carry out his operations as swiftly as required in practice. Complicated operations should be shown in their simple phases and should be accompanied by questions to the pupils. The authors further specify methods to get the pupils acquainted with the correct reading of scales, in order to avoid the error of parallax and to determine the multiplier. They also propose special models (see illustrations) facilitating this task and related ones. The authors' pupils started their prolonged laboratorial training by studying a technical slide gage with a multiplier of 0.1 mm. This work was preceded by the study of slide gage measuring methods on a model. At the end of the school year, the authors established a final training program consisting of a certain number of projects: 1) study of pumps and manometers; 2) determination of the specific weight of bodies by hy-

Card 2/4

Stimulating Students During the Acquisition of Abilities and Skills

drostatic weighing; 3) study of areometers and their use in determining the density of liquids. In order to test acquired practical skills, the authors used the following methods: 1) general examination by having the pupils answer questions on a blackboard; 2) special examination of individual pupils, based on their particular laboratorial project; 3) control of the laboratorial work performed by the pupils; 4) giving tasks which can be only resolved if the pupil combines theoretical knowledge with acquired practical skills (e.g. determining the volume of a cylindrical vessel; verification of the golden rule of mechanics for a simple mechanism). There are 3 photos, 1 diagram and 1 Soviet reference.

Card 4/4

ORKHOV, V.P.

Electric clock model. Fiz.v shkole 20 no.4:78-79 Jl-Ag '60.
(MIRA 13:8)

1. Pedagogicheskiy institut, Ryazan'.
(Clocks, Electric)

OREKHOV, V.F. (Ryazan'); BEL'TSOVA, M.V. (Ryazan')

Discussing innovations and inventions in physics lessons. Fiz. v shkole 23 no.1:74-76 Ja-F '63. (MIRA 16:4)
(Physics--Study and teaching)
(Technological innovations)

TSELINKO, M.G. (Zhitomir); OREKHOV, V.P. (Ryazan'); PANICH, K.I.; FEDOROV, I.V. (g. Kurgan); KUL'CHITSKIY, A.P. (g. Kurgan); A.M. (pos. Tovarkovskiy Bogoroditskogo rayona, Tul'skoy oblasti); GALLOVA, M. (Bratislava, Chekhoslovatskaya Sotsialisticheskaya Respublika; YANOVICH, I. (Bratislava, Chekhoslovatskaya Sotsialisticheskaya Respublika); KADLECHIK, I. (Bratislava, Chekhoslovatskaya Sotsialisticheskaya Respublika); PETRAK, M. (Bratislava, Cheknoslovatskaya Sotsialisticheskaya Respublika); PRITOKA, O. (Bratislava, Chekhoslovatskaya Sotsialisticheskaya Respublika); LBOV, A.G.

Suggestions and advice. Fiz. v shkole 22 no.6:62-64, 96 N-D '62. (MIRA 16:2)

1. 636-ya shkola, Moskva (for Panich). 2. Chkalovskaya srednyaya shkola Gor'kovskoy oblasti (for Lbov).

ORKHOV, V.S., inzh.

Methane emission from stripped coal seam surfaces during development operations. Nauch. dokl. vys. shkoly; gor. delo no.3:140-147 '58. (MIRA 11:9)

1.Predstavlena kafedroy rudnichnoy ventilyatsii i tekhniki bezopasnosti Moskovskogo gornogo instituta im. I.V. Stalina.
(Mine gases) (Coal mines and mining)

OREKHOV, V.S., inzh.

Determining the necessary amount of air for drifting in coal mines with use of a PK-3 cutter-loader. Shakht. stroi. no.6:6-9 '58. (MIRA 11:6)

(Coal mines and mining) (Mine ventilation)

OREKHOV, V.S., Cand Tech Sci -- (diss) "Methane abundance in preparatory passages of great length in coal mines and a method of precalculating the ventilation of these passages, based upon the gas factor during their cutting." Mos, 1959. 17 pp with graphs (Min of Higher Education USSR. Mos Mining Inst im V.I. Stalin. Chair of Mine Ventilation and Safety Engineering), 150 copies. (KL, 38-59, 117

KSENOFONTOVA, A.I., dotsent, kand.tekhn.nauk; BURCHAKOV, A.S., kand. tekhn.nauk; ORKKHOV, V.S., gornyy inzh.; USHAKOV, K.Z.

[Ventilation of greatly extended development workings in Karaganda Coal Basin gas-discharging mines] Provetrivanie podgotovitel'nykh vyrabotok bol'shoi protiazhennosti v gazovykh shakhtakh Karagadinskogo ugol'nogo basseina. Moskva, M-vo vysshego obrazovaniia SSSR. Mosk.gornyi in-t im. I.V.Stalina, 1959. 14 p. (MIRA 13:8)

1. Zaveduyushchiy kafedroy rudnichnoy ventilyatsii i tekhniki bezopasnosti Moskovskogo gornogo instituta imeni I.V.Stalina (for Ksenofontova).
(Karaganda Basin--Mine ventilation)

OKOKHOV, V.S., insh.

Method of estimating the methane-content in development mines.
Izv.vys.ucheb.zav.; gor.zhur. no.10:63-67 '59.
(MIRA 13:5)

1. Moskovskiy gornyy institut.
(Mine gases) (Mining engineering)

KREMENCHUTSKIY, Nikolay Feofanovich; BURCHAKOV, A.S., kand. tekhn. nauk, retsenzent; OREKHOV, V.S., kand. tekhn. nauk retsenzent; KLEBANOV, F.S., kand. tekhn. nauk, otv. red.; ZAKHAROV, M.I., red. izd-va; SABITOV, A., tekhn. red.; KONDRAT'YEVA, M.A., tekhn. red.

[Ventilation of coal mines] Provetrivanie ugol'nykh shakht. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 239 p. (MIRA 15:1)
(Mine ventilation)

BYKOV, Leonid Nikolayevich; OREKHOV, V.S., kand. tekhn. nauk, red.; LUCHKO, V.S., red.izd-va; OVSEYENKO, V.G., tekhn. red.; SHKLYAR, S.Ya., tekhn. red.

[Mine fires] Rudnichnye pozhary. Moskva, Gosgortekhizdat. 1963. 158 p. (MIRA 16:6)

(Mine fires)

OREKHOV, Vasiliy Sergeyevich; KOMAROV, V.B., prof., retsenzent; VEPRKOV, V.S., dots., retsenzent; LUCHKO, V.S., red.izd-va

[Fire prevention in enterprises of the mining industry] Pozharnaia okhrana predpriiatii gornoi promyshlennosti. Moskva, Izd-vo "Nedra," 1964. 165 p. (MIRA 17:6)

S/112/59/000/015/045/066
A052/A002

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 15, p. 171,
32162

AUTHORS: Oborin, V.I., Orekhov, V.V.

TITLE: An Automatic Installation for Testing the Activity of Catalysts

PERIODICAL: Tr. Groznensk. neft. in-t, 1958, No. 20, pp. 3-13

TEXT: A method automating the catalyst activity testing under laboratory conditions is suggested. The installation is designed for the simultaneous testing of 6 catalyst samples. It consists of 6 reaction chambers, 6 raw material feeders, 6 fractionating columns and a corresponding number of monitors for each flow. Furthermore, there is a number of control devices common to the entire installation. The installation is designed not only for standard tests but also for research purposes. For this reason the possibility of varying the operational conditions within certain limits was provided. The time of cracking, the volumetric speed of raw material supply, the temperature of cracking, the regeneration and rectification of catalysate can be changed. A total number of up to ten full

Card 1/2

S/112/59/000/015/[illegible]/[illegible]
A052/A002

An Automatic Installation for Testing the Activity of Catalysts

working cycles can be set; the operation can be stopped after any cycle. Rec-
tification can be done after any number of working cycles of the reactor. A
original pump design for the raw material feed is suggested. Details of the
design of reactors used and of equipment for rectification of liquid catalysate
are described. For setting and controlling the temperature "ЭПД-1" (EPD-1)
electronic potentiometers and for the pressure "ГЭУК-21" (GEUK-21) devices are
utilized. There are 3 illustrations and 6 references. See also RZhE, 1958,
42682.

V.L.S.

Translator's note: This is the full translation of the original Russian abstract.

Card 2/2

OREKHOV, Vladimir Vasil'yevich; FEL'DMAN, Roman Vsevolodovich; KUZNETSOV, G.A., red.; ZAYTSEVA, L.A., tekhn. red.

[Repair of television receivers] Remont televizorov. Moskva, Vses. koop. izd-vo, 1960. 247 p. diagrs. (MIRA 14:9)
(Television—Repairing)

KOMAROVER, N. Ye.; OREKHOV, V.V.; GERASHCHENKO, D.A.

Fixation and reposition device for operations on tubular bones.
Vestn. khir. Grekov. 90 no.4:97-98 Ap'63 (MIRA 17:2)

OREKHOV, Ye., inzh.-podpolkovnik

Atomic defense of motor vehicles. Za rul. 20 no.7:22-23 Jl '62. (MIRA 15:7)

(Motor vehicles—Safety measures) (Civil defense)

L 11347-67 EWT(1)/FSS-2 JAJ SOURCE CODE: UR/0017/66/000/006/0036/0036
ACC NR: AP6018641

AUTHOR: Orekhov, Ye. (Engineer; Colonel)

ORG: none

TITLE: At top speed [Tank fire-control stabilizer]

SOURCE: Voyennyye znaniya, no. 6, 1966, 36

TOPIC TAGS: military tank, automatic stabilization equipment, fire control gyro-stabilizer

ABSTRACT: To assure more accurate fire control while a tank is in motion, gyro-stabilization units have been developed. A tank usually has two such units, one to stabilize its weapons in a vertical plane and the other, in a horizontal plane. When equipped with two-plane gyrostabilizers the firing accuracy of a tank in motion is only 20% less than when at a standstill. It is stated that some English and American tanks are so equipped. Soviet tanks have efficient stabilizers permitting aimed fire while in motion, and which fully meet the requirements of modern warfare. A schematic layout of a two-plane stabilization unit is given. Orig. art. has: 1 figure.

SUB CODE: 17, 19/ SUBM DATE: none/

Card 1/1

USSR / Mechanical Properties of Crystals and Polycrystallic Compounds. E-9

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9426

Author : Vasil'ev, L.I., Butkevich, L.M., Orekhov, Ye.I.
Inst : Siberian Physico-Technical Institute USSR
Title : Effect of Velocity and Degree of Plastic Tension on the Relaxation and Subsequent Deformation of Metals. I.

Orig Pub : Fiz. metallov i metallovedeniye, 1956, 2, No 1, 142-145

Abstract : A polycrystalline copper wire was stretched at a rate of 0.03 and 27% per minute to a deformation of 1.[illegible], [illegible].6, 11.6, 19.5, and 29.5% and the relaxation of the stresses was observed for 30 minutes, after which the specimens were stretched at a rate of 0.03% per minute. Analogous experiments were carried out with aluminum up to deformations of 3.[illegible] and 19% (the duration of relaxation amounted to 40 minutes). The experimental data obtained show that with increasing de-

Card : 1/2

USSR / Mechanical Properties of Crystals and Polycrystallic E-
Compounds.

Abs Jour : Ref Zhur - Fizika, No 4, 19[illegible], No 9426

Abstract : degree of deformation there an increase in the difference of the initial stresses of the relaxation curves, obtained after deformation with two different speeds. The degree of preliminary deformation affects the course of the secondary stretching more when the speed and degree of deformations increase. The difference in the behavior of the metals after deformation is explained by the different assortment of distortions that take place in the first deformation.

Card : 2/2

KHIDCHENKO, N.F.; OREKHOV, Ye.N.

Improving the quality of classified anthracite. Ugol' 35 no.5:20 My '60. (MIRA 13:7)

1. Glavnyy inzhener shakhty im.Oktyabr'skoy revolyutsii tresta Shakht-antratsit kombinata Rostovugol' (for Khidchenko).
2. Pomoshchnik glavnogo inzhenera po planirovaniyu, shakhta im. Oktyabr'skoy revolyutsii tresta Shakhtantratsit kombinata Rostovugol' (for Orekhov).
(Donets Basin--Anthracite coal)

17

L 21211-65 EWT(m)/EPF(c)/EPF(n)-2/EPR Pr-4/Pa-4/Pu-4 DM

ACCESSION NR: AP5001266 S/0089/64/017/006/0448/0452

42
B

AUTHOR: Siney, N. M.; Krasin, A. K.; Bychkov, I. F.; Blokhin, O. I.; Broder, D. L.; Gabrusev, V. N.; Dudnikov, Yu. V.; Zhil'tsov, V. A.; Koptev, M. A.; Kotov, A. P.; Lantsov, M. N.; Lisochkin, G. A.; Merzlikin, G. A.; Morozov, I. G.; Komarov, A. Ya. (deceased); Orekhov, Yu. I.; Sergeyev, Yu. A.; Slyusarev, P. N.; Ushakov, G. N.; Fedorov, N. V.; Chernyy, V. Ya.; Shmelev, V. M.

TITLE: Small-size atomic electric power installation TES-3 19

SOURCE: Atomnaya energiya, v. 17, no. 6, 1964, 448-452

TOPIC TAGS: small atomic power installation, portable atomic power installation, nuclear reactor, electric power generation, TES-3 reactor

ABSTRACT: The paper is a summary of the SSSR report #310 at the Third International Conference on Peaceful Uses of Atomic Energy in Geneva, 1964. It describes a movable small-size atomic electric power installation with the water cooled and moderated TES-3 reactor (under 10,000 kw). It consists of four

Card 1/2

L 24211-65
ACCESSION NR: AP5001266

blocks each of which was assembled at the manufacturing plant, and which are placed on four self-propelled flatcars on caterpillar tracks. No housing is required for the installation; the only local preparation needed is the radiation protection. The results with a demonstration model show a satisfactory agreement between the theoretically expected and actually obtained parameters of the installation. Orig. art. has: 4 figures

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: NP

NR REF SOV: 000 OTHER: 000

Card 2/2

[redacted], Yu. I., [redacted]

[redacted] Institute of Physics and Power Engineering, Obninsk (Fiziko-energeticheskiy institut)

TITLE: The [redacted] harmonic with respect to xenon oscillations in the power of a reactor with closed loop coolant circulation

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 11, no. 3, 1966, 345-348

TOPIC TAGS: harmonic, harmonic oscillation, harmonic stability, circulation, nuclear reactor coolant, xenon oscillation

ABSTRACT: A study was made on the problem of xenon oscillations of the reactor power with allowance for its connection with the other elements of a nuclear power installation. It was shown that the conditions of stability of a closed loop reactor differ from those of an open loop reactor and depend on the heat removal from the second loop. Two cases are considered: 1) heat removal from the second loop is proportional to the coolant temperature at the outlet from the second loop; 2) heat

UDC: 621.039.5

Card 1/2

ACC NR: AP6031526

removal from the second loop is constant. A closed loop reactor is more stable than an open-loop reactor. Orig. art. has: 26 formulas. [Authors' abstract]

SUB CODE: 20/ SUBM DATE: 28Feb66/ ORIG REF: 001/ OTH REF: 001/

Card 2/2

L 25348-65 EWT(1)/EWP(e)/EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EWA(d)/EPR/EPA(w)-2/T/EWP(t)/EWP(k)/EWP(b) Pab-10/Pf-4/Pr-4/Ps-4/Pt-10/Pu-4 IJP(c) JD/WW/JG/WH

ACCESSION NR: AR4039575 S/0081/64/000/005/M005/M006

SOURCE: Ref. zh. Khimiya, Abs. 5M36

AUTHOR: Aksenov, G. I.; Orekhov, Yu. P.

TITLE: Effect of various factors on the structure and properties of cermet alloys of iron and silicon

CITED SOURCE: Tr. Kuyby*shevsk. aviats. in-t, vy*p. 16, 1963, 201-211

TOPIC TAGS: cermet, iron alloy, silicon alloy, powdered iron alloy, cermet mechanical property, powder metallurgy, pressing pressure, sintering temperature, sintering time, ferrite, silicoferrite, cermet porosity, cermet magnetic property, powdered alumina

TRANSLATION: The authors studied the effect of the Si content, the specific pressing pressure and the sintering temperature on the porosity and specific losses of Fe-Si alloys at a frequency of 50 cps, as well as the effect of the duration of sintering, and the granulometric composition of the original iron powder and the dielectric layers on the magnetic properties and specific losses of these alloys. The possibility of mixtures of powdered Fe and Si was studied and the alloys obtained were investigated by metallographic and x-ray techniques,

Card 1/3

L 25348-65
ACCESSION NR: AR4039575

The authors pressed single-layered ring-shaped specimens at a specific pressure of 5, 10 or 15 metric tons/cm^2 from mixtures containing Sulinskiy iron powder and Si within the limits of 0-10%, as well as specimens with thin interlayers from an anhydrous aluminum oxide powder at a pressure of 15 metric tons/cm^2. The pressed samples were sintered at 1000, 1100, 1200 and 1300C for 1, 3, 5, 8, 14, 20 and 28 hours. It follows from the empirical equation which was derived that the decrease in porosity of the sample is directly and linearly related to a decrease in the Si content, but logarithmically related to an increase in the pressing pressure. Data are presented on the change in porosity of the samples in relation to the Si content in the mixture, the specific pressure, the brand of powder and its degree of dispersion. The dependence of the porosity of Fe-Si alloys on pressure and Si content is analogous to the dependence of the porosity of the pressed samples. The porosity of the alloys is practically independent of the granulometric composition of the powder, but decreases sharply when the sintering temperatures rise above 1200C. In most of the alloys, the pores are slightly oval in shape, and the number increases with an increase in the Si content. The ferrite grain size increases sharply when the Si content in the alloy reaches 6.5%. As the duration of high-temperature sintering increases, the pores become more spherical and the ferrite grains increase in size. With an increase in the degree of dispersion of the original iron powder, the number of pores increases but their size

Card 2/3

L 25348-65
ACCESSION NR: AR4039575

decreases. With respect to phase composition, the alloys are a homogeneous solid solution of Si in α-Fe, this solution reaching its maximum concentration when the Si content in the alloy reaches 6.5%. As the Si content increases to 8%, the specific losses in the alloy change according to a curve with a minimum at a Si content of 6-7%. The improvement in the properties of the cermet alloys at a Si content of 6.5% is explained by an anomalous growth of the silico-ferrite grains and enlargement of the pores. The authors demonstrated the possibility of determining an optimum sintering time for each alloy which will depend on the conditions of operation of the cermet magnetic conductor and the degree of dispersion of the original iron powder. Ye. Polyanskaya

SUB CODE: MT, MM ENCL: 00

Card 3/3

18141 1045, 1496, 1955

S/126/61/012/002/002/019
E073/E335

AUTHORS: Aksenov G.I. and Orekhov Yu.P.

TITLE: Investigation of Magnetically Soft Sintered Alloys of the System Fe-Si

PERIODICAL: Fizika metallov i metallovedeniye, 1961 Vol. 12, No. 2, pp. 183 - 187

TEXT: The influence was investigated of the Si content (0 - 10%), the specific pressing pressure (5, 10 and 15 t/cm^2) and of the sintering temperature (1 000, 1 100, 1 200 and 1 300 °C) on the magnetic properties of Fe-Si alloys sintered in a reducing atmosphere for 20 hours. During the sintering, the temperature gradient did not exceed ± 20 °C. The investigations have shown that the best combination of properties can be obtained by using Si additions in the range of 5-8%. The optimum magnetic properties in the case of an alloy containing 6.5% Si was obtained for a pressing pressure of 15 t/cm^2 and a sintering temperature of 1 300 °C. These were:

Card 1/2

BR

ACCESSION NR: AR1027699 S/0276/64/000/002/B067/B068

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 2B361

AUTHOR: Aksenov, G. I.; Orekhov, Yu. P.

TITLE: The effect of various factors on the structure and properties of metal ceramic Fe-Si alloys

CITED SOURCE: Tr. Kuyby*shevsk. aviats. in-t, vy*p. 16, 1963, 201-211

TOPIC TAGS: Fe-Si alloy, silicon content, specific pressure, sintering temperature, porosity, specific loss, frequency, sintering duration, granulometric composition, dielectric layer, magnetic property, cermet alloy, cermet, ceremel, ceramel

TRANSLATION: The paper investigates the effect of the silicon content, the specific molding pressure and the sintering temperature on the porosity and specific losses of alloys at a frequency of 50 cycles, and also the effect of the duration of sintering, the granulometric composition of the initial powder

1/2
Card

ACCESSION NR: AR4027699

and the dielectric layers on the magnetic properties and specific losses of the alloys. The pressability of Fe-Si powder mixtures was analyzed and the produced alloys were then analyzed by metallo graphic and X-ray methods. 8 illustrations and 1 bibliographic reference.

DATE ACQ: 24Mar64 SUB CODE: ML ENCL: 00

Card 2/2

S/0276/64/000/002/B067/B068

ACCESSION NR: AR4027699

SOURCE: RZh. Tekhnologiya mashinostroyeniya, Abs. 2B361

AUTHOR: Aksenov, G. I.; Orekhov, Yu. P.

TITLE: The effect of various factors on the structure and properties of metal ceramic Fe-Si alloys

CITED SOURCE: Tr. Kuyby*shevsk. aviats. in-t, vy*p. 16, 1963, 201-211

TOPIC TAGS: Fe-Si alloy, silicon content, specific pressure, sintering temperature, porosity, specific loss, frequency, sintering duration, granulometric composition, dielectric layer, magnetic property, cermet alloy, cermet, ceremel, ceramel

TRANSLATION: The paper investigates the effect of the silicon content, the specific molding pressure and the sintering temperature on the porosity and specific losses of alloys at a frequency of 50 cycles, and also the effect of the duration of sintering, the granulometric composition of the initial powder

1/2
Card

ACCESSION NR: AR4027699

and the dielectric layers on the magnetic properties and specific losses of the alloys. The pressability of Fe-Si powder mixtures was analyzed and the produced alloys were then analyzed by metallo graphic and X-ray methods. 8 illustrations and 1 bibliographic reference.

DATE ACQ: 24Mar64 SUB CODE: ML ENCL: 00

Card 2/2

OREKHOVA, A.A.; BAKKAL, T.P.

State of respiratory organs in so-called intracranial trauma in newborns; clinical and morphological data. Trudy AMN SSSR 29:70-76 '53.

(MLRA 6:11)

(Respiratory organs) (Skull--Wounds and injuries) (Infants (Newborn))

OREKHOVA, A.A.

Prothrombin time in puerperas and newborns and its change upon introduction of vikasol; experimental and clinical investigations. Trudy AMN SSSR 29:86-96 '53. (MLRA 6:11)

(Prothrombin) (Infants (Newborn)) (Puerperium)

ORKKHOVA, A.A.

Variation in prothrombin time of rabbit fetus blood at different stages of intrauterine development and in asphyxia [with summary in English]. Biul.eksp.biol.med.44 no.8:66-70 Ag '57.(MIRA 10:11)

1. Iz biokhimicheskoy laboratorii (zav. - doktor biologicheskikh nauk A.D.Braun) i otdeleniya novorozhdennykh (nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR prof. A.F.Tur) Instituta akusherstva i ginekologii (dir. - chlen-korrespondent AMN SSSR P.A.Beloshapko) AMN SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR prof. A.F.Tur.

(ASPHYXIA NEONATORUM, experimental,
eff. on prothrombin time in fetal rabbits (Rus))
(PHOTHROMBIN TIME,
eff. of inra-uterine asphyxia in rabbits (Rus))

KACHURIN, M.O.; TSIRKEL', Ye.E.; OREKHOVA, A.E.; KOROLEVA, A.V.; TETERINA, V.I.

Boiling-out cotton fabrics with the aid of sodium sulfite. Izv. vys.ucheb.zav.; tekh.tekst.prom. no.6:98-103 '59. (MIRA 13:4)

1. Leningradskaya sittsenabivnaya fabrika im. Very Slutskoy, i tekstil'noye upravleniye Lensovnarkhoza.
(Cotton finishing)

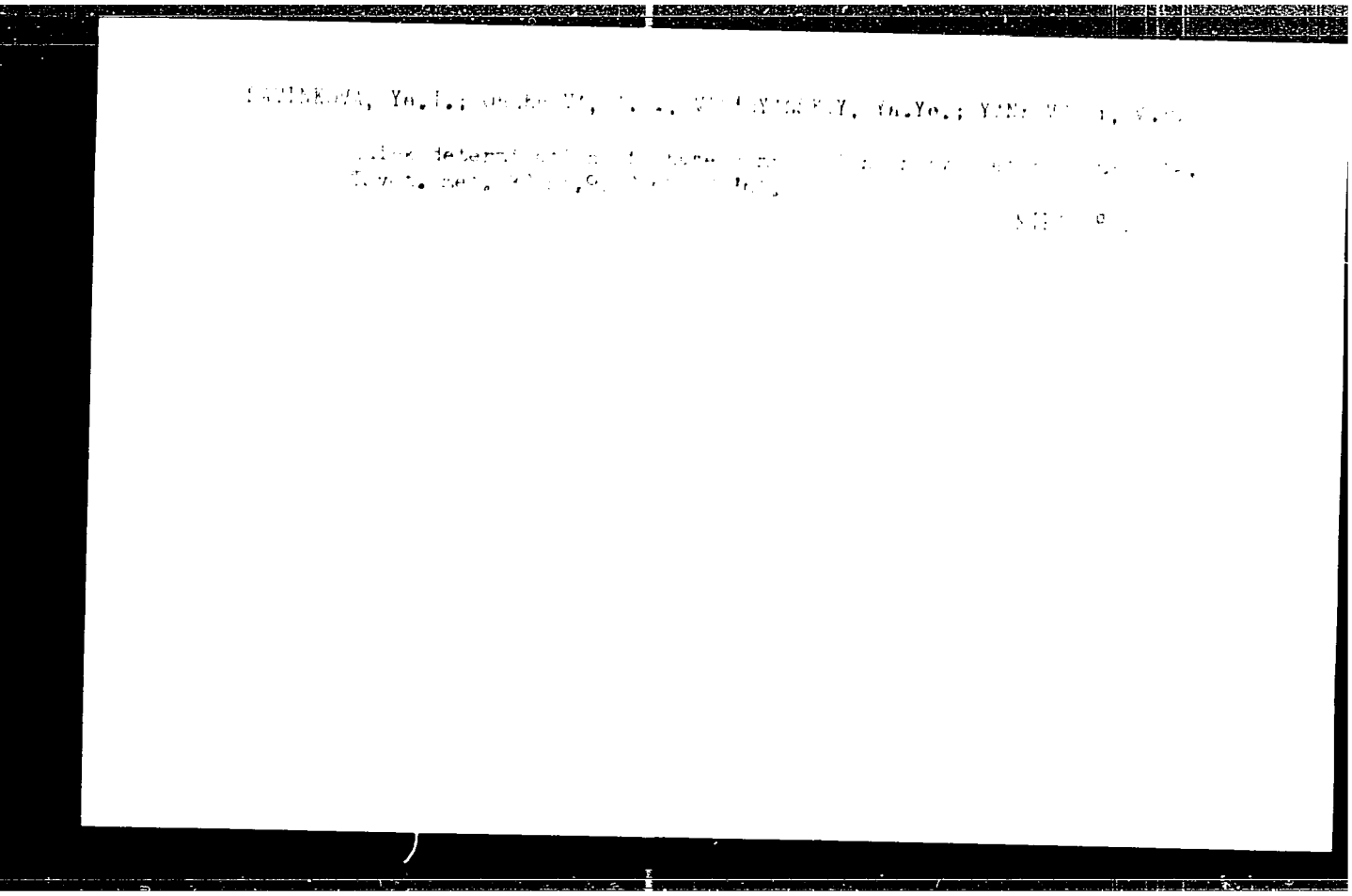
SAVINKOVA, Ye.I.; SUKHOVA, T.F.; DEGTYAREVA, T.A.; OREKHOVA, A.I.

Hydrolysis of carnallite in the course of its preliminary dewatering.
Zhur.prikl.khim. 34 no.11:2555-2558 N '61. (MIRA 15:1)
(Carnallite)

CHERNAVSKIY, V.A., prof. (Moskva, I-92, Annenskiy pereulok, d. 4/2, kv.102); OREKHOVA, A.I.

Open and closed injuries to the Achilles tendon. Ortop., travm. i protez. 25 no.2:52-55 F '64. (MIRA 18:2)

1. Iz kliniki travmatologii i ortopedii (zav. - prof. V.A.Chernavskiy) II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova (rektor - M.G.Sirotkina).



L 3,927-66 EWT(m)/EWA(h)/EWP(t)/ETI IJP(c) JD/JG/JH/AT

ACC NR: AP6020915 SOURCE CODE: UR/0369/66/002/002/0183/0187

AUTHOR: Drits, M. Ye.; Kadaner, E. S.; Orekhova, A. N.; Pomazov, V. V.

ORG: Institute of Metallurgy im. A. A. Baykov (Institut metallurgii)

TITLE: Effect of small additions of copper and silver on corrosion of Al-Zn-Mg alloys

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 2, 1966, 183-187

TOPIC TAGS: aluminum alloy, zinc containing alloy, magnesium containing alloy, copper containing alloy, silver containing alloy, alloy corrosion, stress corrosion, corrosion resistance

ABSTRACT: Cold- and hot-rolled sheets (2.5 mm thick) of high strength Al-Zn-Mg alloy containing a total of 7.1% Zn and Mg at a Zn/Mg ratio of 2, 0.6% Mn, 0.15% Zr, 0.2% Fe and 0.1% Si, and additionally alloyed with 0.3% each Cu and Ag, were tested for resistance to general and stress corrosion. Test specimens were solution annealed at [illegible] 30 min, water quenched, and aged at 140C for 24 hr (temper T1) to ensured the highest strength characteristic of the alloy. [illegible] done in a 30 g/l NCl + 20 g/l $NaHCO_3$ solution under a stress equal 0.8 of the yield strength showed that the initial alloy failed in

Card 1/2

L 32927-66
ACC NR: AP6020915

while alloys with Cu, or Ar, or Cu and Ar did not fail even with [illegible]— 110 hr exposure. Alloying with silver was more effective in increasing the stress-corrosion resistance than alloying with copper, but the highest stress-corrosion resistance was achieved with combined alloying with both Cu and Si. Alloys (with Cu and Ar) additionally alloyed with 0.6% Mn or 0.3% Cr or 0.2% each Mn and Cr had still higher resistance to stress corrosion. These alloys did not fail in 200 hr under a stress equal to the yield strength, but their strength characteristics decreased somewhat compared with alloys without Mn or Cr. In prolonged stress-corrosion tests, the alloys with 0.3% Cu or 0.3% each Cu and Ar sustained a stress equal to 0.9 yield strength for 254—556 hr, while the initial alloy failed in 60 hr. In stress-corrosion tests under conditions of anodic polarization under a stress equal to 0.9 yield strength, the rupture life of the initial alloy increased from 25 to 51 min with alloying with Cu and Ar, and to 75—93 min with alloying with Cr. Additions of Cu and Ar, however, noticeably decreased the resistance of the alloy to general corrosion. This harmful effect can be reduced to some extent by additional alloying with Cr, which shows that the addition of Cr improves the alloy resistance to both general and the stress corrosion. The beneficial effect of additional Cr is probably associated with the increased stability of the protective oxide film on the metal. Orig. art. has: 4 tables. [MS]

SUB CODE: 11/ SUBM DATE: 23Aug65/ ORIG REF: 006/ OTH REF: 017/ ATD PRESS: 5128

Card 2/2

ACC NR: AP6021[illegible] (A,N) SOURCE CODE: UR/0358/66/035/003/0305/0309

AUTHOR: Shiryayev, D. T.; Shevchenko, S. F.; Tokarev, S. A.; Orekhova, I. M.

ORG: State Scientific Research Antiplague Institute, Rostov-na-Donu (Gosudarstvennyy nauchno-issledovatel'skiy protivochumnyy institut)

TITLE: Experimental studies of ticks as tularemia vectors

SOURCE: Meditsinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 3, 1966, 305-309

TOPIC TAGS: human disease, animal disease, disease vector, tick, orthopod vector, tularemia, animal parasite

ABSTRACT:
The tick species *Hyalomma plumbeum plumbeum* and *Haemaphysalis punctata* infected with tularemia occur in nature. The authors infected these species with tularemia under laboratory conditions. The ticks retained the infective agent throughout all stages of development. Nymphs of *H. plumbeum* infected animals with tularemia over an 82-day period, suggesting that these ticks, which are prevalent in the southern steppes, are important in maintaining natural tularemia foci. Orig. art. has: 3 tables.

[W.A. 50; CBE No. 10]

SUB CODE: 06/ SUBM DATE: 04Jun63/ ORIG REF: 015/

Card 1/1 UDC: 616.455-022.39:595.42+576.895.42

BR[illegible]KIKH, Yu.I., inzh.; D[illegible]KHOVA, I.Sh.

Determining indices for the total amount of labor expended in the production of glass and ceramics. Stek. i ker. [illegible] no.1:6-10 Ja '66. (MIRA 19:1)

1. Nauchno-issl[illegible] institut [illegible] organizatsii proizvodstva, Sverdlovsk.

YERSHOV, N.; OREKHOVA, K.

If you do not study you are not a progressive worker. Grazd av
19 no.12:19-20 D '61. (MIRA 15:1)
(Aeronautics, Commerical--Study and teaching)

AUTH: Kukhtin, V. A., Gren'eva, K. M.

TITLE: Affiliation of the Complete Esters of Phosphorous Acid and of the Phosphinic Acid to the Conjugated Systems (Prisoyedineniye polnykh efirov fosforistoy i fosfinistykh kislot k sopryazhennym sistemam). VI. Joint Action of the Alkyl Halides and of the α,β-Unsaturated Acids on Trialkyl Phosphites (VI. Sovmestnoye deystviye galoidnykh alkilov i α,β-nepredel'nykh kislot na trialkilfosfity,

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 10, pp 3270 - 3277 (USSR)

ABSTRACT: In connection with the experience collected in earlier papers (Refs 1,2), the authors continued their investigations in the same direction by investigating the joint action of the α,β-unsaturated acids and alkyl bromides, as well as alkyl iodides on the trialkyl phosphites. The experiments with alkyl bromides fully proved the earlier proposed scheme, with the mixed β-dialkyl phosphonium carboxylates and the corresponding alkyl halides being obtained (Table 1). The reaction of acrylic acid and alkyl bromide with tri-

Card 1/3

Affiliation of the Complete Esters of Phosphorous Acid and of the Phosphinic Acid to the Conjugated Systems. VI. Action of the Alkyl Halides and of the a,β-Unsaturated A... Phosphites

S V... 8-...

ph...tes takes place more energetically than ... of methacrylic acid. In the reaction of ethyl bromide with the intermediate product which is obtained in the affiliation of tributyl phosphite to the methacrylic acid the butyl bromide and an ethyl ester of the β-dibutyl ph... nono-isobutyric acid was separated (Reaction Scheme 1). The joint reaction of methacrylic acid and alkyl iodides with trialkyl phosphites offers only small yields of esters of t. phosphono isobutyric acid (8-18%)(Table 2). The reaction takes place not only according to the ... mentioned scheme. In driving off esters of the general formula R'P(OR)$_2$, methacrylate and dialkyl ph...
O

acids were obtained (Table . and Scheme 2). Con... It is found that on the basis of the experimental results the joint reaction of methacrylic acid ... iodides with the trialkyl phosphites can take place

Card 2/3

Affiliation of the Complete Esters of Phosphorous Acid and of the Phosphinic Acid to the Conjugated Systems. VI. Joint Action of the Alkyl Halides and of the α,β-Unsaturated Acids on Trialkyl Phosphites SOV/79-28-[illegible]

in three different directions according to the conditions prevailing last Scheme). There are 2 tables and 3 references, 3 of which are Soviet.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut imeni S.M. Kirova i Kazanskiy filial nauchno-issledovatel'skogo kinofoto instituta (Kazan' Chemotechnological Institute imeni S.M.Kirov and Kazan' Branch of the Scientific Research Institute of Cinematography and Photography)

SUBMITTED: September 17, 1957

Card 3/3

AUTHOR: Kukhtin, V. A., Gil'm Kamay, SOV/79-29-2-42-
Sinchenko, L. A., Orekhova, K. M.

TITLE: Affiliation of the Complete Esters of Phosphorous Acid and Phosphinic Acids to Conjugated Systems (Prisoyedineniye polnykh efirov fosforistoy i fosfinistykh kislot k sopryazhennym sistemam) VII. Telomerization of the Methacrylic Acid With Trialkyl Phosphites (VII. Telomerizatsiya metakrilovoy kisloty s trialkilfosfitami)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 2, pp 510-515 (USSR)

ABSTRACT: In continuation of the common reaction of α,β-unsaturated acids and alkyl halides with trialkyl phosphites (Refs 1,2) the authors intended to find the catalyst most suitable for telomerization to determine the factors which exercise influence upon this reaction and to determine the structure of the telomers obtained. They found that carefully purified triethyl phosphite can telomerize with methacrylic acid also without a catalyst. Temperature does not matter in this connection. The yield is small in this case (Table 1, Experiment 13). However, if a methacrylic acid is used for a while that is not stabilized with hydroquinone, the reaction takes place in

Card 1/3

Affiliation of the Complete Esters of Phosphorous Acid and Phosphinic Acids to Conjugated Systems. VII Telomerization of the Methacrylic Acid With Trialkyl Phosphites

a very violent manner under intense selfheating and with a high yield of telomers (Table 1, Experiment 12). The trialkyl phosphite that is purified only by separation through distillation does not telomerize with a methacrylic acid that was liberated from the inhibitor immediately before the experiment. It was interesting to know the way in which this telomerization would take place in the presence of triethyl amine and sodium methylate tested by R. M. Connel and H. W. Coover as catalysts. Yet only small yields were effected by these experiments (Table 1, Experiments 1,2). Also the application of alkyl iodides for telomerization did not quite meet expectations. Benzoyl hydrogen peroxide turned out to be the most favourable catalyst for telomerization. In dependence of the molar ratio of the initial components, on the concentration of the catalyst and the phosphite radical telomers with various average molecular weights were obtained in this telomerization (Table 1). According to previous and the present results it may be assumed that the above-mentioned telomerization takes place according to the scheme mentioned in conclusion

Card 2/3

Affiliation of the Complete Esters of Phosphorous SOV/79-29-2-3[illegible]
Acid and Phosphinic Acids to Conjugated Systems. VII. Telomerization of the
Methacrylic Acid With Trialkyl Phosphites

Thus, the structure of telomers resulting from the telomerization of methacrylic acid with trialkyl phosphites was investigated and a scheme of reaction was suggested in addition. There are 2 tables and 3 references, 2 of which are Soviet

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut (Kazan' Institute of Chemical Technology)

SUBMITTED: December 26, 1957

Card 3/3

5(2, 3)

AUTHORS: Kukhtin, V. A., Orekhova, K. M.

SOV/2[illegible]-124-4-25/6

TITLE: Addition of Complete Esters of Phosphorous Acid to p-Benzoquinone (Prisoyedineniye polnykh efirov fosforistoy kisloty k p-benzokhinonu)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 4, pp 819-821 (USSR)

ABSTRACT: In previous papers the authors described some new reactions of the above-mentioned esters with various π-conjugated systems - the esters of α,β-unsaturated acids (Refs 1, 2) with α,β-unsaturated aldehydes (Ref 3) and diacetyl (Ref 4). These reactions take place according to Arbuzov's scheme of rearrangement (Refs 2, 4). In continuation of the study of the new kind of that rearrangement this paper deals with the reaction of phosphites with quinones. The authors give a survey of the respective publications (Refs 5-8). They synthesized addition products of some trialkyl phosphites to p-benzoquinone. Their constants are given in table 1. The saponification of these substances in weakly acid medium yields hydroquinone as the main product. The saponification with alcoholic-aqueous alkalis takes place also on the separation of the phosphorus-contain[illegible]

Card 1/3

portion of the molecule. Yet these data do not confirm that the products mentioned possess a structure (IV, (see Scheme, since the bond P-Ar can be easily hydrolyzed if there is an oxy or amino group in the ortho-or para-position (Ref 5). This the addition product of triphenyl phosphine to p-benzoquinone (I) on the formation of hydroquinone and triphenyl phosphine oxide is easily hydrolyzed (Refs 5, 6). For the purpose of checking the structure of the addition products mentioned the authors applied out a counter-syrthesis of diethyl-p-methoxy-phenyl phosphate, whereby a product was obtained that differs from the addition product of triethyl phosphite to p-benzoquinone as far as its constants are concerned (Table 1). In addition to that, a free hydroxyl group is lacking in it. Accordingly it may be assumed that the phosphorus in the addition products mentioned consequently is not bound to nitrogen but to the aromatic ring. Like the addition products of triphenyl phosphine to p-benzoquinone these products do not possess the structure (IV) but (VI). Unlike the trialkyl phosphites, triphenyl phosphite does not react with p-benzoquinone at room temperature. If heated for

Addition of Complete Esters of Phosphorous Acid to p-Benzoquinone SOV/2 -124-4-25/

some time at temperature, a precipitation occurs. Only a certain amount of phenol could be distilled off from the liquid portion of the reaction product. It is an addition product of a triphenyl phosphite molecule to a benzoquinone molecule and presumably the product of the first stage of reaction with a structure (V). The second stage of rearrangement according to Arbuzov cannot be carried out separately since the reaction products are resinified. N. S. Garif'yanov recorded the spectra of paramagnetic resonance of several products. No free radicals could be found in them. There are 1 table and 9 references, 4 of which are Soviet.

ASSOCIATION: Kazanskiy filial Vsesoyuznogo [illegible] Kinofotoinstituta (Kazan' Branch of the All-Union Scientific Cinema-Photography Research Institute)

PRESENTED: October 9, 1958, by B. A. Arbuzov Academician

SUBMITTED: October 1, 1958

Card 3/3

~~5 (3)~~ 5.3630

66423

AUTHORS: Kukhtin, V. A., Abramov, V. S., Orekhova, K. M. SOV/20-128-6-28/63

TITLE: Regrouping of the Esters of X-Oxy-alkyl Phosphinic Acids to Isomeric Phosphates

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 6, pp 1198 - 1200 (USSR)

ABSTRACT: The regrouping mentioned in the title (Refs 1,2) can - according to reference 5 - only take place if X is split off as an anion. Otherwise, a decomposition into aldehyde and dialkyl-phosphorous acids (Ref 6) must occur under the influence of alkalis. A similar regrouping producing isomeric phosphates is mentioned in reference 7 (see Diagram). The 2nd author made dialkyl-phosphorous acids directly act on diacetyl (Ref 8), and obtained esters of the α-oxy-β-aceto-ethyl-phosphinic acid (Table 1, Products A). Under different conditions, products with other constants were obtained. In a glass flask (instead of soldered-up ampullae), dialkyl phosphites with diacetyl yield the products B (Table 1) at a temperature above 100°. Table 2 shows the influence of experimental conditions on the course of reaction with the use of diethyl-phosphorous acid. A comparison of products A and B shows that A contains 8.16% of the hydroxyl group

Card 1/3

Regrouping of the Esters of X-Oxy-alkyl Phosphinic Acids to Isomeric Phosphates

(according to Tserevitinov's method). Its infrared spectrum shows an intensive band at 3.290 cm^{-1} (Ref 9). Hence it seems to be certain that A is an ester of α-oxy-β-aceto-ethyl-phosphinic acid. The absorption at 3250-3300 cm^{-1} is missing in the infrared spectrum of B. On saponification with barium hydrate, it yields a barium salt of diethyl phosphate and, therefore, is a mixed diethyl-3-keto-2-butyl ester of the phosphoric acid. A diagram shows the interaction reaction of dialkyl-phosphorous acids with diacetyl yielding the isomeric products A or B depending on the conditions of execution. Sodium alcoholate accelerates this reaction and yields product B exclusively. The authors explain the regrouping under review in a way different from reference 5. An accompanying splitting-off of the haloid ion is not necessary. Thus, the authors detected a new interesting regrouping (as mentioned in the title) to isomeric mixed esters of the phosphoric acid. It takes place under the influence of sodium alcoholates in alcoholic solution, or due to the influence of dialkyl phosphites on diacetyl at 125-130°. The names of B. A. Arbuzov, V. S. Abramov and A. S. Kapustina are

Regrouping of the Esters of X-Oxy-alkyl Phosphinic Acids to Isomeric Phosphates

66423

SOV/20-128-6-28/63

also mentioned in the paper. There are 2 tables and 10 references, 5 of which are Soviet.

ASSOCIATION: Kazanskiy khimiko-tekhnologicheskiy institut im. S. M. Kirova (Kazan' Institute of Chemical Technology imeni S. M. Kirov). Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta (Kazan' Branch of the Scientific Research Institute of Cinematography and Photography)

PRESENTED: June 12, 1959, by B. A. Arbuzov, Academician

SUBMITTED: June 1, 1959

Card 3/3

S/079/60/030/04/34/080
B001/B016

AUTHORS: Kukhtin, V. A., Orekhova, K. M.

TITLE: Addition of Saturated Esters of Phosphorous and Phosphinic Acids to Conjugate Systems. IX. Addition of Trialkyl Phosphites to α-Diketones

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 4, pp. 1208-1[illegible]

TEXT: The reaction of trialkyl phosphites with α-diketones may proceed according to two possible schemes (A and B), i.e. with or without shift of the reaction center (Scheme 1). A more thorough investigation showed, contrary to previous ones (Ref. 2), that the addition of trialkyl phosphites to α-diketones takes place on a carbonyl group, i.e. according to scheme A. The following facts indicate this: 1) The end product (II) ($R=C_2H_5$) is not esterified under any conditions with ethanol to give triethyl phosphate (comparison with the statement of Ref. 3) 2) Product (II) forms a barium salt of diethyl-phosphorous acid on saponification with barium hydroxide (comparison with the statement of

Card 1/3

Addition of Saturated Esters of Phosphorous and Phosphinic Acids to Conjugate Systems. IX. Addition of Trialkyl Phosphites to α-Diketones

S/079/60/030/04/34/050
B001/B016

Ref. 4). 3) According to the Raman effects of compounds (I) and (II), the latter show no vibrational frequencies of the double bond but are rather indicative of the carbonyl group. The intermediates (I) ($R'=CH_3$; $R=C_2H_5, C_3H_7, C_4H_9$) were separated in pure condition, and characterized (comparison with the products of Ref. 1). Compound (I) reacts vigorously with water, and is transformed to (III). This takes place already at atmospheric moisture (Scheme 2). The effect of temperature, solvents, catalysts on the course of reaction of the second step (Arbuzov rearrangement) in the afore-mentioned reaction was investigated (Table 2). Organic acids react intensely with compound (I), and transform them to (III). The products (I) and (II) react with phenyl hydrazine in which connection diphenyl hydrazones are formed quantitatively. Considering the structure of the intermediates obtained in the Arbuzov rearrangement, the structure of formula (A) (p. 1210) seems to be more probable than that of formula (B). The Raman spectra were taken by B. A. Arbuzov and V. S. Vinogradova. The authors mention a paper by

VC

Card 2/3

Addition of Saturated Esters of Phosphorous and Phosphinic Acids to Conjugate Systems. IX. Addition of Trialkyl Phosphites to α-Diketones

S/079/60/030/04/34, 35
B001/B016

V. S. Abramov, L. Sh. Belokon', and F. I. Makhmutova (Ref. 5). There are 2 tables and 8 references, 6 of which are Soviet.

ASSOCIATION: Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta (Kazan' Branch of the Motion Picture and Photography Scientific Research Institute)

SUBMITTED: May 11, 1959

Card 3/3

S/079/60/030/05/2[illegible]/074
B005/B126

AUTHORS: Kukhtin, V. A., Orekhova, K. M.

TITLE: The Addition of Neutral Esters of Phosphorous Acid and Full Esters of Phosphinic Acid to Conjugate Systems. X. The Reaction of Trialkylphosphites With π,π,π-Conjugate Systems

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 5, pp 1526-1529

TEXT: The authors examined the reaction of trialkylphosphites with trans and cis-dibenzoylethylene and with vinylacrylic acid. Triethylphosphite reacts with trans-dibenzoylethylene in an ethereal solution at room temperature, forming a thick glycerine-like product which does not crystallize and cannot be distilled in a high vacuum without decomposition. This inter-product reacts with water, evolving heat, and it effects the polymerization when added to acrylates. When the reaction of triethyl phosphite with trans-dibenzoylethylene is carried out under more rigorous conditions (heating to 120°), a product is obtained which, when vacuum distilled, gives triethylphosphate and considerable quantities of 2,5-diphenylfurane. Cis-dibenzoylethylene reacts with triethylphosphite

in exactly the same way as the trans-form. The action of water on the above intermediate of the addition of triethylphosphite to dibenzoylethylethylene is to produce dibenzoylethane. That indicates that dibenzoylethylene behaves on the addition similarly to p-quinones The above formation of 2,5-diphenylfurane is apparently due to the thermal decomposition of the intermediate of the addition. 2,5-diphenylfurane also forms by dehydration of dibenzoylethane, which is produced by the effect of dampness on the intermediate of the addition Vinylacrylic acid reacts less vigorously with trialkylphosphites than acrylic- or methacrylic acid (Ref. 2). A small yield of phosphorvinylacrylesters results from the reaction of vinylacrylic acid with triethylphosphite; the main product of the reaction was a telomer, which was formed by the addition of some vinylacrylic acid molecules to the triethylphosphite Only this telomer results from the reaction of tripropylphosphite with vinylacrylic acid. The authors explain these results thus: since the formation of a seven-membered ring is difficult, the intermediary dipolar ion does not stabilize itself on the ring-shaped intermediate but adds

The Addition of Neutral Esters of Phosphorous Acid and Full Esters of Phosphinic Acid to Conjugate Systems. X. The Reaction of Trialkylphosphites With π,π,π-Conjugate Systems

S/079/60/030/05/26/074
B005/B126

some more acid molecules, forming the above telomer. The inability of the vinylacrylic acid to form the ring-shaped intermediate, proves the covalent form of the intermediate. If the intermediate had ionic structure, it would also have to form in the case of vinylacrylic acid. All the experiments carried out are fully described in the experimental part. The Arbuzov Rearrangement is mentioned. There are 6 Soviet references.

ASSOCIATION: Kazanskiy filial Nauchno-issledovatel'skogo kinofotoinstituta (Kazan' Branch of the Scientific Research Institute for Cinematography and Photography)

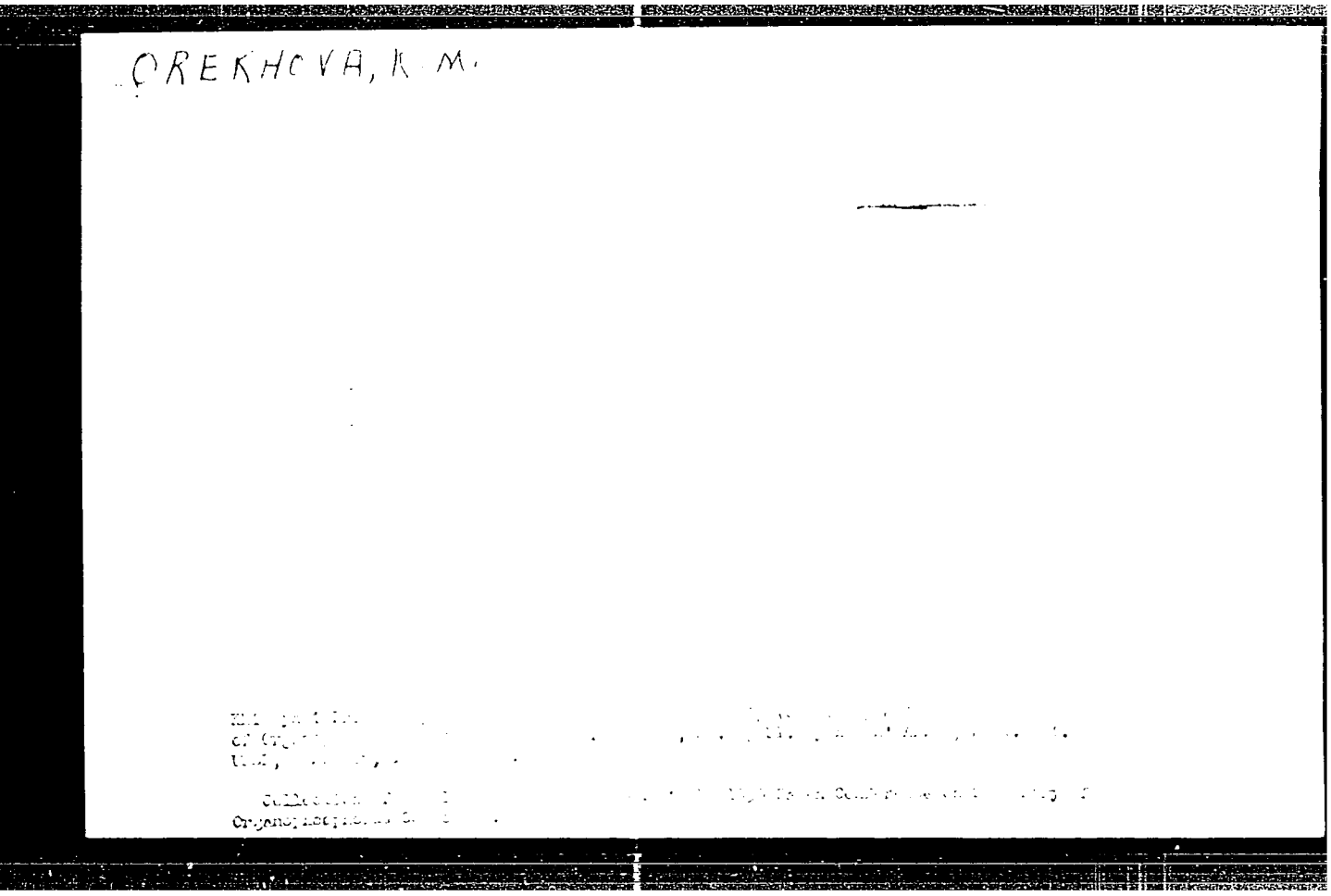
SUBMITTED: May 11, 1959

Card 3/3

KUKHTIN, V.A.; GARIF'YANOV, N.S.; OREKHOVA, K.M.

Addition of complete ester of phosphorous and phosphinous acids to conjugated systems. Part 11: Interaction between trialkyl phosphites and ρ-quinones. Zhur. ob. khim. 31 no.4:1157-1165 Ap '61. (MIRA 14:4)

1. Kazanskiy filial nauchno-issledovatel'skogo kinofotoinstituta.
(Phosphorous acid)
(Benzoquinone) (Naphthoquinone)



OREKHOVA, M.M., mladshiy nauchnyy sotrudnik

Morphobiological characteristics of the trichomonads of poultry.
Veterinariia 40 no.9:72-75 S 63. (MIRA 17:1)

1. Belorusskiy nauchno-issledovatel'skiy veterinarnyy institut.

OREKHOVA, Mariya [illegible]khaylovna; MATSYUK, F., red.

[Poultry diseases (protozoan)] Bolezni [illegible]
[protozoye]. Minsk, Urozhai, 1964. 43 p.
(MIRA [illegible])

OREKHOVA, M.V.

NEVOLIN, P.V., kand.tekhn.nauk; KRAL'-OSIKINA, G.A.; OREKHOVA, M.V.

Surface active properties and detergency of soap mixtures and synthetic detergents. Masl.-zhir. prom. 24 no.1:23-25 '58. (MIRA 11:3)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.
(Cleaning compounds)

PETROV, A.D., NIKISHINA, G.I., kand. khim. nauk, NEVOLIN, F.V., kand. tekhn. nauk, KRAL'-OSIKINA, G.A., OREKHOVA, M.V., YUSHKEVICH, A.V.

Effect of the size and structure of the alkyl chain of alkyl derivatives of benzenesulfonic acid on their surface active and detergent properties. Masl.-zhir. prom. 24 no. 8:23-29 '58. (MIRA 11:8)

1. Chlen-korrespondent AN SSSR (for Petrov). 2. AN SSSR (for Petrov, Nikishina). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for Nevolin, Kral'-Osokina, Orekhova, Yushkevich).
(Benzenesulfonic acid)
(Surface active agents)

NEVOLIN, F.V., kand.tekhn.nauk; KRAL'-OSIKINA, G.A.; OREKHOVA, M.V.

Suspending power of various detergents and their mixtures with carboxymethyl cellulose and cellulose sulfate. Masl.-zhir. prom. 25 no.1:25-27 '59. (MIRA 12:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov.
(Cleaning compounds) (Cellulose)

FEDYUKIN, D.L.; ZAKHARENKO, N.V.; OREKHOVA, N.I.

Determining the toe stiffness of miner's boots. Kauch.i rez. 21 no.3:56-57 Mr '62. (MIRA 15:4)

1. Nauchno-issledovatel'skiy institut rezinovoykh i lateksnykh izdeliy.
(Boots and shoes, Rubber--Testing) (Clothing, Protective)

FEDOSOV, N.M.; SHARIPOV, E.I.; KUNAKOV, Ya.N.; OREKHOVA, R.S.

Mechanical properties of iron-silicon alloys. Izv. vys. ucheb. zav., chern. met. 6 no.11:18?-185 '63. (MIRA 17:3)

1. Moskovskiy institut stali i splavov.

CHERNOVA, A.I.; OTKHOVA, V.D.; PROSKURNIN, M.A.

"Prinary" formation of H_2 and H_2O_2 during the action of γ-radiation on aqueous solutions of Mohr's Salt [with summary in English]. Zhur. fiz.khim. 32 no.12:2843-2844 D '58. (MIRA 12:2)

1. Fiziko-khimicheskiy institut imeni L.Ya. Karpova, Moskva.
(Iron sulfates) (Gama rays)

OREKHOVA, V.S.

Rare form of lamellar desquamative dermatitis in a newborn infant.
Vest. derm. i ven. 34 no.4:63-64 '60. (MIRA 13:12)
(SKIN--DISEASES) (INFANTS (NEWBORN)--DISEASES)

ANDRYUSHCHENKO, F.K.; CREKHOVA, V.V.; GONCHARCVA, Ye.I.; SHMORGUN, V.I.

Effect of the pH and buffer concentration on the stability of sodium hydrosulfite in solutions. Ukr. khim. zhur. 27 no.4:536-539 '61. (MIRA 14:7)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov.
(Sodium dithinite) (Hydrogen-ion concentration)

ANDRYUSHCHENKO, F.K.; OREKHOVA, V.V.; BAYRACHNYY, B.I.; [illegible]
ANDRYUSHCHENKO, L.F.

Electrodeposition of metals on titanium. [illegible]
khim.tekh. 6 no.5:823-828 '63. (MIRA [illegible])

1. Khar'kovskiy politekhnicheskiy institut imeni [illegible], kafedra tekhnologii elektrokhimicheskikh proizvodstv.

ANDRYUSHCHENKO, F.K.; OREKHOVA, V.V.; GONCHAROVA, Ye.I.; SHMORGUN, V.I.

Effect of pH and buffer concentration on the stability of sodium hydrosulfite in solutions. Report 2. Ukr. khim. zhur. 29 no.2:125-127 '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov.
(Sodium dithionite)
(Hydrogen-ion concentration)

KHLEBNIKOV, A.M.; ZARINA, E.Ya.; CHEKHOL'SKAYA, E.K.; OREKHOVA, Z.M.

Blending of silk on bobbins of a finishing machine. Khim. volok. no.5:73 '62. (MIRA 15:11)

1. Klinskiy kombinat iskusstvennogo i sinteticheskogo volokna.

(Rayon)
(Textile finishing)