"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V.

Sailor from the "Okean." Voen. znan. 37 no.11:12-13 N '61.
(MIRA 14:11)

(Russia--Revolution, 1917-1921--Personal narratives)

POLIKARPOV, V.A.

NENADKEVITE—A NEW URANIUM SILICATE. V.A.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

A description is given of the properties of the new uranium mineral—nenadkevite, which was discovered in the USSR in 1952. This mineral is a member of the silicate group and is in reality a continuous isomorphic series. It is postulated that it is, in addition, the last member of the thorite group and the richest in uranium. (auth)

1/RMF

RMF

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

ACC NR: AP7001749 (A) SOURCE CODE: UR/0193/66/000/010/0041/0042

AUTHOR: Polikarpov, V. A.; Veber, V. V.

ORG: none

TITLE: A new type of petroleum pump packing

SOURCE: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 10, 1966, 41-42

TOPIC TAGS: oil pump, packing material, resin, ~~structural engineering~~ Fluid Pump

ABSTRACT: The Perm Petroleum Refinery has developed a new type of face packing for oil pumps, employing a rotating bellows of polyfluoroethylene resin in place of a stuffing box. This has been tested in a catalytic reforming stand and operated continuously for 2,000 hours under specified pressure, temperature and solvent without any detectable loss of oil. The bellows has five ridges, is turned on a lathe with a special chasing cutter, to a thickness of 1.1 to 1.5 mm. It is installed around the pump shaft and pressed to the shaft by a rotating steel ring; it is expanded by a steel spring, and packed at the far end by a textolite bushing. The heavy steel journal through which the shaft passes is faced with sormite and has an internal channel through which cooling water circulates, since the pump is used to deliver oil at 120 to 150°C. This type of pump can also be used industrially for acids, alkalies, or other aggressive chemicals. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: none

Card 1/1 UDC: 621.65-762

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

BORISOV, D.S., polkovnik; SHEVCHUK, M.K., podpolkovnik; LEOSHENYA, Ye.V., dotsent, kand.voyennykh nauk, general-leytenant inzhenernykh voysk, nauchnyy red.; POLIKARPOV, V.D., red.; SOKOLOVA, G.F., tekhn.red.

[Soldier, hero, and scientist; reminiscences about D.M.Korbyshev] Soldat, geroi, uchenyi; vospominaniia o D.M.Karbysheve. Moskva, Voen.izd-vo M-va oborony SSSR, 1961. 194 p. (MIRA 15:2)

(Karbyshev, Dmitrii Mikhailovich, 1880-1945)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

MONASTYRSKIY, Fedor Vasil'yevich, kapitan pervogo ranga; POLIKARPOV, V.D., red.; BUKOVSKAYA, N.A., tekhn. red.

[Earth soaked with blood]Zemlia, omytaia krov'iu. Moskva, Voenizdat, 1962. 226 p. (MIRA 16:2)
(World War, 1939-1945—Personal narratives)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

VORKOV, Sergey Stepanovich, kontradmiral; POLIKARPOV, V.D., red.; BUKOVSKAYA, N.A., tekhn. red.

[Flag on the gaff] Flag na gafele. Moskva, Voenizdat, 1962. 127 p. (MIRA 15:7)
(Black Sea—World War, 1939-1945—Personal narratives)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

PHASE I BOOK EXPLOITATION SOV/3668

Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka

Metody analiza produktov proizvodstva sinteticheskogo kauchuka (Methods for Analyzing Products Obtained in the Manufacture of Synthetic Rubber) Leningrad, Goskhimizdat, 1960. 121 p. Errata slip inserted. 4,000 copies printed.

Sponsoring Agency: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka imeni akad. S.V. Lebedeva.

Ed.: Ye. I. Zhur; Tech. Ed.: T.A. Fomkina.

PURPOSE: This book is intended for scientists and technical personnel of chemical laboratories of the synthetic rubber, resin, petroleum, natural gas, textile, tanning, and other industries. It may also be used as a textbook for chemistry students in higher educational institutions and tekhnikums.

COVERAGE: The book contains 20 articles reviewing methods for analyzing raw materials and intermediate products used in the manufacture of synthetic rubbers and elastomeric substances and that were developed at the All-Union Scientific Research Institute for Synthetic Rubber imeni S.V. Lebedev and at Soviet synthetic rubber plants. No personalities are mentioned. References accompany the articles.

Mogilevskaya, R.A., and A.N. Kazanova. Determination of Diacetylene and Vinylacetylene in Pyrolysis Gases and Acetylene Concentrate Obtained From the Critational Pyrolysis of Methane 32

Dolgopol'skiy, I.M., and S.N. Vakhtakov. A Quantitative Method of Analyzing Technical Chloroprene and Fluoroprene 41

Polikarpova, V.F., and A.N. Kazanova. Determination of Methyltrichlorosilane in Dimethylidichlorosilane 50

Ivanova, N.A., and A.M. Pakhmanina. Determination of Substituted Piperidines in Products Obtained in the Production of Methylvinylpyridine Rubber 56

Dvoryanchikova, V.N. A Visual Method of Determining Water in a 1,3-Butadiene Distillate by Freezing Out 62

Polikarpova, V.F., and A.N. Kazanova. Determination of Unsaturation of [illegible] 66

[illegible] Determination of "Water Amine" (a tertiary amine) in [illegible] (SKS-30M, SKS-30AM) 71

Belova, G.A., and A.F. Korlova. Determination of the Calcium Salt of [illegible] in Rubbers by the Trilonometric Method 75

Mogilevskaya, R.A., Sh. A. Bekayan, and A.M. Batenkova. Colorimetric Method of Determining Wood-Resin Antioxidant in Ethyl Alcohol Lacquer 79

Mogilevskaya, R.A., and M.N. Yurzina. A Quick Method of Determining the Overall Sulfur Content of Gum Mixtures and Vulcanizates Having Neoprene and Nitrile Rubber Bases 82

Levina, N.G. Determination of Bromine and Calcium in Brominated Butyl Rubber 87

Shlyakhter, R.A., V.I. Sharov, and R.A. Mogilevskaya. A Refractometric Method of Determining the Composition of Copolymer of 1,3-Butadiene and 2-Methyl-5 Vinylpyridine 91

Polikarpova, V.F. Determination of Chains Containing the Vinyl Group in Silicone Oils and Rubber 96

Markosova, M.I., and G.S. Kashurina. Titrimetric Methods of Determining Acrylonitrile by Reaction With Sodium Sulfite 100

Belova, G.A. Chromatographic Methods Used in the Czechoslovak Republic for Analyzing Products Obtained in the Production of Synthetic Rubber 106

AVAILABLE: Library of Congress (TN1995.L4)

POLIKARPOVA, V.F.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

ADAMOVICH, P.V.; BATURIN, V.V.; VAKHVAKHOV, G.G.; VAYNGAUZ, L.G.; VILENSKIY, Ye.Ya.; GAMBURG, P.Yu.; DAVYDOV, Yu.S.; KARPIS, Ye.Ye.; KUZNETSOVA, Z.I.; KOP'YEV, S.F.; LIVCHAK, I.F.; LOBACHEV, P.V.; LEV, G.M.; NOTKIN, Ye.M.; PIRUMOV, A.I.; POLIKARPOV, V.E.; PROTOPOPOV, A.P.; REPIN, N.N.; SLADKOV, S.P.; TALIYEV, V.N.; TROITSKAYA, F.B.; FEDOROV, M.N.; SHEVELEV, F.A.; SHKABEL'NIKOVA, L.P.; SHCHUTSKIY, A.I.; SMIRNOV, L.I., inzh., nauchnyy red.; SMIRNOVA, A.P., red. izd-va; MOCHALINA, Z.S., tekhn. red.; RODINOVA, V.R., tekhn. red.

[Present level and prospects for the development of sanitary engineering and the production of sanitary engineering equipment] Sovremennyi uroven' i perspektivy razvitiia sanitarnoi tekhniki i proizvodstva sanitarno-tekhnicheskogo oborudovaniia. Moskva, Gosstroiizdat, 1962. 283 p. (MIRA 15:8)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut sanitarnoy tekhniki.

(SANITARY ENGINEERING)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V.F.; REPIN, N.N.

New plumbing and heating equipment. Vod.i san. tekh. 1 no.1:28-32 Ap'55. (MLRA 8:11)

(Plumbing) (Heating)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

KARPIS, Ye.Ye., kandidat tekhnicheskikh nauk; POLIKARPOV, V.F., kandidat tekhnicheskikh nauk; SENATOV, I.G., kandidat tekhnicheskikh nauk; SHEPELEV, I.A., kandidat tekhnicheskikh nauk; NOVIKOVA, F.M., redaktor; FEDOROVA, T.N., redaktor; LYUDKOVSKAYA, N.I., tekhnicheskiy redaktor

[Equipment of a central heating and ventilating system] Oborudovanie dlia sistem tsentral'nogo otopleniia i ventiliatsii. Pod obshchei red. V.F.Polikarpova. Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1956. 399 p. (MIRA 9:8)

(Ventilation)
(Heating from central stations)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

LIVCHAK, I.F. Prinimali uchastiye: LOBACHEV, P.F.; SLADKOV, S.P.; GRUDZINSKIY, M.M.; POLIKARPOV, V.F.; IZYANSKIY, A.Z.; KONSTANTINOVA, V.G.; MATVEYEVA, N.A.; STRASHNYKH, V.P., red.izd-va; MOCHALINA, Z.S., tekhn. red.

[Instructions for using improved sanitary equipment in large-panel buildings] Ukazaniia po primeneniiu usovershenstvovannykh sanitarno-tekhnicheskikh ustroistv v krupnoelementnykh domakh. Moskva, Gosstroiizdat, 1963. 85 p. (MIRA 16:8)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut sanitarnoy tekhniki.
(Sanitary engineering--Equipment and supplies)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V.F.

Problem of the freezing of air heater installations. Vod. i san. tekh. no.12:16-18 D '56. (MIRA 10:3)
(Heating)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

VOL'FSON, Il'ya Grigor'yevich; ZALGALLER, G.M., inzh., red.; POLIKARPOV, V.F., nauchnyy red.; CHERPAK, A.G., nauchnyy red.; PRUDNIKOVA, M.N., red.; GOMOZOVA, N.A., red.; PANOVA, L.Ya., tekhn. red.

[Sanitary engineering equipment; a catalog] Sanitarno-tekhnicheskoe oborudovanie; katalog. Pod red. G.M. Zalgallera [Moskva] Gos. izd-vo lit-ry po stroit. materialam, 1957. 201 p. (MIRA 11:7)

1. Russia(1923- U.S.S.R.) Ministerstvo promyshlennosti stroitel'nykh materialov.
(Plumbing--Equipment and supplies)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V.I.

Vpomoshch' sel'skomu radistu. [Assisting the rural radio operator]. (Moskva) "Ul'ianovskaia pravda", 1950. 112 p.

SO: Soviet Transportation and Communications, A Bibliography, Library of Congress, Reference Department, Washington, 1952, Unclassified.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V. I.: ROMANOV, M. N.

Electric Measurements

Demonstrating electric measuring devices by shadow porjection Fiz, v shkole, 12, no2, 1952

Monthly List of Russian Accessions, Library of Congress, May 1952, Unclassified.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

V. I. POLIKARPOV

"MEASUREMENT AND ANALYSIS OF THE AIR CONTAMINATED WITH ION ALPHA-ACTIVE AEROSOLS" by V. I. Polikarpov

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V.I.

(4) PHASE I BOOK EXPLOITATION SOV/2713

International Conference on the Peaceful Uses of Atomic Energy. 2nd, Geneva, 1958

Doklady sovetskikh uchenykh; polucheniye i primeneniye izotopov (Reports of Soviet Scientists; Production and Application of Isotopes) Moscow, Atomizdat, 1959. 388 p. (Series: Its: Trudy, vol. 6) 8,000 copies printed.

Eds. (Title page): G.V. Kurdyumov, Academician, and I.I. Novikov, Corresponding Member, USSR Academy of Sciences; Ed. (Inside book): Z.D. Andreyenko; Tech. Ed.: Z.D. Andreyenko.

PURPOSE: This book is intended for scientists, engineers, physicians, and biologists engaged in the production and application of atomic energy to peaceful uses; for professors and graduate and nongraduate students of higher technical schools where nuclear science is taught; and for the general public interested in atomic science and technology.

COVERAGE: This is volume 6 of a 6-volume set of reports delivered by Soviet scientists at the Second International Conference on the Peaceful Uses of Atomic Energy held in Geneva from September 1 to 13, 1958. Volume 6 contains 32 reports on: 1) modern methods for the production of stable radioactive isotopes and their labeled compounds, 2) research results obtained with the aid of isotopes in the field of chemistry, metallurgy, machine building, and agriculture, and 3) dosimetry of ionizing radiation. Volume 6 was edited by: S.V. Levinskiy, Candidate of Medical Sciences; V.N. Prusakov, Candidate of Chemical Sciences; and V.V. Sedov, Candidate of Medical Sciences. See Sov/2081 for titles of volumes of the set. References appear at the end of the articles.

16. Ribergal', A.V., V.L. Karpov, and V.I. Sinitsyn. Cobalt Sources of High Intensity for Radiative Action (Report No. 2234) 200

17. Gusev, N.G., Ye. Ye. Kovalev, and V.I. Popov. Gamma Radiation Inside and Outside Extended Sources (Report No. 2088) 211

18. Aglintsev, K.K., M.A. Bak, V.V. Bochkarev, Ye.G. Gracheva, Z.V. Yershova, and K.A. Petrzhak. System of Radiometric Measurement of Radioactive Isotopes (Report No. 2087) 227

19. Aglintsev, K.K., V.P. Kazatkin, V.V. Mitrofanov, and V.V. Smirnov. Application of Nuclear Spectroscopy Methods to Beta and Gamma-ray Dosimetry (Report No. 2503) 237

20. Baranov, P.S., V.I. Gol'danskiy, and V.S. Roganov. Instrument for Measuring Small Streams of High-energy Neutrons (Report No. 2083) 244

21. Chubakov, A.A., L.I. Polikarpov, and V.A. Kuleshova. Measuring and Analyzing Air Contamination by Low Concentrations of Aerosol Alpha Emitters (Report No. 2130) 248

22. Zalenskiy, O.V., V.L. Vorneesenskiy, and O.A. Semikhatova. Photosynthesis Studies by Quantitative Radiometric Methods (Report No. 2135) 260

23. Rakitin, Yu.V. and A.V. Krylov. Studying the Transfer, Distribution, and Transformation of Certain Physiologically Active Compounds in Plants (Report No. 2133) 274

24. Ganar, I.I., Ye.Ye. Krastina, and A.Ye. Petrov-Spiridonov. Rhythm of Absorption and Secretion in Roots (Report No. 2253) 285

25. Akhromeyko, A.I., and V.A. Shestakova. Effect of the Rhizospheric Microorganisms on the Absorption and Secretion of Phosphorus and Sulfur by the Seedling Roots of Woody Plants (Report No. 2312) 306

26. Baranov, V.I., and N.D. Feofanova. Absorption of Phosphorus Tracers by Cultivated Plants in Relation to Their Resistance to Cold (Report No. 2313) 315

27. Andreyev, G.V., A.V. Voyevodin, V.A. Molchanova, and A.V. Khotyanovich. Some Results of Using Radioactive Isotopes for Plant Protection (Report No. 2309) 322

Alloys of Zirconium and Titanium Base by the Radioactive Isotope Method (Report No. 2526) 189

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

KUROCHKIN, S.S., kand. tekhn. nauk, red.; MATVEYEV, V.V., kand. fiz.-mat. nauk, red.; ZHERNOV, V.S., red.; KUZNETSOV, K.F., red.; LAZAREV, A.F., red.; MAMIKONYAN, S.V., glav. red.; NEMIROVSKIY, B.V., red.; POLIKARPOV, ~~V.I.,~~ red.; KHAZANOV, B.I., red.; ERGLIS, K.E., zam. glav. red.; SHIRSHOV, D.P., red.; ANDREYENKO, Z.D., red.; VLASOVA, N.A., tekhn. red.

[Apparatus for nuclear spectrometry; collection of scientific and technical articles] Apparatura dlia iadernoi spektrometrii; nauchno-tekhnicheskii sbornik. Moskva, Gos. izd-vo lit-ry v oblasti atomnoi nauki i tekhniki. No.1. 1960. 131 p. (MIRA 14:7)
(Spectrometry) (Nuclear research)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

PHASE I BOOK EXPLOITATION SOV/6058

Polikarpov, V. I., V. S. Filonov, O. V. Chubakova, and N. N. Yuzvuk.

Kontrol' germetichnosti teplovydelyayushchikh elementov (Monitoring the Hermiticity of Fuel Elements). Moscow, Gosatomizdat, 1962. 186 p. Errata slip inserted. 2500 copies printed.

Ed.: Ye. I. Panasenkova; Tech. Ed.: Ye. I. Mazel'.

PURPOSE: This book is intended for engineers and technicians specializing in the design and operation of reactors and of systems for monitoring the hermeticity of fuel-element jackets.

COVERAGE: The principles of designing systems for monitoring the hermeticity of fuel-element jackets are presented. Particular attention is given to the physical and chemical phenomena affecting system sensitivity and efficiency.

Card 1/12

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

BREVNOVA, N.V.; VARTANOVA, L.I.; POLIKARPOV, V.I.; YUZVUK, N.N.

Deposition of cesium and rubidium from CO2 on various materials.
Atom. energ. 14 no.6:585-586 Je '63. (MIRA 16:7)
(Cesium--Isotopes) (Rubidium--Isotopes)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

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L 19638-63 EPF(c)/EWP(q)/EWT(m)/BDS AFFTC/ASD Pr-4 JD
ACCESSION NR: AP3007063 S/0056/63/045/003/0464/0468

69
63

AUTHORS: Zherebin, Ye. A.; Krylov, A. I.; Polikarpov, V. I.; Yuzvuk, N. N.

19

TITLE: Investigation of the gamma radiation from Cs-140

SOURCE: Zh. eksper. i teoret. fiziki, v. 45, no. 3, 1963, 464-468

TOPIC TAGS: Cs-140, gamma radiation, short-lived fragment, spectral line

ABSTRACT: A method for investigating the gamma rays from the short-lived (half-life 66 sec) fragment Cs^{140} is described, along with the gas loop used to supply the Xe and Kr to the measurement place and to enrich the mixture of the decay product with the investigated fragment product. The Cs^{140} was investigated by a high-speed chemical separation of the cesium. The lines 0.59 ± 0.01, 0.88, 1.14, 1.62, 1.85, 2.06, 2.32, 2.72, 3.15 MeV were observed as a result in

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ACCESSION NR: AP3007063

6

the gamma rays. "In conclusion, the authors thank Ye. A. Tamonov and O. V. Chubakov for useful discussions and advice, and also A. N. Draskov, A. G. Dudoladov, Ye. A. Gershanov, and A. V. Morozov for directly participating in the experiments." Orig. art. has 6 figures.

ASSOCIATION: None

SUBMITTED: 29Mar63 DATE ACQ: 08Oct63 ENCL: 01

SUB CODE: PH NO REF SOV: 001 OTHER: 002

Card 2/82

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

ASKENOV, V.A.; BRODKIN, E.B.; BUSHUYEV, A.V.; POLIKARPOV, V.I.

Gamma radiation from Cs^{139}. Atom. energ. 13 no.3:271-274 S '62. (MIRA 15:9)

(Cesium--Isotopes) (Gamma rays)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 10679-63 EPF(n)-2/EWT(m)/EWP(q)/BDS--AFFTC/ASD/ESD-3/AFWL/SSD--Pu-4--
JD/JG

ACCESSION NR: AP3002270 S/0089/63/014/006/0585/0586

71

AUTHOR: Brevnova, N. V.; Vartanova, L. I.; Polikarpov, V. I.; Yuzvuk N. N.

TITLE: Deposition of cesium and rubidium from Co sub 2 on various materials

SOURCE: Atomnaya energiya, v. 14, no. 6, 1963, 585-586

TOPIC TAGS: deposition of radiation isotopes, cesium, rubidium, xenon, krypton

ABSTRACT: The deposition coefficients of Cs sup 130 and Rb sup 91 on various pipe materials during the passage of the carbon dioxide containing xenon and krypton were estimated. Work was carried out in the experimental channel of a research reactor. Carbon dioxide, after passing the active zone containing uranium, was filtered, and entered a pipe 0.1 cm diameter, 100 cm long. The rubidium and cesium isotopes formed during the decay of xenon and krypton were deposited on the walls. The deposition coefficient for Cs sup 139 was found to be 1.6 x 10 sup -2 cm sup -1, that for Rb sup 91 - 2.2 x 10 sup -2 cm sup -1. "In conclusion the authors express their gratitude to V. A. Aksenov for help in the work and discussion of the results." Orig. art. has: 1 figure and 5 equations.

ASSOCIATION: none

Card 1/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 10679-63

ACCESSION NR: AP3002270

SUBMITTED: 21Feb62

SUB CODE: 00

DATE ACQ: 12Jul63

NO REF SOV: 000

0

ENCL: 00

OTHER: 001

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Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

S/089/62/013/003/004/007
B102/B104

AUTHORS: Aksenov, V. A., Brodkin, E. B., Bushuyev, A. V., Polikarpov, V. I.

TITLE: Cs^{139} gamma radiation

PERIODICAL: Atomnaya energiya, v. 13, no. 3, 1962, 271-274

TEXT: No detailed data for the gamma radiation spectrum of Cs^{139} being available apart from those of Perkins and King (Nucl. Sci. and Engng. VII, 3, 1958), exact measurements were made, and some new lines discovered. The isotope was separated from the decay products of Kr and X contained in the gas channel of a research reactor by means of an aerosol filter. A scintillation spectrometer was used for studying the γ-spectrum, while NaI(Tl) and CsI(Tl) crystals with ФЭУ-13 (FEU-13) photomultipliers were used as detectors. The pulses from these were fed into a 100-channel pulse-height analyzer. At E = 0.661 Mev (Cs^{137}) the energy resolution was 9.5% and the non-linearity 1%. The background produced by the Cs^{138} spectrum was measured, giving results in good agreement with the data of Strominger et al. (Rev. Mod. Phys. 30, no. 2, part II, 1958). The Cs^{138}

Card 1/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

SEMENOV, A.S.; POLIKARPOV, V.K.; NOVOZHILOVA, M.Ye.

Effect of the nonuniformity of rocks in studying the zones of jointing and tectonic disturbances by the method of circular sounding. Vest. LGU 20 no.24:78-88 '65. (MIRA 19:1)

1. Submitted July 18, 1965.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V. N.

VASHKOV, V. I., POLIKARPOV, V. N., PASHCHNIK, A. A. "The toxicity of barium and sodium fluoroacetates on gray mice, white mice, and rabbits", Trudy Tsentr. nauch. -issled. dezinfekts. in-ta, Issue 5, 1949, p. 204-09.

SO: U-4631, 16 Sept 53, (Letopis 'Zhurnal 'nykh Statey, No. 24, 1949).

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V. N., SOBOLEV, N. I. and TREGUBOV, A. N.

"Insecticidal Properties of Preparations From the Sulfone Group". Tr. Tsentr. N.-I. Dezinfekts. In-ta, No. 8, pp 172-178, 1954.

Synthesized 13 compounds containing a sulfone group and tested their insecticidal properties on lice, flies, roaches, and ants. Chloromethylpara-chlorophenylsulfone proved to be the most effective against lice and roaches. 10% dusts, soaps, and aerosols prepared from this compound have an activity close to that of DDT. (RZhKhim, No 4, 1955)

SO: Sum No 884, 9 Apr 1956

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

Drum for continuous extraction of rubber. A. V. Novikov and V. P. Polikarpov. U.S.S.R. 67,929, Feb. 28, 1947. The appr. is used for the extn. of rubber in the process where kok-saghyz is utilized for the production of alc. and rubber. M. H.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

Rubber Abstracts

Planting

Drum for continuous extraction of rubber. A. V. Novikov and V. P. Polikarpov (U.S.S.R.P. 67929, Chem. Abs., 1949, 43, 3650). The device is for extracting rubber from kok saghiz. 1228.51.1

1949

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

3713 POLIKARPOV, V. P.

Vstroystovoi oborudovaniye sez'skikh katkov. (M.),Goskul't provetizdat, 1954. 8 s. s ill. 21 sm. (Kom. po fiz. kuz'ture i sporto pri sovete ministrov RSFSR). 25.000 3kz. Bespl. (54-57971) 796.91.05

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V. P.

POLIKARPOV, V. P.: "Root multiplication of cherries." Moscow Order Lenin Agricultural Academy imeni K. A. Timiryazev. Moscow, 1956. (Dissertations for the Degree of Candidate in Agricultural Sciences).

SO: Knizhnaya letopis' No. 22, 1956

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V.P., zasluzhennyy master sporta, kandidat tekhnicheskikh nauk

Great Moscow stadium. Zdorov'e 2 no.8:16-17 Ag '56. (MLRA 9:9)
(MOSCOW--STADIUMS)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

M

Country : USSR
Category: Cultivated Plants. Fruit. Berries.

Abs Jour: RZhBiol., No 11, 1958, No 49099

Author : Polikarpov, V.P.
Inst : Moscow Agric. Acad. im. K.A. Timiryazev
Title : The Structure of the Root System of Stocks in Relation to the Scions.

Orig Pub: Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957, vyp. 28, 304-306

Abstract. Excavations to study the root system of 15 year-old apple trees have been made at the experimental fruit-tree station of Moscow Agricultural Academy im. K.A. Timiryazev. The following varieties have been investigated: Common Antinovka with compact crown,

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V.P., kand. sel'skokhozyaystvennykh nauk.

Developmental and biological characteristics of cherry trees raised from green cuttings [with summary in English]. Izv. TSKhA no.6:93-104 '58. (MIRA 12:1)
(Cherry)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Vladimir Pavlovich; FITOVA, L., red.; KURMAYEVA, T., tekhn.red.

[Correct way to plan and plant an orchard] Kak pravil'no sproektirovat' i posadit' sad. Kishinev, Gos.izd-vo "Kartia moldoveniaske," 1961. 17 p. (MIRA 14:6)
(Fruit culture)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

GUZINSKIY, D.Ya.; VASKAN, G.K., nauchnyy sotr.; POLIKARPOV, V.P.; FITOVA, L.; red.; ZHEMANYAN, N., tekhn. red.

[Orchards on the Dniester terraces; development of fruit culture on the "Put' k kommunizmu" Collective Farm in Dubossary District] Sady na terrasakh Dnestra; iz opyta razvitiia sadovodstva kolkhoza "Put' k kommunizmu" Dubossarskogo raiona. Kishinev, Gos. izd-vo "Kartia moldoveniaske," 1961. 59 p. (MIRA 14:7)

1. Predsedatel' kolkhoza "Put' k kommunizmu" Dubossarskogo rayona (for Guzinskiy). 2. Nauchno-issledovatel'skiy institut sadovodstva, vinogradarstva i vinodeliya (for Vaskan, Polikarpov)
(Dubossary District—Fruit culture)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, V. S.

USSR/Engineering - Starters
Motors

Dec 49

"A Starting Protection Arrangement With Self-Starting for Pumping Motors," M. M. Frakhad-Zade, V. S. Polikarpov, 3 pp

"Energet Byul" No 12

Does not agree with Mosesov, who advocated group self-starting of pumping-jack motors (up to 20 in a group) [see Per Abs 66/49T88]. Prefers individual starters for each motor, fitted with thermal relay protection. Includes circuit diagram.

PA 153T56

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

KUZNETSOV, Ye.I.; POLIKARPOV, V.V.

Improve the blowing of press-and-blow machines. Stek. i ker. 22 no.2:30-32 F '65. (MIRA 18:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

CHIKISHEV, Yu.G.; TSETLIN, B.L.; RAFIKOV, S.R.; POLIKARPOV, Yu.M.; MEDVED', T.Ya.; KABACHNIK, M.I.

Laws governing the radiation-induced polymerization of diphenylvinylphosphine oxide in a melt. Vysokom.soed. 7 no.1:33-38 Ja '65. (MIRA 18:5)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 20367-65 EWT(m)/EPF(c)/EPF(n)-2/T/EWP(t)/EWP(b) Pr-4/Pu-4
IJP(c) JD/GG S/0020/64/159/005/1027/1030
ACCESSION NR: AP5001512

AUTHOR: Gruzin, P. L.; Zharov, Yu. D.; Polikarpov, Y. A.

B

TITLE: Effect of gamma-irradiation on the nonelastic properties of copper single crystals

SOURCE: AN SSSR. Doklady, v. 159, no. 5, 1964, 1027-1030

TOPIC TAGS: copper, copper single crystal, gamma irradiation, internal friction

ABSTRACT: The effect of γ-irradiation on the nonelastic properties of copper single crystals has been investigated by the method of internal friction with specimens annealed at 800C for 5 hr, γ-irradiated with a dose of up to 10^8r, and subsequently annealed at 100C for 5 hr, at 150C for 6 hr, or at 200C for 4 hr. The amplitude dependence of internal friction is shown in Fig. 1 of the Enclosure. At amplitudes exceeding the amplitude which causes the separation of dislocations from lattice defects, the amplitude dependence of internal friction becomes irreversible. The level of internal friction with

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 20167-65 EWT(m)/EPF(c)/EPF(n)-2/T/EWP(t)/EWP(b) Pr-4/Pu-4
IJP(c) JL/GG
ACCESSION NR: AP5001512

SUBMITTED: 31Ju164 ENCL: 01 SUB CODE: SS, MM

NO REF SOV: 001 OTHER: 009 ATD PRESS: 3163

Card 3/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 20367-65
ACCESSION NR: AP5001511

ENCLOSURE: 01

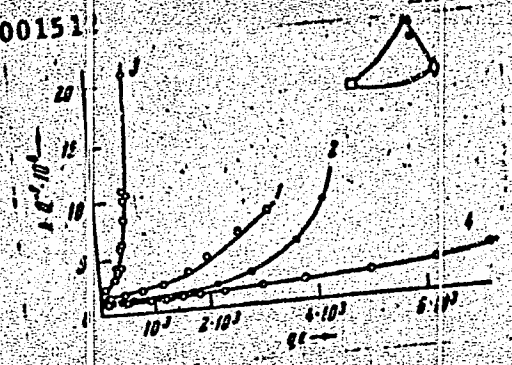

Fig. 1. Amplitude dependence of the internal friction of copper single crystals (f = 3788.9 kc)

1 - Annealed at 800C; 2 - γ-irradiated; 3 - γ-irradiated and annealed at 150C; 4 - γ-irradiated and annealed at 200C.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Ye. F.

Mbr., Inst. Evol. Morphol. im. A. N. Severtosov, -1940-

c48-.

"Factors Which Govern the Sexual Rhythm and Ovulation in Rabbits," Iz. Ak. Nauk SSSR, Ser. Biol., 5, 1948.

"Influence of External Factors upon the Development of the Sexual Gland of the Sparrow," Dok. AN, 26, No. 1, 1940.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

ROSTKOV, V., khudozhnik-konstruktor; SHEKHOV, B., inzh.; POLIKARPOV, Yu., khudozhnik-konstruktor

Effect of the method of drawing working sketches on the quality of the shape of the product. Tekh. est. 2 no.8:12-14 Ag '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tekhnicheskoy estetiki.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

ACCESSION NR: AR4046014 S/0058/64/000/007/E093/E093

SOURCE: Ref. zh. Fizika, Abs. 7E705

AUTHORS: Vasil'yev, A. A.; Gruzin, P. L.; Zharov, Yu. D.; Polikarpov, Yu. A.; Trokin, Yu. A.; Breger, A. Kh.; Gol'din, V. A.

TITLE: Effects of gamma and neutron irradiation on the internal friction of copper

CITED SOURCE: Sb. Relaksats. yavleniya v met. i splavakh. M., Metallurgizdat, 1963, 250-257

TOPIC TAGS: internal friction, copper, polycrystal, single crystal, gamma irradiation, neutron irradiation, temperature dependence, annealing

TRANSLATION: The internal friction (IF) of polycrystalline and single-crystal samples of copper was measured under flexural vibra-

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

USSR/Solid State Physics - Diffusion, Sintering, E-6

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34752

Author: Gruzin, P. L., Polikarpov, Yu. A., Shumilov, M. A.

Institution: None Central Sci. Res. Inst Ferrous Metallurgy

Title: Use of the C^{14} Isotope to Study the Diffusion of Carbon in Metals

Original Periodical: Zavod. Laboratoriya, 1955, 21, No 4, 417-423

Abstract: None

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, YU. A.

The use of the carbon-14 isotope for the study of carbon diffusion in metals. P. L. Gruzin, Yu. A. Polikarpov, and M. A. Shumilov. *Zavodskaya Lab.* 24, 417-23(1958).—The following procedure is recommended: Wrought iron (C = 0.02, Si = 0.01, S = 0.014, and P = 0.002%) was fused in a high-frequency furnace, and plates 12 × 12 × 8 mm. were prepd. from it. These plates (in duplicates) were immersed in a mixt. of $BaC^{14}O_3$ and activated charcoal, sealed in evacuated quartz ampuls and kept for 4 min. at 1200° in a furnace. The C distribution in both samples was found by its detn. in a thin layer surface of one sample, whereas the other sample was Cu-plated in a cyanide bath and heated for diffusional annealing in a vacuum (10^{-3} mm. Hg) at 350–850° and at 900–1050°, for lengths of time varying between 12 hrs. and 10 min. The heating was done stepwise, by preheating to the required temp. in a furnace maintained at the higher temp., and rapidly transferring the sample with an electromagnet to the next furnace where the sample was annealed. The layer activity in the annealed sample was detd. as usual. After verifying the results with austenite by their agreement with the best results in the literature, diffusion tests were run in ferrite, and the diffusion coeffs. detd. at 250, 500, 600, 650, 700, 725, 750, 800, and 810°. The diffusion in Ni was also studied. W. M. S.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

AUTHOR: Polikarpov, Yu.A.
Gruzin, P.L., Polikarpov, Yu.A. and Fedorov, G.B. 114

TITLE: Study of the diffusion of the carbon in nickel and its alloys by means of radio-active C^{14}. (Izuchenie diffuzii ugleroda v nikele i ego splavakh pri pomoshchi radioaktivnogo izotopa C^{14}).

PERIODICAL: "Fizika Metallov i Metallovedenie" (Physics of Metals and Metallurgy), 1957, Vol.IV, No.1 (10), pp.94-102 (U.S.S.R.)

ABSTRACT: The results are described of the diffusion of carbon in nickel and some nickel base alloys. In addition a method of determination of the diffusion constant of carbon is described briefly. The C^{14} was deposited on the surface of the specimens by means of short duration carburisation in a mix containing $BaCo_3$ and charcoal. The composition of the investigated alloys is given in Table 2, p.99. The diffusion constants for these alloys are given in Table 3, p.10. It was found that the diffusion coefficients of carbon are in all cases 10^{9} to 10^{10} as high as those of metals and it is assumed that the processes of liquation of carbon in steels are due to the peculiarities of its diffusion and the character of distribution of slowly diffusing elements. The results obtained for nickel indicate that the diffusion mobility of carbon remains practically unchanged in the case of alloying of the nickel, and this is in agreement with the conception that distortions in the crystal lattice of the metal do not need to

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, YU.A.

L 10880-65 EWT(m)/EWP(t)/EWA(d)/EWP(t)/EWP(b) SSD/AFWL/ASD(m)-3 JD
ACCESSION NR: AR4046550 S/0058/64/000/008/E086/E086

SOURCE: Ref. zh. Fizika, Abs. 8E666

AUTHORS: Zharov, Yu. D.; Trokin, Yu. A.; Vasil'yev, A. A.; Gruzin, P. L.; Polikarpov, Yu. A.

TITLE: Determination of the "internal" friction and of the modulus of elasticity of metals at low amplitudes

CITED SOURCE: Sb. Relaksats. yavleniya v. met. i splavakh. M., Metallurgizdat, 1963, 221-225

TOPIC TAGS: internal friction, modulus of elasticity, flexural strength, flexural oscillations

TRANSLATION: An installation is described for the study of the internal friction and for the measurement of the modulus of elasticity, using high-frequency flexural vibrations of the specimen. The in-

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 10880-65
ACCESSION NR: AR4046550

stallation makes it possible to carry out measurements in the temperature interval from -196 to +200C and at frequencies of several kcs, and at oscillation amplitudes corresponding to a relative deformation $\sim 10^{-8} - 10^{-5}$.

SUB CODE: MM ENCL: 00

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 14998-65 EWT(m)/EWP(j)/EPF(c)/EPF(n)-2/EWA(d)/EWP(t)/EWP(b) Pr-4/
Pu-4 BSD/ASD(m)-3/AS(mp)-2/IJP(c) MJW/JD/JW/GG/MLK

ACCESSION NR: AT4048134 S/0000/63/000/000/0250/0257

AUTHOR: Vasil'yev, A.A., Gruzin, P.L., Zharov, Yu. D., Polikarpov, Yu. A., Trokin, Yu. A., Breger, A. Kh., Gol'din, V.A. B

TITLE: Effect of gamma and neutron irradiation on internal friction of copper

SOURCE: Vsesoyuznaya konferentsiya po relaksatsionny*m yavleniyam v metallakh i splavakh. 3d, Voronezh, 1962. Relaksatsionny*ye yavleniya v metallakh i splavakh (Relaxation phenomena in metals and alloys); trudy* konferentsii. Moscow, Metallurgizdat, 1963, 250-257

TOPIC TAGS: copper, internal friction, copper irradiation, gamma irradiation, neutron irradiation

ABSTRACT: The paper reports the results of studies on irradiation of copper by gamma rays from Co-60, as well as by Po-Be neutrons and in atomic piles. The maximum dose was 580 r/sec. The irradiated objects were placed in water-cooled vessels, and in some cases the temperature of the samples reached 80C. Common electrolytic copper and pure copper, grade V2, containing not over 5×10^{-4} Bi, Fe, Si, Mg, Mn, As, Ni, Sn, Pb, Sb and Zn were used in the tests. After annealing, the internal friction of all samples was found to depend on the amplitude. Even small deformations increase the

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L 14998-65

ACCESSION NR: AT4048134

internal friction. Further irradiation by neutrons lowers the internal friction by 50%. However, the level of internal friction after irradiation is somewhat higher than after annealing at 800C. Annealing at 200C for 3 hrs. lowers the internal friction to the initial value. Several samples were irradiated by Po-Be neutrons at the temperature of liquid nitrogen. After irradiation, the internal friction dropped somewhat in comparison with the initial level. A polycrystalline sample was irradiated in a pile after deformation; although the internal friction increased after deformation and the maximum could not be observed, further irradiation in the pile lowered the internal friction. Annealing at 200C for 2 hours returned the internal friction to the initial value with the maximum dropping significantly. After gamma irradiation and annealing at 100 or 200C (5 hrs.), the internal friction did not change at all. Only annealing at 300C lowered the internal friction below the initial level for all temperatures. Radiation of an annealed polycrystalline sample by 6×10^{16} neutrons/cm^2 increased the internal friction, forming two maxima on the curve. Beginning with 1.9×10^{15}, however, irradiation decreased the internal friction and increased the resonance frequency. The authors are unable to explain this fact. Most publications consider that the elimination of defects caused by radiation takes place at the dislocations in the crystals. It should be noted that the

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observed change in propertie is not caused directly by radiation but by partial elimination of these effects during ar nealing. Electron microscopes show the defects which accumulate in flat groups, fo ming dislocation loops. Further tests will be required to explain this phenomenon. As a result of the tests performed, the activation energy, determined at the maxima of nternal friction on the curves, was found to vary from 0.4 to 1.5 ev. It may be assume l that the maxima on the curves are not of the Bordoni type, since they are observed in pr perly annealed samples and do not depend on the degree of deformation, having a high ac ivation energy. It is possible that the maxima are caused by the admixtures. O ig. art. has: 9 figures.

ASSOCIATION: Institut metal ovedeniya i fiziki metallov TsNIIChM im. I.P. Bardina (Institute of Physical Metallur gy and Metal Physics, TsNIIChM)

SUBMITTED: 10Nov63 ENCL: 00 SUB CODE: MM, NP

NO REF SOV: 002 OTHER: 006

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Yu. A.,

"An Investigation of the Mobility of Carbon Atoms in Steel and Alloys with the Use of the Isotope C^{14}, " with Gruzin, P. L., Dr. Phys. and Math. Sci.; Babikova, Ye. F.; Borisov, Ye. V.; Zemskiy, S. V.; Peregudov, N. P.; Trikina, A. N.; Fedorov, G. B., Cand. Tech. Sci.; Shumilov, M. A., Cand. Tech. Sci., page 32 7.

In book Problems of Physical Metallurgy, Moscow, Metallurgizdat, 1958, 603p. (Its: Sbornik trudov, v. 5)

The articles in the book present results of investigations conducted by the issuing body, Inst. of Physical Metallurgy, a part of the Cent. Sci. Res. Inst. of Ferrous Metallurgy, located in Dnepropetrovsk. The investigations were concerned with phase transformations in alloys, strengthening and softening processes, diffusion processes (studied with the aid of radioactive isotopes), and certain other questions.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Yu. A.

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 2, p 2411 (USSR) SOV/137-59-2-4054

AUTHORS: Gruzin, P. L., Babikova, Yu. F., Borisov, Ye. V., Zemskiy, S. V., Peregudov, N. P., Polikarpov, Yu. A., Tirkina, A. N., Fedorov, G. B., Shumilov, M. A.

TITLE: Study of the Mobility of Carbon Atoms in Steel and Alloys Using C^{14} Isotope (Izucheniye podvizhnosti atomov ugleroda v stali i splavakh pri pomoshchi izotopa C^{14})

PERIODICAL: Sb. tr. In-t metalloved. i fiz. metallov Tsentr. n.-i. in-ta chernoy metallurgii. 1958, Vol 5, pp 127-365

ABSTRACT: The authors examine methods for investigating the diffusion, electrolytic transfer, and distribution of C in Fe, Ni, and some of their alloys. Data were obtained by the direct (autoradiographic) method on the effect of Cr, Ni, Mo, and Si on the diffusion of C in ferrite; Ni and Si have appreciably less effect on the diffusion of C than the carbide-forming Cr and Mo. It was established that the diffusion-mobility level changes very little when the Fe and Ni are highly alloyed; it is displaced only when another base is used, as it happens in Fe-Cr, and under these conditions the mobility level of C approaches that of the alloying elements. It was experimentally verified that the C in Fe and Ni in in the cation state. It was established that the cation charge can change depending upon the character of the alloying element. Bibliography: 27 references.

M. G.

Card 1/2

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

GRUZIN, P.L., doktor fiz.-mat.nauk; BABIKOVA, Yu.F.; BORISOV, Ye.V; ZEMSKIY, S.V.; PEREGUDOV, N.P.; POLIKARPOV, Yu.A.; TIRKINA, A.N.; FEDOROV, G.B., kand. tekhn.nauk; SHUMILOV, M.A., kand.tekhn.nauk

Studying the migration of carbon atoms in steels and alloys by means of the isotope C14. Probl. metalloved. i fiz. met. no.5:327-365 '58. (Steel--Metallography) (Carbon--Isotopes) (MIRA 11:4) (Diffusion)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

GRUZIN, P.L.; KOMONYUK, I.F.; PAVLYUCHENKO, M.M.; POLIKARPOV, Yu.A.

Using the method of radioisotopes in studying the diffusion of sulfur in iron. Inzh.-fiz. zhur. no. 6:64-67 Je '58.

(MIRA 11:7)

1. Institut metallovedeniya i fiziki metallov TSentral'nogo nauchno-issledovatel'skogo instituta chernoy metallurgii, Moskva i Belorusskiy gosudarstvennyy universitet im. V.I.Lenina, Minsk.

(Radioisotopes--Industrial applications)
(Sulfur--Isotopes)
(Iron--Metallography)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

GRUZIN, P.L.; GULYAYEV, A.P.; MARTINSON, V.G.; POLIKARPOV, Yu.A.

Investigating the temperature relation of the self-diffusion ratio of iron in steel. Izv. vys. ucheb. zav.; chern. met. no.1:167-170 '60. (MIRA 13:1)

1.Moskovskiy vecherniy mashinostroitel'nyy institut i TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.
(Iron--Isotopes) (Diffusion)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

GRUZIN, P.L.; POLIKARPOV, Yu.A.

Studying the effect of structural facotrs on diffusion in steels and alloys by means of radioactive isotopes. Met. i metalloved. chist. met. no. 2:259-275 '60. (MIRA 13:12)
(Steel alloys--Metallography)
(Radioisotopes--Industrail applications)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Yu. M

Reactions of the carbonyl group in β-furanidone. I. K. Korobitsyna, Yu. K. Yut'ev, and Yu. M. Polikarpov. *Gen. Chem. U.S.S.R.* 25, 1531-3(195[redacted] B. M. R.
See *C.A.* 50, 4899i.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

L 31362-66 EWP(j)/EWT(m)/T RM

ACC NR: AP6021102 SOURCE CODE: UR/0062/66/000/002/0367/0368

35
B

AUTHOR: Kabachnik, M. I.; Medved', T. Ya.; Polikarpov, Yu. M.

ORG: Institute of Organoelemental Compounds, AN SSSR (Institut elementoorganicheskikh soyedineniy)

TITLE: Oxides of beta-aminosubstituted vinylphosphines

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 2, 1966, 367-368

TOPIC TAGS: organic oxide, organic synthetic process, ozonide

ABSTRACT: Continuing the study of oxides of alpha, beta-unsaturated phosphines, the authors synthesized oxides of phosphines containing a dialkylamino group in the beta-position of the vinyl radical and investigated some of their properties. The oxide of beta-diethylaminovinyldiphenylphosphine was obtained by the authors by dehydrochlorination of the addition product of diethylamine to the oxide of alpha-chlorovinyldiphenylphosphine. When this compound was subjected to ozonization, and the ozonide to decomposition with water, formaldehyde was not detected. The following compounds were prepared: oxide of alpha-chloro-beta-diethylaminoethyldiphenylphospine; oxide of beta-diethylaminovinyldiphenylphosphine; dioxide of tetraphenyldiethylaminoethylenediphosphine; oxide of beta-dimethylaminovinylphosphine; and dioxide of tetraphenyldimethylaminoethylenediphosphine. [JPRS]

SUB CODE: 07 / SUBM DATE: 14Jul65 / ORIG REF: 001 / OTH REF: 001

Card 1/1 CC UDC: 542.91 + 661.718.1

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, YU. M.

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CH

Reactions of the carbonyl group of β-furanidone. I. K. Korobitsyna, Yu. K. Yur'ev, and Yu. M. Polikarpov (State Univ., Moscow). *Zhur. Obshchei Khim.* 25, 1571-4(1955); cf. *C.A.* 49, 12430*h*; 50, 3383*f*.—To the Iotsich complex, from 7.2 g. Mg and 32.7 g. EtBr in 250 ml. Et_2O treated with C_2H_2, was added with cooling 25.8 g. β-furanidone (I), in Et_2O and the mixt., after 24 hrs., was treated with ice-HCl and extd. continuously with Et_2O, yielding 40% unreacted I and 5.1 g. *bis(β-hydroxy-β-furanidyl)acetylene*, b_4 196-9°, m. 109.5-10.5° (from Me_2CO). I (5.5 g.) and 9.5 g. $HC(OEt)_3$ with a drop of H_2SO_4 gave 54% I *di-Et ketal*, b_{20} 82-8°, n_D^{20} 1.4279, d_{20} 0.9930. Refluxing 8.6 g. I, 7 g. $(CH_2OH)_2$, 50 ml. C_6H_6, and 0.01 g. *p*-$MeC_6H_4SO_3H$ with azeotropic sepn. of H_2O gave in 8 hrs. 90% I *ethylene ketal*, $C_6H_{10}O_3$, b_{24} 79-9.5°, n_D^{20} 1.4501, d_{20} 1.1465. Passage of dry HCl at 0° into 8.6 g. I and 20 g. EtSH gave 45% I *di-Et thioketal*, b_2 93-3.5°, n_D^{20} 1.5230, d_{20} 1.0806. This with 30% H_2O_2 in AcOH gave the *corresponding disulfone*, $C_6H_{10}O_5S_2$, m. 109.5-10° (from AcOH). Similarly $(CH_2SH)_2$ and I treated with dry HCl gave 54% I *ethylene thioketal*, b_4 98-8.5°, n_D^{20} 1.5756, d_{20} 1.2629, which with H_2O_2 oxidized to the corresponding *disulfone*, $C_6H_{10}O_5S_2$, m. 154.5-5° (from AcOH). Reaction of β-thiophanone and $(CH_2SH)_2$ similarly gave 76% *β-thiophanone ethylene thioketal*, b_4 128-8.5°, n_D^{20} 1.6317, d_{20} 1.3040, which with H_2O_2 gave the 95% *trisulfone*, decomp. 210° (from AcOH). G. M. Kosolapoff

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

YUR'YEV, Yu.K.; LUKINA, Ye.M.; POLIKARPOV, Yu.M.; VOLKOV, V.P.

Catalytic conversions of heterocyclic compounds. Part 48. Preparation of 3-isoamyl- , 3-hexyl- , and 3-*p*-tolyltetrahydrothiophenes from corresponding furanidines. Zhur.ob.khim. 26 no.2: 553-557 F '56. (MLRA 9:8)

1. Moskovskiy gosudarstvennyy universitet.
(Thiophene) (Furan)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Yu. M.

Catalytic transformations of heterocyclic compounds. XI/VIII. Preparation of 3-isoamyl-, 3-hexyl-, and 3-p-tolyltetrahydrothiophenes from corresponding furanidines. Yu. K. Yur'ev, E. M. Lukina, Yu. M. Polikarpov, and V. P. Volkov. *J. Gen. Chem. U.S.S.R.* 26, 553-6(1956)(Engl. translation).—See *C.A.* 50, 13863*f*. B. M. R.

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

KABACHNIK, M.I.; MASTRYUKOVA, T.A.; POLIKARPOV, Yu.M.; PAVKIN, D.M.; SHABANOVA, M.P.; GAMPER, N.M.; YEFIMOVA, L.F.

Organophosphorus insecticides. Some analogues of O, O-diethyl ethylmercaptoethyldithiophosphate. (M-74), less toxic for the warmblooded. Dokl. AN SSSR 109 no.5:947-949 Ag. 1956. (MLRA 9:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Kabachnik). 2. Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR i Vsesoyuznyy institut zashchity rasteniy Vsesoyuznoy Akademii sel'skokhozyaystvennykh nauk imeni Lenina.

(Thiophosphates)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

S/020/60/135/004/022/037
B016/B062

AUTHORS: Kabachnik, M. I., Academician, Medved', T. Ya., and Polikarpov, Yu. M.

TITLE: Phosphine Oxides Containing the Vinyl Group at the Phosphorus Atom

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 4, pp. 849-852

TEXT: The authors synthetized three vinyl phosphine oxides. The following reaction scheme is given:

$(C_2H_5)_2P(=O)-CH=CH_2$; $(C_3H_7)_2P(=O)-CH=CH_2$ and $(C_2H_5)(C_6H_5)P(=O)-CH=CH_2$. They contain the vinyl group directly at the phosphorus atom and have hitherto not been described. The authors used the addition reaction of ethylene oxide to phosphorus trichloride (described by M. I. Kabachnik and P. A. Rossiyskaya, Ref. 2) in the production of the β-chloro-ethyl ester of the diethyl phosphinous acid from diethyl-chloro phosphine, thus confirming the vali-

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

dity of this reaction for compounds of the type PCl_3, $RPCl_2$, and R_2PCl. They proved that the β-chloro-ethyl ester of diethyl phosphinous acid is, when heated, converted into compounds of pentavalent phosphorus. The authors succeeded in isolating the two products of the regrouping of Arbuzov (not explained in the text) at the same time: a) β-chloro-ethyl diethyl phosphine oxide, and b) tetraethyl ethylene diphosphine dioxide. The authors assume here the same conversion mechanism as with the aromatic esters of phosphorous acid (Ref. 8): a) an intra- or intermolecular isomerization of the β-chloro-ethyl ester of diethyl phosphinous acid; b) the resulting β-chloro-ethyl diethyl phosphine oxide reacts in the way of halogen alkyls with the second molecule of the β-chloro-ethyl ester of diethyl phosphinous acid according to the scheme of the Arbuzov regrouping. The authors dehydrochlorinated the β-chloro-ethyl diethyl phosphine in a sealed tube by heating with triethyl amine. It is stated that diethyl-vinyl phosphine oxide is more conveniently obtained directly from the β-chloro-ethyl ester of diethyl phosphinous acid without isolating the intermediate product β-chloro-ethyl diethyl phosphine oxide. Analogously, the authors obtained dipropylvinyl phosphine oxide and ethylphenylvinyl phosphine

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

Phosphine Oxides Containing the Vinyl Group at the Phosphorus Atom

S/020/60/135/004/022/037
B016/B062

oxide. Mention is made of a paper by M. I. Kabachnik, Chzhan Zhun-yuy, and Ye. N. Tsvetkov (Ref. 9). Table 1 contains the formulas of the synthetized compounds I - IX with constants and yields. There are 1 table and 11 references: 10 Soviet and 1 US.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds, Academy of Sciences USSR)

SUBMITTED: August 11, 1960

№ п. п.	Соединение
1	2
I	$C_6H_5P(O)(C_2H_4)(OC_2H_4Cl)$ *
II	$C_6H_5P(O)(C_2H_4)(OC_2H_4Cl)$
III	$C_6H_5P(O)(C_2H_4)(OC_2H_4Cl)$
IV	$C_6H_5P(O)(C_2H_4)(OC_2H_4Cl)$
V	$C_6H_5P(O)(C_2H_4)(C_2H_4Cl)$
VI	$C_6H_5P(O)(C_2H_4)(PC_2H_4P(C_2H_5)(C_2H_5)(O))$
VII	$C_6H_5P(O)(C_2H_5)(CH=CH_2)$
VIII	$C_6H_5P(O)(C_2H_5)(CH=CH_2)$ **
IX	$C_6H_5P(O)(C_2H_5)(CH=CH_2)$

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S/020/60/135/004/022/037
B016/B062

Т-ра кип., °C/мм 3	n_D^{20} 4	d_4^{20} 5	MR		C, %	
			найд. 6	выч. 7	найд. 8	выч. 9
29—30/2	1,4670	1,0144	46,12	45,98		
99—100/1	1,5645	1,2896	56,30		42,8 42,9	43,1
81—82/1	1,5430	1,1111	61,44		55,7 55,7	55,5
49—50/2	1,4675	0,9825	55,59	55,20	49,4 49,3	48,8
100—101/1 т. пл. 33—34°	1,4855	1,1154	43,36	43,40	42,7 42,6	42,7
а) т. пл. 122—123°	—	—	—	—	50,5 50,6	50,4
б) т. пл. 35—36°	—	—	—	—	54,4 54,6	54,5
77—78/1 т. пл. 36—37°	—	—	—	—		
112—113/1 т. пл. 43—44°	—	—	—	—	66,5 66,4	66,7

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B016/B062

H, %		P, %		Cl, %		Выход, %
найд. 6	выч. 8	найд. 6	выч. 8	найд. 6	выч. 8	7
				20,7	21,0	37
4,3 4,2	4,1	13,7 13,6	13,9	31,2 31,5	31,8	68
6,9 6,8	6,5	14,3 14,6	14,3	16,2 16,6	16,4	56
8,9 9,0	9,2	15,4 15,7	15,7	17,7 18,1	18,0	40
8,3 8,4	8,4	18,1 18,0	18,4	21,2 21,3	21,0	70
10,3 10,4	10,1	25,7 25,8	26,0	Нет	9)	15
9,8 9,7	9,9	23,1 23,0	23,4	Нет	9)	50
						45
7,3 7,4	7,3	16,9 16,8	17,2	Нет	9)	58

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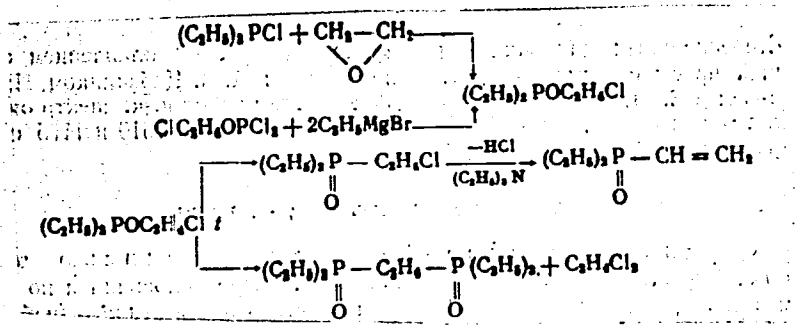
B016/B062



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B016/B062

Legend: 1, current number, 2, formula, 3, boiling point, 6, found, 7, yield, 8, calculated, 9, none, 10, melting point.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

KABACHNIK, M.I.; MEDVED', T.Ya.; POLIKARPOV, Yu.M.; YUDINA, K.S.

Reactions of vinyldiphenylophosphine oxide. Izv.AN SSSR.Otd.khim. nauk no.9:1584-1589 S '62. (MIRA 15:10)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.
(Phosphine oxide)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

29521
S/062/61/000/011/008/012
B103/B147

5.3630

AUTHORS: Kabachnik, M. I., Medved', T. Ya., Polikarpov, Yu. M., and Yudina, K. S.

TITLE: Synthesis of diphenyl-vinyl phosphine oxide

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 11, 1961, 2029 - 2031

TEXT: The authors synthesized: (a) Diphenyl-vinyl phosphine oxide (melting point 116 - 117°C) and (b) tetraphenyl-ethylene-diphosphine dioxide (melting point 269 - 270°C):

$$\text{(a)}\ C_6H_5PCl_2 \xrightarrow[t^o]{AlCl_3} (C_6H_5)_2PCl \xrightarrow{\overset{CH_2-CH_2}{\diagdown O \diagup}} (C_6H_5)_2POCH_2CH_2Cl$$

$$\xrightarrow{t^o} (C_6H_5)_2P(O)CH_2CH_2Cl \xrightarrow{HCl} (C_6H_5)_2P(O)CH = CH_2.$$

The first synthesis stage, the conversion of phenyl-dichloro phosphine

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

29521

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B103/B147

Synthesis of diphenyl-vinyl phosphine...

to diphenyl-chloro phosphine was effected by catalytic disproportionation of the former in the presence of $AlCl_3$ and constant distilling off of the PCl_3 formed. The yield in diphenyl-chloro phosphine was 70%. This method is simple and gives easily reproducible results. Ditolyl-chloro-phosphine was obtained in the same manner (yield 65%). The second synthesis stage was achieved by passing a stream of ethylene oxide through diphenyl-chloro phosphine. The reactivity of the P-Cl bond is reduced owing to the introduction of two phenyl groups into the atom of the trivalent phosphorus. PCl_3 showed the most vigorous reaction with ethylene oxide; whereas phenyl-dichloro phosphine was somewhat less effective. The reaction with diphenyl-chloro phosphine is exothermic. It requires, however, heating at 60°C for 1 hr until it is completed. The third synthesis stage, the isomerization of the β-chloroethyl ester of diphenyl-phosphinous acid to diphenyl-β-chloroethyl phosphine oxide, does not take place smoothly Different quantities of both the final product mentioned and b): $(C_6H_5)_2P(O)CH_2CH_2P(O)(C_6H_5)_2$ are formed depending on the pressure used (atmospheric pressure or vacuum). Ethylene diphosphine derivatives were produced previously (M. I. Kabachnik, Izv. AN SSSR, Otd. khim. n. 1947, 631); the same holds for dioxides (M. I. Kabachnik, T. Ya. Medved', Yu. M.

Card 2/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Yu. M.

S/190/61/003/007/021/021
B101/B230

15.8050

AUTHORS: Tsetlin, B. L., Medved', T. Ya., Chikishev, Yu. G., Polikarpov, Yu. M., Rafikov, S. R., Kabachnik, M. I.

TITLE: Radiation polymerization of tertiary monovinylphosphine oxides

PERIODICAL: Vysokomolekulyarnyye soyedineniya, v. 3, no. 7, 1961, 1117 - 1118

TEXT: This letter to the editor reports the synthesis of polymers on the basis of tertiary monovinylphosphine oxides (Ref. 1: M. I. Kabachnik, T. Ya. Medved', Yu. M. Polikarpov, Dokl. AN SSSR, 132, 849, 1960; M. I. Kabachnik, Chang Jung-yü, Ye. N. Tsvetkov, Dokl. AN SSSR, 145, 604, 1960) to be of great importance due to the high thermal and chemical stability of phosphine oxides. Experiments to polymerize such monomers by applying initiators of the radical polymerization (benzoyl peroxide, azoisobutyric acid dinitrile) failed to produce satisfactory results. Oxides of the tertiary diallyl- and dimethallyl phosphines were, in the presence of

Card 1/3

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this type of initiators, either not polymerized at all, or their polymerization proceeded at an extremely low rate with very poor yield (Ref. 2, see below). Authors conducted experiments to initiate polymerization of diethylvinylphosphine oxide (I) and diphenylvinylphosphine oxide (II) by radiation. As source of radiation an X-ray irradiation apparatus was used. Samples were exposed to irradiation in molten state in vacuum. In irradiation of (I) the dose rate was $4 \cdot 5 \cdot 10^{16}$ ev/ml sec at an irradiation time of 30 hr at 70°C. As a product, a solid polymer was obtained having a molecular weight of ~33,000 (the monomer was distilled off under vacuum). Degree of conversion amounted to ~80 %, radiation yield G of the polymerization was ~80 molecules of the monomer per 100 ev. The polymer is well soluble in water, ethanol, and benzene. In irradiation of (II), the dose rate was $4 \cdot 10^{15}$ ev/ml sec for a time of 50 hr at 130°C. A polymer was obtained having a molecular weight of ~30,000; degree of conversion ~60 %, radiation yield ~350 molecules per 100 ev. The polymer is soluble in ethanol and benzene when heated, and may be precipitated from alcohol by adding a small quantity of water. Vitrification temperature of the

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

S/062/62/000/009/006/009
B119/B186

AUTHORS: Kabachnik, M. I., Medved', T. Ya., Polikarpov, Yu. M., and Yudina, K. S.

TITLE: Reactions of vinyl diphenyl phosphine oxide

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 9, 1962, 1584 - 1589

TEXT: Thirteen compounds were obtained from vinyl diphenyl phosphine oxide by reactions according to the following scheme:

Card 1/3

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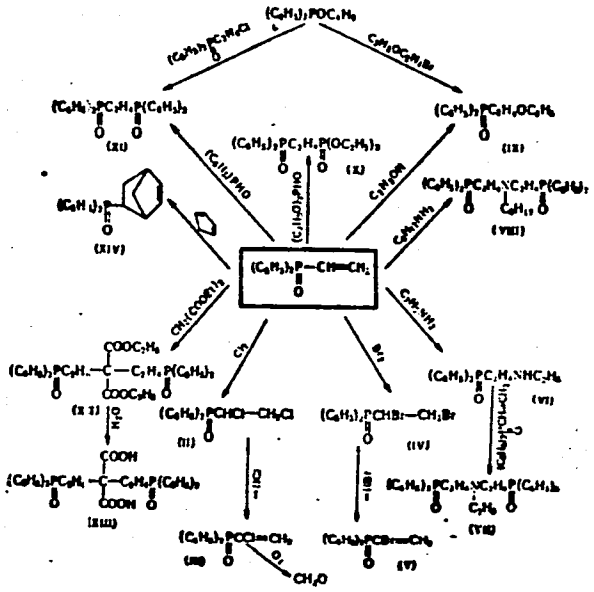

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

Reactions of vinyl diphenyl ... S/062/62/000/009/006/009
B119/B186

The melting points of the compounds are (Roman figures corresponding to the scheme): II, 126 - 127; III, 76 - 77; IV, 139 - 141; V, 68 - 70; VI, 72 - 74; VII, 190 - 191; VIII, 158 - 159; IX, 69 - 71; X, 108 - 109; XI, 269 - 270; XII, 184 - 185; XIII, decomposition above 180; XIV, 122 - 124°C. The most important English-language reference is: K. D. Berlin, G. B. Butler, J. Organ. Chem, 26, 2537 (1961).

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR)

SUBMITTED: March 1, 1962

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, YU. M.

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PHASE I BOOK EXPLOITATION SOV/6034

Konferentsiya po khimii i primeneniyu fosfororganicheskikh soyedineniy. 2d, Kazan', 1959.

Khimiya i primeneniye fosfororganicheskikh soyedineniy; trudy (Chemistry and Use of Organophosphorus Compounds; Conference Transactions) Moscow, Izd-vo AN SSSR, 1962. 630 p. Errata slip inserted. 2800 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Kazanskiy filial.

Resp. Ed.: A. Ye. Arbuzov, Academician; Ed. of Publishing House: L. S. Povarov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This collection of conference transactions is intended for chemists, process engineers, physiologists, pharmacists, physicians, veterinarians, and agricultural scientists.

COVERAGE: The transactions include the full texts of most of the scientific papers presented at the Second Conference on the Chemistry and Use of

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43

Organophosphorus Compounds held at Kazan' from 2 Nov through 1 Dec 1959. The material is divided into three sections: Chemistry, containing 67 articles; Physiological Activity of Organophosphorus Compounds, containing 26 articles; and Plant Protection, containing 12 articles. The reports reflect the strong interest of Soviet scientists in the chemistry and application of organophosphorus compounds. References accompany individual reports. Short summaries of some of the listed reports have been made and are given below.

TABLE OF CONTENTS:[Abridged]:

Introduction (Academician A. Ye. Arbuzov) 3

TRANSACTIONS OF THE CHEMISTRY SECTION

Gefter, Ye. L. [NII plastmass (Scientific Research Institute of Plastics, Moscow]. Some Prospects for the Industrial Use of Organophosphorus Compounds 46

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Andreyeva, M. A., I. A. Gribova, M. I. Kabachnik, G. S. Kolesnikov, ~~V. V. Korshak~~, T. Ya. Medved', Yu. M. Polikarpov, Ye. F. Rodionova, and L. S. Fedorova [Institute of Organoelemental Compounds]. Some Methods of Synthesis of New Organophosphorus Monomers and Polymers 263

This study attempts to develop new methods of synthesis of organophosphorus monomers and polymers for obtaining high-molecular fireproof materials. The authors synthesized vinyl compounds of pentavalent phosphorus and studied their properties, as well as those of the polymers obtained.

Moshkin, P. A., Ye. L. Gefter, and I. K. Rubtsova [Scientific Research Institute of Plastics]. Study of the Synthesis and Uses of Some Organophosphorus Compounds in the Plastics Industry 279

Industrial methods for the preparation of esters of phosphoric acid and for testing qualities of these acids as plasticizers have been developed, along with methods for obtaining phosphorus-containing monomers for use in polymerization, copolymerization, and polycondensation reactions. Polyesters based on dichlorides of

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L 22658-65
EPF(c)/EPR/EPA(s)-2/EWP(j)/EWT(m)/T Pc-4/Pr-4/Ps-4/Pt-10 JAJ/RM/WW/WLK

ACCESSION NR: AT5002111 S/0000/64/000/000/0063/0066

AUTHOR: Korshak, V. V.; Frunze, T. M.; Kurashev, V. V.; Medved', T. Ya.; Polikarpov, Yu. M.; Hu, Ch'ing-mei; Kabachnik, M. I.

TITLE: Synthesis of certain phosphorus-containing monomers

SOURCE: AN SSSR. Institut neftekhimicheskogo sinteza. Sintez i svoystva monomerov (The synthesis and properties of monomers). Moscow, Izd-vo Nauka, 1964, 63-66

TOPIC TAGS: polyamide, aromatic dicarboxylic acid, aromatic diamine, organophosphorus compound, polycondensation, aliphatic diamine, phosphine derivative

ABSTRACT: The authors synthesized a series of phosphorus-containing bifunctional monomers of the type of aromatic dicarboxylic acids or amines, e.g. the oxides of phenyl- and methyldi-(m-carboxyphenyl)-phosphine and of phenyl- and methyldi-(m-aminophenyl)-phosphine. The monomers were then utilized for the synthesis of polyamides by the methods of equilibrium and inter-phase polycondensation. A large number of polyamides were obtained from the phosphorus-containing dicarboxylic acids with aliphatic and aromatic diamines as well as from the phosphorus-containing diamines with certain dicarboxylic acids. All the polyamides were capable of fiber- and film-formation. In their mechanical properties, the polyamides were comparable to polymers of the type of polyhexamethylenediamine

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or polyhexamethylenesebacamide. The polyamides containing phosphorus showed good flame resistance. In addition, they can be used for the same applications as ordinary polyamides. Orig. art. has: 3 tables and 5 formulas.

ASSOCIATION: None

SUBMITTED: 30Jul64 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 005 OTHER: 006

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L 30039-65 EPA(s)-2/EWT(m)/EPF(c)/EPF(n)-2/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4/Pt-10/
Pu-4 GG/RM/WW

ACCESSION NR: AP5003825 S/0190/65/007/001/0033/0038

AUTHORS: Chikishev, Yu. G.; Tsetlin, B. L.; Rafikov, S. R.; Polikarpov, Yu. M.; Medved', T. Ya.; Kabachnik, M. I.

59
57
B

TITLE: Radiation polymerization of diphenylvinylphosphine oxide in a melt

SOURCE: Vysokomolekulyarnye soyedineniya, v. 7, no. 1, 1965, 33-38

TOPIC TAGS: diphenylvinylphosphine, polymerization, radiation polymerization/ ARKh 200 80 x ray apparatus

ABSTRACT: Radiation polymerization of diphenylvinylphosphine oxide (ODFVF) obtained as described by M. I. Kabachnik, T. Ya. Medved', M. Polikarpov, and K. S. Yudina (Izv. AN SSSR, Otd. khim. n., 1961, 2029) was investigated. The polymerization was studied as a function of radiation intensity (25-3500 rad/sec), radiation duration and temperature (118-200C) at a pressure of 10^{-5}-10^{-6} mm in an x-ray apparatus of the type ARKh-200-80. The polymer specimens were tested for composition, density, infrared absorption spectrum, thermomechanical properties, viscosity, and molecular weight after distilling away the monomer at 160-170C for 10-60 hours. The ODFVF precipitate is a white amorphous powder with a specific gravity of 1.220 (monomer 1.267), a pouring temperature of 230-250C, and a molecular weight of about 35-45000

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ACCESSION NR: AP5003825

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for the reprecipitated polymer and 16-24000 for the distilled polymer. The thermomechanical compression curves for the polymer are shown in Fig. 1 on the Enclosure, and the infrared absorption curves for the polymer and monomer are shown in Fig. 2 on the Enclosure. It was found that the yield changed linearly with time, showing different slopes for different radiation intensities (0-60% yield in 70 minutes for 800 rad/sec and 0-60% in 110 minutes for 400 rad/sec). The polymerization rate was also linear with radiation intensity (0-4 by weight %/min^{-1} as radiation was changed from 0-4000 rad/sec). The yield by weight and the molecular weight were found to be independent of radiation intensity and were 20% and 16000 respectively at a total radiation of 0.12 Mrad at 110C for the distilled ODFVF. The polymerization rate as a function of temperature is shown in Fig. 3 on the Enclosure. Activation energy was significant at 6.3 Kcal/mole at temperatures of 120-200C. The kinetic relations for the polymerization process differ from all other described radiation polymerization processes based on either the radical or ion mechanism. Orig. art. has: 7 figures.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy AN SSSR (Institute of Organic Compounds, AN SSSR)

SUBMITTED: 26Feb64 ENCL: 02 SUB CODE: OC

NO REF SOV: 009 OTHER: 004

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ACCESSION NR: AP5003825

ENCLOSURE: 01

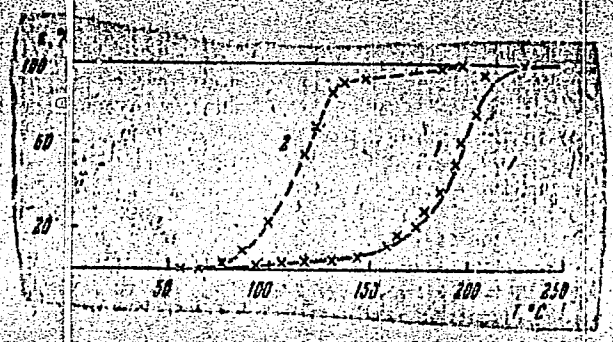

Fig. 1. Thermomechanical compression of ODFVF 100-g load, 4-mm diameter, 750 per hour. 1- reprecipitated, 2- distilled polymer

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ACCESSION NR: AP5003825

ENCLOSURE: 02

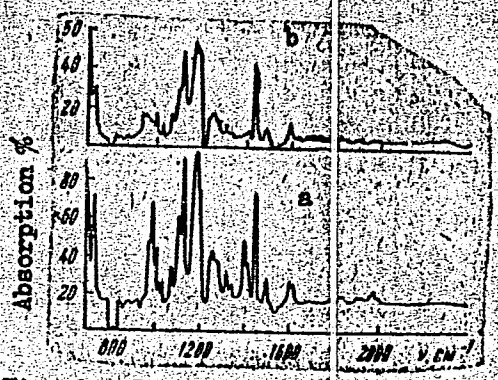

Fig. 2. IR spectrum. a- monomer, b- polymer (10% n solution in chloroform)

Fig. 3. Temperature dependence of ODFVF polymerization (at 150 rad/sec)

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S/081/61/000/020/015/089
B105/B147

AUTHORS: Polikarpov, Yu. S., Korshunov, I. A.

TITLE: Distribution of microquantities of zinc in the precipitation of nickel sulfate from aqueous solutions

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 45, abstract 20B334 (Tr. po khimii i khim. tekhnol. (Gor'kiy), no. 3, 1960, 447-451)

TEXT: The coprecipitation of Zn^{65}-marked microquantities of Zn with nickel sulfate (I) was studied by isothermal relieving of supersaturation. The system was examined at 16, 35, and 65°C. The ratio of crystallisation does not change if the amount of precipitated solid phases varies from 14 to 5%, and the Zn concentration from 10^{-2} to 10^{-7} g/milliliter. Adding the Al^{3+} ion produces no effect upon the distribution character. The values of the equilibrium ratio of crystallisation of Zn in the crystallization of I are as follows: at 16°C, 0.56 ± 0.04; at 35°C, 0.4 ± 0.02, and at 65°C, 0.41. The authors assume that forced isomorphism or isodimorphism takes place in the examined system. [Abstracter's note:

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Distribution of microquantities ...

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Complete translation.]

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOV, Yu. S.

Cand Chem Sci - (diss) "Study of principles of distribution of radio-elements between crystalline and liquid phases." Moscow, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin and Order of Labor Red Banner State Univ imeni M. V. Lomonosov, Chemistry Faculty); 250 copies; price not given; bibliography at end of text; (KL, 10-61 sup, 207)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

KORSHUNOV, I.A.; POLIKARPOV, Yu.S.

Coprecipitation of microimpurities from a supersaturated solution under the effect of ultrasonic waves. Radiokhimia 3 no.4:501-503 '61. (MIRA 14:7)

(Crystallization)
(Ultrasonic waves)

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POLIKARPOVA, A.M.

USSR/Chemistry - Alkylation 1 May 52

"Alkylation of Isopropyl Benzene With Acetylene With the Aid of $H_3PO_4.BF_3$ and HgO Catalyst," V. L. Vayser, A. M. Polikarpova

"Dok Ak Nauk SSSR" Vol LXXXIV, No 1, pp 71, 72

Two moles of isopropyl benzene combine with a mole of acetylene by addn to form ethylidenediisopropyl benzene. The reaction was studied by varying the time and quantity of catalyst ($H_3PO_4.BF_3$ and HgO). Optimum yield (20-23%) was achieved by using 10 ml of catalyst per 100 ml of isopropyl benzene at 60 - 70° for 3.5 hrs. Presented by Acad A. V. Topchiyev 4 Mar 52.

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOVA, A.M.

USSR/Chemistry - Alkylation 1 Jul 52

"Alkylation of Ethyl Benzene With Acetylene," V. L. Vayser, A. M. Polikarpova

"Dok Ak Nauk SSSR" Vol LXXXV, No 1, pp 85, 86

Expt has shown that 2 mols of ethyl benzene add on to one mol of acetylene. Presented by Acad A. V. Topchiyev 28 Apr 52.

224T9

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOVA, A. M.

USSR/Chemistry - Alkylation

Card 1/1 : Pub. 22 - 26/46

Authors : Vayser, V. L., and Polikarpova, A. M.

Title : Acetylene alkylation of phenol in an alcohol solution

Periodical : Dok. AN SSSR 97/4, 671-673, Aug 1, 1954

Abstract : Experimental data are presented on acetylene alkylation of phenol in an alcohol solution. It was established that the number of first fractionation and polymer products obtained depends upon the catalyst concentration, reaction temperature, rate of acetylene flow and time of reaction. The two stages of alkylation reaction, are described. One USSR reference (1950). Tables.

Institution : The I. M. Gubkin Petroleum Institute, Moscow

Presented by: Academician A. V. Topchiev, April 16, 1954

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001341810005-8

POLIKARPOVA, A. M.

Alkylation of *m*-, *o*-, and *p*-cresols by acetylene. V. L. Valser and A. M. Polikarpova (I. M. Gubkin Petroleum Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 108, 469-72(1956).—The cresol isomers were alkylated in 20-g. batches in 50 ml. MeOH with C_2H_2 passed into the mixt. at 1-4 l./hr. for 0.5-3 hrs. at various temps. in the presence of various amts. of H_3PO_4-BF_3 catalyst. Increases of the amt. of the catalyst from 0.05 to 0.1 of the wt. of cresol gave only 5% of the yield of alkylate, a further increase of the catalyst to 0.2 of the cresol wt. raised the alkylate yield by 25%, while a further increase of the catalyst lowered the yield. The best amt. of catalyst is 0.2 of the cresol wt. *m*-MeC_6H_4OH alkylates more readily than PhOH; the best temp. is 25-30°; at 5-8° the yield drops by 20-30%. Increase of flow rate of C_2H_2 from 1 l./hr. to 4 raises the yield by 100% based on cresol, and lowers it by 50% in respect to C_2H_2. The optimum reaction time for *m*-MeC_6H_4OH is 2 hrs., when under the best conditions listed above up to 98% yield based on cresol is obtained. Increased duration of reaction lowers the yield based on C_2H_2. The ease of alkylation places the isomers in descending order *p*-, *m*-, *o*-, the respective yields under optimum conditions being 98%, 94%, and 89%. Reaction temp. of 50-60° gives nearly the same results as 25-30°. *m*-MeC_6H_4OH yielded a substance identified as MeCH-$(C_6H_4MeOH)_2$; assumed intermediates such as vinyl-*m*-cresol or its polymers were not detected. G. M. K.

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L 33537-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 DJ/RM

ACCESSION NR: AT5006928 S/2982/64/000/051/0030/0037

AUTHOR: Vayser, V.L. (Deceased); Ryabov, V.D.; Polikarpova, A.M.

TITLE: Synthesis of some m-dibromoalkylbenzenes

SOURCE: Moscow. Institut neftekhimicheskoy i gazovoy promyshlennosti. Trudy, no. 51, 1964. Neftekhimiya, neftekhimicheskiye protsessy i neftepererabotka (Petroleum chemistry, petrochemical processes and oil refining), 30-37

TOPIC TAGS: alkylbenzene synthesis, dibromoalklybenzene, polyphenyl ester, lubricant, bromination, Sandmeyer reaction

ABSTRACT: New or modified methods were developed for the synthesis of m-dibromobenzene, 3,5-dibromotoluene, 2,4-dibromopropylbenzene and 2,4-dibromoisoamylbenzene as possible intermediates in the production of polyphenyl ester lubricants. m-Dibromobenzene was prepared from aniline via acetanilide by one-step bromination of the latter in glacial acetic acid, saponification of 2,4-dibromacetanilide and deamination of 2,4-dibromoaniline. Bromination of p-toluidine to dibromo-p-toluidine and deamination gave 3,5-dibromotoluene. 2,4-Dibromopropylbenzene was obtained via propylbenzene by nitration to a mixture of o- and p-nitropropylbenzene; bromination of the nitro isomers in

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the presence of iron powder at approximately 80C in the dark to retard bromination of the alkyl; vacuum fractionation with decomposition of derivatives formed by side chain bromination; and reduction of bromonitropropylbenzenes with exchange of amino groups for bromine by Sandmeyer's reaction to prepare 2,4-dibromopropylbenzene. 2,4-Dibromoisoamylbenzene was prepared via a similar route. Orig. art. has: 3 formulas.

ASSOCIATION: Institut neftekhimicheskoy i gazovoy promyshlennosti, Moscow (Petrochemical and gas industry institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: OC, FP

NO REF SOV: 002 OTHER: 010

Card 2/2

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