"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

initiators of the aforesaid polymerization (HB - co-catalyst PX_n-metal halide). This held in the case of low temperatures and media with a low dielectric constant. The results of isoprene- and styrene polymerization in the presence of $SnCl_4$ obtained by the authors showed, however, that the polymerization mentioned proceeds as well without additions at higher temperature and a higher dielectric constant (Ref 4). This fact concerning halogen alkyls and dichloro-ethane without additions (Refs 7,8,11) was confirmed by references 9,10. The authors of the two last-mentioned papers were, however, of the opinion that the solvent plays here the role of a co-catalyst (see Scheme). The scheme mentioned shows that the breaking of the chain in chloro-ethyl and dichloro-ethane with $TiCl_4$ or $SnCl_4$ as catalysts should not depend on the question as to whether the reaction is carried out in the presence of HCl or without this acid, since the carbonium ion is in either case in the field of one and the same compensating ion. This is in contrast to the authors' results according to which HCl additions reduce the molecular weight of polymers produced by the polymerization in halogen alkylic- and other solvents (Ref 7). Only the

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On the Initiation Mechanism of Cationic Polymerization in the Presence of Metal Halides SOV/20-127-1-26/6[illegible]

molecules bound to the catalysts are effective. From these and other results (Refs 8-11) the authors drew the conclusion that the cationic polymerization may proceed under the direct effect of aprotic acids in halogen alkylic solvents without the participation of specific co-catalysts. This holds also for water (Refs 5,6). In reference 12 it is, however, not denied that both (a) and (b) polymerization methods are possible. The initiation reaction in the monomer - catalyst system proceeds apparently by way of the formation of a π-complex of the catalyst with the monomer. The initiation reaction is caused by an interaction between this complex and the monomer (Refs 8,13; analogy in reference 14). Thus, complex formation effects (Refs 11, 15) are inhibited by additions of H_2O and HCl (Ref 11) which form themselves stable complexes with $SnCl_4$. α-methyl styrene forms complexes with $SnCl_4$ better than the styrene used in references 1-3. It is rather probable that the co-catalysts form in non-polar solvents not only complexes with the catalyst but also favor the formation of an ion couple by the solvation of the complex. The additions themselves may play this role as

Card 3/4

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On the Initiation Mechanism of Cationic Polymerization in the Presence of Metal Halides SOV/20-127-1-26/65

well as their complexes with the catalyst. Thus, polymerization without co-catalyst is in several systems one of the special cases of the complex nature of the initiation process. There are 16 references, 9 of which are Soviet.

SUBMITTED: April 20, 1959

Card 4/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVIG, Ye. B., Cand Chem Sci -- (diss) "Characteristics of the mechanism of cationic polymerization." Moscow, 1960. [illegible] pp; (Moscow State Univ im M. V. Lomonosov, Chemistry Faculty); 150 copies; price not given; (KL, 18-60, 147)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVIG, Ye.B. GANTMAKHER, A.R.; MINYAEV, S.S., akademik

Mechanism of cationic polymerization in the presence of metal halides. Dokl. AN SSSR 156 no. 5:1163-1166 Je '64. (MIRA 17:6)

1. Fiziko-khimicheskiy institut im. L.Ya.Karpova.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 16327-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM
ACCESSION NR: AP4049153 S/0190/64/006/011/2030/2034

AUTHOR: Rozenberg, B. A.; Chekhuta, O. M.; Lyudvig, Ye. B.; Gantmakher, A. R.; Medvedev, S. S.

TITLE: Kinetics and equilibrium of the polymerization of tetrahydrofuran induced by trialkyloxonium salts

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 11, 1964, 2030-2034

TOPIC TAGS: trialkyloxonium, tetrahydrofuran, block polymerization, solution polymerization, tetrafluoroborate, cationic polymerization

ABSTRACT: The kinetics of the polymerization of tetrahydrofuran, both in block and in solution in diethyl ether, under the influence of triethyloxonium tetrafluoroborate was investigated by a dilatometric method. The characteristics of the catalyst and the initial substances are given. The kinetic curves at different initial catalyst concentrations are given, showing that the rate of polymerization is directly proportional to the concentration of catalyst and is described by the equation $d[M]/dt=k_p[C_0]([M]-[M_p])$. The rate constant of the polymerization at 20C determined from the experimental data is equal to 1.66 x 10^{-2} liter/mole. sec. A study of the effect of the catalyst concentration on the molecular

Card 1/3

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L 16327-65
ACCESSION NR: AP4049153

2

weight of the forming polymer showed that over the concentration range 0.02-0.08 mole/liter the molecular weight is inversely proportional to the catalyst concentration. Tabulated data show that at a constant concentration of catalyst (0.02 mole/liter), the molecular weight increases with increasing amount of polymerized monomer. Over a temperature range of 0-40C, the rate of polymerization, the equilibrium state and the molecular weight were found to be highly dependent on temperature. From the temperature dependence of the rate constant, the energy of activation was E-13.3 kcal/mole and the preexponential factor $A=1.64 \times 10^{-8}$ liter/mole. sec. The molecular weight decreased considerably with increasing temperature. The equilibrium concentration of the monomer during polymerization was independent of the initial concentrations of catalyst and monomer and depended only on the temperature. On the basis of this correlation, the change in enthalpy and entropy of polymerization was calculated: $\Delta H = -5.5$ kcal/mole; $\Delta S = -20.8$ cal/mole. deg. The limiting temperature of block polymerization calculated by the equation $T_c = \Delta H / \Delta S^\circ + R \log [M_p]$ is 73C. Orig. art. has: 6 figures, 1 table and 1 formula.

ASSOCIATION: Donetskoye otdeleniye instituta organicheskoy khimii AN USSR (Donets Division of the Institute of Organic Chemistry, AN Ukr. SSR); Fiziko-khimicheskiy institut im. L. Ya. Karpova (Institute of Physical Chemistry)

Card 2/3

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L 16327-65

ACCESSION NR: AP4049153

SUBMITTED: 23Jan64 ENCL: 00 SUB CODE: OC

NO REF SOV: 003 OTHER: 018

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 16326-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM
ACCESSION NR: AP4049154 S/0190/64/006/011/2035/2039

AUTHOR: Rozenberg, B. A.; Lyudvig, Ye. B.; Gantmakher, A.R.; Medvedev, S. S. B

TITLE: Mechanism of the induced polymerization of tetrahydrofuran induced by trialkyloxonium salts

SOURCE: Vy*sokomolekulyarny*ye soyedineniya, v. 6, no. 11, 1964, 2035-2039

TOPIC TAGS: tetrahydrofuran, boron fluoride etherate, epichlorohydrin polymerization, living polymer, polytetramethylene oxide, trialkyloxonium salt, tetrahydrofuran polymerization, cationic polymerization

ABSTRACT: The mechanism of the cationic polymerization of tetrahydrofuran was investigated and the peculiarities of the polymerization induced by trialkyloxonium salts were discussed on the basis of the given reaction mechanisms. By the analytical method used, it was found that the initiation of the polymerization of tetrahydrofuran in the presence of the system boron fluoride etherate + epichlorohydrin proceeds with the formation of distinct ion pairs and an internal oxonium salt. The peculiarity of the tetrahydrofuran polymerization is that, in contrast to the cationic polymerization of vinyl compounds, the growing ion is oxonium and not carbon. Infrared spectra show the complete absence of

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L 16326-65
ACCESSION NR: AP4049154

lateral methyl groups in the polytetramethylene oxide molecule. On the basis of an analysis of the experimental data, it was established that the polymerization of tetrahydrofuran induced by trialkyloxonium salts proceeds without the rupture of the reaction chains and with the formation of "living polymers." The effect of small additions of water on the polymerization was also studied and water was found to be the chain transfer agent. Its addition does not affect the rate of polymerization, but decreases the molecular weight. The molecular weight also decreases with increasing temperature of polymerization, but the decrease in molecular weight is determined not by the decrease in the ratio between the rate constant of chain growth and the rate constant of chain rupture, as in the cationic polymerization of unsaturated compounds, but by the decrease in the equilibrium concentration of the monomer with increasing temperature. On the basis of the equilibrium monomer concentration, the rate constant of the reversible reaction was calculated as $k_d = 4.67 \times 10^{-2}$ sec^{-1} (at 20C). From the temperature dependence of this constant, the activation energy and the preexponential factor of the depolymerization reaction determined from this relationship are E=19.4 kcal/mole and $A=1.65 \times 10^{13}$. It was found that the molecular weights of polytetramethylene oxide are in disagreement with the values expected according to the M/C theory. Orig. art. has: 2 figures, 1 table and 12 formulas.

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 16326-65
ACCESSION NR: AP4049154

2

ASSOCIATION: Donetskoye otdeleniye instituta organicheskoy khimii AN USSR (Donets Division of the Institute of Organic Chemistry, AN Ukr. SSR); Fiziko-khimicheskiy institut im. L. Ya. Karpova (Institute of Physical Chemistry)

SUBMITTED: 23Jan64 ENCL: 00 SUB CODE: OC

NO REF SOV: 002 OTHER: 012

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ROZENBERG, B.A.; CHEKHUTA, O.M.; LYUDVIG, Ye.B.; GANTMAKHER, A.R.; MEDVEDEV, S.S.

Kinetics and equilibrium of tetrahydrofuran polymerization induced by trialkyl oxonium salts. Vysokom. soed. 6 no.11:2030-2034 N '64 (MIRA 18:2)

1. Donetskoye otdeleniye instituta organicheskoy khimii AN UkrSSR i geofiziko-khimicheskiy institut imeni Ka .ova, Moskva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ROZENBERG, B.A.; LYUBIMOV, Ye.B.; GANTMAKHER, A.R.; MEDVEDEV, S.S.

Mechanism of tetrahydrofuran polymerization induced by trialkyl oxonium salts. Vysokom. soed. 6 no.11:2035-2039 N '64 (MIRA 18:1)

1. Donetskoye otdeleniye instituta organicheskoy khimii AN UkrSSR i Fiziko-khimicheskiy institut imeni Karpova, Moskva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

MAKLETSOVA, N.V.; EPEL'BAUM, I.V.; ROZENBERG, B.A.; LYULIN, Ye.B.

Determination of molecular weight and molecular weight distribution of polytetramethylene oxide. Vys. kom. med. [illegible] no.1:[illegible] [illegible] '65. (MIRA 18:5)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

[illegible]

[illegible] polymer [illegible] Vysokom. [illegible] (MIRA 18:[illegible])

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVIG, Ye.B.; ROZENBERG, B.A.; ZVEREVA, T.M.; GANTMAKHER, A.R.; MEDVEDEV, S.S.

Polymerization of tetrahydrofuran in the presence of antimony pentachloride and its compounds. Vysokom. soed. 7 no.2:269-274 F '65. (MIRA 18:3)

1. Fiziko-khimicheskiy institut imeni Karpova, Moskva i Donetskiy filial Instituta khimicheskikh reaktivov i osobo chistykh veshchestv.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ROZENBERG, B.A.; LYUDVIG, Ye.B.; DESYATOVA, N.V.; GNATMAKHER, A.R.; MEDVEDEV, S.S.

Copolymerization of tetrahydrofuran with α-oxides. Vysokomol. soed. 7 no.6: 1010-1015 Je '65. (MIRA 18:9)

1. Fiziko-khimicheskiy institut imeni L.Ya.Karpova, Moskva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ZIL'BERMAN, R.P. (Krasnodar, ul. Sedina, d.76); GIRILOVICH, M.A.; LYUDVIG, Ye.I.

Tomography of the knee joint in tuberculous gonitis; abstract. Ortop. travm.i protez. 22 no.1:82 Ja '61. (MIRA 14:5)

1. Iz Krasnodarskogo krayevogo protivotuberkuleznogo dispansera (glavnyy vrach - A.I.Ukrainichenko) i kafedry rentgenologii (zav. - dotsent A.A.Rekkandt) Kubanskogo meditsinskogo instituta.
(KNEE--RADIOGRAPHY) (KNEE--TUBERCULOSIS)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

MUSKHELISHVILI, G.N.; LYUDVIGOV, R.B.; KAKHIDZE, G.P.

Electrodynamic valves used in Wilson chambers. Prib.i tekh.eksp. no.3:104-105 N-D '56. (MLRA 10:2)

1. Institut fiziki AN GruzSSR.
(Cloud chamber)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

MUSKHELISHVILI, G.N.; LYUDVIGOV, R.B.; KAKHIDZE, G.P.

New valve systems for Wilson chambers. Soob.AN Gruz.SSR 17 no.9: 785-788 '56. (MLRA 10:2)

1. Akademiya nauk Gruzinskoy SSR, Institut fiziki Tbilisi. Predstavleno akademikom E.L.Andronikashvili.
(Cloud chamber) (Valves)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 5071-66 EWT(m)/EWP(t)/EWP(b)/EWA(h) IJP(c) JD/DM

ACC NR: AP5022636

UR/0089/65/019/002/0176/0177

621.039.573

33

B

AUTHOR: Kiknadze, G. I.; Gambaryan, V. G.; Litvinov, B. I.; Lyudvigov, R. B.; Razmadze, Z. G.; Fel'dman, L. I.; Chanturiya, V. M.

TITLE: Indium-gallium radiation loop for pool-type reactors

SOURCE: Atomnaya energiya, v. 19, no. 2, 1965, 176-177

TOPIC TAGS: nuclear research reactor, gamma radiation

ABSTRACT: An abbreviated description of a special indium-gallium loop used in the IRT-2000 research reactor is given. The reactor is operated by the Institute of Physics of the Gruzinskaya SSR Academy of Sciences. The loop does not require a special biological shielding and can be easily manipulated and adjusted to other pool-type reactors. The changes in gamma dose rates are obtained by a translational displacement of the loop frame. The radioactive In^{116} nuclei are generated by leakage neutrons. A radioactivity equivalent to 16 g of radium can be created at a 1000 kw capacity. Thus, a gamma dose rate of about

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L 5071-66

ACC NR: AP5022636

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0.85 x 10^6 roentgen per hour can be produced in a 10.5 liter irradiated volume. By experimenting with a 5000-kw reactor of IRT-type, the authors proved that it is possible to obtain a source of gamma radiations equivalent to those obtained from 1 x 10^6 to 1.5 x 10^6 grams of radium. The immersion of the loop assembly in the reactor tank is shown in a photo.

ASSOCIATION: none

SUBMITTED: 14Apr65 ENCL: 00 SUB CODE: NP

NO REF SOV: 000 OTHER: 000

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APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

21(7) SOV/56-35-5-52/56

AUTHORS: Kazarov, R. Ye., Lyudvigov, R. B.

TITLE: On the Penetrating Component of an Extensive Air Shower (O pronikayushchey komponente shirokogo atmosfernogo livnya)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 5, pp 1310-1311 (USSR)

ABSTRACT: In an earlier paper (Ref 1) an experimental device was described and several results obtained by the investigation of the energy spectrum of the penetrating component of an extensive air shower were mentioned. The present paper gives some additional data from which several conclusions are drawn. The penetrating component was measured in a depth of 127 m water-equivalent by using two similar detectors for cosmic particles. Carrying out of measurements is discussed in short. The evaluation of measurement results showed the following: To 302 recorded showers with an average number of $\overline{N} = 2.85.10^5$ there corresponded 23 showers to which the detector responded in a distance of 45 m. This results in a value of $\varrho_\mu = 0.077 \pm 0.018\ m^{-2}$ for the density ϱ_μ of the penetrating particles. This value applies for distances of about 45 to

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SOV/56-35-5-52/56

On the Penetrating Component of an Extensive Air Shower

50 m from the shower axis. For the exponent γ of the energy spectrum of the penetrating component the value $\gamma = 1.15 \pm 0.41$ was found. The results obtained by the authors make it possible to draw conclusions as to the spatial distribution of the penetrating component in a depth of 127 m water-equivalent. If the spatial distribution in this depth satisfies a law of the type

$$\varrho_{\mu}(r) = a \exp\left[-\alpha r^2\right],$$

the values $a = 0.34 \pm 0.01$ and $\alpha = 0.00074 \pm 0.00011$ are obtained for the parameters a and α on the strength of the results found. The half-value radius R of myon distribution in a depth of 127 m water-equivalent found on the strength of the results obtained amounts to 30 ± 5 m. The authors thank Professor E. L. Andronikashvili and M. F. Bibilashvili for their interest in this work and for taking part in discussion of results. There are 2 Soviet references.

ASSOCIATION: Institut fiziki Akademii nauk Gruzinskoy SSR
(Institute of Physics of the Academy of Sciences, Gruzinskaya SSR)

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

TIMOFEYEVA, E.Ye.; LYUBIMOV, [illegible]

Measurement of thermal neutron fluxes in an IRT-2000 [illegible]
Soob. AN Gruz. SSR 34 no.2:305-311 My '64. [illegible]

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVINSKAYA, P.F.

Ionogalvanization with sodium bromide, combined with radon and hydrogen sulfide baths in the treatment of infectious polyarthritis. Vop.kur.fizioter. i lech.fiz.kul't. 21 no.3:60-64 Jl-S '56. (MLRA 9:10)

1. Iz TSentral'nogo instituta kurortologii (dir. - kandidat meditsinskikh nauk G.N.Pospelova)
(JOINTS--DISEASES) (BATHS, MEDICATED)
(ELECTROTHERAPEUTICS)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

KANAVETS, L.N.; SPIRIDONOVA, F.V.; MEL'NITSKAYA, Z.S.; IL'ICHEVA, Ye.M.
LYUDVINSKAYA, P.F.

Effect of climatic factors on some vegetative reflexes in patients with neyrasthenia under the accustomed conditions of the central belt. Vop.kur., fizioter. i lech. fiz. kul't. 28 no.2:108-115 Mr-Ap'63. (MIRA 16:9)

1. Iz Tsentral'nogo instituta kurortologii i fizioterapii (dir.-kand.med. nauk G.N.Pospelova).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVINSKAYA, P.F.; STEPNOVA, Ye.M.

State of the physiological lability of the neuromuscular apparatus in patients with infectious nonspecific arthritis and its change under the influence of some physical and balneological factors. Vop. kur., fizioter. i lech. fiz. kul't. 28 no.5:422-428 S-O '63. (MIRA 17:9)

1. Iz fizioterapevticheskogo otdeleniya (zav.-prof. Kh.M. Freydin) TSentral'nogo instituta kurortologii i fizioterapii (dir. G.N. Pospelova).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

BYKHOVSKIY, Z.Ye.; LYUDVINSKAYA, P.F.

Treating of infectious polyarthritis of undetermined etiology by novocaine electrophoresis in the area of the spleen. Vop. kur., fizioter. i lech. fiz. kul't. 24 no.6:499-502 N-D '59. (MIRA 15:1)

1. Iz fizioterapevticheskogo i terapevticheskogo otdeleniy TSentral'nogo instituta kurortologii (dir. - kandidat meditsinskikh nauk G.N. Pospelova).
(ARTHRITIS) (ELECTROPHORESIS) (NOVOCAINE)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVINSKAYA, P.F.; RUBCHINSKAYA, A.O.

Use of electrophoretic introduction of novocaine into the temporal neurovascular bundle in peptic ulcer patients. Vop.kur.,fizioter. i lech.fiz.kul't. 25 no.1:13-16 '60. (MIRA 13:5)

1. Iz fizioterapevticheskogo otdeleniya (zav. - prof. Eh.M. Freydin) TSentral'nogo instituta kurortologii (dir. - G.N. Pospelova) i fizioterapevticheskogo otdeleniya Reutovskoy bol'nitsy (zav. Ye.V. Rakitina).
(PEPTIC ULCER) (NOVOCAINE) (ELECTROPHORESIS)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 26120-66 EWT(m)/ETC(f)/EWG(m)/EWP(e) AT/WH/WW/JD/JG

ACC NR: AP6015070 SOURCE CODE: UR/0363/66/002/005/0864/0869

AUTHOR: Dobrovol'skiy, A. G.; Dobrovol'skiy, G. G.; Lyudvinskaya, T. A.; Popichenko, E. Ya.

ORG: Institute of Materials Technology, Academy of Sciences SSSR (Institut problem materialovedeniya Akademii nauk SSSR)

32
B

TITLE: Slip casting of zirconium boride

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 5, 1966, 864-869

TOPIC TAGS: high temperature ceramic product, zirconium boride, ceramic technology, slip casting

ABSTRACT: Slip casting of profiled zirconium boride products (crucibles, thermocouple sheathes) has been studied as a more convenient and more economic method of producing complex forms than conventional compression molding. The importance of ZrB_2 is stressed for high-temperature technology. Preparation of gypsum molds, of zirconium carbide powder and slip for casting, the slip casting procedure and sintering of cast ZrB_2 products were described. The optimum slip composition was found to be 78% solids and 22% liquid phase and the optimum liquid phase was a 3% aqueous solution of carboxymethylcellulose. These compositions were the most stable of all studied and

Card 1/2 UDC: 546.831'27

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 26120-66

ACC NR: AP6015070

the cast products prepared from them had a maximum density and did not crack subsequently. Stability of the slip was increased by preliminary straining of the liquid phase through a sieve. Change of pH of the slip was without effect on the casting. Increasing the temperature of the slip or mold up to 50C did not affect density of the cast product and tended to produce blow holes. Density of the slip cast products was of the same order as in other molding processes, but slip casting was favored over other methods in respect to uniform distribution of particles in the product. The slip cast products, e.g., crucibles 80 x 60 mm and thermocouple sheathes 250 x 30 mm, displayed considerable shrinkage on sintering at 2200C and increase in density to 5.4 g/cm^3, which corresponded to a 12% residual porosity. Orig. art. has: 6 figures. [JK]

SUB CODE: 13/ SUBM DATE: 24May65/ ORIG REF: 007/ OTH REF: 002
ATD PRESS: 4252

Card 2/2 CC

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

YUDVINSKIY, A.I.

6

Rapid method for the determination of moisture of glass pots while drying. A. I. KRAMARENKO AND A. I. LYUDVINSKII. *Zavodskaya Lab.* 9, 800-11 (1940). *Chem. Zentr.* 1942, I, 702. *Chem. Abstracts*, 37, 6000 (1943). An apparatus is described which permits the determination of the moisture of masses for the manufacture of glass pots and similar units under factory conditions. The method is based on the determination of the electrical conductivity of the mass, which quickly permits a comparison between present and previous moisture contents. Some test results are shown graphically.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVINSKIY, A.I., kand.tekhn.nauk

Properties of chrome-magnesite refractories made of Kimpersay and Sarana deposit ores. Ogneupory 18 no.3:101-104 '53. (MIRA 11:10)
(Refractory materials) (Kimpersay--Ore deposits)
(Sarana--Ore deposits)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVINSKIY, A.I.

Properties of chromite-magnesite refractories according to the composition of the batch and the kilning temperature. Ogneupory 20 no.8:371-375 '55. (MLRA 9:3)

1. Dnepropetrovskiy metallurgicheskiy institut.
(Chromite) (Magnesite) (Refractory materials)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

S/137/62/000/001/002/237
A060/A101

AUTHOR: Lyudvinskiy, A.I.

TITLE: Diagram of the $MgO-Cr_2O_3-SiO_2$ system

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 1, 1962, 4, abstract 1B17 ("Nauchn. tr. Dnepropetrovsk. metallurg. in-t", 1958, no. 36, 80 - 84)

TEXT: The main results of the investigation are as follows: no ternary compounds have been found; the oxides of Cr do not combine with SiO_2; the diagram of the $MgO-Cr_2O_3-SiO_2$ system is divided into seven fields of equilibrium by the eutectic lines; the binary compound with the highest melting point is $MgO.Cr_2O_3$ with contents 20.8% MgO and 79.2% Cr_2O_3 (melt.pt. 2,330°C); and the lowest melting point is demonstrated by the ternary eutectic with content 35% MgO, 10% Cr_2O_3, and 55% SiO_2 (melt. pt. 1,490°C). It is impossible to establish more precise eutectic lines with greater MgO contents in the mixture at a temperature >2,200°C, since in the presence of O_2 the periclase is decomposed, giving off metallic Mg and this is accompanied by the process of burning. High-precision theoretical calculations agree with the petrographic and the experimen-

Card 1/2

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S/137/62/000C/001/002/237
A060/A101

Diagram of the $MgO-Cr_2O_3-SiO_2$ system

tal data, which indicate the presence of $MgOCr_2O_3$ spinels, crystallized in the form of well defined octahedra. A small quantity of SiO_2 up to 5-6% promotes the crystallization of this spinel, but a larger amount lowers the heat resistance of magnesite refractories.

N. Molchanov

[Abstracter's note: Complete translation]

Card 2/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYULVINSKIY, A.I.; ROMANOVSKIY, L.B.; KOREN, L.N.; KUKURUZNYAK, I.S.; VIT', Ye.F.; KUDRINA, A.P.

Testing spinel bricks in the lining of converters with an oxygen blow. Izv. vys. ucheb. zav.; chern. met. 6 no.8: 161-163 '63. (MIRA 16:11)

1. Dnepropetrovskiy metallurgicheskiy institut.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

KHIL'KO, M.M.; MOLCHANOVA, M.I.; KOTIK, P.L.; LYUDVINSKIY, A.I.; KOREN, L.N.; KHARCHENKO, I.G.

Crown firebrick of a finely ground mixture of magnesite and chromite. Ogneupory 28 no.6:256-258 '63. (MIRA 16:6)

1. Makeyevskiy metallurgicheskiy zavod im. Korova (for Khil'ko, Molchanova). 2. Nikitovskiy dolomitovyy kombinat (for Kotik). 3. Dnepropetrovskiy metallurgicheskiy institut (for Lyudvinskiy, Koren, Kharchenko).

(Firebrick)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDVINSKIY, A.I.; ROMANOVSKIY, L.B.; KOREN, L.N.; MISHCHENKO, V.S.; FROLOVA, A.I.; KOTIK, P.L.; KHIL'KO, M.M.; MOLCHANOVA, M.I.; VINOGRADOV, N.M.; PYLAYEV, S.V.; BEYGUL, Ye.I.; ROKHLIN, N.A.; MASYUKOV, N.T.; BONDAR', V.I.

In the country's steelmaking plants. Metallurg 9 no.9: 16-19 S '64. (MIRA 17:10)

1. Saldinskiy metallurgicheskiy zavod (for Pylayev).
2. Zavod im. Dzerzhinskogo (for Beygul, Rokhlin).
3. Yenakiyevskiy metallurgicheskiy zavod (for Masyukov, Bondar').

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 4926-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP5026580 SOURCE CODE: UR/0073/65/031/010/1045/1047

24
B

AUTHOR: Lyudvinskiy, A.I.

ORG: Dnepropetrovsk Metallurgical Institute (Dnepropetrovskiy metallurgicheskiy institut)

TITLE: Phase diagram of the $MgO-CR_2O_3-Fe_2O_3$ system

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 31, no. 10, 1965, 1045-1047

TOPIC TAGS: magnesium oxide, iron oxide, chromium oxide, magnesium compound, chromium compound, iron compound, phase diagram

ABSTRACT: The author plotted the fusibility diagram of $Fe_2O_3-Cr_2O_3$, for which a eutectic point at 1500C of the composition Cr_2O_3 26% and Fe_2O_3 74% was determined. The phase diagram of $MgO-Cr_2O_3-Fe_2O_3$ was then constructed with the aid of data on $MgO-Fe_2O_3$ and $MgO-CR_2O_3$ available in the literature. This ternary system is characterized by the absence of ternary compounds. Solid solutions of spinellides are formed between MgO and Cr_2O_3 and also between MgO and Fe_2O_3. Two binary compounds, $MgOCr_2O_3$ and $MgO2Cr_2O_3$, are formed on the side of the binary diagram of $MgO-Cr_2O_3$, and one compound, $MgOFe_2O_3$, is formed on the side of $MgO-Fe_2O_3$. A petrographic study of the diagram was made. Orig. art. has: 4 figures.

SUB CODE: IC / SUBM DATE: 09Apr64 / ORIG REF: 004 / OTH REF: 001

Card 1/1 UDC 541.1L93

0901 1384

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ROZEN[illegible], M.Sh.; P[illegible] FAMIL'NAYA, R.M.; LYUDVINSKIY, V.P.

[illegible] sulfide contamination of Khadzhibey and Tiligul [illegible]. Gidrobiol.zhur. 1 no.5:9-14 '65.

(MIRA 18:11)

. Odesskoye otdeleniye Instituta biologii yuzhnykh morey AN UkrSSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUDZINA, S.

Skidel' sugar. Rab.i sial. 33 no.12:6-7 D '57. (MIRA 10:12)
(Skidel'--Sugar industry)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

KVAPIL, R. (Chekhoslovatskaya Sotsialisticheskaya Respublika);
LYUFFER, K. (Chekhoslovatskaya Sotsialisticheskaya Respublika)

Distribution of stresses in irregularly shaped specimens in determining the hardness of rocks under pressure. Ugol' 38 no.4:58-60 Ap '63. (MIRA 16:4)

(Rocks—Testing) (Strains and stresses)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

[illegible]SKAYA, Ye.Ch.; [illegible], [illegible].

Stimulating action of [illegible] on hematopoiesis in [illegible] rats. Radiobiologiia 3 no.5, [illegible] '63. [illegible]

[illegible] Institut [illegible] [illegible], Moskva.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

PUKHAL'SKAYA, Ye.Ch.; LYUFACHUN, A.S.

Combined X-ray and serotonin therapy of transplanted tumors in rats. Vop. onk. 9 no.10:25-29 '63. (MIRA [illegible])

1. Iz laboratorii eksperimental'noy khimioterapii (zav. - chlen korrespondent AMN SSSR prof. L.F.Larionov) Instituta eksperimental'noy i klinicheskoy onkologii AMN SSSR (direktor - deystvitel'nyy chlen AMN SSSR prof. N.N.Blokhin). Adres avtorov: Moskva, [illegible], ul. Shchepkina, d.[illegible]/2, korp.9, Institut eksperimental'noy i klinicheskoy onkologii AMN

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUFANOV, Lev Yevgen'yevich; KUZNETSOV, S.S., otv. red.

[Stratigraphy and lithology of the Paleozoic and Mesozoic in the western margin of the Vilyuy syneclise] Stratigrafiia i litologiia paleozoia i mezozoia zapadnoi okrainy Viliuiskoi sineklizy. Moskva, Izd-vo "Nauka," 19[illegible]. 108 p.
(MIRA 1[illegible]:8)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

BLYUMENFEL'D, V.N.; LYUFUR, S.L.; LIVSHITS, B.S.; PARILOV, V.P.; PSAREV, S.A.; RODZYANKO, V.Ye.; GOLUBTSOV, I.Ye., otv. red.; KIRILLOV, L.M., red.; SLUTSKIN, A.A., tekhn. red.

[Methodology for designing the equipment of crossbar automatic telephone exchanges] Metodika rascheta oborudovaniia ATS koordinatnykh sistem; informatsionnyi sbornik. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1961. 130 p. (MIRA 15:4)
(Telephone, Automatic--Equipment and supplies)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

USSR/Electronics - Gas Discharge and Gas-Discharge Apparatus H-7

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 7142

Author : Akhiyezer, A.I., Lyubarskiy, G.Ya., Feynberg, Ye.B.
Title : Contribution to Nonlinear Theory of Oscillations in Plasma

Orig Pub : Uch. zap. Khar'kovsk. un-ta, 1956, 64, 73-90

Abstract : Owing to the mathematical difficulties, encountered in the solution of the rigorous nonlinear problem of the oscillations in plasma, the authors restricted themselves to the consideration of three particular cases. They studied oscillations occurring upon interaction of an electron beam with the plasma at absolute zero. They considered the excitation of plasma by an infinite charged plane. A considerable portion of the work is devoted to the consideration of nonlinear oscillations excited in plasma in the cases of temperature other than zero. While in the first two cases the hydrodynamic approximation was used exclusively, in the latter case the plasma is represented by the kinetic equation. The results obtained are compared with the results of the linear theory.

Card : 1/1

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LOVTSOV, D.P.; LYUGERSGAUZEN, G.D.

Effect of melt vibration on the structure of silumin. Izv. vys. ucheb. zav.; tsvet. met. 3 no.3:148-150 '60. (MIRA 14:3)

1. Krasnoyarskiy institut tsvetnykh metallov, Kafedra liteynogo proizvodstva.
(Silumin—Metallography)
(Vibration)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 10748-65 EWT(1)/EWG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/EEC(b)-2/EWA(m)-2 Pi-4/Po-4/Pz-6/Pab-24 IJP(c)/ESD(t)/ASD(a)-5/AFWL/RAEM(a)/ASD(p)-3/ASD(d)/SSD(a)/AEDC(b)/AEDC(a)/SSD/AS(mp)-2/AFETR/ASD(f)-2/ESD(gs)/ASD(m)-3 AT

ACCESSION NR: AP4046351 S/0057/64/034/010/1873/1878

AUTHOR: Kagan, Yu.M.; Lyugushchenko, R.I.

B

TITLE: On the radial properties and the concentration in the positive column of a medium pressure inert gas discharge

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.10, 1964, 1873-1878

TOPIC TAGS: positive column, plasma, electron concentratinn, ionization, recombination, diffusion, neon, argon

ABSTRACT: The authors (Opt.i spektr.17,168,1964) have proposed a model to describe the excitation and ionization processes in the positive column of a medium pressure inert gas discharge, based on the following assumptions: the deviation of the electron energy distribution from the Maxwellian at high energies plays an important role in the excitation of the lower atomic levels; ionization and excitation of higher energy levels proceeds mainly by stepwise further excitation of already excited atoms; and the atoms in resonance and metastable states are removed principally by stepwise ionization. On the basis of this model an expression in terms of the electron concentration and temperature was derived for the difference between the

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ACCESSION NR: AP4046351

numbers of inelastic collisions of the first and second kinds. This expression is employed in the present paper to formulate a differential equation for the electron concentration in the positive column, on the assumption that volume recombination is negligible compared with diffusion. This equation was solved numerically, assuming that the ambipolar diffusion coefficient and the electron temperature are constant throughout the column. It was found that within an accuracy of 10% the ratio of the electron concentration at distance r from the axis to the concentration on the axis is a universal function of r/R, where R is the radius of the discharge tube. The distribution of luminous intensity is calculated with expressions for the diffusion constant appropriate to argon and neon, and it is found that the luminous region of the column is the more concentrated toward the axis, the greater the pressure. This contraction of the luminous positive column is due to the fact that the high energy tail of the electron distribution so depends on the concentration of electrons and neutral atoms as to lead to a rapid decrease in the number of slightly excited atoms with increasing distance from the axis. Since the highly excited atoms are produced by stepwise excitation, the number of these, and hence the luminous intensity, also decreases rapidly with increasing distance from the axis. The results of the calculations are compared with the experimental data of V.M.Zakharova, Yu.M.Kagan, K.S.Mustarfin and V.I.Perel' (ZhTF 30,442,1960) relating to argon

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L 10748-65
ACCESSION NR: AP4046351

and neon. The calculations are in "general agreement" with the experimental data. From this it is concluded that recombination is not important under the conditions of the experiment. Orig.art.has: 24 formulas, 6 figures and 2 tables.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im.A.A.Zhdanova (Leningrad State University)

SUBMITTED: 29Oct63 ENCL: 00

SUB CODE: ME, NP NR REF SOV: 005 OTHER: 001

3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUK, V. (Berlin)

Use of photo-sensitive layers in a new spectral measuring method. Avtom i telem. 21 no.7:1084-1087 Jl'60. (MIRA 13:10)
(Photoelectric measurements) (Light)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ACC NR: AP7000201 (A) SOURCE CODE: UR/0079/66/036/011/2003/2005

AUTHOR: Lukas, S. D.; Smetankina, N. P.; Kuznetsova, V. P.

ORG: Institute of Chemistry of High Molecular Compounds, Academy of Sciences, Ukrainian SSSR (Institut khimii vysokomolekulyarnykh soyedineniy Akademii nauk Ukrainskoy SSSR)

TITLE: Synthesis and study of functional organosilicon compounds with a hydrocarbon bridge between the silicon atoms. Part 8: Methods of preparation of alkylchlorodisilylmethanes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 11, 1966, 2003-2005

TOPIC TAGS: siloxane, organosilicon compound

ABSTRACT: In an attempt to find a convenient method for synthesizing chloromethyldisilylmethanes, the authors studied the cleavage of siloxanes containing the units

$$\left[\begin{array}{ccc} R & & R \\ -Si-CH_2-Si-O- \\ R & & R \end{array}\right]$$

by chlorinating agents. It was found that such siloxanes are readily cleaved by $TiCl_4$, PCl_5 and $SOCl_2$ in the presence of catalytic amounts of $FeCl_3$, the corresponding

Card 1/2 UDC: 547.342

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ACC NR: AP7000201

chlorosilanes being formed in 90-95% yields. The most convenient method of cleaving siloxanes is that involving the use of thionyl chloride. 1,3-Dichloro-1,1,3,3-tetramethyldisilylmethane was synthesized via a Grignard reaction, ethyl ether being used instead of tetrahydrofuran, and a 35% yield of the compound was obtained. Orig. art. has: 4 formulas.

SUB CODE: 07/ SUBM DATE: 12Jul65/ ORIG REF: 002/ OTH REF: 004

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ACC NR: AP7000202 (A) SOURCE CODE: UR/0079/66/0[illegible]/011/2005/2009

AUTHOR: Smetankina, N. P.; Kuznetsova, V. P.; Lyukas, S. D.; Belogolovina, G. N.; Frolova, Ye. K.

ORG: Institute of Chemistry of High Molecular Compounds, Academy of Sciences, Ukrainian SSR (Institut khimii vysokomolekulyarnykh soyedineniy Akademii nauk Ukrainskoy SSR)

TITLE: Synthesis and study of functional organosilicon compounds with a hydrocarbon bridge between the silicon atoms. Part 11: Acetylenic alcohols of disilylmethylene and -ethylene and some of their conversions

SOURCE: Zhurnal obshchey khimii, v. 36, no. 11, 1966, 2005-2009

TOPIC TAGS: acetylene compound, organosilicon compound, alcohol

ABSTRACT: Continuing their studies, the authors investigated primary and tertiary acetylenic organosilicon alcohols and glycols and some of their conversions. Acetylenic alcohols of the disilylmethylene and -ethylene series were synthesized as follows:

Card 1/5 UDC: 661.718.5+547.362

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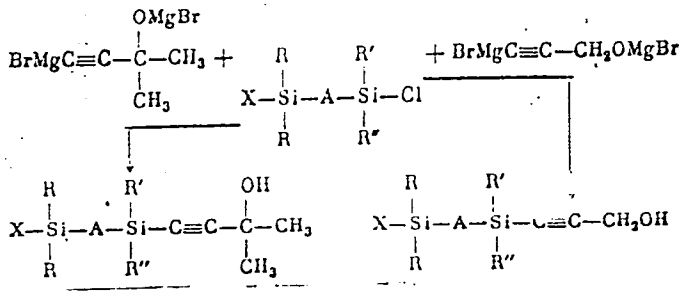
"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ACC NR: AP7000202



A = —CH_2—

(VII) X = R = R′ = R″ = CH_3;
(VIII) X = C_6H_5, R = R′ = R″ = CH_3;
(IX) X = C≡C—C(OH)(CH_3)—CH_3, R = R′ = R″ = CH_3.

A = —CH_2—

(I) X = R = R′ = R″ = CH_3;
(II) X = C_6H_5, R = R′ = R″ = CH_3;
(III) X = C≡C—CH_2OH, R = R′ = R″ = CH_3.

A = —CH_2CH_2—

(IV) X = C≡C—CH_2OH, R = R′ = C_2H_5, R″ = CH_3;
(V) X = C≡C—CH_2OH, R = R′ = R″ = C_2H_5;
(VI) X = C≡C—CH_2OH, R = C_2H_5, R′ = CH_3, R″ = iso-C_4H_9.

In the presence of HCl, the alcohols and glycols obtained readily react with vinyl butyl ether to give the corresponding acetals:

Card 2/5

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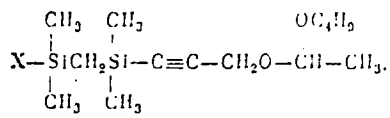
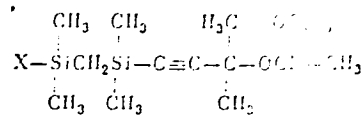
"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

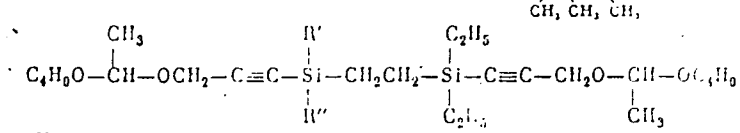
ACC NR: AP7000202



(X) X = CH_3,
(XI) X = C_6H_5,

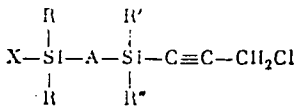


(XII) X = CH_3, (XIII) X = C_6H_5,
(XIV) X = C≡C—C—OCH—OC_4H_9,
CH_3 CH_3 CH_3



(XV) R′ = CH_3, R″ = C_2H_5; (XVI) R′ = R″ = C_2H_5; (XVII) R′ = CH_3, R″ = iso-C_4H_9.

Substitution of chlorine for the hydroxyl group in primary acetylenic alcohols by means of thionyl chloride in the presence of pyridine formed products of the type



A = —CH_2—
(XVIII) X = R = R′ = R″ = CH_3;
(XIX) X = C_6H_5, R = R′ = R″ = CH_3;
(XX) X = C≡C—CH_2Cl, R = R′ = R″ = CH_3.

A = —CH_2CH_2—
(XXI) X = C≡C—CH_2Cl, R = R′ = C_2H_5, R″ = CH_3;
(XXII) X = C≡C—CH_2Cl, R = R′ = R″ = C_2H_5;
(XXIII) X = C≡C—CH_2Cl, R = C_2H_5, R′ = CH_3, R″ = iso-C_4H_9.

Card 3/5

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ACC NR: AP7000202

Table 1

Compound No.	Yield (%)	B P (p i mm)	n_D^{20}	d_4^{20}	MR_D measured	MR_D calculated	Formula
I	50	90—92° (5)	1.4637	0.8812	62.71	62.85	$C_9H_{20}OSi_2$
II	57	112 (2)	1.5265	0.9865	82.27	82.67	$C_{14}H_{22}OSi_2$
III	50	130—131 (0.14)	1.5000	0.9910	71.37	71.89	$C_{11}H_{20}O_2Si_2$
IV	40	130—145 (0.15)	1.4950	0.9532	90.48	90.38	$C_{15}H_{28}O_2Si_2$
V	30	142—147 (0.14)	1.4920	0.9572	94.12	93.43	$C_{16}H_{30}O_2Si_2$
VI	36	150—152 (0.15)	1.4940	0.9500	99.47	99.66	$C_{17}H_{32}O_2Si_2$
VII	54	62—63 (2) *	1.4558	0.8555	72.55	72.14	$C_{11}H_{24}OSi_2$
VIII	59	140—142 (5)	1.5123	0.9525	91.57	91.96	$C_{16}H_{26}OSi_2$
IX	57	117—119 (2) **	—	—	—	—	$C_{15}H_{28}O_2Si_2$
X	72	130—132 (3)	1.4505	0.8696	92.96	92.47	$C_{15}H_{32}O_2Si_2$
XI	61	175—180 (3)	1.5118	0.9630	112.70	112.97	$C_{20}H_{34}O_2Si_2$
XII	75	111—114 (3)	1.4460	0.8627	101.57	101.75	$C_{17}H_{36}O_2Si_2$
XIII	60	162—165 (2)	1.5061	0.9527	121.60	121.57	$C_{22}H_{38}O_2Si_2$
XIV	70	167—170 (3)	1.4595	0.8995	151.12	149.70	[illegible]
XV	40	157—160 (0.15)	1.4770	0.9324	150.50	149.90	$C_{27}H_{52}O_4Si_2$
XVI	40	165—178 (0.15)	1.4735	0.9303	154.30	154.71	$C_{28}H_{54}O_4Si_2$
XVII	30	145—147 (0.15)	1.4750	0.9276	159.20	159.20	$C_{29}H_{56}O_4Si_2$
XVIII	60	71—72 (2)	1.4645	0.9172	65.90	66.16	$C_9H_{19}ClSi_2$
XIX	58	170—173 (4)	1.5245	1.0040	85.66	85.98	$C_{14}H_{21}ClSi_2$
XX	63	140—145 (6)	1.4870	1.0205	78.16	78.51	$C_{11}H_{18}Cl_2Si_2$
XXI	50	113—115 (0.15)	1.4959	0.9949	97.29	96.94	$C_{15}H_{26}Cl_2Si_2$
XXII	50	115—117 (0.15)	1.4900	0.9854	101.90	101.45	$C_{16}H_{28}Cl_2Si_2$
XXIII	50	108—110 (0.15)	1.4886	0.9656	107.50	106.20	$C_{17}H_{20}Cl_2Si_2$
XXIV	59	80—82 (7)	1.4525	0.8675	76.84	75.95	$C_{11}H_{23}ClSi_2$
XXV	63	160—163 (8)	1.5115	0.9706	95.44	95.27	$C_{16}H_{25}ClSi_2$
XXVI	65	112—113 (5)	1.4820	0.9713	97.86	97.10	$C_{15}H_{26}Cl_2Si_2$

Card 4/5

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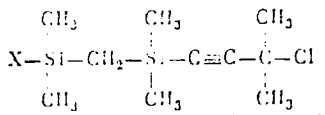
ACC NR: AP7000202

In addition, the following γ-chloro derivatives of tertiary alcohols were obtained by chlorination:



(XXIV) X = CH_3, (XXV) X = C_2H_5, (XXVI) X = $-C{\equiv}C-C(CH_3)_2Cl$.

The yields and physical constants of the synthesized compounds are given in Table 1. Orig. art. has: 2 tables.

SUB CODE: 07/ SUBM DATE: 12Jul65/ ORIG REF: 005/ OTH REF: 001

Card 5/5

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3.9300 also 2406, 2606 26985
9,9865

S/049/60/000/012/009/011
D214/D305

AUTHOR: Lyuke, Ye.I.

TITLE: On the experimental dependence of the energy of seismic waves on the conditions of explosion

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 12, 1960, 1782 - 1790

TEXT: The author reports measurements of the energy in both volume and surface waves for explosions above and in water, and studies the variation with the position of the explosion and the size of the charge. Since the observations were made only at considerable distances from the epicenter, the empirical rules deduced only characterise the long-wave fraction of the source of vibration. Measurements were made in a river valley, which had the following seismological composition: The upper part of the section, 8 - 10 m, was of clay in which the longitudinal wave velocity $\approx$350-400 m/sec. Under this was about 23 m of quaternary gravel, with corresponding

Card 1/5

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boundary velocity 1800 m/sec. Below was 800-900 m of tertiary rock, with average velocity 2900 m/sec, in the upper part of which was a refracting layer at a depth of about 30 m, with boundary velocity 2800 m/sec, and in the lower part a gypsum anhydride layer with boundary velocity 5000 m/sec. The river was 4 m deep and 30 m average diameter. Seismic oscillations were recorded by a seismograph with a natural frequency of oscillation 2 hertz, and a galvanometer with natural frequency 50 hertz. The characteristic of the system was close to a plateau between 1-20 hertz. 134 explosions were made above water, with charges from 2.6-59.8 kg, and at heights up to 9 m, and 32 in water, with charges from 1.0-26.0 kg, and down to 4 m depth. Detection was by two-component arrangements (vertical and radical) with a spacing of 10 m. Longitudinal waves were recorded only by the vertical component, the period of oscillation increasing with distance from the explosion. Two low-frequency surface waves, A and B, were separated from the seismograph. For explosions in water, and closer than 250 m, there is interference between the waves, and A is not separable, although B is always measurable. In air ex-

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plosions, B is obscured by the air wave. A and B waves are identified as Rayleigh waves of the K. Sezawa type (Ref. 4: Discontinuity in the dispersion curves of Rayleigh waves, Bull. Earthqu. Res. Inst. Tokyo, 13, 1935) passing through different layers. Observations were made at 300-350 m from the explosions, and only the longitudinal and A surface waves were studied, due to the interference with the B wave in air explosions. For the longitudinal wave a quantity $\xi_0' = A^2$ was determined, where A was the amplitude of the vertical component of the oscillation (that of the horizontal component being close to 0). The surface wave was treated by a formula of S.Ya. Kogan (Ref. 7: Ob opredeleniy energiy seysmicheskikh voln proizvol'noy formy (On Determining the Energy of Seismic Waves of Longitudinal Form) Izv. AN SSSR. ser. geofiz. No. 5, 1960) which, since it does not take account of the dispersion effect in a laminated medium, gives only a value proportional to the energy in the first approximation. The results of the observations are as follows: For explosions from 1-9 m above water, the energy of the waves is independent of height, but for explosions on the surface of the wa-

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26985

ter, the energies of the surface and volume waves are increased by respectively 3-7 and 12-25 times. For air explosions with a charge of more than 9 kg, the energy of both surface and volume waves is proportional to the mass of the charge to the power 3/2. For less than 9 kg, the energy of surface waves is approximately proportional to the square of the mass while, due to the lowness of their amplitudes, the energy of the volume waves was not determined sufficiently accurately to establish any relationship. In explosions in water, the surface wave record for small charges was distorted, but for larger charges, and for volume waves with all sizes of charge, the wave energy was directly proportional to the depth, and also approximately directly proportional to the energy of the explosion. At a depth of 1 m of water, the energies of surface and volume waves were, on the average, about 100 and 1000 times more respectively, than for an explosion of the same energy in air. There was a slight increase in the fraction of energy going into the waves with increasing charge. The absence of dependence on the height of explosions in air is explained by the fact that measurements were

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D214/D305

[illegible] the experimental dependence ...

[illegible] so far away from [illegible] epicenter, wheremost of the [illegible] short-wave oscillations has been dissipated. The [illegible] I. Rats-Khizgiya and the group of collaborators in the [illegible] Ukrainian expedition [illegible] the Institute of Physics of [illegible] the Academy of Sciences, USSR, for their help in organizing [illegible] work. There are 2 tables, 10 figures and 11 references: [illegible] and 3 non-Soviet [illegible]. The references to the English [illegible] publications read as follows: K. Sezawa, K. Kanai, [illegible] the dispersion [illegible] of Rayleigh waves, Bull. Earth [illegible] Tokyo, 15, [illegible], H. [illegible], The Pamir earthquake of [illegible] in the relation [illegible] the depths of earthquake foci. [illegible] Astr. [illegible], B.F. Howell. Ground vibration [illegible] Explosions, p. [illegible], Earthq. Not., 28, No. 4, 1957.

ASSOCIATION: Akademiya nauk SSSR, institut fiziki zemli [illegible] Sciences USSR, Institute of Physics of [illegible]

SUBMITTED: March [illegible] 60

Card 5/5

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ALEKSEYEV, Ye.K., inzh.; IZGUR, R.M., inzh.; LYUKE, Ye.P., inzh.; NIKOLAYEVSKIY, Ye.Ya., inzh.; PIROGOV, A.N., inzh.; RODIONOVA, R.G., inzh.; TOYBIN, V.A., inzh.; FREYDLIN, G.M., inzh.; KHLYUPINA, A.K., inzh.; CHERNOV, D.L., inzh.; EYDEL'HANT, L.B., inzh.; ZHMUR, N.S., inzh., retsenzent; MOLYUKOV, G.A., inzh., red.; TIKHANOV, A.Ya., tekhn.red.

[Production and installation of pipe systems; reference manual] Izgotovlenie i montazh tekhnologicheskikh truboprovodov; spravochnoe posobie. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1960. 574 p. (MIRA 13:7)
(Pipe fitting)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUKEVICH, D. A.

Met (3)

Metallurgical Abst.
Vol. 21 Apr. 1954
Joining

*Electric Arc Welding of Copper. D. A. Lyukevich, S. L. German, and V. G. Kononenko (*Avtog. Delo*, 1953, 24, (2), 15-17).—[In Russian]. Welding of Cu, using graphite electrodes and P-bronze (8-10% Sn, 0·28-0·35% P) welding rods, is described. The metal of the welds has better mech. properties than the sheet Cu itself. Metallographic examination shows compactness and uniformity of grain of the metal of the joints composed of dendrites of the solid soln. and of the eutectoid.—S. K. L.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

USSR/Chemical Technology. Chemical Products and Their Application -- Electrochemical manufacturing. Electrodeposition. Chemical sources of electrical current, I-8

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5114

Author: Kononenko, V. G., Lyukevich, D. A.

Institution: Khar'kov Aviation Institute

Title: Point Anodizing of Aluminum Alloys

Original Publication: Tr. Khar'kovsk. aviats. in-ta, 1955, No 16, 27-36

Abstract: Description of a simple, cheap and dependable under conditions of aircraft production and operation, procedure for correcting flaws of the oxide film on various parts made of Al alloys, by point anodizing with direct and alternating current in sulfuric acid and chromic acid electrolyte (The experiments were carried out with specimens of D16ATV L 1.0; D16ATV L 0.8; D17M L 0.6 and D17M L 1.0). There is shown a diagram of a portable apparatus for point anodizing and optimal conditions are stated for the use of direct and alternating current with

Card 1/2

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

USSR/Chemical Technology. Chemical Products and Their Application -- Electrochemical manufacturing. Electrodeposition. Chemical sources of electrical current, I-8

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 5114

Abstract: the above-said electrolytes. A study has been made of corrosion resistance, passivation methods, micro-hardness, thickness and elasticity of the films thus obtained.

Card 2/2

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18[illegible], [illegible] [illegible]

AUTHOR: Lyukevich, [illegible], Candidate of Technical Sciences, Tarasov, N.M., Assistant

TITLE: New Resistance Welding Machines for Thin Metal

PERIODICAL: Svarochnoye proizvodstvo, 1959, Nr 7, pp 41-4[illegible] (USSR)

ABSTRACT: From 19[illegible]6 to [illegible], two resistance welding machines were developed for welding thin sheet metal at the Khar'kovskiy aviatsionnyy institut (Khar'kov Aviation Institute). These welding machines are designed for spot (ITM-[illegible]) and seam (IRM-[illegible]) welding. Welding is performed by current of [illegible].003-[illegible].01 sec duration with continuously variable power adjustment. The spot-welding machine ITM-[illegible] will weld steel sheets of 0.05-0.6 mm. brass sheet from 0.05-0.5 mm. The maximum power is 20 kva. The overall dimensions are 1100x[illegible]0x[illegible]40 mm. the weight is [illegible]0 kg. Fig. [illegible] is photograph of the ITM-[illegible], while Fig. [illegible] shows the circuit diagram. The device receives power from the 3[illegible] volt mains. The welding pulse is controlled within the range of

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[illegible]

New Resistance Welding Machines for Thin Metal

2-30 kva. Fig. 3 is a photograph of the seam-welding machine [illegible], while Fig. 4 shows the circuit diagram. It will weld steel parts of 0.[illegible]-0.5 mm, brass of 0.[illegible]-0.35 mm. The welding speed is [illegible] m/min. The power is also 30 kva. The number of welding pulses may be regulated from [illegible] to 17 per second. The weight of the welding machine is [illegible] kg. Both welding machines are distinguished by the simplicity of their electrical circuits and great reliability. Presently, welding machines [illegible] and [illegible] are being introduced at industrial installations in Khar'kov. There are [illegible] photographs, [illegible] circuit diagrams and [illegible] tables.

ASSOCIATION: Khar'kovskiy aviatsionnyy institut [Khar'kov Aviation Institute]

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ANTONOV, V.I.; LYUKEVICH, O.V.; MIRZOYANTS, L.E.; SHCHERBATYKH, M.A.

The SDA-250 desiccating and grinding unit for the production of powdered milk. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.-nauch.i tekh.inform. no.3:48-49 '62. (MIRA 15:5)
(Milk, Dried)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUKEVICH, O.Ye.

Epidemic hepatitis. Vop. okh. mat. i det. 5 no.6:89 N-D '60. (MIRA 13:12)

1. Iz Krasnodarskoy detskoy infektsionnoy bol'nitsy.
(HEPATITIS, INFECTIOUS)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUKEVICH, R.A., inzh.; LEVCHENKO, S.I., inzh.

Soap stock wastes used as intensifier in grinding raw material mixtures. TSement 23 no.5:30 S-O '57. (MIRA 11:1)

1. Yenakiyevskiy tsementnyy zavod.
(Cement industries)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

FEDOSOV, N.M.; SHARIPOV, E.I.; KUNAKOV, Ya.N.; LYUKEVICH, V.I.

Choosing the optimum temperature for the hot rolling of transformer steels. Vest. AN Kazakh. SSR 20 no.1:64-67 Ja '64. (MIRA 17:3)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ACC NR: AT6034458 (A) SOURCE CODE: UR/0000/66/000/000/0213/0218

AUTHOR: Zhetvin, N. P.; Frid, Ya. L.; Kontsevaya, Ye. M.; Sokol, I. Ya.; Lyukovich, V. L.

ORG: none

TITLE: Study of the kinetics of hardening and softening of heat resistant alloys with the aim of choosing the temperature interval for hot plastic deformation and heat treatment

SOURCE: AN SSSR. Institut metallurgii. Svoystva i primeneniye zharoprochnykh splavov (Properties and application of heat resistant alloys). Moscow, Izd-vo Nauka, 1966, 213-218

TOPIC TAGS: heat resistant alloy, metal deformation, metal heat treatment

ABSTRACT: The experiments were carried out on hot rolled samples of alloy Brand EI828 with a thickness of 2-3 mm, and cold rolled samples of alloy Brand EP460 with a thickness of 1.0-1.5 mm. The chemical composition of the alloys is shown in the following table:

Card 1/2

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ACC NR: AT6034458

Alloy	C	Mn	Si	S	P	Ni	Cr
EI828.	0,03	traces	0,11	0,006	0,005	base	9,55
EP460.	0,03	traces	0,07	0,010	0,008	base	8,85

Alloy	Mo	W	Ti	B	Al	Ce	Nb
EI828.	8,81	5,01	0,06	0,008	4,50	0,15	-
EP460.	2,24	-	3,0	-	1,8	-	1,87

The samples were subjected to hardening in a laboratory electric furnace at a temperature of 950-1200°C, and aging at temperatures of 650-1000° with a holding time up to 12 hours. The mechanical properties (σ_b, δ_5, HB, a_k) and the microstructure were determined before and after aging. A phase analysis was made of the precipitates which separated out from the hardened and aged samples of alloy EI828, and a dilatometric examination of the samples was made on a differential optical dilatometer. On the basis of the experimental data, a study was made of the kinetics and the temperature interval for the formation of the intermetallic phase of the type Ni_3Al or $Ni_3(Ti, Al)$. The following conclusions were drawn: 1) the decomposition of the solid solutions at aging temperatures starts the minute the aging process starts; 2) a maximum degree of hardening is achieved (at 800°) in an alloy containing 27% of the intermetallic phase; 3) weakening of the aged alloy Brand EP460 is reached on heating to 1050° and above, while for alloy EI828, this temperature is shifted to 1200°. "The x ray analysis was done by S. S. Potapova, and the analysis of the intermetallic precipitate by A. P. Pogodina.". Orig. art. has: 5 figures and 2 tables.

SUB CODE: 11/ SUBM DATE: 10Jun66/ ORIG REF: 004/ OTH REF: 001

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

FAL'KEVICH, E.S.; GARMATA, V.A.; Prinimali uchastiye: KRAMNIK, V.Yu.; LYUKEVICH, Yo.A.; ARTYUNOV, R.A.; KULIKOV, V.A.

Quality control of titanium sponge. Titan i ego splavy no.9:191-195 '63. (MIRA 16:9)

(Titanium—Testing)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

L 39997-65 EWG(j)/EWT(m)/EWP(w)/EWA(d)/EPR/T/EWP(t)/EWP(z)/EWP(b)/EWA(c)
Pr-4/Ps-4 IJP(c) JW/MJW/JD/GS

ACCESSION NR: AT4048089 S/0000/64/000/000/0302/0307

49
45
B+1

AUTHOR: Eal'kevich, E. S.; Lyukevich, Ye. A.; Kucherenko, A. N.

TITLE: The problem of harmful inclusions in titanium ingots

SOURCE: Soveshchaniye po metallurgii, metallovedeniyu i primeneniyu titana i yego splavov. 5th, Moscow, 1963. Metallovedeniye titana (Metallography of titanium); trudy soveshchaniya. Moscow, Izd-vo Nauka, 1964, 302-307

TOPIC TAGS: titanium, titanium alloy, titanium ingot, titanium ingot inclusion, titanium sponge, titanium oxide, titanium nitride

ABSTRACT: At present, harmful inclusions in titanium ingots and semifinished products are being given considerable attention. These inclusions are characterized by high hardness and brittleness, resulting in disruption of the integrity of the metal. Neither the nature of these inclusions nor the causes of their appearance have been determined completely. During production, the titanium sponge is oxidized. For technical reasons, the oxygen content must be determined indirectly. This is done by adding 1/2, 1, 2, 3 and 5% of the oxidized sponge to a known high-quality sponge. Ingots are then made, and the oxygen content for each sponge is

Card 1/3

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L 39997-65

ACCESSION NR: AT4048089

calculated from the ingot oxygen content. X-ray analysis of 2-5 mm fractions of various kinds of sponge showed the presence of a solid solution of titanium with gas inclusions. The oxidized sponge with a grey-white color consists of a mixture of rutile, titanium nitride and titanium. Since microchemical and microspectral analyses are too complicated and have been mastered by only a few factories, efforts were made to develop simpler methods. Investigations were performed with technical titanium ingots 130 mm in diameter made in a laboratory vacuum arc furnace. After stripping and etching in a solution of nitric and hydrofluoric acid, the ingots were tested for hardness and macrostructure. After this, a 5 mm layer was cut off, the surface was etched and the hardness was redetermined on a TSh-2 device under a 3000 kg load with a 10 mm sphere. Microhardness was measured by the PMT-3 device under a load of 200 grams. Tests with grey-white oxidized sponge showed that the rutile in the melt is dissolved and inclusions are formed due to the presence of titanium nitride. X-ray analysis of the inclusion showed the presence of titanium oxynitride with a 4.203 A lattice. The tests also showed that the inclusions form mainly in the lower half of the ingot near the side. Thermodynamic calculations show that the phase content of inclusions formed when VK8 and T15K6 alloys are added into the charge approaches

Card 2/3

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ACCESSION NR: AT4048089

that of titanium carbide. The authors conclude that yellow and blue-violet titanium sponge, dark grey sponge and slag film do not lead to the formation of inclusions in laboratory ingots of technical titanium. Grey-white oxidized sponge may, in some cases, cause the appearance of inclusions in ingots. The introduction of 2-12 mm lumps of hard alloys into the electrode leads to the appearance of inclusions in the ingots in all cases. X-ray analysis and measurement of microhardness near the inclusions may serve as simple methods for determining the type of inclusion. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 15Jul64 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

KRAMNIK, V.Yu.; FAL'KEVICH, E.S.; LYUKEVICH, Ye.A.; TUSHNIKOVA, Z.I.

Rapid method of determining the quality of titanium sponge. Titan i ego splavy no.9:196-198 '63. (MIRA 16:9)
(Titanium—Testing)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

1. LYUKEVICH, B. M., PEISIK, M. I.

2. USSR (600)

4. Latvian Depression - Geology, Structural

7. Post Devonian tectonic movements in the region of the Latvian depression. Dokl. AN SSSR 88, No. 5, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

KOROL'KOV, I.I.; TYAGUNOVA, Z.A.; RYAZANTSEV, N.V.; PETI, P.K.; MEDVEDEV, S.F.; LYUKHANOV, O.F.

Continuous neutralization of hydrolyzates. Gidroliz.i lesokhim.prom. 13 no.1:17-20 '60. (MIRA 13:5)

1. Nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirtovoy promyshlennosti (for Korol'kov, Tyagunova, Ryazantsev, Peti). 2. Tavdinskiy gidroliznyy zavod (for Medvedev). 3. Krasnodarskiy gidroliznyy zavod (for Lyukhanov).
(Krasnodar--Wood-using industries--Equipment and supplies)
(Hydrolysis)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

GLAZMAN, B.A.; SAVINYKH, A.G.; GLADKOVA, A.A.; LYUKHANOV, O.F.; KUNDIN, V.M.; MERTINS, I.P.

Automation of hydrolysis processes. Gidroliz. i lesokhim. prom. 17 no.7:25-28 '64. (MIRA 17:11)

1. Krasnodarskiy gidroliznyy zavod (for Glazman, Savinykh, Gladkova, Lyukhanov). 2. Proyektno-konstruktorskoye byuro Severo-Kavkazskogo soveta narodnogo khozyaystva (for Kundin, Mertins).

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

ROZENSON, I.S.; LYUKHINA, I.I.

Spinning of 60-70 mm long rayon staple; preliminary report.
Nauch.-issl.trudy IvNITI 23:25-29 '59. (MIRA 14:4)
(Rayon spinning)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

STARTSEV, I.V.; LYUKHTIKOVA, R.A.

Benign tumors of the gastrointestinal tract. Nauch.trudy Chetv. Mosk.gor.klin.bol'. no.1:183-189 '61. (MIRA 16:2)

1. Iz kafedry obshchey khirurgii (zav. prof. G.P. Zaytsev) 2-go Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova i Moskovskoy gorodskoy klinicheskoy bol'nitsy No.4 (glavnyy vrach - G.F. Papko).
(ALIMENTARY CANAL--TUMORS)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

Derivation of the sulfur content of coke from that of the coal from which it originated. M. I. Lyukimson. *Coke and Chem.* (U. S. S. R.) 1938, No. 10, 29-7. A direct relationship is established between the content of bituminous substances of coal and the loss of S during coking. bituminous coals of high S content may therefore be suitable for coke production. B. C. P. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSES AND PROPERTIES INDEX

CA

21

A method for the determination of the yield of the distillate up to 180° in crude benzene M. I. Lyukimson. *Coke and Chem.* (U. S. S. R.) 1938, No. 12, 30-1; *Khim Referat Zhur.* 2, No. 5, 98 (1939). The amt. of the distillate up to 180° is usually detd. at the moment the temp is reached without waiting for the product to pass from the condenser. This gives results 1-2% low. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Ca

21

Coking rich mixtures in the Novyi-Mariupol plant M. A. Zamakhovskii, M. O. Lankinman, S. P. Osinachko and N. V. Frolova. *Coke and Chem.* (U. S. S. R.) **1939**, No. 4-5, 16-17; *Khim. Referat. Zhur* **1939**, No. 9, 84. — The total yield of coke from a mixt. contg. 60% of gas coals was 76.3%. The coke was normal and was satisfactory for use in the blast furnace. The yield of gas increased by 10%, its calorific value increased by 2.5% and the yield of benzene increased slightly. W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

Lyukimson, M.I.

3407. DETERMINATION OF SWELLING INDEX FOR EVALUATING THE COKING PROPERTIES OF COALS. Taits, E.M., Lyukimson, M.I. and Tyabina, Z.S. (Zavod. Lab. (Fact. Lab., Moscow), 1954, Vol. 20, (3), 320-324; abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1956, (5), 13815). A modification of the method described previously (Fuel Abstr., 1949, Vol. 5, 3299) is given. A 2g sample is used for coals with slight coking properties. For strongly coking coals the sample consists of 1g of coal and 1g of coke.

Fuel

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

Purification of waste water. M. I. Lyukimson, S. B. Kotel'nikov, F. M. Rodshtein, and N. I. Amitina. U.S.S.R. 107,042, Aug. 25, 1957. Waste water from the As-soda 3 purification unit is treated with SO_2 to oxidize the thiosulfate and neutralize the soln., thereby recovering addul. S and Na_2SO_4. M. Hosch

1/1

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

AUTHOR: Finkel', M.Ya. (UKhIN), Lyukimson, M.I. and Kobzantsev, V.B. (Zhdanovskiy Coke Oven Works)

TITLE: On lowering the acidity of ammonium sulphate. (O snizhenii kislotnosti sul'fata ammoniya.)

PERIODICAL: "Koks i Khimiya" (Coke and Chemistry), 1957, No. 4, pp. 37 - 39, (U.S.S.R.)

ABSTRACT: It is stated that in order to decrease the acidity of ammonium sulphate, oily impurities in the mother liquor should be separated. Observations indicated that if sufficient settling time is provided, oily and tarry impurities float on top and can be removed from circulation and thus the subsequent contamination of the salt can be prevented. In the Zhdanovsk Works the circulation of the mother liquor was modified, namely a large capacity tank (about 43 m^3) was included as a settling capacity. Floating impurities were thus periodically removed from the circulation. This temporary measure was later replaced by the following scheme. The circulation pot was used as a settling tank. The liquor circulated in the saturator independently from the circulation pot by joining a pump directly to the saturator to withdraw the mother liquor from its middle zone and delivering it to the agitator. The circulation in the circulation pot was kept low in order to permit the separation of oily and tarry impurities. In addition, the washing of crystals in centrifuges was carried out with water heated to 70 °C. The above measures decreased the acid content of salt from 0.194-0.195% to 0.006-0.025%. There are 2 tables.

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

SOV/68-59-[illegible]-24/33

AUTHOR: Lyukimson, M.I.

TITLE: The Production of Phenols from Sodium Phenolates by Blowing Blast Furnace Gas or Products of its Combustion

PERIODICAL: Koks i Khimiya, 1959, Nr 7, pp 59 - 60 (USSR)

ABSTRACT: At present phenolates are sent to the Phenol Works and are decomposed with a gas containing 5% of CO_2. The use of blast furnace gas or its combustion products for the decomposition of sodium phenolates has been investigated on a laboratory scale with satisfactory results (Table 1). It is intended to build an experimental column which can be used for a fuller investigation of the technical and economic aspects of the decomposition of phenolates with blast furnace gas or its combustion products and possibilities of recovery of soda-ash as a by-product.
There is 1 figure and 2 tables.

ASSOCIATION: Zhdanovskiy koksokhimicheskiy zavod (Zhdanovskiy Coking Works)

Card 1/1

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LYUKIMSON, M.I.

Methods for improving the conditioning and quality of recirculating water at the Zhdanov Byproduct Coke Plant. Koks i khim. no.2:38-40 '61. (MIRA 14:2)

1. Zhdanovskiy koksokhimicheskiy zavod.
(Zhdanov—Coke industry—By-products)
(Water supply engineering)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUKIMSON, M.I.; KOZEL', V.Ye.

Production of white or slightly colored ammonium sulfate. Koks i khim. no.1:37-38 '63. (MIRA 16:2)

1. Zhdanovskiy koksokhimicheskiy zavod.
(Ammonium sulfate)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

LYUKIMSON, M.I.; KOZEL', V.Ye.; MANOKHINA, K.V.

Purification of feed water. Koks i khim. no.3:52-54 '63. (MIRA 16:3)

1. Zhdanovskiy koksokhimicheskiy zavod.
(Feed water purification)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

VOLOSHIN, A.I.; BOGOYAVLENSKIY, K.A.; AKHTYRCHENKO, A.M.; TURIK, I.A.; ZHIDKO, A.S.; LYALYUK, V.S.; GABAY, L.I.; ONOPRIYENKO, V.P.; STARSHINOV, B.N.; BABIY, A.A.; SAVELOV, N.I.; Prinimali uchastiye: TORYANIK, E.I.; VASIL'YEV, Yu.S.; SHEMEL', T.I.; SENYUTA, V.I.; BONDARENKO, I.P.; AMSTISLAVSKIY, D.M.; ANDRIANOV, Ye.G.; SERGEYEV, G.N.; ZAMAKHOVSKIY, M.A.; LYUKIMSON, M.O.; IVONIN, V.K.; TSIMBAL, G.I.; SEN'KO, G.Ye.; KONAREVA, N.V.; SOLODKIY, Yu.L.; LUKASHOV, G.G.; TARASOV, D.A.; GORBANEV, Ya.S.; SUPRUN, I.Ye.; TIKHOMIROV, Ye.I.; KONONENKO, P.A.; PROKOPOV, V.N.; GULYGA, D.V.; PLISKANOVSKIY, S.T.; PONOMAREVA, K.Ye.

Effect of the length of coking on coke quality and the performance of blast furnaces. Koks i khim. no.12:26-32 '61.
(MIRA 15:2)

1. Ukrainskiy uglekhimicheskiy institut (for Voloshin, Bogoyavlenskiy, Akhtyrchenko, Turik, Zhidko, Lyalyuk, Toryanik, Vasil'yev, Shemel'). 2. Zhdanovskiy koksokhimicheskiy zavod (for Gabay, Senyuta, Bondarenko, Amstislavskiy, Andrianov, Sergeyev, Zamakhovskiy, Lyukimson, Ivonin, TSimbal). 3. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov (for Onopriyenko, Starshinov, Babiy, Sen'ko, Konareva, Solodkiy). 4. Zavod "Azovstal'" (for Savelov, Lukashov, Tarasov, Gorbanev, Suprun, Tikhomirov, Kononenko, Prokopov, Gulyga, Pliskanovskiy, Ponomareva).

(Coke)
(Blast furnaces)

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"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001031220010-1

137-1958-3-4795

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 48 (USSR

AUTHOR: Lyukov, M. G.

TITLE: Regulation of Arc Voltage in Automatic Steel-Smelting Furnaces (O kontrole napryazheniya na duge pri avtomaticheskom regulirovanii staleplavil'nykh pechey)

PERIODICAL: Nauchn. zap. L'vovsk politekhn in-t, 1956, Nr 40, pp 233-242

ABSTRACT: A majority of regulators depend on the measurement of the arc voltage, i.e., the potential between the end of the electrode and the surface of the charge. In practice this is accomplished by measuring the potential between the furnace housing and the terminals of the transformer; the measured value is a combination of the potential on the arc plus the voltage drop in the secondary circuit and is therefore considerably greater than the true values. After investigating the performance of standard differential regulators, operating in conjunction with furnaces of 1.5 to 30 t capacity, the author employed graphical-analytical methods in deriving correction coefficients which permit proper selection of resistance in the equalizing potentiometers of the control-transforming circuits. Thus it is possible to design an

Card 1/2

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