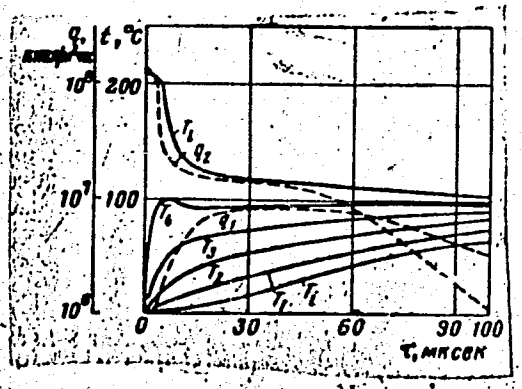
"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

ACCESSION NR: AP4038431

ENCLOSURE: 03

kcal/m^{2}hr



microsec.

Card 6/7

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

ACCESSION NR: AP4038431

ENCLOSURE: 04

Dependence of heat fluxes and temperatures on the time, calculated for the pickup from the experimental data

T_ℓ - temperature on external surface of insulation

T_i - temperature on contact between insulation and filament

$T_{1,2,3,4}$ - temperatures in different layers of the insulation, in steps $\Delta r = 1\ \mu$

q_1 - heat flux to the filament

q_2 - heat flux to external surface of pickup

Card 7/7

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

MUCHNIK, G.F. (Moskva); POLYAKOV, Yu.A. (Moskva)

Biot's variational method in heat transfer problems with variable boundary conditions. Teplofiz. vys. temp. 2 no.3:424-428 My-Je '64. (MIRA 17:8)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 17933-65 Pa-4 AFWL
ACCESSION NR: AP4049566 S/0069/64/026/006/0705/0708

AUTHOR: Polyakov, Yu. A.

TITLE: Exchange adsorption of Sr and Ca in soils

SOURCE: Kolloidny*y zhurnal, v. 26, no. 6, 1964, 705-708

TOPIC TAGS: colloid, strontium 90 removal, calcium chloride, soil strontium removal, soil, strontium 90

ABSTRACT: The exchange adsorption of Sr and Ca atoms in soils under dynamic conditions was studied in two stages. The soil is saturated with Sr^{90} in the first stage, and the adsorbed strontium is eluted with a $CaCl_2$ solution in the second stage. The equilibrium constants K and K' of the direct and reverse reaction are determined as 1.2 and 0.83, respectively. The values of the distribution coefficient K_d, determined by different methods as 0.7, 0.84, and 1.63 ml/g, are considered to be in satisfactory agreement. The calculations show that 1) the removal of concentrated Sr^{90} from the soil to a depth of 0.7 m requires 7.6×10^9 ml of water and about 36 t/ha of $CaCl_2$, and 2) the removal of Sr^{90} concentrated

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 17933-65
ACCESSION NR: AP4049566

to about 10 mμ requires water in the amount of 26.4×10^9/ml and $CaCl_2$ in the amount of 145 t/ha. Orig. art. has: 5 formulas and 1 figure.

ASSOCIATION: Pochvenny*y institut, Moscow (Soil Institute)

SUBMITTED: 04Mar63 ENCL: 00 SUB CODE: GC, ES

NO REF SOV: 003 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 58703-65 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD

ACCESSION NR: AP5016588 UR/0363/65/001/005/0721/0724
546.193'221 + 546.817'221

AUTHOR: Kolomiyets, B. T.; Polyakov, Yu. A. 21 19 B

TITLE: Interaction between arsenic trisulfide and PbS

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 5, 1965, 721-724

TOPIC TAGS: arsenic sulfide, lead sulfide, arsenic containing alloy, lead containing alloy, alloy structure, phase diagram, Tammann triangle

ABSTRACT: Alloys of As_2S_3 and PbS were prepared both from the elements and from master alloys (As_2S_3 and PbS), and were studied by differential thermal and x-ray phase analysis and by microstructural examination. An equilibrium phase diagram of the As_2S_3 - PbS system was constructed in the 0-50% PbS composition range. All the analyses showed the presence of a ternary phase melting at 455C and corresponding to the mineral sartorite or scleroclasite. When complete crystallization of the alloys of the system was carried out, vitreous As_2S_3 was crystallized; it was thus possible to determine the solidus line, refine the melting point of As_2S_3 (310 ± 5C), and construct Tammann's triangle. The

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 58703-65

ACCESSION NR: AP5016588

2

constancy of T_g (softening range of the glass) in the glass - crystal system, the identity of the value of the solidus line temperature with the melting point of pure crystalline As_2S_3, Tammann's triangle, and the data of x-ray phase analysis all indicated the presence, in the As_2S_3 - PbS system, of a eutectic located in the vicinity of pure As_2S_3. "We thank N. P. Luzhnaya for assistance in this work." Orig. art. has: 6 figures.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii im. N. S. Kurnakova Akademii nauk SSSR (Institute of General and Inorganic Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 23Jan65 ENCL: 00 SUB CODE: IC

NO REF SOV: 004 OTHER: 006

Card 2/2 dm

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 57553-65 EWT(1)/EWP(m)/EWT(m)/EWP(i)/EWA(d)/EPR/EWP(t)/FCS(k)/EWP(b)/EWA(h)/EWA(c) Pd-1/Pi-4 IJP(c) JD/WW/JG

ACCESSION NR: AP5016700 UR/0294/65/003/003/0457/0462 45 B
534.222.2:533.6.071.8

AUTHOR: Polyakov, Yu. A. (Moscow); Haboko, I. M. (Moscow); Makarov, Yu. V. (Moscow)

TITLE: Experimental determination of a test time in a shock tube by the thermal probe method

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 3, 1965, 457-462

TOPIC TAGS: shock tube, test time, shock wave, transition region, boundary layer, shock tube flow, flow behind shock wave, thin film resistance gauge, Toepler method, supersonic flow

ABSTRACT: The results of an experimental determination of the duration and the extent of the region of a steady-state gas flow behind the shock-wave front by means of a thin-film resistance gauge located in the shock tube wall are discussed. It consists of a platinum film 0.1 μ thick deposited on the spherical end of a glass tube, sintered after being coated with a paste containing chloroplatinic acid. A critical analysis of other sensors used in direct contact with the gas, such as pressure gauges, film resistance thermometers, and electric probes is given. Experiments showed that at initial pressures from 0.1 to 10 mm Hg, the hot boundary layer on the wall persists for a long time after the passage of the contact discontinuity,

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 57553-65

ACCESSION NR: AP5016700

and the duration of this layer is 3 to 5 times longer than the duration of the steady-state region. Test time of a shock tube 50 mm in diameter versus the shock wave velocity at an initial pressure of 1 mm Hg is given in a graph in which the results of theoretical calculations and various experimental data are plotted. One of the various advantages of thin-film thermal gauges cited here is the smallness of the time constant $\tau < 0.1\ \mu$sec. Experiments were conducted in a shock tube 50 mm in diameter and 4 m long in the Mach range from 3 to 11.6, with hydrogen as the driving gas. The Toepler method and a high-speed movie camera (30,000 frames/sec) were used for photorecording. Orig. art. has: 6 figures. [AB]

ASSOCIATION: none

SUBMITTED: 18Aug64 ENCL: 00 SUB CODE: ME

NO REF SOV: 006 OTHER: 005 ATD PRESS: 4037

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 11941-66 EWT(1)/EWP(m)/ETC(F)/EPF(n)-2/EWG(m)/EWA(d)/FCS(k)/EWA(h)/EWA(c) WW

ACC NR: AP6001911 UR/0294/65/003/006/0879/0888

44,55

AUTHOR: Polyakov, Yu.A. (Moscow)

ORG: None

71
66
B

TITLE: Investigation of heat transfer in the reflection of a shock wave

SOURCE: Teplofizika vysokikh temperatur, v.3, no.6, 1965, 879-888

TOPIC TAGS: heat transfer, shock wave reflection, Mach number

ABSTRACT: The experimental equipment was a stainless steel shock tube with an inside diameter of 50 mm and is shown in a diagram. The propelling gas was hydrogen and the working gas was air. The length of the low pressure chamber was approximately 4 meters. The article gives a general method for analysis and for the choice of a method for measurement of heat transfer with surface pick-ups under unsteady-state conditions. A generalized curve of the heat flux distribution makes it possible to choose pick-ups for different combinations of materials. The calorimetric method of investigating heat transfer under the conditions of a shock tube is demonstrated. The heat fluxes can be measured directly for changes within the limits of 1-2 microseconds. It is established that, in spite of physical and chemical transformations in the gas at high temperature, the heat transfer in the given case is analogous to

Card 1/2

UDC: 536.24:53.083:533.6.011.72

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 35559-65 EWP(w) EM

ACCESSION NR: AP5008152

S/0286/65/000/005/0030/0030

AUTHORS: Polyakov, Yu. A.; Strizhenova, V. F.

TITLE: A shaft-rotating device for turbomachines. Class 14, No. 168730

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 5, 1965, 30

TOPIC TAGS: turbomachine

ABSTRACT: This Author Certificate presents a shaft-rotating device for turbomachines, such as paired turbines, with a drive gear in the housing and a following gear on the principal shaft, driven by means of a reducing gear from an electric motor (see Fig. 1 on the Enclosure). For increasing the reliability the housing contains a nozzle device for supplying liquid to the driven gear, using a hydraulic drive, for example, as the driving wheel when the turbomachine is stopped. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 19Jul63

ENCL: 01

NO REF SOV: 000

SUB CODE: PR

OTHER: 000

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

KARPOV, Yu.S.; POLYAKOV, Yu.A.

Errors in measuring the noise coefficient of transistors at low frequencies. Izv. vys. ucheb. zav.; prib. 8 no.2:7-10 '65. (MIRA 18:5)

1. Leningradskiy elektrotekhnicheskiy institut imeni Ul'yanova (Lenina). Rekomendovano kafedroy avtomatiki i telemekhaniki.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

MISHCHENKO, K.P.; REZNIKOV, I.L.; KLYUYEVA, M.L.; SOKOLOV, V.V.; POLYAKOV, Yu.A.

Thermochemistry of carnallite dehydration. Zhur.prikl.khim. 38 no.9:1939-1944 S '65. (MIRA 18:11)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 21984-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACCESSION NR: AP5025991 UR/0294/65/003/005/0752/0756

536.24.083

AUTHOR: Polyakov, Yu. A.

14,44,55 94 93 13

TITLE: Impulse type detector for measurement of heat transfer in an ionized stream of gas

9m

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 5, 1965, 752-756

TOPIC TAGS: heat transfer, gas ionization, temperature measurement, temperature instrument, protective coating, metal coating, heat insulation, insulating material

ABSTRACT: Insulation for a detector of this type must be thin so that during extremely rapid changes in the temperature of the surface there will be no noticeable effect on the operation of the resistance thermometer or film type thermocouple. At the same time, it must possess sufficient strength during transient thermal shock (up to q= approximately 10^7 kcal/m^2-hr). The article goes on to present a theoretical evaluation of the effect of thin insulating coatings on the operation of film type detectors. It then describes the technique involved in the fabrication of detectors with an insulating coating, designed for the investigation of heat transfer in a weakly ionized stream of gas. First, a protective layer of MgF_2 was sprayed on a platinum film; thickness of this layer reached about

Card 1/2

2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 21984-66

ACCESSION NR: AP5025991

600-800 A. Then, on top of the MgF_2 layer, also by spraying in a vacuum, there was applied a layer of SiO_2 with a thickness of approximately 400 A. The overall thickness of the double layer was from 0.1 to 0.12 microns. Test results show that a protective layer of this thickness does not affect the magnitude of the thermal signal and that the surface temperature can be fixed with sufficient accuracy. A test of the strength of the insulation showed that it can satisfactorily resist a potential difference corresponding to an electric field potential in the insulation of approximately 200 kilowatts/cm. "The author thanks V. A. Yurov for applying the insulating layers." Orig. art. has: 4 figures

ASSOCIATION: None

SUBMITTED: 00 ENCL: 00 SUB CODE: 20, 14, 11

NR REF SOV: 006 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 38278-66 EWP(m)/EWP(j)/EWT(1)/EWT(m)/EWP(e) RM/IG/WW/GD

ACC NR: AT6022663 SOURCE CODE: UR/0000/66/000/000/0192/0200

AUTHOR: Polyakov, Yu. A.

ORG: none

TITLE: Unsteady heat transfer during shock wave reflection

SOURCE: AN SSSR. Energeticheskiy institut. Issledovaniya po fizicheskoy gazodinamike (Studies of physical gas dynamics). Moscow, Izd-vo Nauka, 1966, 192-200

TOPIC TAGS: gas dynamics, shock tube, shock wave reflection, heat transfer, reentry heat transfer, heat flux pickup

ABSTRACT: The results of an experimental investigation of unsteady heat transfer to the end plate and shock-tube walls during shock-wave reflection are presented and compared with available theoretical data. Experiments were conducted in a stainless-steel shock tube 50 mm in diameter according to the schematic representation of the experimental setup given in Fig. 1. Heat-transfer results are presented for an air temperature of 6500K and p = 2 atm, where more than 50% of the air molecules are in the dissociated state. The conditions obtained behind the reflected shock wave correspond to conditions encountered by a vehicle traveling at hypersonic velocities at an altitude of about 40 km. Heat transfer measurements necessitated the development of a calorimetric gage capable of microsecond response. The merits and advantages

Card 1/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 38278-66

ACC NR: AT6022663

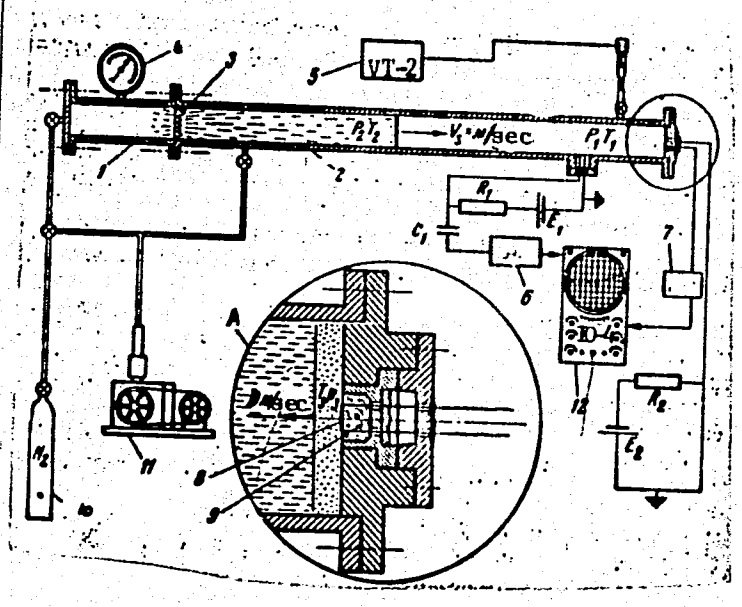


Fig. 1. Schematic diagram of the experimental setup

1 - High pressure chamber; 2 - low pressure chamber; 3 - diaphragm; 4 - pressure gage; 5 - VT-2 vacuum meter; 6 - synchronizer; 7 - d-c amplifier; 8 - calorimetric gage; 9 - insulator; 10 - hydrogen cylinder; 11 - vacuum pump; 12 - IO-4 pulse oscillograph.

Card 2/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

ACC NR: AT7000388

SOURCE CODE: UR/0000/66/000/000/0478/0490

AUTHOR: Konovalov, A. P.; Okhotin, A. S.; Polyakov, Yu. A.

ORG: none

TITLE: Application of the electric simulation method for the investigation of thermal and electric processes taking place in a thermoelectric energy converter.

SOURCE: Teplo- i massoperenos, t. 6: Metody rascheta i modelirovaniya protsessov teplo- i massoobmena (Heat and mass transfer, v. 6: Methods of calculating and modeling heat and mass transfer processes). Minsk, Nauka i tekhnika, 1966, 478-490

TOPIC TAGS: thermoelectric converter, simulation, analog computer, electronic simulation

ABSTRACT: As is known, a rigorous solution of the equation describing the thermal field of a thermoelectric energy converter is impossible because of the nonlinear temperature dependence of the thermal conductivity and thermal emf coefficients, and of nonlinear resistivity. Instead of using the available approximate solutions, the authors show how one can obtain the thermal field by simulating its equation with the help of an analog computer. The proposed method can be easily applied in the case of the stationary thermal mode, for which case the complete procedure is presented. The investigation of the thermoelement's operation in a nonstationary mode presents more complex problems. In particular, it necessitates the splitting of the continuous thermal system into elementary discrete volumes, each of which is replaced by an

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

ACC NR: AT7000388

equivalent electric circuit; then the thermal properties of each volume are simulated in such a way that the voltages at the junction points of the equivalent electrical scheme correspond to the temperature of the center of the volumes. Just as in the case of the stationary mode, a structural scheme for the nonstationary mode is given along with the set of differential equations by which it is described. The authors hope that the simulation method they conceived will be used in research on thermoelectric energy converters and in the planning of such devices. Orig. art. has: 14 formulas and 5 figures. [WA-51]

SUB CODE: 20/ SUBM DATE: 08Jun66/ ORIG REF: 004/ OTH REF: 001/

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu. D.

A new apparatus for measuring the oxygen consumed by small aquatic animals. J. D. Polyakov. *Compt. rend. acad. sci. U. R. S. S.* 14, 317-19(1937)(in English). – Animals are placed in a simple cylindrical vessel with water of known O_2 content. After 1 hr. in a thermostat the O_2 remaining is detd. by titration with 0.003 *N* hyposulfite. The method measures 0.01 mg. or less. In mg. of O_2 per hr. 2 *Chironomus plumosus* absorbed 0.012 and 10 *Daphnia magna* absorbed 0.039. P. D. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.D.; MIKHEYEV, P.V.; MEYSNER, Ye.V.

Great pisciculturist; in memory of B.M. Sebentsov. Vop.ikht. no.6: 174-178 '56. (MLRA 9:8)

(Sebentsov, B.M., 1891-1955)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, YU. D.

PROCESSES AND PROPERTIES INDEX

Diurnal rhythm of the O absorption by young tenches. Yu. D. Polyakov. *Bull. soc. naturalistes Moscou, Sect. biol.* 49, 37–42(1940); *Chem. Zentr.* 1943, II, 733.—Young tenches manifest 4 max. and 4 min. in O consumption during a 24-hr. period. In the dark the O consumption is less than under natural conditions, the 24-hr. rhythm being leveled out so that the max. and min. are smaller. The max. in respiration occurring mornings and evenings coincide with the feeding of the animals, but totally unexpected is the max. during midday and night.

S. Morgulis

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.F., kand. pedagog. nauk

Characteristics of the methodological ways for studying disorders of cognitive processes in schizophrenia. Trudy Gos. nauch.-issl. inst. psikh. 43:269-273 '65. (MIRA 18:9)

1. Institut psikhiatrii AMN SSSR (direktor - prof. A.V.Snezhnevskiy).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.F.

Comparative characteristics of a disorder in the dynamcs of thinking in initial arteriosclerosis of the vessels of the brain and in schizophrenia. Trudy Gos.nauch-issl.inst.psikh. 25:264-277 '61. (MIRA 15:12)

1. Laboratoriya eksperimental'noy psikhologii (zav. laboratoriyey-doktor pedagogicheskikh nauk - B.V.Zeygarnik) i klinika sosudistykh psikhozov (zav. klinikoy - prof. V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.
(CEREBRAL ARTERIOSCLEROSIS) (SCHIZOPHRENIA)(THOUGHT AND THINKING)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.F.

Characteristics of indistinctly expressed disorders of thinking in schizophrenia. Trudy Gos.nauch.-issl.inst.psikh. 27:87-96 '61. (MIRA 15:10)

1. TSentral'nyy nauchno-issledovatel'skiy institut sudebnoy psikhiatrii imeni V.P.Serbskogo. Dir. - dotsent G.V.Morozov. Psikhologicheskaya laboratoriya - ispolnyayushchiy obyazannosti zaveduyushchego Yu.F.Polyakov.
(SCHIZOPHRENIA) (THOUGHT AND THINKING)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.F.

Principles of the approach to the study of cognitive processes in schizophrenia. Zhur.nevr. i psikh. 66 no.1:95-102 '66. (MIRA 19:1)

1. Institut psikhiatrii AMN SSSR, Moskva. Submitted May 3, 1965.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 16841-66 EWT(m)/T WE UR/

ACC NR: AM6000299 (N) Monograph

Gittis, Vladimir Yul'yevich; Bondarenko, Vladimir Leonidovich; YEfimov, Teodor Petrovich; Polyakov, YUriy Gavrilovich; Churbanov, Boris Mikhaylovich

Theoretical principles of the operation of marine diesel engines (Teoreticheskiye osnovy ekspluatatsii sudovykh dizeley) Moscow [Izd-vo "Transport]" 1965. 375 p. illus., biblio. 3000 copies printed.

TOPIC TAGS: diesel engine, internal combustion engine, engine performance characteristic, shipbuilding engineering, marine engineering, marine engine

PURPOSE AND COVERAGE: This book is intended for engineers and technicians working with marine diesel power units, and may be used as a textbook by students and degree candidates in higher educational institutions and marine and shipbuilding institutes. The book attempts to relate the theory of internal-combustion engines, propellers, and hydraulic resistance to the actual operation of diesel-engine units. Problems involving fuel combustion and heat distribution in engines are reviewed along with the operating characteristics of diesels under shipboard conditions. The effect of use conditions on diesel operation and the monitoring of the quality of diesel operation under various ship running conditions are discussed. Recommendations are given for selecting diesel operating conditions, and methods are presented for plotting and using capacity charts for monitoring the propulsion gear (engine, screw, hull) of a vessel. The authors thank Doctor of Technical Sciences, Professor V. I. Nebesnov for his valuable remarks and suggestions.

UDC: 621.431.74.004(01)

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 15841-66

ACC NR: AM6000299

TABLE OF CONTENTS (Abridged):

Foreword — 4

Ch. I. Theoretical fundamentals for the feasibility of an efficient operating cycle for a diesel — 11

Ch. II. The variation in the working-process parameters of a diesel during operation according to different characteristics — 33

Ch. III. The effect of use factors on marine diesel operation — 118

Ch. IV. Operating conditions of marine diesels — 227

Ch. V. The use of capacity (initial) charts for monitoring the quality of operation and condition of marine diesels — 332

Appendices — 365

References — 371

SUB CODE: 13,21/ SUBM DATE: 28Jul65/ ORIG REF: 089/ OTH REF: 007

Card 2/2 mc

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

GITTIS, Vladimir Yul'yevich [deceased]; BONDARENKO, Vladimir Leonidovich; YEFIMOV, Teodor Petrovich; POLYAKOV, Yuriy Gavrilovich [deceased]; CHURBANOV, Boris Mikhaylovich; NEBESNOV, V.I., doktor tekhn. nauk, prof., retsenzent; PERVOV, V.M., red.

[Theoretical principles of the operation of marine diesel engines] Teoreticheskie osnovy ekspluatatsii sudovykh dizelei. Moskva, Transport, 1965. 375 p. (MIRA 18:9)

1. Glavnyy spetsialist Ministerstva morskogo flota SSSR (for Pervov).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

USSR/ Physical Chemistry - Kinetics. Combustion. Explosives. Topochemistry. Catalysis B-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11272

Author : Polyakov Yu. I.,
Inst : Groznyy Petromeum Institute

Title : Contribution to the Theory Preparation of Catalysts for the Synthesis of Hydrocarbons from Carbon Monoxide and Hydrogen

Orig Pub : Tr. Groznensk. neft. in-ta, 1955, No 17, 58-81

Abstract : Presentation of literature data and experimental data of the author concerning investigation of various stages of preparation of Ni-, Co-Cu-, Fe-Cu-, Ni-MnO-Al_2O_3-, Ni-MnO-, Fe_2O_3-MgO-, Fe-Co- and other catalysts of this synthesis.

1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

PETUKHOV, B.V.; POLYAKOV, Yu.I.; SHIROKOV, Yu.M.

Relationship between form factors of the single-particle matrix element of the energy-impulse tensor and the charge and magnetic moment. Vest. Mosk. un. Ser. 3: Fiz., astron. 20 no.5:14-17 S-O '65. (MIRA 18:11)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo universiteta. Submitted February 29, 1964.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.I.; PETUKHOV, B.V.

Energy-impulse tensor in the S-matrix theory. Vest. Mosk. un. Ser. 3: Fiz., astron. 20 no.5:18-23 S-O '65.

(MIRA 18:11)

1. Nauchno-issledovatel'skiy institut yadernoy fiziki Moskovskogo universiteta. Submitted February 29, 1964.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.L.

Obtaining cones from thin sheet blanks in a vertical die.
Kuz.-shtam.proizv. 4 no.8:24-25 Ag '62. (MIRA 15:8)
(Sheet-metal work)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

S/182/62/000/008/003/003
D040/D113

AUTHOR: Polyakov, Yu. L.

TITLE: Cones produced from thin sheet blanks in a vertical die

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no.8, 1962, 24-25

TEXT: The new method, suggested for producing conical sheet steel billets by folding flat billets in a conical die (Fig. 6) and welding the edges together, permits completely mechanizing the process. Special mandrels or three-roll bending rigs are used and the edges are manually fitted for welding. The method was initially suggested for hot folding 6-8 mm thick sheet steel cones (P.G.Shishlakov, "Kuznechno-shtampovochnoye proizvodstvo", no.5, 1960). Thin sheet steel blanks can be cold folded in any press though cam presses are preferable. Experiments in folding cones from 1.5 mm thick Х18Н9Т (Kh18N9T) steel were conducted without heating; however, the 10% springing of the cones after bending had to be considered when designing the final die, which was made of high-strength cast iron quenched to RC 45-48. The new techniques, though only partly developed, required about 5 times less work than conventional methods. There are 6 figures.

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yuliy L8vovich; GUBANOVA, G.A., red.

[Dies for drawing and forming intricately shaped parts] Shtampy dlia vytiazhki i formovki detalei slozhnoi formy. Leningrad, 1964. 9 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Goriachaia i kholodnaia obrabotka metallov davleniem, no.1)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.L.

Examples of the redrawing of conical parts. Kuz.-shtam. proizv. 4 no.5:45-46 My '62. (MIRA 16:5)
(Drawing (Metalwork))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

ZHUKOV, Yu.K.; POLYAKOV, Yu.N.

Urgent problems of capital construction. Znal. der. transp. 47 no.8. 59-62 Ag '65. (MIRA 18:9)

1. Nachal'nik otdela kapital'nogo stroitel'stva Moskovskoy dorogi (for Zhukov). 2. Glavnyy insh. otdela kapital'nogo stroitel'stva Moskovskoy dorogi (for Polyakov).

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLTAKOV, L. I.

Physical therapy in military hospitals; methodical manual. Moskva, Medgiz, 1945. 115 p. (54-24428)

RM701.P6

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.L.

Drawing of box-shaped parts. Kuz.-shtam. proizv. 5 no.1:11-13 Ja '63. (MIRA 16:2)

(Deep drawing (Metalwork))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

S/182/63/000/001/005/012
A004/A126

AUTHOR: Polyakov, Yu. L.

TITLE: Drawing of box-shaped parts

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no. 1, 1963, 11 - 13

TEXT: The author compares the manufacture of a box-shaped part from X18H9T (Kh18N9T) stainless steel, 1.5 mm thick, by the conventional method, i.e. bending the cut blank, trimming in the die, intermediate heat treatment and argon-arc welding with subsequent pickling, cleaning of seams and calibration in the die, with the new manufacturing technology of drawing. The metal consumption in the former case amounted to 0.871 kg, while drawing of the same part reduced the metal consumption to 0.317 kg and cut the labor consumption by a factor of 9. A brief description is given of the upper and lower dies made of У 8 А (U8A) steel and hardened to RC 58 - 60. Some other examples of drawing box-shaped parts are presented and the following comments are made on the geometrical parameters of the dies used: 1. The clearance between upper and lower dies should not be uniform, being 1.05 - 1.07 times that of the material thickness on straight sectors and

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

44639

10.6100

S/179/62/000/006/022/022
E199/E442

AUTHORS: Polyakov, L.I., Polyakov, Yu.T., Rudis, M.A. (Voronezh)

TITLE: The bearing capacity of a two-layer plate

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.6, 1962, 163-165

TEXT: The plate under consideration consists of two layers of material with respective thicknesses h_1 and h_2, separated by a distance δ. The materials are connected by rigid point connections which do not cause any forces in the plane of the plate. The two layers have different yield values σ_1 and σ_2; the materials are assumed to be rigid-plastic and to be subject to the Tresca yield condition. The plate is loaded with a uniform pressure and the problem is to find the limiting pressure at which the plate begins to distort. A formula is quoted for this pressure on a plate with freely supported edges. A plate containing holes distributed in concentric circles is also considered and, using an energy method, formulae are derived for the limiting

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

pressure for the following conditions: (a) when the load acts over the entire plate and (b) when it acts over the solid area only. When the plate has built-in edges, it is divided into two regions determined from the condition that the radial bending moment is zero at the boundary of the two regions; the formula for bearing capacity is derived on this assumption. There is 1 figure.

SUBMITTED: April 19, 1962

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

S/182/62/000/005/006/007
D038/D113

AUTHOR: Polyakov, Yu.L.

TITLE: Examples of the reversible drawing of conical parts

PERIODICAL: Kuznechno-shtampovochnoye proizvodstvo, no. 5, 1962, 45-46

TEXT: It is stated that 1 mm thick cups can be produced from АМц АМ (AMtsAM) alloy by the reversible drawing method in one pass on an eccentric press and a conventional die. All press elements are made from magnesium cast iron and hardened to HRC 45-48. Two instances of reversible drawing are given: (1) a conical cup with wavy wrinkles on the generatrix was stamped by the die bed downstroke, and then drawn across the die and the gap between the die and the ring. The blank was simultaneously turned inside out and stretched over the die; (2) a piece of sheet metal, 1.2 mm thick, and made of ЭИ435 (EI 435) alloy, was stamped in two passes. In this process all metal waste is subsequently used for stamping similar smaller parts and minute mates. The new method economizes expensive alloy and argon, is less labor consuming, and produces better products. There are 8 figures.

Card 1/1

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, YU. M.

28

Clarification of intensively colored sugar solutions. A. I. KHEKHLOVSKII AND YU. M. POLYAKOV. *Sovetskii Sakhar* 1930, 180-90.—Pb subacetate does not clarify sufficiently for polarization solns. of molasses and massecuite of the second skip. K. and P. propose the Herles' reagent as a better clarifier. It is prepd. by dissolving (1) 50 g. of NaOH in 1000 cc. of H_2O and (2) 500 g. of $Pb(NO_3)_2$ in 1000 cc. of H_2O. In case the Herlers' reagent is used in a detn. of the total sugar by Clerget the following formula must be applied: $Z = 100[P - (-I)]/(143.5 - 0.5t)$, where P is direct polarization, I is twice the polarization after inversion and t is the temp. of the soln. during polarization.

V. B. BAIKOW

METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.M.

Sand trap of a scaffold flume. Sakh.prom. 33 no.3:34-35 Mr '59. (MIRA 12:4)

1. Krasnyanskiy sakharnyy zavod.
(Flumes)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu. M.

Pneumatic apparatus for drilling holes. Sakh. prom. 32 no. 6:33-34 Je '58. (MIRA 11:7)

1. Krasnyanskiy sakharnyy zavod.
(Drilling and boring machinery)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.M.

Optimum system for weighing feed molasses. Sakh.prom. 32 no.9:49-50 S '58. (MIRA 11:11)

1. Krasnyanskiy sakharnyy zavod.
(Sugar industry--Equipment and supplies)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.M.

Combined processing of raw sugar and sugar beets. Sakh.prom. 36 no.4:27-28 Ap '62. (MIRA 15:5)

1. Novo-Kubanskiy sakharnyy zavod.
(Sugar manufacture)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.M.

New arrangement for heating water at atmospheric pressure and diffusion juice in sugar factories with rotary diffusers. Sakh. prom. 32 no.2:32-33 F '58. (MIRA 11:3)

1. Krasnyanskiy sakharnyy zavod.
(Sugar manufacture)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.M.

Pulp pressing and loading tower. Sakh. prom. 31 no.4:36-37 Ap '57. (MLRA 10:6)

1. Krasnyanskiy sakharnyy zavod.
(Bagasse) (Sugar industry--Equipment and supplies)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

ZINGEL', I.Ye.; POLYAKOV, Yu.M.

Continuous feeding of beet cossettes into rotary diffusion apparatus. Sakh. prom. 31 no.6:33-34 Je '57. (MIRA 10:6)

1. Krasnyanskiy sakharnyy zavod.
(Sugar industry--Equipment and supplies)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV YU. M.

POLYAKOV, Yu.M.

Taking count of sugar stocks. Sakh.prom. 27 no.11:18-19 '53. (MLRA 7:1)

1. Chernovitskiy sakharnyy kombinat.

(Sugar industry)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

1. POLYAKOV, Yu. M.

2. USSR (600)

4. Chemical Laboratories

7. More attention to factory laboratories, Sakh. prom., 26, No. 12, 1952.

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

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.M.

Improvement of a quality of beet sugar. Yu. M. Polyakov (Sugar Combine, Chernovtsy). *Sakharnaya Prom.* 28, No. 3, 15-16(1954).—Recommendations are made for a standard process in all U.S.S.R. beet-sugar factories.
V. B. Baikow

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.M.; KHITUN, G.M.

Processing raw sugar with the incorporation of separation section. Sakh. prom. 35 no.12:26-28 D '61. (MIRA 15:1)

1. Novo-Kubanskiy sakharnyy zavod.
(Sugar manufacture)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 30080-66 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6012210 SOURCE CODE: UR/0237/66/000/004/0009/0017

AUTHOR: Savost'yanova, M. V.; Vorob'yev, A. G.; Polyakov, Yu. N.; Shakhverdov, T. A. 56

55
B

ORG: none

TITLE: Characteristics of processes of coloring and discoloring of photochromic substances such as spiropyranes in polymer films 15

SOURCE: Optiko-mekhnicheskaya promyshlennost', no. 4, 1966, 9-17

TOPIC TAGS: luminescence, quantum yield, organic solvent, polymer chain, COLOR, PHOTOCHROMIC MATERIAL, LIGHT RADIATION EFFECT

ABSTRACT: The authors investigate the photochromic effect (reversible change in the color of a substance under the influence of absorbed radiation), and derive certain quantitative characteristics of polymer films containing spiropyranes, the photochromic characteristics of which were disclosed in a patent by C. A. Carlson (USA Patent 3,085,469, class 88-74, 1963). The spiropyranes together with the polymer (polymethyl metacrylate, polystyrene, polyvinyl butyral, ethyl cellulose, and LP26 polymerization lacquer) were dissolved in a solvent (chloroform, dichloroethane, acetone, dioxane, benzene, alcohol) and the film left after

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 30080-66

ACC NR: AP6012210

evaporation had the required photochromic properties. The spectral properties of the films (absorption, luminescence, spectral sensitivity of coloring and discoloring) were measured. Tests were also made of the reproducibility and sensitivity (quantum yield) of the products. The apparatus used for the tests is described and the results are presented in the form of a summary table and a number of spectral curves. The authors thank A. N. Terenin for interest in the work. Orig. art has: 6 figures, 3 formulas, and 2 tables.

SUB CODE: 20, 07/ SUBM DATE: 18Dec65/ ORIG REF: 007/ OTH REF: 011

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 31509-66 EWT(m)/EWP(j)/T IJP(c) DS/RM

ACC NR: AP6013035 SOURCE CODE: UR/0051/66/020/004/0738/0740

AUTHOR: Shablya, A. V.; Demidov, K. B.; Polyakov, Yu. N.

ORG: none

47
44
B

TITLE: Measurement of the quantum yields of photochromic reactions of spiropyrans in polymer media by a luminescence method

SOURCE: Optika i spektroskopiya, v. 20, no. 4, 1966, 738-740

TOPIC TAGS: luminescence, quantum yield, organic solvent, polymer chain, color, photochromic effect

ABSTRACT: In view of increased recent interest in photochromic phenomena (reversible spectral changes induced by radiations of different wavelengths), especially in spiropyrans, but the slight attention paid so far to the quantum yield of this process, the authors have determined the quantum yields by determining the rate of photocoloring of various bromo- and nitro-derivatives of spiropyran, introduced into polymers. This method is claimed to be simpler than the absorption method used by other investigators, and requires a smaller sample. The theory of the method is briefly outlined. The tests established the presence of appreciable colored fluorescence in the investigated spyrans in the polymer chains, in analogy with the fluorescence in solution, previously observed by one

Card 1/2 UDC: 541.143

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 31509-66
ACC NR: AP6013035

of the authors (Shablya, with G. I. Lashkov, Opt. i spektr. v. 19, 821, 1965). The samples were prepared by dissolving the polymer spiropyran in a solvent and slowly evaporating the mixture to form a thin film. When irradiated with ultraviolet light the film colored, and subsequent exposure to daylight removed the coloring. The quantum yield was determined by using a calibrated photocell. The values obtained for the quantum yields are tabulated; they exceed those obtained for solutions, suggesting that the polymer host contributes to a more effective formation of the colored fluorescence. The authors thank A. N. Terenin and M. V. Savost'yanova for interest in the work and for valuable advice, and M. N. Smolkin for calibrating the photocell. Orig. art. has: 1 figure, 3 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 19Jun65/ ORIG REF: 001/ OTH REF: 008

Card 2/2 mc

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.N.; ANTSUPOV, Yu.A.; TARAKANOV, O.G.

Mechanical properties of elastic foampolyvinylchloride as a function of the volumetric weight. Plast. massy no.2:41 '65. (MIRA 18:7)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 3566-66 EWT(d)/EWT(m)/EPF(c)/EWP(v)/EWP(j)/T/EWP(k)/EWP(h)/EWP(i) WW/RM

ACCESSION NR: AP5024822 UR/0032/65/031/010/1249/1251

620.17 : 678.5.06

AUTHOR: Polyakov, Yu. N.

TITLE: A method for determining the adhesion of cast foam plastics and plasticized resins to various structural materials

SOURCE: Zavodskaya laboratoriya, v. 31, no. 10, 1965, 1249-1251

TOPIC TAGS: synthetic material, foam plastic, adhesion

ABSTRACT: A simple method and device are described for determining adhesion of cast foam plastics and plasticized resins to a number of structural materials under tearing and shearing conditions. Determination of adhesion during tearing consists of measuring the maximum stress necessary for breaking the bond between a disc made of the structural material and the cast plastic under tension perpendicular to the binding surface. Adhesion strength in this case (in kg/cm^2) is calculated from the formula $\sigma_t = 4F_t/\pi D^2$, where F_t is the maximum tearing force and D is the diameter of the circular binding surface. For determining adhesion under shear conditions, the maximum shear stress necessary for breaking the bond between a cylindrical

Card 1/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 3566-66

ACCESSION NR: AP5024822

4

specimen of the structural material and the cast plastic is measured with the force directed along the axis of the specimen. The adhesion strength in this case is calculated from the formula $\sigma_s = F_s/\pi d l$, where F_s is the maximum shearing force, d is the diameter of the specimen and l is the length of the binding surface. The device used for the tests is shown in fig. 1 of the Enclosure. Metal cylinder *1* has a tapered cavity and threaded covers *2* and *3*. This cylinder serves as a mold for casting the foam plastic and as a conical trap for the cast material during the testing. The holder for the disc specimen consists of ring insert *4* onto which cover *5* is threaded. Eyebolts *6* are mounted exactly in the centers of covers *3* and *5* to take the drawbars *7* which are attached to the machine for creating tensile forces. Central washer *8* is used in shear tests. This is a teflon disc with the same dimensions as the test specimen in the tearing tests except for an 8 mm opening in the center. The test specimen is held in place by disc clamp *9*. The operation of the device is described for both types of tests. Orig. art. has: 2 figures.

ASSOCIATION: Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol (Vladimir Institute of Synthetic Resins)

SUBMITTED: 00 ENCL: 01 SUB CODE: MT, AS

NO REF SOV: 000 OTHER: 000

44 55

Card 2/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 3566-66

ACCESSION NR: AP5024822

ENCLOSURE: 01

3

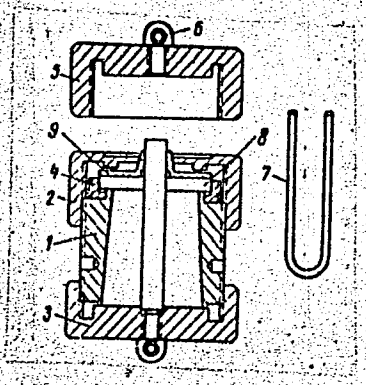


Fig. 1. Diagram of the device for measuring adhesion.

44 55 14

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POKROVSKIY, L.I.; POLYAKOV, Yu.N.; SHAMOV, I.V.

Filters made of low pressure polyethylene. Plast.massy no.7: 64-65 '63. (MIRA 16:8)
(Filters and filtration) (Polyethylene)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 12579-63 EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Ps-4/Pr-4/
Pc-4 RM/WW

ACCESSION NR: AP3003316 S/0191/63/000/007/0064/0065 70

AUTHORS: Pokrovskiy, L. I.; Polyakov, Yu. N.; Shamov, I. V

TITLE: Low-pressure polyethylene filters

SOURCE: Plasticheskiye massy, no. 7, 1963, 64-65

TOPIC TAGS: filter, polyethylene, polymer, polyvinylchloride, Vinyon, compression strength

ABSTRACT: Authors present a generalized survey of polymers which can be used for filters. The most extensively developed are filters made out of polyvinylchloride and polyethylene. This is due to their high operating properties and low cost of raw materials. The use of polyvinylchloride filters is limited by the material's thermo-stability These filters can be used up to a temperature of +60 C. High-density polyethylene filters can operate at higher temperatures (up to 100C). Vinyon is described briefly [Abstractor's note: this name is misspelled in the original.] Production of polyethylene filters is decribed. Authors produced low-pressure polyethylene filters with NaCl as filler. Method described is simple and practi-

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 12579-63

ACCESSION NR: AP3003316

cal for the production of fine-pore, low-pressure polyethylene filters. Indices such as weight by volume, pore size, compression strength, hydrostatic pressure strength and filtering rate attest to the fact that polyethylene filters can be successfully used in place of the more common filter materials.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 30Jul63 ENCL: 00

SUB CODE: MA NO REF SOV: 011 OTHER: 004

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.N.; TARAKANOV, O.G.

Physicomechanical properties of elastic foam polyurethan. Temperature dependence of the deformation properties of elastic foam polyurethan. Plast.massy no.7:45-48 '62. (MIRA 15:7)
(Urethans)
(Polymers--Testing)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.N.

Apparatus for studying rheological properties of foamed plastics. Zav.lab. 28 no.4:502-503 '62. (MIRA 15:5)

1. Vladimirskiy nauchno-issledovatel'skiy institut sinteticheskikh smol.
(Plastics--Testing)
(Rheology)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Yu.N.; TARAKANOV, O.G.

Physicomechanical properties of elastic foam polyurethan. Report No.1: Temperature dependence of the relaxation properties of elastic foam polyurethan. Plast.massy no.6:34-36 '62. (MIRA 15:6)

(Urethans)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

Polyakov, Yu. N.

pa

01990

S/120/60/000/03/023/055
E140/E563

9.6000

AUTHORS: Volodin, V. P. and Polyakov, Yu. N.

TITLE: Broadband Direct-Reading Phasemeter

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, No 3, pp 89-90

ABSTRACT: The phasemeter employing the principle of reversing the state of a flip-flop by passage of the reference and unknown signals through zero alternately is here realised using square-loop ferrite peak transformers. The input signals must be not less than about 1 V. Operating band from 250 - 10^5 cps, scale linear, resolution 0.1 - 0.5°, decreasing with frequency, frequency independent to within 0.5°. With equal amplitudes in the two channels the output reading is constant to within 0.5°. However, with one signal constant and the other varying between 1 and 50 V a linear variation of reading occurs, over a range of 3-4°. There are 1 figure and 4 Soviet references.

Card 1/1

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)

SUBMITTED: May 21, 1959

4X

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

VOLODIN, V.P.; POLYAKOV, Yu.N.

Wide-band phase meter with a direct reading. Prib. i tekh. eksp. no.3:89-90 My-Je '60. (MIRA 14:10)

1. Leningradskiy politekhnicheskiy institut.
(Pulse techniques (Electronics))

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

38067

S/191/62/000/006/009/016
B110/B138

15.8140

AUTHORS: Polyakov, Yu. N., Tarakanov, O. G.

TITLE: Physicomechanical properties of elastic foam polyurethane. Communication I. Dependence of relaxation properties of elastic foam polyurethane on the temperature

PERIODICAL: Plasticheskiye massy, no. 6, 1962, 34-36

TEXT: The effect of various temperatures on the relaxation properties of foam polyurethane (32-35 kg/cm^3), obtained according to BTY No 188-60 (VTU No 188-60) from compound esters and toluylene diisocyanate, was investigated. A cylindrical sample, 20 mm high 30, mm diameter, was deformed to 50% of the initial height. The stress relaxation curve was then determined between -30 and 145°C for 1 hr. The initial stress σ_o from 20 to ~145°C hardly depends on temperature, but increases very strongly at negative temperatures. For the sample with 50% deformation ($\sigma_1 = \sigma_o - \sigma_{1\ hr}$), the rate of relaxation is constant at 20-100°C, between 100 and 120°C it increases by two to three times and then remains

Card 1/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

constant up to 145°C. When the sample was deformed for 1 hr, the recovery capacity of foam polyurethane between 100 and 120°C dropped from 85-90% to 8-4%. Residual deformation ε_{res} increased between 100 and 120°C from 3-5% to 90-96%. Since no changes existed in the unloaded state, the change in the elastic properties of foam polyurethane takes place only after longer loading, and thus has a relaxation character. Foam plastics from polyurethane can not, therefore, be used as elastic parts, but are suitable for heat insulation up to higher temperatures. When foam polyurethane is cooled below 20°C, the stress change increases too. Result: (1) At low temperatures, the relaxation rate increase is not based on changes in the polymer, but on the increase of the total stress due to reduced mobility of the macromolecules. (2) No irreversible changes are found up to liquid nitrogen temperature. (3) When elasticity is lost at >100°C, internal, irreversible processes take place. This is proved by the change of the "relative" relaxation rate and increase of the irreversible deformation. It is assumed that rupture of the primary valency bonds occurs through oxygen in the air, and the radicals formed here are bonded across oxygen bridges. This strengthens the lattice and

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

MALINSKIY, Yu.M.; RATNER, S.B.; REZNIKOVSKIY, M.M.; POLYAKOV, Yu.N.

Characteristics of polymer materials. Standartizatsiia 28 no.8: 23-28 Ag '64. (MIRA 17:11)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 27794-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM
ACCESSION NR: AP5004315 S/0191/65/000/002/0041/0042

AUTHOR: Polyakov, Yu. N.; Antsupov, Yu. A.; Tarakanov, O.G.

20
B

TITLE: The dependence of the mechanical properties of flexible cellular polyvinyl chloride on volumetric weight

SOURCE: Plasticheskiye massy, no. 2, 1965, 41-42

TOPIC TAGS: polyvinyl chloride, polyvinyl chloride foam, polymer mechanical property, polymer volumetric weight, cellular polymer

ABSTRACT: The mechanical and elastic properties of flexible polyvinyl chloride with an open cellular structure (less than 5% closed cells) were measured in order to define the dependence of these properties upon volumetric weight. The specimens, which were produced by a non-pressure method, had volumetric weights of 0.05-0.5 g/cc. Deformation and elasticitiy were measured under static and dynamic conditions, recording the polymer behavior at constant deformation rates of 8 mm/min. or under impact-compression, respectively. The rigidity of the material increased non-linearly with increasing volumetric weight γ, shown in Fig. 1 of the Enclosure. The behavior at constant deformation is ascribed to the decreasing effect of the bending of cellular walls, which is negligible at γ exceeding 0.3-0.4 g/cc. The dynamic modulus of elasticity, measured

Card 1/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 27794-65

ACCESSION NR: AP5004315

under impact compression, is also affected by the wall flexibility but is determined primarily by the elasticity of air-cells up to volumetric weights of approximately 0.3 g/cc. At higher values of γ the behavior of the material depends primarily on the properties of the polymer, approaching those of solid polyvinyl chloride. The significance of the critical value $\gamma = 0.3$ g/cc is also proved by a marked maximum of the rebound resilience of specimens tested under equal impact strengths. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01 SUB CODE: OC, GC

NO REF SOV: 004 OTHER: 003

Card 2/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

L 27794-65
ACCESSION NR: AP5004315

ENCLOSURE: 01

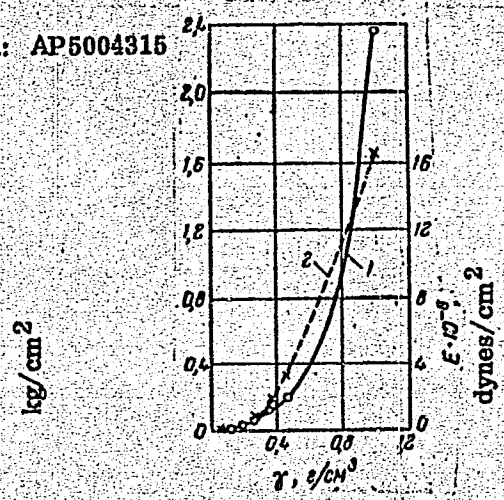


Fig. 1. The dependence of stress at 10% deformation (1) and the dynamic modulus of elasticity (2) on the volumetric weight of cellular polyvinyl chloride.

Card 3/3

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, L.I. (Voronezh); POLYAKOV, Yu.T. (Voronezh); RUDIS, M.A. (Voronezh)

Carrying capacity of a two-layer circular plate. Izv.AN SSSR.Otd.tekh. nauk.Mekh.i mashinostr. no.6:163-165 N-D '62. (MIRA 15:12)
(Elastic plates and shells)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

GRUSHKO, G.M., POLYAKOV, Z.A.

Means for improving planning and financing of drilling operations; a topic for discussion. Neft. khoz. 38 no.3:14-17 Mr '60. (MIRA 13:7)

(Oil well drilling)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

Polyakov, Z. N.

USSR/Chemistry - Carbon black FD-971

Card 1/1 Pub. 50 - 14/19

Authors : Yermilov, P. I., Polyakov, Z. N., Syshchikov, L. I.

Title : The temperature of spontaneous ignition of carbon black

Periodical : Khim. prom., No 7, 435-436 (51-52), Oct-Nov 1954

Abstract : Determined the temperature of spontaneous ignition of 8 grades of carbon black in dry air, moist air, and dry oxygen and list the data obtained. Five references, all USSR, all since 1940. One table.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Z. N.

USSR.

Autoignition temperatures of carbons. P. I. Ermilov, Z. N. Polyakov, and L. I. Syschikov. *Khim. Prom.* 1954, [illegible] The lowest observed autoignition temps. of carbons of various makes varied between 364 and 423°. The presence of moisture in the air affects the autoignition temp. very little. In pure O_2 the temp. is 40-60° lower than in dry air. The oxides of Fe and Cu do not change the temp.

W. M. Sternberg

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

S/119/60/000/010/003/014
B012/B063

AUTHOR: Polyakov, Z. S., Engineer

TITLE: A New Result of the Investigation of a Micrometer With Pneumatic Floating Measures

PERIODICAL: Priborostroyeniye, 1960, No. 10, pp. 10 - 12

TEXT: Micrometers with pneumatic floating measures are used in many machine-building factories for linear measurements. They have two disadvantages: 1) Non-linear scales. 2) They react to air-pressure changes in the network. Special experiments were carried out in order to increase the stability of indication of these instruments with a change of the air pressure in the network. An analysis of these experiments indicates that the characteristics cannot be fully rectified by experiments. An analytical solution of this problem was found to be possible. Formula (1) expresses the relationship between the indication, H, of the instrument and the change, S_i, of the measured quantity. This function $H = f(S_i)$ is linear. In this way, the possibility of obtaining linear

Card 1/ 2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

relations between H and S_i was shown for the first time. The transmission ratio K is determined from formula (2): $K = H/S_i$. This equation was used to calculate the dependence of the transmission ratio on the quantities contained in formula (1). It is found that the transmission ratio can be changed only by 6,000 units when changing the pressure P_1 (Fig. 1b), whereas the quantity c that characterizes the conicity of the indicator tube allows to change this ratio by 600 - 25,000 units (Fig. 1e). Therefrom it follows that the conicity of the indicator tube must be changed when extending the range of measurement. It is further shown that a linear scale can be only obtained if all quantities of high-pressure and with a critical outflow are measured. On the basis of this conclusion and the results of analysis, the new micrometer ИПУ (IPU) with pneumatic floating measures was designed. Its technical data are given, and it is schematically shown in Fig. 3. For comparison, a table gives the data of other Soviet micrometers with pneumatic floating measures. There are 3 figures and 1 table.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV-STANEVICH, N. G.

Increasing the sensitivity of the carotid sinus toward potassium cyanide by means of acetylcholine. N. G.

Polyakov-Stanevich. *Farmatsiya i Farmakol.* 1937, No. 10, 1-3; *Chem. Zentr.* 1938, II, 3268-9; cf. *C. A.* 33, 2768[9].—Acetylcholine increases the sensitiveness of the carotid sinus toward KCN, especially when it is very slight without acetylcholine. On the other hand, acetylcholine possesses the ability to revive cells of the carotid sinus which have been impaired by KCN. M. G. M.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV-STANEVICH, N. G.

"On the Effect of Soviet-Russian Aconicine and the Sensitivity of Different Animals to This Drug," Farm. i Toks., 2, No.4, 1939, p. 50.

Chair Pharmacology, Military Med. Acadmey im. Kirov. Leningrad

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV-STANEVICH, N. G.

The secretion of acetylcholine by the carotid sinus. N. G. Polyakov-Stanévich. Bull. biol. méd. expl. U. R. S. S. 5, 372-4(1938)(in French).—When the isolated tissues of the carotid sinus are perfused slowly with Ringer-Locke soln. acetylcholine, or a substance closely related to it, is detectable in the perfused soln. S. A. Karjala

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Z.A.; TAIROVA, A.V.

Methods for determining scheduled costs of drilling operations. Azerb.neft.khoz. 35 no.2:29-31 F '56. (MLRA 9:10)

(Oil well drilling--Prices)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

BORUN, G.M.; POLYAKOV, Z.I.

Degree of rarefaction in the zone of ultrasonic cutting.
Akust. zhur. 9 no.2:231-232 '63. (MIRA 16:4)

1. Mezhotraslevoy nauchno-issledovatel'skiy proyektno-tekhnologicheskiy institut avtomatizatsii i mekhanizatsii mashinostroyeniya, Chelyabinsk.
(Ultrasonic waves--Industrial applications)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

BORUN, G.M., inzh.; POLYAKOV, Z.I., inzh.

Effect of air exhaustion in the cutting area on the ultrasonic metal cutting. Vest.mashinostr. 43 no.8:74-76 Ag '63. (MIRA 16:9)

(Ultrasonic metal cutting)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Z. N.

251. TEMPERATURE OF SPONTANEOUS IGNITION OF CARBON BLACK. Ermilov, P.I., Polyakov, Z.N. and Syshchikov, L.I. (Khim. Prom. (Chem. Ind., Moscow), 1954, (7), 51, 52; abstr. in Ref. Zh. Khim (Ref. J. Chem., Moscow), 1956, (11), 33476). Ignition temperatures were determined for eight types of carbon black, in streams of dry air, damp air and oxygen.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Z.S.

New results of investigations of a pneumatic-ball micrometer.
Priborostroenie no.10:10-12 O '60. (MIRA 13:11)
(Micrometer)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Z.S.

New automatic screw thread controller. Priborostroenie no.3:24-25 Mr '57. (MLRA 10:5)

(Screw threads) (Automatic control)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

ELLIAKOV, Z. S. (Eng.) and KISELEV, V. M. (Cand. Tech. Sci.)

XXII. "Means for Automatic Inspection of Parts," Automation and Mechanization of Production Processes in Instrument Manufacturing, Moscow, Mashgiz, 1958. 591 p.

PURPOSE: This book is intended for engineers, technicians, and scientific personnel concerned with mechanization and automation of production processes in instrument manufacturing, and for students and teachers of this subject in vuzes.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

AUTHOR: Polyakov, Z. S., Engineer SOV/119-58-9-10/18

TITLE: Automatic Adjustment of Machine Tools (K voprosu ob avtomaticheskoy podnaladke stankov)

PERIODICAL: Priborostroyeniye, 1958, Nr 9, pp. 22-23 (USSR)

ABSTRACT: Automatic machine tool adjusting devices may work according to either of the following two principles:
1. Everything is adjusted to the maximum value, or
2. to the mean value of the deviation (parameter 1).
The second parameter after which adjustment is done must be taken from a great number of measurements, i.e., in the first case from 80 - 200, and in the second case from 30 - 100 measurements.
It can be seen from existing automatic devices that such an adjusting device must consist of 3 parts:
1. The measuring head,
2. the control device,
3. the servomotor carrying out the command received from the control device.
The functions that must be performed by the first two main parts are the following:

Card 1/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

Automatic Adjustment of Machine Tools SOV/119-58-9-10/18

Ad 1. a) Removing the finished work-piece, and correct positioning for measurement.
b) Transmitting measuring pulse to the control device.

Ad 2. a) Amplification of measuring pulse.
b) Indicating measurement results on a scale instrument.
c) Changing over according to instrument reading.
d) Tape recording of reading.
e) Computing adjustment parameters required from a large number of measurements.
f) Transmitting the command based on theses calculations to the operating part.
g) Switching off measuring head, and actuating a warning signal when machine is idling.

The control device could be produced from pneumatic components. There are 2 figures and **2 Soviet references.**

Card 2/2

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Z.S.

Designing scales for instruments with parabolic characteristics. Priborostroenie no.5:23-24 My '57. (MIRA 10:6)
(Measuring instruments) (Calibration)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOV, Z.S.

Pneumatic automatic control device. Priborostroenie no.9: 8-10 S '56. (MLRA 9:10)

(Pneumatic control)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOVA, A.

From three provinces. Izobr.i rats. no.12:29 D '58. (MIRA 11:12)

1. Predsedatel' Khersonskogo oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov.
(Efficiency, Industrial)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOVA, A.

Resistance of poplars to wood borers. Zashch. rast. ot vred. i bol. 10 no.7:24-25 '65. (MIRA 18:10)

1. Achikulakskaya lesnaya opytnaya stantsiya, Stavropol'skiy kray.

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"

"APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1

POLYAKOVA, A.

Improve work with inventors and efficiency promoters. Kozh.-obuv. prom. no.2:3 of cover F '59. (MIRA 12:6)

1. Predsedatel' Khersonskogo oblastnogo soveta Vsesoyuznogo obshchestva ratsionalizatorov i izobretateley.
(Kherson Province--Manufactures)

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001342010018-1"