[illegible], A.; [illegible], P.

On endemic nephropathy in Bulgaria, Yugoslavia and Rumania.
Sovr. med. (Sofiia) 16 no.2:126-131 '65.

L 29699-66
ACC NR: AP6020849 SOURCE CODE: BU/0016/65/000/008/0471/0476

AUTHOR: Pukhlov, A.; Popov, H. G.; Astrug, A.; Dochev, D.

ORG: Department of Hospital Therapeutics /headed by Professor A. Pukhlov/, VMI, Sofia (Katedra po bolnichna terapiya, VMI)

TITLE: Treatment of chronic renal insufficiency with Lespedeza capitata extract (preparation Lespenephryl)

SOURCE: Suvremenna meditsina, no. 8, 1965, 471-476

TOPIC TAGS: drug treatment, urology, genitourinary system disease, genitourinary drug

ABSTRACT: Study of this French preparation in 69 patients with azatemia: treatment for 8 to 61 (average 23.1) days with average dose 195.3 "drops" daily; laboratory and clinical data indicate good results in 8, fair in 25, nil in 21, worse in 15. Possibly relatively poor results as compared to published data are due to chronicity; other authors treated mostly acute cases. Orig. art. has: 1 table. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 06 / SUBM DATE: 00Mar65 / OTH REF: 008

Card 1/1

BULGARIA/General Biology - Genetics. Genetics of Man. B

Abs Jour : Ref Zhur Biol., No 6, 1959, 23690

Author : Pukhlev, Al., Raycheva, L.Il.
Inst : -
Title : A Special Type of Familial Malignant Anemia.

Orig Pub : Sovrem. med., 1957, 8, No 11, 118-125

Abstract : No abstract.

Card 1/1

PUKHLEV, Al.; GELINOV, Khr.; ATANASOVA, L.

Therapeutic considerations on hypertension. Suvrem. med., Sofia 8 no.10: 8-25 1957.

1. Iz Katedrata po bolnichna terapiia pri VMI-Sofiia (Zab. katedrata: prof. Al. Pukhlev).

(HYPERTENSION, therapy,
(Bul))

PUKHLEV, Al., Prof.; TIKHOLOV, K.

Results of the treatment of diabetes with new sulfonamide-urea preparations. Suvrem. med., Sofia 8 no.1:21-35 1957.

1. Iz katedrata po bolnichna terapiia pri VMI -- Sofiia (zav. katedrata: prof. A.L. Pukhlev).

(DIABETES MELLITUS, therapy
carbutamide & tolbutamide (Bul))
(UREA, related compounds,
carbutamide & tolbutamide, ther. of diabetes mellitus (Bul))
(SULFONAMIDES, therapeutic use,
carbutamide & tolbutamide in diabetes mellitus (Bul))

PUKHLEV, Aleks

Endemic nephropathy in Bulgaria. Srpski arh. celok. lek. 92 no.7:713-721 Jl-Ag '64.

1. Visi medicinski institut Terapeytske klinike u Sofiji.

BULGARIA

N.G. POPOV and D. DOCHEV, Department of Internal Medicine and Therapeutics, Medical School (Katedrata po vutreshni bolesti i terapiia pri VMI) Head (Rukovoditel) Prof A. PUKHLEV, Sofia

"Treatment of Hypertension with Two New Medications."

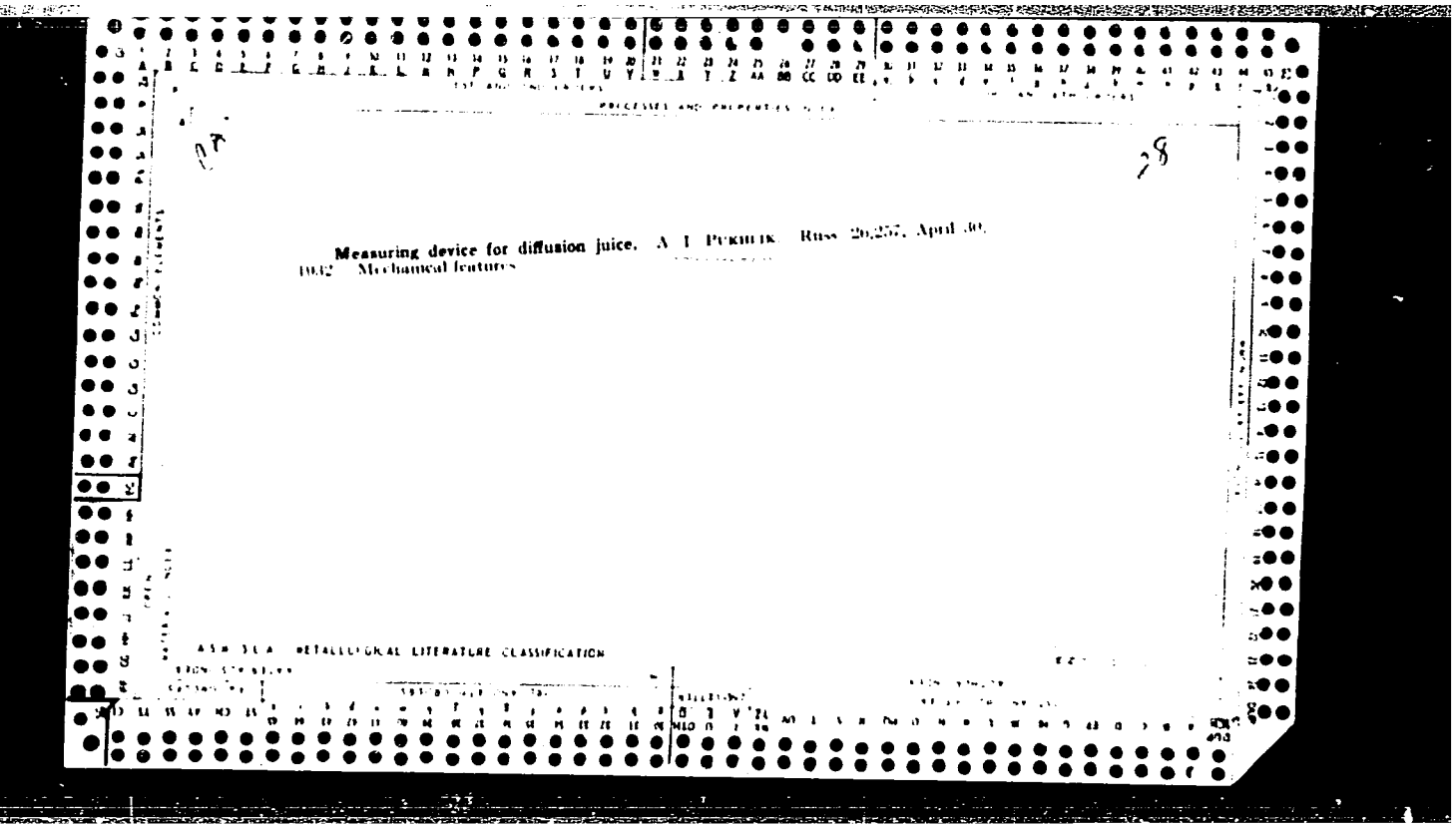
Sofia, Suvremenna Meditsina, Vol 13, No 10, 1962; pp 3-8.

Abstract [English summary modified]: Favorable report on treatment of 21 patients with essential and 3 with renal form of hypertension using reserpine-hydrothlorothiazide and same plus hydralazine in tablet form (Swiss CIBA products.) Potassium loss should be counteracted by dietary means. No side effects in authors' series. Twelve tables, 17 Western references.

1/1

PUK[illegible], Al.

20 years of scientific research activities in clinical disciplines. Surg. med. (Sofiia) 15 no.8:3-22 '64



Measuring device for diffusion juice. A I PERKUN Russ 20,257, April 30.
1002 Mechanical features

ASM SEA METALLURGICAL LITERATURE CLASSIFICATION

BOGUSLAVSKIY, I.A., inzh.; [illegible], inzh.

Study of strengthening strains in hardened glass made of heat-resistant compositions. Stek. i ker. 20 no.9:1-5 S '63. (MIRA 17:6)

L 15688-63 EWP(q)/EWT(m)/BDS AFFTC/ASD Pq-4 WH

ACCESSION NR: AR3003593 S/0081/63/000/008/0499/0499

59

SOURCE: RZh. Khimiya, Abs. 8M70

AUTHOR: Boguslavskiy, I. A., Pukhlik, O. I.

TITLE: Some data concerning the nature of the strengthening of glass by a thermochemical method

CITED SOURCE: Steklo. Byul. Gos. n.-i. in-ta stekla, no. 4 (113), 1961, 24-27

TOPIC TAGS: glass strengthening glass annealing

TRANSLATION OF ASSTRACT: For the verification of the effect of the structure of glass on its strength in the process of thermochemical treatment, methods were investigated by us for the determination of micro-strength and micro-hardness of glass, and also of the effect of additional thermal treatment to remove stresses created in the glass on its strength properties. The samples studied were polarized glass of vertical extraction of thickness 5 mm, which had been treated by a thermochemical method in liquids with various cooling capacities. It was determined that with an increase of the intensity of cooling, the resistance to bending increases, and micro-hardness is reduced. The

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L 15688-63

ACCESSION NR: AR3003593

micro-strength of the treated samples of glass was 300-320 kg/sq mm (of the initial glass, 184 kg/sq mm). Upon cleansing the surface layers of glass after sudden cooling, a gradual rise in micro-hardness was observed. Annealing of glasses strengthened by the thermochemical method was carried out at temperatures of 630° (1 hr) and 400° (150 hr); in this a structural factor also appeared; upon high-temperature annealing, considerably deeper structural changes occur. It was suggested that the considerable strengthening of glass in the process of thermochemical treatment is explained both by the creation of higher compressing stresses and the elimination of surface defects during cleansing and also by structural changes in the glass. Bibliography of 9 titles. See also R. Zh. Khim., 1963, 5M70. S. Iofe

DATE ACQ: 12Jun63 SUB CODE: CH,MA ENCL: 00

Card 2/2

S/0072/64/000/008/0006/0009

ACCESSION NR: AP4043404

AUTHOR: Boguslavskiy, I.A.(Candidate of technical sciences); Khalizeva, O. N. (Engineer); Pukhlik, O. I. (Engineer)

TITLE: Investigation of strength and heat resistance of reinforced glasses

SOURCE: Steklo i keramika, no. 8, 1964, 6-9

TOPIC TAGS: reinforced glass, viscous tempering, etching, heat resistant glass, thermo-physical method

ABSTRACT: In this paper are given the results of an investigation of the relation between the strength of glasses and their thickness. The glasses used for testing were of a thickness from 3 to 25 mm. The tested glasses were reinforced by two methods' viscous tempering and a thermo-physical method (viscous tempering plus etching). The strength of the glasses was evaluated by the method of central flexure taking into consideration necessary requirements toward the Poisson diameter and support, magnitude of sagging and the dimensions of the tested glass plate. Based on the experimental data the authors raise a question in regard to substituting defective glasses of a heat resistant content with reinforced glasses of a standard content. In conclusion, the authors claim that it is possible to increase the exploitation temperature of reinforced glasses by using compounds in which

Card 1/2

ACCESSION NR: AP4043404

relaxation begins at a higher temperature, and which do not contain expensive and deficient components. In many cases such glasses will be competitive with quartz glasses. Orig. art. has: 2 tables and 4 figures

ASSOCIATION: none

SUBMITTED:	00			ENCL:	00
SUB CODE:	MT	NO REF SOV:	005	OTHER:	001

Card 2/2

ACCESSION NR: AP4041407 S/0020/64/156/006/1424/1427

AUTHOR: Boguslavskiy, I. A.; Pukhlik, O. I.

TITLE: Development and investigation of ultrahigh-strength glasses

SOURCE: AN SSSR. Doklady*, v. 156, no. 6, 1964, 1424-1427

TOPIC TAGS: silicate glass, heat resistant glass, glass heat treatment, glass quench tempering, glass leaching, glass surface hardening, ultrahigh strength glass

ABSTRACT: A new thermophysical method recently developed for common calcium-sodium silicate glass has been applied to several commercial heat-resistant glasses[composition unspecified] to obtain ultrahigh-strength glasses with a low coefficient of thermal expansion. The method is a combination of quench-tempering in a liquid [unspecified] medium with subsequent leaching with hydrofluoric acid. Bending strength and surface hardening greater than that found in common glass were achieved in silicate glasses of various chemical composition by selecting an appropriate quenching medium for each glass composition.

Card 1/2

ACCESSION NR: AP4041407

Experimental data showed that structural, and to a lesser degree, mechanical factors contribute to the overall surface hardening resulting from quench-tempering of glass. The dependence of the increase in compressive stress and surface hardening on the degree of cohesion of the silicon-oxygen skeleton is shown. A further study is expected to establish the heat-treatment conditions necessary for obtaining maximum strength in glasses of a given composition. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 28Feb64

ENCL: 00

SUB CODE: MT NO REF SOV: 013 OTHER: 000

Card 2/2

BOGUSLAVSKIY, I.A.; PUKHLIK, G.I.

Devising the methods of research on superstrong glasses.
Dokl. AN SSSR 156 no.6:1424-1427 Je '64. (MIRA 17:8)

1. Predstavleno akademikom N.N. Semenovym.

BOGUSLAVSKIY, I.A.; VITMAN, F.F.; PUKHLIK, O.I.

Intensifying the quenching stresses in glass for the purpose of further hardening. Dokl. AN SSSR 157 no.1:87-90 Jl '64
(MIRA 17:8)

1. Predstavleno akademikom N.N. Semenovym.

ACCESSION NR: AP4042020 S/0020/64/157/001/0087/0090

AUTHORS: Boguslavskiy, I. A.; Vitman, F. F.; Pukhlik, O. N.

TITLE: Increase of quenching stresses in glass for additional strengthening

SOURCE: AN SSSR. Doklady*, v. 157, no. 1, 1964, 87-90

TOPIC TAGS: glass processing, glass annealing, heat treatment, strengthening, prestraining

ABSTRACT: A direct measurement was made of residual stresses in glasses with a wide range of thickness, quenched at different cooling rates, in order to compare the resultant data with the theory in the range of Biot numbers hitherto uninvestigated (Bi > 5). This research was set up as a check on the hitherto prevalent opinion that quenching stresses cannot contribute much to further strengthening of glass. Glass plates 160 mm square and 5--25 mm thick were

Card 1/5

IPPOLITOV, N.V.; PUKHLIK, Yu.A.

Device for regulating temperature conditions in presses.
Priborostroenie no.5:27-28 My '63. (MIRA 16:8)

PUKHLIK, Yu., inzh.

Automatic temperature control. Radio no.11:50-51 N '63.
(MIRA 16:12)

ACCESSION NR: AP3000249 S/0119/63/000/005/0027/0028

AUTHOR: Ippolitov, N. V.; Pukhlik, Yu. A.

TITLE: Device for controlling temperature of a press

SOURCE: Priborostroyeniye

TOPIC TAGS: temperature controller, KMT-1 thermistor, P13 transistor

ABSTRACT: A device consisting of a primary temperature element, a controller, and a power supply unit is described. It is intended for keeping constant the temperature of a compression mold at a point within 140-180C. A KMT-1 thermistor is used as a temperature element, three P13 transistors are employed in the amplifier, and a MKU-48 relay serves as a final control element. Sensitivity, 0.5C; power consumption, under 10w; power supply, 220 v, 50 cps. [Abstracter's note: it is not clear from the Russian original whether an actual device or a blueprint is described]. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 14Jun63 ENCL: 00

Card 1/2

ACCESSION NR: AP3000249

SUB CODE: IE NO REF SOV: 000 OTHER: 000

Card 2/2

MIKHEYEV, A.P.; PUKHLIKOVA, R.V.; YAROSLAV, T.Ye.

Evaluating solid fuel as raw material for gasification. Gaz.prom. no.2:11-15 F '56. (MLRA 10:1)
(Fuel) (Gas manufacture and works)

[illegible], ...

[illegible]. Perestroyetvo sel'skogo khozyaystva v stranakh narodnoy demokratii. Voprosy ekonomiki, 1949, No. 10, s. 27-[illegible]

SO: Knizhnaya letopis', Vol. 7, 1949

PUKHLOV, N.

USSR

"Reorganization of Agriculture in the People's Democracies." 1949, Voprosik Ekonomiki

Current Digest of the Soviet Press, Vol. 2, No. 4, page 6. (In [redacted] Library)

PUKHLYAKOV, L.A.

Role of denudation in the formation of salt domes. Izv. vys. ucheb. zav.; neft' i gaz. 8 no.5:50 '65. (MIRA 18:7)

1. Tomskiy politekhnicheskiy institut.

KHODASEVICH, B. (Leningrad); VASIL'YEVA, R. (Kiyev); PUKHLYAKOV, P. (Voronezh)

From practice of economics departments of institutions of higher learning. Vop. ekon. no.1:130-133 Ja '61. (MIRA 13:12)
(Economics—Study and teaching)

PUKHLYAKOV, P. (Voronezh)

Calculating the economic efficiency of corn production and utilization. Vop.ekon. no.5:131-136 My '61. (MIRA 14:5)
(Voronezh Province--Corn (Maize))

ANVEL'T, Moyya Yur'yevich; GERASIMOV, Viktor Grigor'yevich; ZAYDEL', Khristina Eduardovna; KOGEN-DALIN, Vladimir Viktorovich; LYSOV, Nikolay Yegorovich; MOROZOV, Dmitriy Nikolayevich; NITUSOV, Yevgeniy Vasil'yevich; PANTYUSHIN, Vasiliy Sergeyevich, prof.; PUKHLYAKOV, Yuriy Kharlampiyevich; SMIRNOV, Vladimir Aleksandrovich; UTKIN, Ivan Vasil'yevich; SHAROKHIN, Grigoriy Ivanovich; KASATKIN, A.S., retsenzent, red.; BORUNOV, N.I., tekhn.red.

[Electrical engineering; general course] Elektrotekhnika; obshchii kurs. Pod red. V.S.Pantiushina. Moskva, Gos.energ. izd-vo, 1959. 632 p. (MIRA 13:1)
(Electricity)

ANVEL'T, M.Yu. (Moskva); PUKHLYAKOV, Yu.Kh. (Moskva); USHAKOV, M.A. (Moskva)

New textbook on electrical engineering for students. Fiz. v shkole 23 no.4:49-52 Jl-Ag '63. (MIRA 17:1)

PUKHLYAKOV, Yu.Kh. (Moskva)

Studying the topic "Industrial electric meters and electric measurements" in the electrical engineering course. Fiz. v shkole 23 no.4:52-57 Jl-Ag '63. (MIRA 17:1)

CHAUSOV, Nikita Semenovich, kand.tekhn.nauk; Prinimali uchastiye: GVOZDIKOV, B.F., inzh.-elektrik; KULAKOV, B.F., inzh.-elektrik; SBORSHCHIKOV, S.G., inzh.-elektrik; PUKHLYANKO, A.A., inzh.-elektrik; KORNEYEVA, V.P., tekhnik-elektrik; AYNBERG, V.D., programmist; MEL'NIKOVA, M.G., programmist; KOZLOVA, R.Ya., programmist; ARKHIPOVA, A.A., programmist VILKOV, G.N., red.izd-va; MOCHALINA, Z.S., tekhn.red.

[Using electronic computers in calculating engineering constructions (programming the calculation of shallow shells and beams for the electronic digital computer "Ural-1")] Primenenie elektronnykh vychislitel'nykh mashin pri raschete inzhenernykh sooruzhenii (programmirovanie rascheta pologikh obolochek i sterzhnei dlia ETsVM "Ural-1"). Moskva, Gos.izd-vo lit-ry po stroit., arkhit.i stroit. materialam, 1962. 135 p. (Akademiia stroitel'stva i arkhitektury SSSR. Institut stroitel'nykh konstruktsii. Trudy, no.9). (MIRA 15:8)
(Electronic digital computers) (Elastic plates and shells) (Beams and girders)

PUKHLYANKO, A. K.
M. P. VOLAROVICH, Kolloid Zhur, 3, 621-4(1937)

S/020/63/149/004/006/025
B104/B186

AUTHOR: Pukhnachev, V. V.

TITLE: On the stability of a Chapman-Jouguet detonation

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 4, 1963, 798 - 801

TEXT: The following mathematical model of a detonation is investigated: an ideal gas flows along the z axis ($z < 0$) with constant supersonic speed. A strong detonation occurs in the neighborhood of the plane $z = 0$. A region of burning follows behind it in which the equation of chemical kinetics $d\beta/dt = -L\beta^m p^{m-1} \exp(-A\rho/\mu p)$ is satisfied. Here, β is the mass concentration of the unreacted molecules, p is the pressure, ρ the density, A the activation energy, m the order of reaction, μ the mean molecular weight of the mixture, L an arbitrary positive constant, whereby $m \geq 1$. The chemical reaction is finished when β reaches zero. If $\beta = 0$ and the flow velocity is equal to the local sound velocity this detonation is called a Chapman-Jouguet detonation. The stability of the

On the stability of a Chapman-Jouguet... S/020/63/149/004/006/025
B104/B186

fundamental solution of the equations of hydrodynamics and chemical kinetics to small disturbances is investigated. A common linearization of the equations reduces the determination of disturbances to a boundary problem in common linear differential equations. It is shown that the eigenvalues λ of the problem are symmetrically distributed about the axis $\mathrm{Im}\lambda = 0$. An investigation of the asymptotic behaviour of the solutions as $\lambda \to \infty$ shows that when n and k are fixed all eigenvalues are concentrated in a finite range of the λ-plane. Numerical results obtained in the Vychislitel'nyy tsentr Sibirskogo otdeleniya AN SSSR (Computing Center of the Siberian Department of the AS USSR) are presented. There is 1 figure.

ASSOCIATION: Institut gidrodinamiki Sibirskogo otdeleniya Akademii nauk SSSR (Institute of Hydrodynamics of the Siberian Department of the Academy of Sciences USSR)

PRESENTED: August 3, 1962, by M. A. Lavrent'yev, Academician

SUBMITTED: July 29, 1962

Card 2/2

PUKHNACHEV, V.V.

Stability of a Chapman-Jouget detonation. Dokl. AN SSSR 149 no.4:798-801 Ap '63. (MIRA 16:3)

1. Institut gidrodinamiki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom M.A.Lavrent'yevym.
(Detonation—Mathematical models)

L 01800-66 EWT(1)/EWP(m)/EWT(m)/EPF(c)/EWP(f)/EWG(m)/EWP(j)/T/PCS(v)/EWA(c)/EWC(m)/
FIA(1) DS/EM/MM/WE/EM

ACCESSION NR: AP5021907 UR/0207/65/000/004/0079/0085

AUTHOR: Pukhnachev, V. V. (Novosibirsk)

TITLE: Investigation of the stability of a plane steady-state detonation wave

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 4, 1965, 79-85

TOPIC TAGS: combustion research, detonation wave, supersonic combustion, combustion gas dynamics, combustion kinetics, combustion theory

ABSTRACT: A stability analysis of a steady-state plane detonation wave was made using the following detonation model: a supersonic flow of an ideal gas propagates at a constant velocity along an axis z at $z < 0$; a strong explosion occurs near the plane $z = 0$, which is followed by a combustion zone in which the reaction kinetics is described by the following equation:

$$\frac{d\beta}{dt} = -L\beta^m p^{m-1} \exp\frac{-A}{\mu p \tau},$$

Card 1/4

where ß is the mass concentration of unreacted molecules; p, pressure; τ, specific volume; A, the activation energy; μ, the average molecular weight of the gas; m, the reaction order; and L, the positive constant at m ≥ 1. The following steady-state solution of the hydrodynamic and kinetics equations exists for this model:

$$w = w_*(1 - cx^{-1}), \qquad p = p_*(1 + \gamma cx^{-1})$$
$$\tau = \tau_*(1 + cx^{-1}), \qquad \beta = x^{-\delta} \qquad (c = (M^2 - 1)(\gamma M^2 + 1)^{-1}),$$

where w is the flow velocity; M the Mach number in the z < 0 region; and * denotes values at the Jouguet point. The function x = x(z) is determined by the relation:

$$\int_{1/x}^{1} y^{1-\delta m}(1 - cy)(1 + \gamma cy)^{1-m} \exp\left[a(1 + \gamma cy)^{-1}(1 - cy)^{-1}\right] dy = \sigma z$$

$$\left(a = \frac{A}{\mu p_* \tau_*}, \ \sigma = \frac{p_*^{m-1} L}{2w_*}\right).$$

L 01800-66
ACCESSION NR: AP5021907

The stability of the solution of the main hydrodynamic and kinetic equations with respect to small perturbations is analyzed. In this case, the surface perturbation discontinuity equation is:

$$r_0 = \varepsilon r_0 \exp(\lambda r_0^{-1} w_* t + in\varphi) J_n(\xi_{nk} r r_0^{-1}),$$

where λ is a complex parameter, n is the natural number, and ξ_{nk} is the kth root of the equation $dJ_n(x)/dx = 0$, $|\varepsilon| \ll 1$. It is assumed that the gas flows in a cylindrical pipe with a radius r_0 and that small perturbations are located within the area $z > 0$ and are superimposed harmonics. The behavior of the individual harmonics is analyzed to yield a series of equations for the perturbed discontinuity. The equations are solved by an asymptotic method in the form of an eigenvalue problem. The stability of the main solution was established according to a linear approximation for the case when $d\xi_{nk} r_0 \to \infty$ for $c < 1/2$. The results of this analysis of the detonation stability were compared with published experimental data on the spin detonation. Orig. art. has: 19 formulas. [PS]

Card 3/4

L 01800-66

ACCESSION NR: AP5021907

ASSOCIATION: none

SUBMITTED: 27Jan64	ENCL: 00	SUB CODE: WA,FP
NO REF SOV: 003	OTHER: 000	ATD PRESS: 4085

PUKHNACHEV, V.V. (Novosibirsk)

Stability of a Chapman - Jouguet detonation. PMTF no. 6:66-73 N-D '63. (MIRA 17:7)

PUKHNACHEV, V.V. (Novosibirsk)

Group characteristics of the Navier-Stokes equations in the case of laminar flow. PMTF no.1:83-90 My-Je '60. (MIRA 14:8)

1. Moskovskiy fiziko-tekhnicheskiy institut.
(Differential equations, Partial) (Laminar flow)

L 22022-66 EWT(d) IJP(c)

ACC NR: AP6005015 SOURCE CODE: UR/0208/66/006/001/0178/0183

AUTHOR: Pukhnachev, V. V. (Novosibirsk)

ORG: none

TITLE: Differential equation with two small parameters

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 6, no. 1, 1966, 178-183

TOPIC TAGS: differential equation, plasma stability, small parameter

ABSTRACT: The author constructs uniform, with respect to x for $x \geq 0$ ($x < 0$), asymptotic representations of four linearly independent solutions of

$$\varepsilon^4\varphi^{(IV)} - 2\varepsilon^2 x\varphi'' + \varphi = 0 \qquad (1)$$

as $\varepsilon \to 0$, which is related to an equation in plasma stability theory. His particular goal is to obtain representations in neighborhoods of branch points. His representation also yields the derivatives up to fourth order. The author thanks G. M. Zaslavskiy, S. S. Moiseyev, and R. Z. Sagdeyev for their discussions. Orig. art. has: 32 formulas.

SUB CODE: 12/ SUBM DATE: 03Jul64/ ORIG REF: 001/ OTH REF: 002

Card 1/1 UDC: 518:517.91/.94

PUKHNACHEV, Yu.; POPOV, Yu.

Today's air fleet; interview with B.M.Evteev. IUn.tekh.7 no.2:3-4 F '63. (MIRA 16:4)
(Aeronautics, Commercial)

L 16648-65 EWT(d)/EWT(m)/EWP(w)/EWP(t)/EWP(k)/EWA(h) Pf-4/Peb
AEDC(a)/ASD(a)-5 EM

ACCESSION NR: AP4045712 S/0208/64/004/005/0880/0895

AUTHOR: Petrov, A. A. (Moscow); Popov, Yu. P. (Moscow); Pukhnachev, Yu. V. (Moscow)

TITLE: Calculation of natural oscillations of liquid in fixed containers by the variational method

SOURCE: Zhurnal vy*chislitel'noy matematiki i matematicheskoy fiziki, v. 4, no. 5, 1964, 880-895

TOPIC TAGS: natural oscillations, Ritz method, eigenvalue problem, boundary value problem, Laplace equation, liquid oscillation, coordinate function

ABSTRACT: A method is presented for calculating the natural oscillations of an ideal fluid in fixed containers for a wide class of domains τ. (τ is the volume of the liquid in equilibrium.) The solution of this problem is reduced to the solution of the variational problem which consists in determining the function ϕ minimizing a certain functional $F(\phi)$. The use of Ritz method to

Card 1/3

solve this variational problem makes it possible to determine the minimizing function ϕ in the form

$$\varphi = \sum_{m=1}^{N} a_m f_m,$$

where the coefficients a_m are determined from a certain homogeneous system of equations providing that the system of coordinate functions $\{f_n\}$ in the domain τ is known. The method of constructing $\{f_n\}$ is presented based on simple domains (parallelepiped, right cylinder, and others) enveloping the domain τ for which solutions of the problem are known. After the simple enveloping domain with a form closest to the form of the domain τ is chosen, the problem of determining the natural oscillations of the liquid is reduced to the evaluation of certain integrals and the solution of the system of homogeneous equations. The evaluations of the integrals and the solution of the system were carried out on electronic computers. The numerical solution of the problem on natural oscillations of liquids in containers is presented in detail for containers in the shape of a cylinder with a horizontal generatrix, of a right cylinder with a spherical bottom and a spherical upper end cover, and of a torus. Orig. art. has: 19 formulas and 15 figures.

L 16648-65
ACCESSION NR: AP4045712

ASSOCIATION: none

SUBMITTED: 15Oct63 ENCL: 00

SUB CODE: MA NO REF SOV: 005 OTHER: 001

Fuel tanks

Card 3/3

TOPOLYANSKAYA, S.I.; BELOVA, N.D.; PUKHNAREVICH, A.F.; FEDOROVA, T.A.

Phage prophylaxis of dysentery in day nurseries. Zhur.mikrobiol., epid. i immun. 42 no.9:124-125 S '65. (MIRA 18:12)

1. Sanitarno-epidemiologicheskaya stantsiya Kalininskogo rayona Moskvy. Submitted June 30, 1964.

TOPOLYANSKAYA, S.I.; PUKHNAREVICH, A.F.; BELOVA, N.D.; GRINBERG, TS.B.; LEV, M.S.; LEBEDEVA, V.G.; ROGINSKAYA, N.S.

Effectiveness of pertussis vaccinations. Zhur. mikrobiol., epid. i immun. 40 no.9:18-22 S'63. (MIRA 17:5)

1. Iz Sanitarno-epidemiologicheskoy stantsii Kalinskogo rayona Mos. vy.

KAZACHKOV, I.P.; PUKHNAREVICH, G.P., kand. tekhn. nauk;
UL'YANOV, D.P., inzh.

Deoxidation of Bessemer rail steel by means of a complex Mn-Fe-Al liquid alloy. Met. i gornorud. prom. no.6:68-69 N-D '62. (MIRA 17:8)

1. Institut chernoy metallurgii Gosudarstvennogo komiteta Soveta Ministrov SSSR po chernoy i tsvetnoy metallurgii (for Kazachkov, Pukhnarevich).

PUKHNAREVICH, G.P., kand. tekhn. nauk; BOTVINSKIY, V.Ya.; PARKHOMENKO, P.A.; VORONOV, Yu.F.

Studying the slag forming process during the melting period in high-capacity open-hearth furnaces. Met. i gornorud. prom. no.1:30-32 Ja-F '64. (MIRA 17:10)

SHOSTAKOVSKIY, M.F.; KOMAROVA, L.I.; PUKINAREVICH, V.B.; KOMAROV, N.V.; ROMAN, V.K.

3,5-Dinitrobenzoylhydrazones of organosilicon carbonyl compounds. Izv.AN SSSR.Ser.khim. no.2:382-384 F '64. (MIRA 17:3)

1. Irkutskiy institut organicheskoy khimii AN SSSR.

L 32719-66 EWP(j)/EWT(m) RM/JW

ACC NR: AP6021415 SOURCE CODE: UR/0413/66/000/011/0020/0020

12

INVENTOR: Komarov, N. V.; Pukhnarevich, V. B.

B

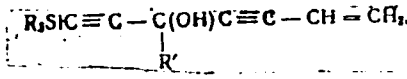
ORG: none

TITLE: Preparation of vinylacetylenic alcohols containing organosilicon groups. Class 12, No. 182149 [announced by Irkutsk Institute of Organic Chemistry (Irkutskiy institut organicheskoy khimii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 11, 1966, 20

TOPIC TAGS: vinylacetylenic alcohol, organosilicon group, synthesis

ABSTRACT: An Author Certificate has been issued for a preparative method of vinylacetylenic alcohols containing organosilicon groups of the general formula:



The method involves the reaction of bromo-3-buten-1-ynylmagnesium with trialkylsilyl-substituted triple bond-containing ketones in an organic solvent (e.g., in diethylether). [BO]

SUB CODE: 07/ SUBM DATE: 18May63/ ATD PRESS: 5125

Card 1/1 UDC: 547.362'345.07

SHOSTAKOVSKIY, M.F.; KOMAROV, N.V.; PUKHNAREVICH, V.B.; SKLYANOVA, A.M.

Synthesis and transformations of unsaturated organosilicon compounds. Report No.5: Synthesis and some transformations of 4-trimethylsilyl- and 4-triethylsilyl-3-butyn-2-ols. Izv.AN SSSR.Otd.khim.nauk no.6:1019-1024 '62. (MIRA 15:8)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR.
(Silicon organic compounds) (Unsaturated compounds)

PUKHOV, G. E.

621.3.011

14549. Calculation of three-phase circuits with any number of short-circuits and phase interruptions. V. N. BORKOVSKAYA AND G. E. PUKHOV. *Elektrichestvo*, 1955, *No.* 5, 40–4. In Russian.

It is shown that a reduction of the number of $6n$ equations to be solved for a case with n points of asymmetry to n is possible if certain relatively simple principles are considered and observed in setting up the systems of theoretical equations. One of these principles is that in analysing the relations between currents and voltages of the various phase sequences in the case of asymmetries, each form of asymmetry is characterized by one group of quantities to be summed, and by one general quantity. The first of these groups consists of currents and voltages of the individual sequences to be summed in the point of asymmetry; the general quantities are currents and voltages equal for all three sequences. A table shows that the result of the addition of the quantities to be summed is either zero or expressible by the general quantities. The principle followed is to consider the equivalent circuits as $2n$-poles (where n number of points of asymmetry) and to simplify them according to well-known principles of the theory of multi-terminal networks.

B. F. KRAUS

PUKHOV, G.Ye.

Reversible computing and solving units. Mat. mod. i elek. tsepi no.1:3-7 '63.

Possibility of constructing a controlling mathematical machine using reversible computing and solving units. 8-11

Use of quasi-negative resistors for improving the operation of amplifiers in a reversible model of linear equations. 26-27

Modeling of differential equations with boundary conditions by means of electronic analog computers. 37-39

(MIRA 16:11)

PUKHOV, Georgiy Yevgen'yevich; VASIL'YEV, Vsevolod Viktorovich; STEPANOV, Arkadiy Yevgen'yevich; TOKAREVA, Ol'ga Nikolayevna; IMAS, A.L., red.izd-va; RAKHLINA, N.P., tekhn. red.; REKES, M.A., tekhn. red.

[Electric modeling of problems in structural mechanics] Elektricheskoe modelirovanie zadach stroitel'noi mekhaniki. [By] G.E.Pukhov i dr. Kiev, Izd-vo AN USSR, 1963. 285 p. (MIRA 17:3)

1. Chlen-korrespondent AN Ukr.SSR (for Pukhov).

[illegible], V.V. (Novosibirsk)

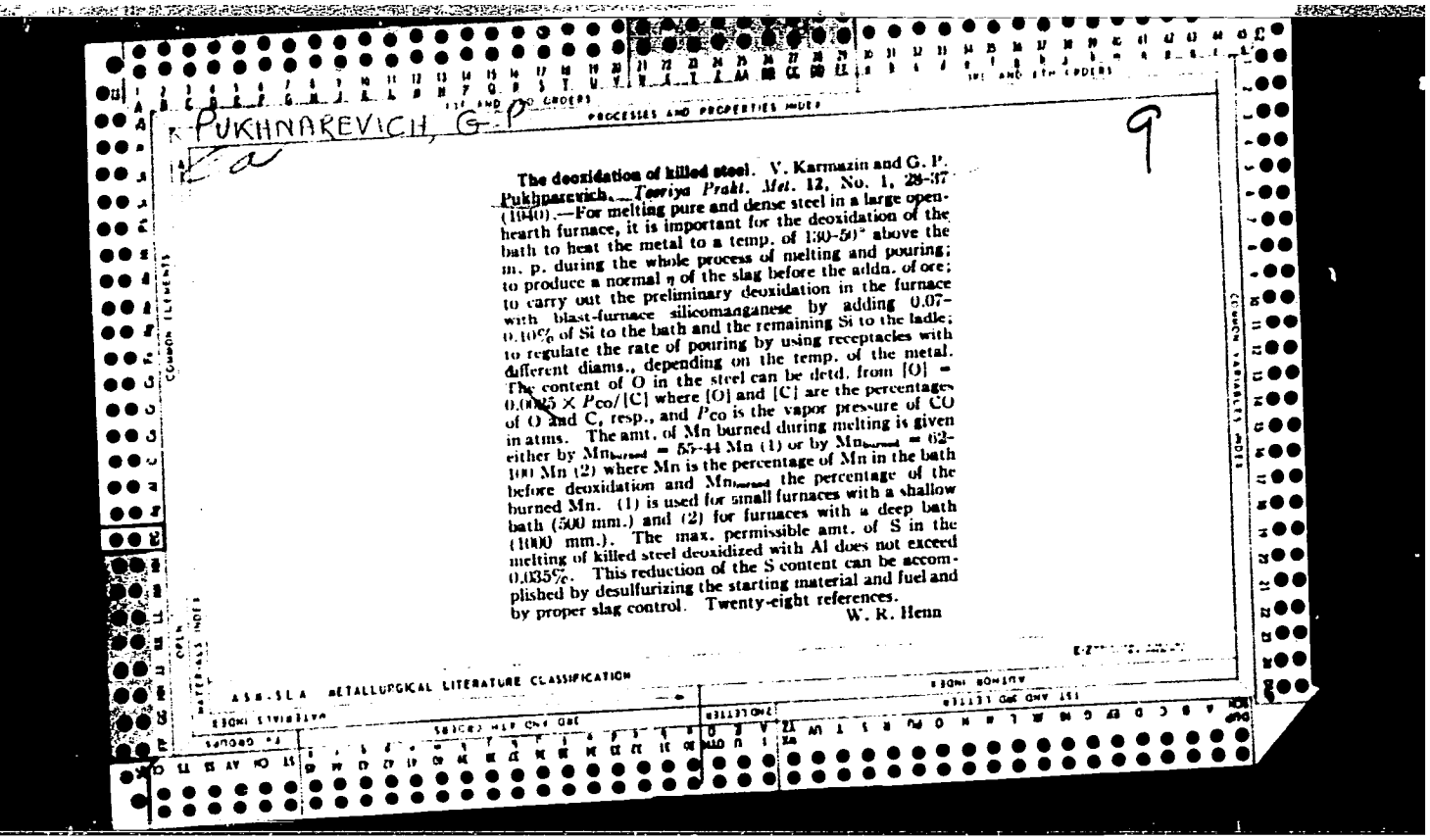
"The investigation of stability of Chapman - Jouget detonation"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

TIKHOV,A.A.; POPOV,YU.P.; TUKHMACHEV,YU.V. (Moscow)

"An analysis of free oscillations of a liquid in immovable tanks and Zhoukovsky's potentials by the variational method"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.



PUKHNAREVICH, G. P.

9

The deoxidation of killed steel. V. Karmazin and G. P. Pukhnarevich.—*Teoriya Prakt. Met.* 12, No. 1, 28–37 (1940).—For melting pure and dense steel in a large open-hearth furnace, it is important for the deoxidation of the bath to heat the metal to a temp. of 130–50° above the m. p. during the whole process of melting and pouring; to produce a normal η of the slag before the addn. of ore; to carry out the preliminary deoxidation in the furnace with blast-furnace silicomanganese by adding 0.07–0.10% of Si to the bath and the remaining Si to the ladle; to regulate the rate of pouring by using receptacles with different diams., depending on the temp. of the metal. The content of O in the steel can be detd. from [O] = $0.0025 \times P_{CO}/[C]$ where [O] and [C] are the percentages of O and C, resp., and P_{CO} is the vapor pressure of CO in atms. The amt. of Mn burned during melting is given either by $Mn_{burned} = 55\text{-}44\,Mn$ (1) or by $Mn_{burned} = 62\text{-}10\,Mn$ (2) where Mn is the percentage of Mn in the bath before deoxidation and Mn_{burned} the percentage of the burned Mn. (1) is used for small furnaces with a shallow bath (500 mm.) and (2) for furnaces with a deep bath (1000 mm.). The max. permissible amt. of S in the melting of killed steel deoxidized with Al does not exceed 0.035%. This reduction of the S content can be accomplished by desulfurizing the starting material and fuel and by proper slag control. Twenty-eight references.

W. R. Henn

18.5000

75570
SOV/130-59-10-8/20

AUTHORS: Pukhnarevich, G. P., Kobeza, I. I. (Candidates of Technical Sciences), Tarim, P. I., Gozhiy, G. P., Bembinek, Ye. I., Smirnov, V. M., Zelenskiy, V. D. (Engineers)

TITLE: Firing Open-Hearth Furnace With Natural Gas

PERIODICAL: Metallurg, 1959, Nr 10, pp 14-16 (USSR)

ABSTRACT: The Seven Year Plan provides for an increased production of gas. In this connection a method of firing open-hearth furnaces with cold natural self-carburating gas was developed under the supervision of Academician Dobrokhotov, N. N. Before furnace combustion, gas is preheated by the heat (1) generated during gas combustion in the port, and (2) accumulated by the lining of the port. In the foundry shop of the Plant imeni Karl Liebknecht (zavod imeni K. Libkhnekhta) an open-hearth furnace was redesigned accordingly (see Fig. 2). Gas introduced through a vertical flue by

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low-pressure burner, yields a luminous flame which equals that produced by natural gas with 30 to 40% mazut addition. Research is being continued to simplify the design of furnace ports for natural self-carburating gas and eliminate water-cooled flues. There are 2 figures and 2 tables.

ASSOCIATION: Institute of Ferrous Metallurgy AS UkrSSR, Ukrainian Branch of State Institute for the Design and Planning of Metallurgical Plants, Plant imeni Karl Liebknecht (Institut chernoy metallurgii AN USSR, Ukrgipromez, zavod imeni K. Libknekhta)

Firing Open-Hearth Furnace With Natural Gas

75576
SOV/130-59-10-8/20

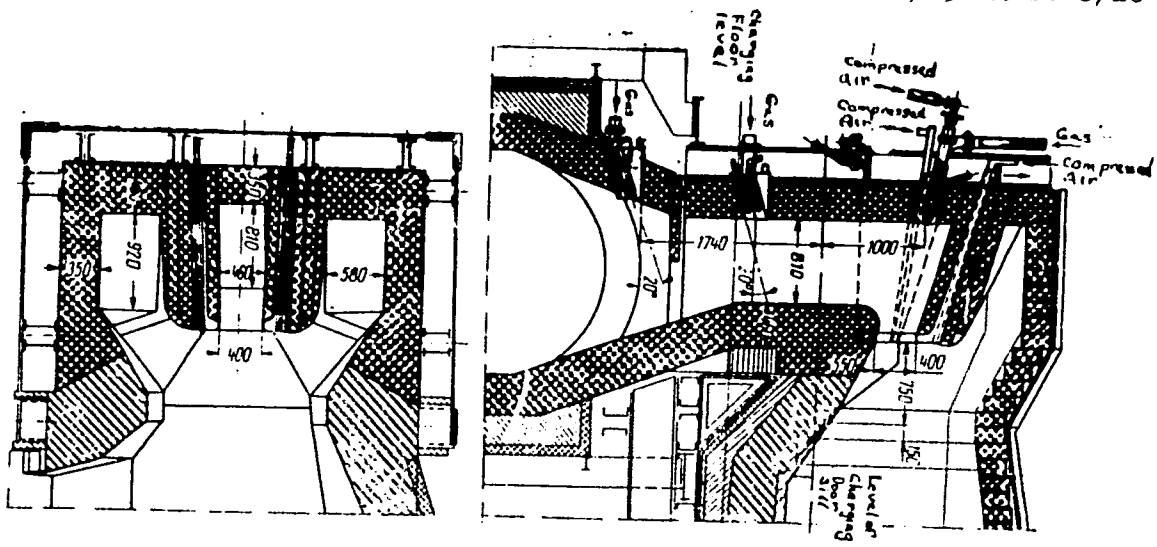

Fig. 2. Design of port for furnaces fired with self-carburating natural gas.

Card 3/3

PUKHNAREVICH, G.P.

Effect of thermal conditions on hydrogen content in steel in the process of smelting. Vop.proizv.stali no.3:116-119 '56.
(MLRA 9:11)

(Steel--Hydrogen content)

PUKHNAREVICH, G.P.

Flame jet of an open-hearth furnace. Trudy Inst. chern. met. AN URSR 6:46-65 '53. (MIRA 11:4)

(Open-hearth furnaces)

Temperature control of liquid steel as the casting progresses. G. P. Pukhnarevich. *Trudy Inst. Chernoi Met., Akad. Nauk Ukr. S.S.R.* 7, 67–64(1953); *Referat. Zhur., Khim.* 1954, No. 31373.—Description is given of a device for detg. the temp. of liquid steel under production conditions. The temp. is detd. from the time it takes for a metal rod inserted into the molten steel to melt. The device consists of a steel rod having a machined neck and a fireclay tip screwed onto it. The melting of the machined neck is indicated by the floating up of the tip. This device is calibrated against a Pt-PtRh immersion thermocouple. The accuracy of this method decreases as the temp. increases and depends on the thickness of the neck. M. Hoseh

FURMANAZVICH, G.I., kand. tekhn. nauk; PARKHOMENKO, P.S.; BOTVINSKIY, V.Ya.; GAVRO, L.F.; YORONOV, Yu.F.

Behavior of hydrogen during the melting operation in 600-ton open-hearth furnaces. Met. i gornorud. prom. no.1: 28-30 Ja-F '65. (MIRA 18:3)

ACCESSION NR: AP4019017 S/0062/64/000/002/0382/0384

AUTHORS: Shostakovskiy, M.F.; Komarova, L.I.; Pukhnarevich, V.B.; Komarov, N.V.; Roman, V.K.

TITLE: 3,5-dinitrobenzoylhydrazones of organo silicon carbonyl compounds

SOURCE: AN SSSR. Izv. Seriya khimicheskaya, no. 2, 1964, 382-384

TOPIC TAGS: dinitrobenzoyl hydrazone, dinitrobenzoyl hydrazide, organo silicon carbonyl reagent, hydrozone, carbonyl

ABSTRACT: In the search for a reagent able to identify organo silicon carbonyl compounds, the authors found that 3,5-dinitrobenzoylhydrazide readily forms good crystallizing 3,5-dinitrobenzoylhydrazones with organo silicon aldehydes and ketones. In this respect, the reagent is different from 2,4-dinitrophenylhydrazine, semi-carbazide and hydroxylamine. The tendency of organo silicon aldehydes and ketones to form these compounds and yields greatly depends on their structure. Thirteen compounds were investigated from this point of view and their behavior recorded in a comprehen-

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ACCESSION NR: AP4019017

sive table. The analytical method consists in dissolving approximately 0,001 M 3,5-dinitrobenzoylhydrazide in 10 ml ethanol, adding to it 0.0015 M silicoorganic carbonyl compound. The mixture is heated for half an hour to 50-60C and left standing to crystallize. Hydrazones so obtained are recrystallized from ethanol. They are white crystalline substances with a definite melting point and melt without decomposing. Orig. art. has: 3 formulas, 1 table.

ASSOCIATION: Irkutskiy institut organicheskoy khimii, AN SSSR
(Irkutsk Institute of Organic Chemistry, AN SSSR)

SUBMITTED: 05Aug63 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: OC NR REF SOV: 001 OTHER: 000

Card 2/2

SHOSTAKOVSKIY, M.F. KOMAROV, N.V.; PUKHNAREVICH, V.B.

Synthesis and some conversions of secondary γ-silicon-containing acetulenic alcohols. Dokl. AN SSSR 136 no.4:846-848 F '61.
(MIRA 14:1)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya AN SSSR. 2. Chlen-korrespondent AN SSSR (for Shostakovskiy)
(Pentynol) (Silicon organic compounds)

88407

S/020/61/136/004/016/026
B016/B075

5.3700

AUTHORS: Shostakovskiy, M. F., Corresponding Member AS USSR, Komarov, N. V., and Pukhnarevich, V. B.

TITLE: Synthesis and Some Conversions of Secondary γ-Silicon-containing Acetylene Alcohols

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 4, pp. 846-848

TEXT: Proceeding from the reaction of chlorosilanes with dimagnesium bromine derivatives of secondary acetylene alcohols the authors elaborated a synthesis method of secondary γ-silicon-containing acetylene alcohols: $R_3SiCl + R'CH(OMgBr)-C\equiv CMgBr \longrightarrow R_3SiC\equiv C-CHOH-R'$, where R and R' denote CH_3, C_2H_5, and other organic radicals. Furthermore, the reaction of the synthesized alcohols has been studied 1) with thionyl chloride

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Synthesis and Some Conversions of Secondary γ-Silicon-containing Acetylene Alcohols

S/020/61/136/004/016/026
B016/B075

and 2) with vinyl ethers. To 1): Substitution of hydroxyl by a chlorine atom proceeds under relatively mild conditions and results in the corresponding siliconacetylene chlorides. The Si-C bond is not ruptured. $R_3SiC \equiv C - CHOHC_2H_5 + SOCl_2 \longrightarrow R_3SiC \equiv C - CHClC_2H_5 + SO_2 + HCl$, where $R = CH_3$ and C_2H_5. To 2): Reaction with vinyl ethers proceeds easily and leads to the corresponding acetals:

$$R_3SiC \equiv C - CHOHC_2H_5 + CH_2 = CHOC_4H_9 \longrightarrow CH_3 - CH(OC_4H_9)(OCH(C_2H_5) - C \equiv CSiR_3),$$

where R = CH_3 and C_2H_5. The following compounds were synthesized according to (1): 5-trimethyl-silyl-pentin-4-ol-3, 5-triethyl-silyl-pentin-4-ol-3, 3-chloro 5-trimethyl-silyl-pentine-4, and 3-chloro 5-triethyl-silyl-pentine-4; reaction 2 led to: butyl-(3-trimethyl-silyl-

88407

Synthesis and Some Conversions of Secondary γ-Silicon-containing Acetylene Alcohols

S/020/61/136/004/016/026
B016/B075

1-ethyl-propine-2)-acetal and butyl-(3-triethyl-silyl-1-ethyl-propine-2)-acetal. There are 3 Soviet references.

ASSOCIATION: Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Irkutsk Institute of Organic Chemistry of the Siberian Branch, Academy of Sciences USSR)

SUBMITTED: October 12, 1960

Card 3/3

PUKHNAREVICH, V.I.

Some observations on an investigation of the corpses of persons frozen to death. Sud.-med. ekspert. 3 no.3:48-50 Jl-S '60. (MIRA 13:9)

1. Kafedra sudebnoy meditsiny (zav. - prof. V.M.Smol'yaninov) II Moskovskogo meditsinskogo instituta im. N.I.Pirogova.

(COLD--PHYSIOLOGICAL EFFECT) (AUTOPSY)

PUKHNAREVICH, V. I., Physician, Cand. Med. Sci.

Dissertation: "The Determination of the Reproductive Capacity of Men from the Viewpoint of Forensic Medicine." Second Moscow State Medical Inst. imeni I. V. Stalin, 17 Mar 47.

SO: Vechernyaya Moskva, Mar 1947 (Project #17836)

BELOV, N.S.; BIRYUKOV, I.V.; VERBLYUDOV, N.N.; GORBUNOVA, M.N.; YESIPOVA, M.M.; IL'ICHEV, A.I.; IGNAT'YEVA, N.Ya.; KOVACHEVICH, P.M.; LYTKIN, A.M.; LOSKUTOV, V.G.; MAZYUKOV, A.S.; MIROSHNICHENKO, S.Ya.; NEFEDOV, A.Ya.; OSIPOV, K.V.; OSIPOV, P.M.; PETROV, N.G.; PETRACHKOV, M.I.; PINEVICH, K.M.; POPOV, B.E.; POTAPOV, P.V.; PREDEIN, F.Ye.; PUKHOV, A.F.; CHUSOVITINA, Ye.I.; ANGEL'SKIY, N., tekhn.red.

[The Kuznetsk Basin in the sixth five-year plan] Kuzbass v shestoi piatiletke. [Kemerovo] Kemerovskoe knizhnoe izd-vo, 1956. 125 p. (MIRA 10:12)

(Kuznetsk Basin)

PUKHNER, A. F.

PUKHNER, A. F. "On the dislocation and degeneration of the lachrym l gland", Sbornik nauch. trudov vrachey Mordov. ASSR, Saransk, 1948, Khar'kov, 1948, p. 114-21.

SO: U-3261, 10 April 53 (Letopis - Zhurnal 'nykh STatey no. 11, 1949)

PUKHNER, A. F.

"Pigment Cancer of the Tear Duct," Vest. Oftalmol., 28, No. 3, 1949. Mbr., Eye Clinic, Kazan Med. Inst., -c1949-.

FUKHRER, A. F.

"The Development and Testing of Various Soviet Methods of Preparing Antibiotics for the Treatment of Trachomatous Patients Under the Conditions of Rural Practice." Cand Med Sci, Acad Med Sci USSR, 18 Nov 54. (VL, 9 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

MIRONOVA, L.L.; PUKHNER, A.F.

Obtaining tissue cultures of human malignant tumors (cancer, sarcoma) and their use in the isolation of the poliomyelitis virus; preliminary report. Vop.virus. 1 no.6:15-20 N-D '56 (MIRA 11:3)

1. Institut po izucheniyu poliomielita AMN SSSR, Moskva.
(POLIOMYELITIS VIRUS
isolation on tissue cultures of cancer & sarcoma)
(NEOPLASMS
cancer & sarcoma tissue culture, use for isolation of polio. virus)

AKOPYAN, A.T.; PUKHNER, A.F.

Effect of synthomycin, levomycetin, and biomycin on superinfection associated with the trachomatous process. Zhur.mikrobiol.epid. i immun. 28 no.3:114-117 Mr '57. (MIRA 10:6)

1. Iz Instituta virusologii imeni D.I.Ivanovskogo Akademii meditsinskikh nauk SSSR.

(TRACHOMA, complications
superinfect., ther. chloramphenicol & oxytetracycline (Rus))
(OXYTETRACYCLINE, therapeutic use,
trachoma with superinfect. (Rus))
(CHLORAMPHENICOL, therapeutic use,
same)

FUKHER, A.F.

Comparative study of the susceptibility of the human diploid cell strain S_{44} and primary kidney cells of monkeys to some viruses in relation to the composition of the culture medium. Vop. virus. 10 no.2:198-201 Mr-Ap '65. (MIRA 18:10)

1. Kontrol'nyy institut meditsinskikh biologicheskikh preparatov imeni L.A.Tarasevicha, Moskva.

PUKHNER, A.F.

Virology and microbiology centers in India. Zhur.mikrobiol., epid.i immun. 33 no.4:165-166 Ap '62. (MIRA 15:10)
(INDIA--MICROBIOLOGY) (INDIA--VIROLOGY)

PUKHNER, A.F.

Comparative morphological study of the cytopathic action in a kidney and heart tissue cell culture infected with poliomyelitis, ECHO and Coxsackie viruses. Vop.virus 7 no.4:74-78 Jl-Ag '62. (MIRA 15:8)

1. Institut po izucheniyu poliomiyelita AMN SSSR, Moskva.
(TISSUE CULTURE) (POLIOMYELITIS VIRUSES) (COXSACKIE VIRUSES) (ECHO VIRUSES)

PUKHNER, A.F.

Production and investigation of vitro tissue cultures taken from various human malignant tumors and sensitive to the poliomyelitis virus. Vop. virus. 5 no. 2:189-193 My-S '60. (MIRA 14:4)

1. Institut po izucheniyu poliomiyelita AMN SSSR, MOSKVA.
(TUMORS) (POLIOMYELITIS)

PUKHONTO, A.N.; ZHAVORONKOVA, A.Ya.; MOISEYEVA, Ye.I.; SMIRNOV, V.F.

Determination of butyl phosphoric acids, tributyl phosphate, and kerosine when present together in aqueous solutions. Zhur. anal. khim. 20 no.3:372 374 '65. (MIRA 18:5)

PUKHOV, A.

Raise the auditing standard in insurance organs. Fin.i kred. SSSR no.3:51-53 Mr '54. (MLRA 7:4)

(Insurance) (Auditing)

PUKHOV, A., podpolkovnik

March of a company at night. Voen. vest. 41 no.3:20-23 Mr '62. (MIRA 15:4)

(Tanks (Military science))

LOSEV, Izrail' Aleksandrovich; PUKHOV, Anatoliy Aleksandrovich; GLUSHKOV, Yu.M., nauchnyy red.; ZAVEL'SKAYA, V.M., red. izd-va; KONTOROVICH, A.I., tekhn. red.

[Electrical equipment of workboats and floating cranes] Elektrooborudovanie sudov i plavuchikh kranov tekhnicheskogo flota. Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1961. 326 p. (MIRA 14:8)

(Workboats--Electric equipment) (Floating cranes--Electric equipment)

L 36494-65 EPA(s)-2/EWT(1)
ACCESSION NR: AT5004639 S/2563/64/000/241/0076/0085

13
12
B+1

AUTHOR: Kaazik, P. Yu.; Pukhov, A. A.

TITLE: Analysis of an L-shaped circuit equivalent to a capacitor-type controllable induction motor

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy, no. 241, 1964. Elektromashinostroyeniye (Electrical machinery manufacture), 76-85

TOPIC TAGS: induction motor, controllable induction motor, capacitor induction motor, servomotor 59

ABSTRACT: Conventional T-type equivalent circuits of capacitor induction servomotors have been used in complicated analytical calculations of these motors. L-type equivalent circuits have been used in the Soviet Union as a basis for constructing circle diagrams; they particularly simplify the problem of finding the mechanical and control characteristics of a-c servomotors. An

Card 1/2

L 36494-65

ACCESSION NR: AT5004639

analysis of the unbalanced operation of a capacitor motor by the symmetrical-component method suitable for [illegible]lo-analytical calculations is presented. Formulas for positive- and negative-phase-sequence components of stator currents, for the main-winding and control-winding currents, and a circle diagram showing the currents and correction factors are given. Orig. art. has: 3 figures and 40 formulas.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnic Institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: EE

NO REF SOV: 004 OTHER: 001

Card 2/2

[illegible], [illegible] kand. tekhn. nauk, [illegible]; [illegible], A.A., starshiy inzh.

[illegible] method for determining the mechanical and regulatory [illegible]teristics of two-phase controlled induction motors. Izv. vys. ucheb. zav.; elektromekh. 8 no.9:985-993 '65.

(MIRA 18:10)

1. Kafedra elektricheskikh mashin Leningradskogo politekhnicheskogo instituta.

PUKHOV, A.K.

Moisture exchange between lumber and environment in the process of convective drying. Der. prom. 13 no.8:12-14 Ag '64.
(MIRA 17:11)

PUKHOV, A.K., inzh.

Effect of the circulating speed of the drying agent on the length and quality of lumber drying. Der. prom. 14 no.8: 12-14 Ag '65. (MIRA 18:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut derevoobrabatyvayushchey promyshlennosti.

S/147/61/000/001/016/016
E032/E314

AUTHORS: Reshetnikova, A.D. and Pukhov, A.L.

TITLE: Determination of the Coefficient of Volume Expansion of Liquids

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, 1961, No. 1, pp. 133 - 138

TEXT: The present paper reports the determination of the thermal expansion of the АМГ-10Ф (AMG-10F) oil, which is the principal working substance of hydraulic systems in aeroplanes. The volume-expansion coefficient of the heat-resistant liquids A and B has also been investigated. The apparatus employed is illustrated in Fig. 1. It consists of a glass "frame" having two vertical sections 1 and 2 and two horizontal tubes 3, as well as a differential manometer 4. If the temperature of the liquid in the arm 1 is t and that in the arm 2 is 0, while the corresponding densities are ρ_t and ρ_0, then $h_t/h_0 = \rho_0/\rho_t$ where h is the height of the liquid at the appropriate temperature. Since

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Determination of ....

$(h_t = h_0/(1 + \alpha t)$, it follows that $\alpha = (h_t - h_0)/h_0 t$.

This is the basic formula for computing α . In practice, the working arm 1 is placed in a thermostat 7 equipped with the window 10 while the standard arm 2 is surrounded by melting ice. When the two arms 1 and 2 are at a difierent temperature, the differential manometer indicates a pressure difference $h_1 - h_2$ and this can be read to within $\pm$ 0.25 mm. In this case the working formula is

$$\alpha = \frac{1}{t}\,\frac{h_1 - h_2}{h_2 - h_1 + h_0} = \frac{1}{t}\,\frac{h_1 - h_2}{h_0 - (h_1 - h_2)}.$$

The quantity $h_1 - h_2$ can be expressed in terms of the manometer indications by the formula $h_1 - h_2 = (a - a_0)/2$.

Card 2/6

Determination of ....

i.e. the manometer is at an angle of 30° to the horizontal. A typical result obtained for the AMG-10F oil is shown in Fig. 3, in which the volume-expansion coefficient α is plotted as a function of temperature in $^{\circ}C$. Fig. 4 shows the specific weight of this oil as a function of temperature. The specific weight was calculated from the formula

$$\gamma_t = \frac{\gamma_{20}}{1 + \alpha(t - 20^{\circ})}$$

Figs. 5 and 7 shows the volume-expansion coefficients of oils A and B, respectively. Figs. 6 and 8 show the corresponding specific gravities. There are 8 figures, 1 table and 1 Soviet reference.

ASSOCIATION: Moskovskiy aviatsionnyy institut
(Moscow Aviation Institute)

SUBMITTED: October 3, 1960

Card 3/6

S/147/61/000/001/016/016
E032/E314

Determination of ....

Fig. 3:

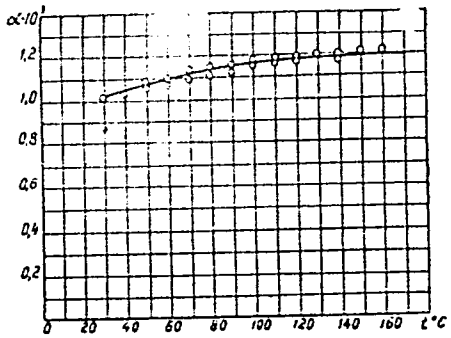
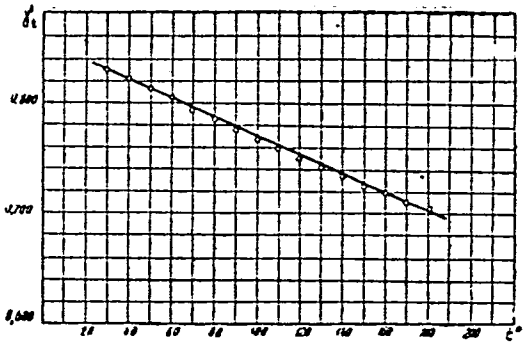


Fig. 4:



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S/147/61/000/001/010/016
E032/E314

Determination of ....

Fig. 5:

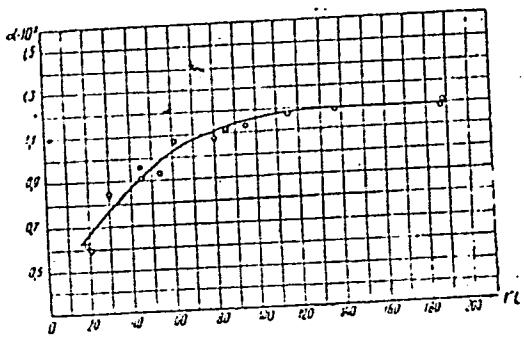
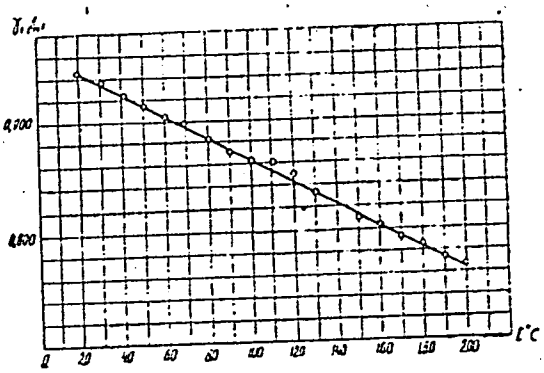


Fig. 6:



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