"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUYEVTSEVA, M.F.

ZUBAREVA, Zinaida Nikolayevna; GRUYEVTSEVA, M.F., red.; TSYPPO, P.V., tekhn. red.

[Nature study corner in elementary schools; a manual for teachers in elementary schools] Ugolok zhivoi prirody v nachal'noi shkole; posobie dlia uchitelia nachal'noi shkoly. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1957. 125 p. (MIRA 11:7)
(Nature study)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

REKASHEVA, A.F.; GRUZ, B.Ye.; RODINOV, V.M., akademik.

Investigation of the mechanism of reduction of diazonium salts. Dokl.AN SSSR 92 no.2:337-340 S '53. (MLRA 6:9)

1. Akademiya nauk SSSR (for Rodinov). 2. Institut fizicheskoy khimii im. L.V. Pisarzhevskogo Akademii nauk Ukrainskoy SSR (for Rekasheva and Gruz).
(Diazonium compounds) (Hydrazine)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

Cruz, B.E.

Distr: 4E3d/4E4j/4E2c(j)

4

β-Nitrophenylchloromethyl carbinol. L. M. Yagupol'skii and B. E. Cruz. U.S.S.R. 108,317, Oct. 20, 1957. β-Nitrophenylchloromethyl carbinol nitrate is acted upon by benzene in the presence of $AlCl_3$. Instead of benzene can be used a mixt. of H_3PO_4 and HCl or 60-65% H_2SO_4. When the acids are used in place of $AlCl_3$, urea is used.

M. Hosch

3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

YAGUPOL'SKIY, L.M.; GRUZ, B.Ye.

Synthesis of nitrophenylhydrazines containing a trifluormethyl group. Ukr. khim. zhur. 23 no.5:634-636 '57. (MLRA 10:11)

1. Institut organicheskoy khimii AN USSR.
(Hydrazine) (Methyl group)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

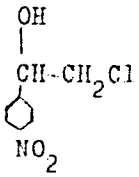
30779-28-6-38/63

AUTHORS: Yagupol'skiy, L. M., Gruz, B. Ye., Kiprianov, A. I.

TITLE: The Synthesis of p-Nitrophenylhalogenmethylcarbinols (Sintez p-nitrofenilgaloidmetilkarbinolov)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol. 28, Nr 6, pp. 1608-1610 (USSR)

ABSTRACT: p-nitrophenylhalogenmethylcarbinols are intermediate products in the synthesis of the synthetic antibiotics of synthomycin (sintomitsin). The synthesis of p-nitrophenylchloromethylcarbinol (I) was first carried out from styrene by V. A. Mikhalev and co-workers. The chlorohydrin of styrene was acetylated, the acetyl derivative was nitrated, the p-isomer was separated from the obtained mixture of nitro products and was saponified to the compound (I). It was of interest to the authors to carry out directly the nitrification of chlorohydrin styrene. They found that on the addition of this compound to the nitrification mixture at a temperature not above 0° nitrogen ether of the m- and p-nitrophenylchloro-



(I)

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methylcarbinols form (Ref 2). The nitrogen ether of the p-nitro derivative was separated from the mixture by crystallization. In order to check the structure this product was oxidized with permanganate to p-nitrobenzoic acid and was identified with the above mentioned product (I) by Mikhalev; the structure of the m-isomer was determined in an analogous way. For the synthesis of p-nitrophenylchloromethylcarbinol it was necessary to saponify the nitrogen ether, which, according to existing data in publications, was expected to be very difficult. A perfect saponification (90 % yield) to carbinol was achieved by the authors only by heating the above mentioned ether with a great excess of concentrated hydrochloric acid. They further found that it is useful to take a mixture of hydrochloric and phosphoric acid, in which case a complete saponification is achieved with a much smaller amount of acid. As a peculiar fact, the saponification does not take place with phosphoric acid alone. Besides the mentioned methods of saponification also others were found: The heating of nitrogen ether with 60 - 65 % of sulfuric acid in the presence of urea yields the carbinol in a yield of 95 %. Concluding it can be said that the meth-

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

The Synthesis of p-Nitrophenylhalogenmethylcarbinols SOV/79-28-6-38/63

od of the synthesis of p-nitrophenylchloromethylcarbinol and p-nitrophenylbromomethylcarbinol by nitrification of the corresponding halogenhydrin styrene, with subsequent saponification of the formed nitrogen ether was carried out. There are 7 references, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR (Institute of Organic Chemistry, AS Ukr SSR)

SUBMITTED: May 31, 1957

1. Methanol--Synthesis

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

YAGUPOL'SKIY, L.M.; VISHNEVSKAYA, G.O.; YAVORSKIY, D.F.; GRUZ, B.Ye.; MAKSIMENKO, A.S.; KHASKIN, I.G.; GONSETSKAYA, Ya.V.; KIPRIANOV, A.I.

Improvement in the method for producing p-nitrophenylchloromethylcarbinole. Med.prom. 13 no.3:20-21 Mr '59. (MIRA 12:5)

1. Institut organicheskoy khimii AN USSR i Kiyevskiy khimiko-farmatsevticheskiy zavod imeni M.V.Lomonosova.
(METHANOL)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

YAGUPOL'SKIY, L.M.; GRUZ, B.Ye.; MAN'KO, N.I.; KIPRIANOV, A.I.

Synthesis of bilitrast--β-(4-hydroxy-3,5-diiodophenyl)-α-phenylpropionic acid. Ukr. khim. zhur.226 no.2:233-236 '60. (MIRA 13:9)

1. Institut organicheskoy khimii AN USSR.
(Phloretic acid)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

YAGUPOL'SKIY, L.M.; GRUZ, B. Ye.

Synthesis of some derivatives of phenyl trifluoromethyl sulfide and phenyl trifluoromethyl sulfone. Zhur. ob. khim. 31 no.4:1315-1320 Ap '60. (MIRA 14:4)

1. Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR.

(Sulfide) (Sulfone)

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YAGUPOL'SKIY, L.M.; GRUZ, B.Ye.

Cyanine dyes containing fluorine. Part 10: Cyanine dyes containing fluorine in the polymethine chain. Zhur.ob.khim. 31 no.12:3955-3961 D '61. (MIRA 15:2)

1. Institut organicheskoy khimii AN Ukrainskoy SSR.
(Cyanines)
(Dyes and dyeing)
(Fluorine)

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[illegible], [illegible]; [illegible], [illegible]; [illegible], [illegible].

Reaction of N-ethylorthoaminothiophenol with perfluoroacryl chloride. Zhur. ob. khim. 34 no.12:4122-4123 D '64 (MIRA 18:1)

1. Institut organicheskoy khimii AN UkrSSR.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ORGEL, B.Ye.; YAGUPOL'SKIY, L.M.

2-(β,β,β-Trifluoroethyl) benzothiazole, 2-(α,β,β,β-tetrafluoroethyl) benzothiazole and their reactions. Zhur. ob. khim. 35 no.9:1639-1644 S '65. (MIRA 18:10)

1. Institut organicheskoy khimii AN UkrSSR.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

YAGUPOL'SKIY, L.M.; TROITSKAYA, V.I.; GRUZ, B.Ya.; KONDRATENKO, N.V.

Cyanine dyes containing fluorine. Part 12: Cyanine dyes from 5-Trifluoromethylmercapto-2-methylbenzimidazole derivatives. Zhur. ob. khim. 35 no.9:1644-1650 S '65. (MIRA 18:10)

1. Institut organicheskoy khimii AN UkrSSR.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZ, D. M.: Master Phys-Math Sci (diss) -- "Investigation of special points of the first group for differential equations with analytic and non-analytic right portions". Samarkand, 1958. 10 pp (Min Higher Educ USSR, Central Asia State U im V. I. Lenin), 150 copies (KL, No 6, 1959, 124)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

KUKLES, I.S.; GRUZ, D.M.

Number of operations connected with the use of Frommer method.
Izv. AN Uz. SSR. Ser. fiz.-mat. nauk no.1:29-45 '58. (MIRA 11:6)
(Geometry, Algebraic)
(Differential equations)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZ, D.M.

Number of operations for distinguishing the singular point of the generalized Briot and Bouquet equation. Trudy UzGU no. 78:3-31 '58. (MIRA 13:6)
(Differential equations)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

KUKLES, I.S., GRUZ, D.M.

One analogy of the Hukuhara equation. Trudy UzGU no.78:43-52 '58. (MIRA 13:6)

(Differential equations)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZ, E.A.

2743 AEC-tr-2079

AN ELECTRON MICROSCOPIC STUDY OF THE PROCESS OF CATHODIC SPUTTERING. G. V. Spivak, I. N. Prilezhaeva [Prilezayeva], and E. A. Gruz. Translated from Izvest. Akad. Nauk S.S.S.R., Ser. Fiz. 15, 409-11 (1951). 8p.

The submicroscopic structure of Al submitted to cathodic sputtering at reduced pressures of air and He has been studied. Electron micrographs have made it possible to visualize the mechanism of sputtering Al by ions. Electron emission takes place from the regions of cleavage between the crystals. Near the region of electron emission positive ions are formed which bombard the cleavage planes. Local heating leads to evaporation of the metal atoms. Gradually, cone-shaped figures are formed from which the principal emission of the atoms takes place. The size of the cone-shaped figures depends upon the dimensions of the crystals. In the presence of O the emission of electrons is not concentrated in the regions of cleavage, and therefore cone-shaped figures are not formed. (M.P.G.)

Phys. Faculty, Moscow State Univ.

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

SOV/120-58-5-5/32

AUTHORS: Starinin, K. V. and Gruz, E. A.

TITLE: Determination of the Sensitivity of Nuclear Photographic Emulsions in a Betatron (Opredeleniye chuvstvitel'nosti yadernykh fotoemul'siy na betatrone)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 5, pp 28-30 (USSR)

ABSTRACT: Various methods of irradiation of highly sensitive thick nuclear emulsions are considered. The irradiations were carried out in order to determine the sensitivity of the plates by measuring grain densities. It is suggested that the best source of radiation for this purpose is a betatron with an extracted beam, the electron energy being not less than 10 MeV. The electron beam used for this purpose is the extracted beam of the betatron of the Tomsk Polytechnical Institute (15 MeV). Figs.1 and 2 give a comparison between the tracks due to γ-rays (Fig.1) and electrons

Card 1/2

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SOV/12-59-5-9/32

Determination of the Sensitivity of Nuclear Photograph Emulsions in a Betatron

(Fig.2), both from this betatron. As can be seen, the electron tracks are superior since they give longer and straighter tracks. There are 2 figures, no tables and 1 Soviet reference.

ASSOCIATION: Nauchno-issledovatel'skiy Kinofotoinstitut (Scientific Research Institute of Cinematography and Photography)

SUBMITTED: November 10, 1957.

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Anomalous [illegible]
Anomalous [illegible]
fot. 1 kin. [illegible]

1. Vsesoyuznyy [illegible]

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BOGOMOLOV, F.S.; GRUZ, E.A.

Effect of backing irradiation on the light sensitivity of photographic materials. Zhur.nauch.i prikl.fot. i kin. 10 no.3:186-193 My-Je '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut.

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11/49T22

GRUZ, R. I.

USSR/Chemistry - Alcohols, Phenolic May 48
Chemistry - Paraform

"The Derivation of Phenolalcohol From Phenol and Paraform," A. A. Vansheydt, R. I. Gruz, Chair of Plastics, Leningrad Tech Inst imeni Lensovet, 10 pp

"Zhur Priklad Khimii" Vol XXI, No 5

When phenol is heated with paraform at 50 - 70° in presence of 0.5 - 1% caustic soda, paraform dissolves and phenol is fixed by formaldehyde, with formation of viscous products, distinguished by unlimited solubility in water. Shows that these products are simple phenolalcohols. They can be set by heat or by strong acid.

[redacted] 11/49T22

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

VANSHEYDT, A.A.; GRUZ, R.I.

Influence of free radicals of the triphenylmethyl type on styrene polymerization. Khim. i Fiz. Khim. Vysokomolekul. Soedineniy, Doklady 7-oy Konf. Vysokomolekul. Soedineniyam '52, 80-2. (MLRA 5:7) (CA 47 no.15:7819 '53)

1. Lensovet Technol. Inst., Leningrad.

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S/080/61/034/004/009/012
A057/A129

15.8080 2209

AUTHORS: Vansheydt, A. A., Gruz, R. I.

TITLE: On polymerization of the cyclic trimer of N-methyleneacrylamide in solutions and crystalline state and on plastics on this base

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 4, 1961, 895 - 902

TEXT: It was determined in the present work that the cyclic trimer of N-methyleneacrylamide (hexahydro-1,3,5-trialkylyl-symm.-triazine) polymerizes in presence and in absence of an initiator (benzoyl peroxide) in solutions or in crystalline state forming infusible three-dimensional polymers. Properties of the latter were investigated and the possibility of manufacturing thermostable (up to 250°C) plastics by heating (160 - 170°C) the crystalline monomer under pressure was demonstrated. Literature data on polymerization of trimethylene-triacrylamide are not sufficient. Even the melting point was not yet determined accurately in works published by M. Gradsten and M. Pollock (Ref. 2: J. Am. Chem. Soc., 70, 3079, 1948), R. Wegler and A.Ballauf (Ref. 3: Chem. Ber., 81, 530,1948) or K. Thinius et al. (Ref. 4: Plaste and Kautschuk, 6, 7, 322, 1959). On the other hand polymerization of this trivinyl monomer is of interest, since little

Card 1/7

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On polymerization of the .....

is known on polymerization of trivinyl compounds and no investigations were made on a transfer into three-dimensional polymers in the solid phase. Using the method described by T. Gresham and T. Steadman (Ref. 1: J.Am. Chem. Soc., 71, 1872, 1949) in the present work preparation of trimethylenetriacrylamide was carried out and the melting point was determined as 156.7°C. The amide is difficultly soluble in ether dioxane, carbon tetrachloride and other hydrocarbons, better soluble in water and pyridine, considerably more soluble in alcohols (methanol, ethanol), dichloroethane, and fairly soluble in chloroform. A bromine number of 190.8 (instead of 192.5) was found for the hexabromide of the monomer. Polymerization of trimethylenetriacrylamide in solution was carried out (under assistance of Ye. Ye. Belomyttseva) in boiling alcoholic solutions (Figure 1), and 2.5% (Figure 2) and 5 % (Figure 3) alcoholic solutions at 77.3°C. It can be seen from the results that the polymerization rate in boiling-solutions increases initially with the concentration of the monomer. After 3 hours 30 - 35 % conversion is attained and the polymerization rate remains constant. A 0.1 % benzoyl peroxide admixture causes a second start in polymerization increasing thus the yield considerably. The polymerization in absence of initiator admixtures can be explained by the effect of absorbed oxygen (during preparation and storage of the monomer) resulting in for-

Card 2/7

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On polymerization of the .....

mation of peroxide groups. Thus storage and preparation conditions effect the polymerization of the monomer. Also the effect of atmospheric oxygen on polymerization was determined (curve III δ, Figure 1). Polymerization experiments at 77.3°C indicate the increase in polymerization rate with the amount of added benzoyl peroxide (Figures 2 - 4). Experiments (carried out in assistance of Ye. N. Shchepkina) with crystalline trimethylenetriacrylamide at 98, 134, 143, and 154°C in dry CO_2 atmosphere demonstrate (Figure 5) an increase in the polymerization rate with temperature. Thus near the melting point of the pure monomer (154°C) a sudden polymerization with increasing temperature (exothermic reaction) is observed. Acceleration of polymerization with 1 % benzoyl peroxide admixture and inhibition by hydroquinone or pyrogallol indicate a free-radical mechanism of the polymerization in absence of admixtures, which can also be explained by the presence of peroxides in the monomer. Corresponding experiments proved that monomers with identical melting points may have a different tendency for polymerization depending on the duration of storage. In determinations of the activity degree of polymerization this must be allowed for. The obtained non-fusible typical three-dimensional polymer is a polyacrylamide with cross-linked methylene groups at nitrogen atoms. This was proved by hydrolysis of the white powdered product obtaining formaldehyde, ammonia and polyacrylic acid. In analogy to re-

Card 3/7

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... polymerization of the .....

...ite it is not fusible and not thermoplastic. The obtained polymer was processed at 160 - 170°C, 200 - 300 atm, and transparent plates with softening point above ...0°C were obtained. Mechanical toughness was increased by mixing the powdered ...dered polymer with saw dust (1 : 1) and by subsequent compression at 200 - 300 atm for 10 - 15 minutes at 160 - 170°C. Thus a phenolformaldehyde-like resin was ...ained, stable against organic solvents and strong alkali solutions but not stable against strong mineral acids, with the following characteristics: static bending strength - 630 kg/cm^2, specific resilience (Dinstant) - 3.0 kg·cm·cm^{-2}, thermostability (Vick) - > 200°C, tangent of the loss angle for 50 periods 0.05 - 0.06, water-absorption in 24 hours - 0.6 - 0.7 %. There are 4 figures and 9 non-Soviet-bloc references.

ASSOCIATION: Kafedra tekhnologii plastmass Tekhnologicheskogo instituta imeni Lensoveta (Department of Technology of Plastics of the Technological Institute imeni Lensovet).

SUBMITTED: July 9, 1960

Card 4/7

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZ, R.I.; VANSHEYDT, A.A.; KRYUCHKOV, F.A.; POZIN, L.M.; KANEVSKAYA, N.V.

Interaction of alcohols and amines with NN'-methylenediacrylamide and with cyclic NN'N"-trimethylenetriacrylamide. Zhur.prikl.khim. 36 no.6:1307-1314 Je '63. (MIRA 16:8)
(Alcohols) (Amines) (Acrylamide)

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L 13526-66 EWT(m)/EWP(j)/T RPL WW/RM

ACC NR: AP6002216 (A) SOURCE CODE: UR/0080/65/038/012/2749/2757

AUTHOR: Gruz, R. I.; Vansheydt, A. A.; Strakhova, E. K.

ORG: none

TITLE: Copolymerization of a cyclic trimer of N-methyleneallyloxypropionamide with an unsaturated polyester resin

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 12, 1965, 2749-2757

TOPIC TAGS: copolymerization, polymerization kinetics, high polymer, copolymer, polyester plastic, resin, thermal stability

ABSTRACT: Copolymerization of the cyclic trimer of N-methyleneallyloxypropionamide (NN'N"-trimethylene-tri-β-allyloxypropionamide) with an unsaturated polyester resin was studied at 65°-150°C, various molar ratios, and in the presence of benzoyl peroxide, dimethylamine, and methylethylketone. It was found that the copolymer resins are stable thermally up to 215-220°C. This is about 50°C higher than for the corresponding copolymers based on styrene. The kinetics of copolymerization of amidoester with polyester resin at 100°C is shown in fig. 1.

UDC: 678.13

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L 13526-66

ACC NR: AP6002216

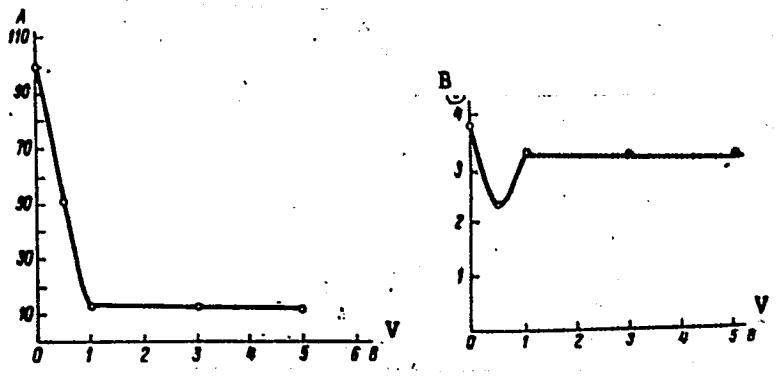

Fig. 1. A--content of solution (%); B--content of nitrogen fixed the gel-fraction (%); V--time (hours).

Orig. art. has: 7 figures, 4 tables.

SUB CODE: 07/ SUBM DATE: 27Dec63/ ORIG REF: 004/ OTH REF: 009

Card 2/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZ, T. E.

The effect of nonelectrolytes on the electrode potentials of amalgams and on the adsorption of amalgamated metals. T. Erde Grúz and E. Varga (Tudományegyetemi Fizikai-Kémiai és Radiológiai Intézet, Budapest, Hung.). *Hung. Acta Chim.* 1, No. 2, 18-27(1947).—The potentials of resting and dropping amalgams of Bi, Pb, Cd, Tl, and Zn were detd. in solns. of various isoamyl alc., benzyl alc., o-toluidine, o-cresol, p-cresol, butyric acid, and valeric acid. To make the solns. elec. conductors, Na_2SO_4 was added and both solns. and app. were carefully freed of O. When the amalgam concn. was above 10^{-4}–10^{-5} g.-atom per l., the electrode potentials are reproducible to millivolts; they are changed by the presence of nonelectrolytes. The potentials are detd. partly by the adsorption of ions and neutral dipole mols. on the liquid side of the boundary between metal and soln., partly by adsorption of metal ions on the amalgam side of the double layer. The potential of amalgam electrodes varies according to $E = a - b \cdot \log[am]$, where a and b are consts., and [am] is concn. of the amalgam. Const. b ranged between 0.014 and 0.058; it was chiefly affected by the valence of the metal. Const. a showed larger variations according to the nature of metal and of nonelectrolyte. The quantity of adsorbed metal ions per unit of interface is roughly proportional to the concn. of the metal in the amalgam. The adsorbed metal ions form the positive part of the double layer created within the amalgam. The negative part consists of diffusely distributed electrons. 10 references.

Istvan Finály

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZ, V.N.

USSR/Microbiology - Microorganisms Pathogenic to Humans and Animals. F-5

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9958

Author : Gruz, V.N., Starikova, K.I., Tarkov, M.I.
Inst : [illegible]
Title : Agglutination Reaction with Boiled Dysentery Cultures as a Method of Identification of Atypical Dysentery Strains.

Orig Pub : Sb. tr. Mold. n.-i. in-t epidemiol. mikrobiol. i gigieny, 1956, No 2, 67-70

Abstract : The specificity of coctagglutination was tested with dysentery bacteria of Flexner, Newcastle and Sonne, with intestinal bacilli which do not produce paragglutination, with dysentery antisera, and with Bact. alcalescens. 89.5% of dysentery strains produced a specific positive coctagglutinating reaction in diagnostic titers, similar to the usual agglutination reaction. Coctagglutination with an intestinal bacillus which has no paragglutinating

Card 1/2

USSR/Microbiology - Microorganisms Pathogenic to Humans and Animals. F-5

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9958

properties was positive in 5% of cases in titers of 1:100, 1:200, 1:640, and 1:12,800. Coctagglutination with Bact. alcalescens yielded a clear positive reaction in titers of 1:100 to 1:800. The authors believe that data obtained by them on agglutination of boiled dysentery cultures show evidence of a lowering the agglutinating titer as a result of destruction of the thermolabile component; coctagglutinating reaction permits no differentiation of atypical dysentery strains from Bact. alcalescens.

Card 2/2

GRUZA, V.V.

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZ, Z. Ya.

CA

23

Concentrated, viscous cuprammonium cellulose solutions. Z. Ya. Gruz and N. I. Morozov. U.S.S.R. 65,-049, Aug. 31, 1945. To increase the filtrability of such solns. the water used in dissolving the cellulose should be freed of $CaSO_4$. M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.

Ascending air masses and their cooling. Trudy SAGU no.58:81-84 '54. (MLRA 10:1)

(Atmosphere)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.

Zonal characteristics of macroturbulence. Izv. AN Uz.SSR. Ser. fiz.-mat. nauk no.2:57-67 '58. (MIRA 11:10)

1. Sredneaziatskiy gosudarstvennyy universitet imeni V.I. Lenina.
(Atmospheric turbulence)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.

Zone characteristics of general atmospheric circulation. Dokl. AN Uz. SSR no.4:5-10 '58. (MIRA 11:6)

1.Institut matematiki i mekhaniki im. V.I. Romanovskogo AN UzSSR. Predstavleno akademikom AN UzSSR U.A. Arifovym.
(Atmosphere)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

49-58-4-16/18

AUTHOR: Gruza, G. V.

TITLE: Thermal Equilibrium in the Atmosphere (O termicheskom ravnovesii v atmosfere)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 4, pp 564-565 (USSR)

ABSTRACT: The atmosphere is considered to be in thermal equilibrium when the vertical turbulent heat flow is equal to zero. Investigation of turbulent heat flow in the atmosphere leads to the conclusion that the condition is set by equality of the vertical temperature gradient and the dry-adiabatic temperature gradient. However, it is assumed in turbulent heat exchange that turbulent eddies transport the average potential temperature of the level of origin, which is not true in general. Indeed, any air taking part in the motion, has at any moment a certain vertical velocity, w, and temperature, T different from the average temperature at the level $(\overline{T})$. We have the equation

$$q = \rho c_p \overline{w'T'} = \rho c_p r \sigma_{w'} \sigma_{T'} \qquad (1)$$

where ρ is the density, c_p is the specific heat at constant pressure, w', T' are the vertical velocity and

Card 1/4

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

49-58-4-16/18

Thermal Equilibrium in the Atmosphere.

temperature pulsations, σ_w, and σ_T, are their mean square value and r is the correlation coefficient between w and T. In thermal equilibrium $q = 0$ and the correlation coefficient $r = 0$. With a normal distribution the average temperature of all particles with vertical velocity w does not depend, in this case, on this velocity and is equal to the average temperature at the given level, i.e., $\bar{T}(w) = T_c$. Thus in thermal equilibrium, the particles moving up or down have the same average temperature at the given level. Thus conclusions based on the transfer of average potential temperature are still true if temperature pulsations are considered. Recently M. I. Budyko and Yudin (Refs.2 and 3), working on the connection between the direction of motion and the sign of the temperature gradient have come to the conclusion that thermal equilibrium can exist when there is increase of potential temperature with height. These authors suggest that the generally used equation:-

$$q = -\rho c_p k\left(\frac{\partial \bar{T}}{\partial z} + \gamma_a\right)$$ should be replaced by:

Card 2/4

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

Thermal Equilibrium in the Atmosphere.

$$q = -\rho c_p k\left(\frac{\partial T}{\partial z} + \beta\right) \qquad (3)$$

where q, ρ, c_p, k, T, z and γ_a are the corresponding turbulent heat flow, density, specific heat, coefficient of turbulence, temperature, height and dry adiabatic temperature gradient. β is the equilibrium gradient introduced by M. I. Budyko and M. I. Yudin and equal, according to them, to 0,6°C per 100 m. The deviation of the dry-adiabatic gradient from equilibrium is given in the form:

$$\gamma_a - \beta = \frac{\frac{1}{S}\sum w_i s_i T''_i}{k} \qquad (4)$$

Here T''_i is the temperature pulsation of the ith element at the initial level, s_i is its cross-section and S is the area of the horizontal region over which the average is taken. That $\gamma_a - \beta$ is positive is due, according to the

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ermal Equilibrium in the Atmosphere, 9-58-4-16/18

authors, to the positive correlation between the temperature pulsations and the vertical accelerations at the initial level where verticalvelocity = 0. Since, in estimating $\gamma_a - \beta$, they used data not only from equilibrium but also non-equilibrium states, they naturally obtained an average value not connected with the equilibrium state. In non-equilibrium conditions, $\gamma_a - \beta$ may be an essential factor- it also appeared in estimates by A. R. Konstantinov (Ref.7) - but β does not have the sense of an equilibrium gradient and the terminology should be changed. It seems expedient to formulate the condition for thermal equilibrium either as an equality of temperature gradient to the dry-adiabatic, or as the constancy of the potential temperature with height. There are 7 Soviet references.

ASSOCIATION: Akademiya Nauk Uzb. SSR, Institut matematiki i mekhaniki (Academy of Sciences, Uzb.SSR, Institute of Mathematics and Mechanics.

SUBMITTED: April 1, 1957.

1. Atmosphere--Thermodynamic properties 2. Mathematics

Card 4/4

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.

(13)

PHASE I BOOK EXPLOITATION SOV/3606

Nauchnaya konferentsiya po problemam meteorologii Antarktiki, Moscow, 1959

Tezisy dokladov (Theses of Reports at the Scientific Conference on Meteorological Problems in Antarctica, Moscow, 1959). Moscow, Gidrometeoizdat (Otd-niye) 1959. 47 p. 1,000 copies printed.

Ed.: O.G. Krichak; Tech. Ed.: I.M. Zarth.

PURPOSE: The publication is intended for meteorologists, particularly for those interested in the climatology of Antarctica.

COVERAGE: This book contains summaries of thirty-five reports presented at the Scientific Conference on Meteorological Problems in Antarctica, held in Moscow, October 26 to 28, 1959. The summaries are arranged in four groups: (1) general problems of the geography of Antarctica; (2) atmospheric circulation; (3) radiation balance, heat balance, climate and special features of individual elements; (4) methods of observation and measurement. No personalities are mentioned. There are no references.

PART I. GENERAL GEOGRAPHICAL PROBLEMS

Bugayev, V.A. [Candidate of Physics and Mathematics, Tsentral'nyy institut prognozov (Central Forecasting Institute)] and Ye. I. Tolstikov [Candidate of Geographical Sciences, Glavnoye upravleniye Severnogo morskogo puti (Main Administration of the Northern Sea Route)] Main Relief Features of Eastern Antarctica 5

Model', Yu.M. [Candidate of Geographical Sciences, Institute geografii AN SSSR (Institute of Geography, AS USSR)], and A.V. Nadel'man [Glavnoye upravleniye Severnogo morskogo puti (Main Administration of the Northern Sea Route)] Antarctic Ice-cap, its Thickness and the Relief of Underlying Rock 5

PART II. ATMOSPHERIC CIRCULATION

Tsuber, G.M. [Doctor of Geographical Sciences, Gosudarstvennyy okeanograficheskiy institut (State Oceanographic Institute)] Climatic Cyclone in the Western Part of the Indian Sector of Antarctica 6

Chuzev, A.M. [Professor, Doctor of Physics and Mathematics, Institut prikladnoy geofiziki AN SSSR (Institute of Applied Geophysics, AS USSR)] Theoretical Diagram of Air Circulation Over Antarctica 9

Khromov, S.P. [Professor, Doctor of Geographical Sciences, Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University im. M.V. Lomonosov)] Special Features of Summer Circulation and Weather in the Antarctic Waters According to Observations From the "Ob'" in 1956-1957 9

Krichak, O.G. [Candidate of Geographical Sciences, Tsentral'nyy institut prognozov (Central Forecasting Institute)] Atmospheric Circulation in Antarctica and the Southern Hemisphere 10

Gaygerov, S.S. [Candidate of Geographical Sciences, Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)] Some Special Features of Circulation and Structure of the Atmosphere in Antarctica and the Central Arctic 11

Tolstikov, Ye.I. [Main Administration of the Northern Sea Route] Air Masses in Eastern Antarctica 12

Astapenko, P.D. [Dozent, Candidate of Geographical Sciences, Leningradskiy gidrometeorologicheskiy Institut (Leningrad Hydro-Meteorological Institute)] Development of Synoptic Processes Over Western Antarctica 13

Pogosyan, Kh.P. [Professor, Doctor of Geographical Sciences, Tsentral'nyy institut prognozov (Central Forecasting Institute)] Special Features of the Temperature at High Altitudes and of Atmospheric Circulation in Antarctica 16

Gruza, G.V. [Sredne-aziyatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (Hydro-Meteorological Research Institute of Central Asia)] Problem of Studying Planetary Circulation by Means of Macroturbulence Characteristics 18

Shapovalov, V.M. [Professor, Doctor of Geographical Sciences, Leningradskiy gidrometeorologicheskiy institut (Leningrad Hydro-Meteorological Institute)] Some Special Problems of the Regeneration of Cyclones on the Antarctic Front 19

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G. V., Cand Phys-Math Sci -- (diss) "Research on the general circulation of the atmosphere with the aid of zonal characteristics of macroturbulence." Tashkent, 1960. 8 pp; (Main Administration of Hydrometeorological Service under the Council of Ministers USSR, Central Asia Scientific Research Inst of Hydrometeorology); 150 copies; price not given; (KL, 30-60, 135)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ZONAL PECULIARITIES OF THE GENERAL CIRCULATION OF THE ATMOSPHERE AND THE MACRO - TURBULENT EXCHANGE

THESIS

It is advisable to consider the general circulation of the atmosphere as a single system of air currents above the globe.

The more general regularity of the general circulation may be obtained from the analysis of the physical characteristics of movement, averaged long the latitudes.

As the movement of the atmosphere is composed of regular movements and the turbulence of the most diverse scales, then, for the study of large-scale air movements it is natural to choose magnitudes used in the turbulence theory. A resolution of such a problem and an analysis of some results have been carried out by A. S. Monin in his report "On Macro-turbulent Exchange in the Earth's Atmosphere".

The results of computations in this present work at the level 700 mb surface for two years: 1953 and 1956 respectively, were analysed. In studying the latitudinal and annual course of mean temperature of the layer between the 500 -mb surface and 1000 -mb surface, the zonal component velocities, kinetic energy - total, - mean movements, - macro-turbulence, - zonal and meridional movements as well as the meridional transport of sensible heat and momentum, the divergence of these flows and the energy exchange between the mean and pulsating movement.

We obtained an annual and latitudinal course of the coefficient of the macro-turbulent exchange.

From the analysis of the Hemisphere's temperature regime we are able to conclude the governing role of the Polar regions.

Macro-turbulent energy, that is, the large scale irregular movements in the moderate latitude take up more than 80% of total kinetic energy and only in the sub-tropical zone the macro-turbulent energy equals to the energy of the mean movement.

The energy of meridional and zonal movements in the moderate latitudes are practically identical and in the sub-tropical zone predominate the zonal movements.

The most intensive inter-latitudinal exchange of air and exchange of sensible heat was observed in the zone 50° - 60°, sharply decreases to the north of 70° and to the south of Latitude 40° North.

The macro-turbulence supports the existence of intensified contrasts of temperature in the sub-tropical zone.

In the sub-tropical zone the maximum velocity of pulsation energy is passed on to the mean movement and a divergence of momentum takes place.

In the moderate latitudes, on the contrary, a convergence of momentum takes place which contributes to the conservation of the mean Westerlies, while the

Report submitted for the XII General Assembly of the Intl. Union of Geodesy and Geophysics, Helsinki, Finland, 25 July - 6 August 1960.

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energy of the mean movements passes over into the energy of irregular movements, that is, or cyclone and anti-cyclone formation.

The above mentioned exchange of energy between the various constituting movements are connected with the irregular fluctuation of the general circulation of the atmosphere and in concrete cases has different directions.

We have mentioned only the average statistical results.

The regularity of the fluctuation of the general circulation, studied by the fluctuation of the above stated magnitudes, will permit in the future to more fully investigate the structure of the large-scale movements of the atmosphere.

G. V. Grusa
U.S.S.R.

Report submitted for the XII General Assembly of the Intl. Union of Geodesy and Geophysics, Helsinki, Finland, 25 July - 6 August 1960.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

S/166/60/000/01/009/011

3(3),3(7),24(8)

AUTHOR: Gruza, G.V.

TITLE: On the Macroturbulent Exchange Over the Northern Hemisphere

PERIODICAL: Izvestiya akademii nauk Uzbekskoy SSR, Seriya fiziko-matematicheskikh nauk, 1960, Nr 1, pp 73-79 (USSR)

ABSTRACT: The author investigates the influence of the macroturbulence, i.e. the irregular whirls, to the heat exchange, to the distribution of energy and transformation of energy, and to atmospheric motions. The investigations base on climatic charts as well as on components of the geostrophical wind calculated from the charts of 700 mb-surfaces for 1953 and 1956. By an everaging of the data the author excludes small velocity pulsations and microturbulence. It is stated that in high latitudes the energy of the macroturbulence amounts 80 % of the whole kinetic energy, and it diminishes only to the south of the 50-th degree of latitude. The author proves a regulating influence of the polar region to the field of temperature of the troposphere. The quickest changes of temperature are in the latitudes of 60 - 75°. In November - December and January-February there is the most intensive heat exchange in the

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

On the Macroturbulent Exchange Over the Northern Hemisphere S/166/60/000/01/009/011

meridional direction. The dynamic result of the macro heat exchange is the appearance of zones with different contrasts of temperature. The author gives some further statements which together give a uniform image of the statistical heat exchange in the large.

The author mentions A.S.Monin, L.R.Rakipova, N.Ye.Kochin, and Kh.P.Pogosyan

There are 4 figures, and 4 Soviet references.

ASSOCIATION: Sredneaziatskiy n.-i. gidrometeorologicheskiy institut (Central Asiatic Scientific Hydrometeorological Research Institute)

SUBMITTED: November 30, 1959

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

S/049/60/000/01/023/027
E201/E191

AUTHOR: Gruza, G.V.

TITLE: Some Zonal Properties of the General Circulation of the Atmosphere

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, No 1, pp 161-164

TEXT: Charts of the absolute topography of the 700 millibar surface were obtained at the Antarctic Soviet station "Mirnyy" during the Third Soviet Joint Antarctic Expedition organized by Acad.Sci. USSR in 1958. These charts were used to determine some properties of atmospheric motion in the southern hemisphere which were then compared with analogous quantities for the northern hemisphere. The method of calculation of the quantities characterizing air circulation on global scale was described earlier (Refs 1, 2). The monthly means of some zonal properties of air circulation are illustrated in Tables 1 and 2. Figs 1-4 represent the latitude distributions of the zonal components of velocity (Fig 1), total kinetic energy (Fig 2), kinetic energy of zonal motion (Fig 3) and kinetic energy of meridional motion (Fig 4).

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

S/049/60/000/01/023/027
E201/E191

Some Zonal Properties of the General Circulation of the Atmosphere

The results show that cooling of the atmosphere is greater in the Antarctic than in the Arctic. In considering the global heat balance of the atmosphere we must remember that heat is carried into the Arctic region both by air and sea currents, while in the Antarctic area heat is obtained from lower latitudes through air currents only. The presence of comparatively warm seawater under the ice of the Arctic is one of the factors which make the Arctic climate less severe than that of the Antarctic. The radiation heat losses in the Arctic are smaller than in the Antarctic, since the layer of air above the Antarctic is thinner and its humidity lower. All these factors produce greater temperature contrasts and higher intensity of zonal circulation in the southern hemisphere. There are 4 figures, 2 tables and 2 Soviet references.

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (Central Asian Hydrometeorological Scientific Research Institute)

Card 2/2

SUBMITTED: April 14, 1959

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

S/049/60/000/02/021/022
E131/E459

AUTHOR: Gruza, G.V.

TITLE: Heat Exchange Between Latitudes in the Northern Hemisphere

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya, 1960, Nr 2, pp 341-345 (USSR)

ABSTRACT: The calculation is based on 36 points at the 700 mb surface between 30 and 80° northern latitude. The density of macro-turbulent streams of heat q is defined as Eq (1), where ϑ is the latitudinal distance, δ_λ - increase of the geopotential AT_{700} for 20° lat at every point, Φ_T - zonal magnitude of the geopotential in respect to temperature and topography. The coefficient of horizontal macro-turbulent heat exchange K_T is defined as Eq (2). The loss or gain of heat due to divergence of the heat stream Q can be determined from Eq (3), where R - the Earth's radius, h - thickness of the layer, $S(\vartheta + 5, \vartheta)$ is the surface of the zone between latitudes $\vartheta + 5$ and ϑ, q_ϑ and $q_{\vartheta+5}$ are the densities of the macro-turbulent heat stream. The results of calculations for the two years

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

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E131/E459

Heat Exchange Between Latitudes in the Northern Hemisphere

1953 and 1956 are illustrated in Fig 1 to 6 and in the table, p 343. There are 6 figures, 1 table and 8 references, 5 of which are Soviet and 3 English.

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (Central Asiatic Scientific Research Hydro-meteorological Institute)

SUBMITTED: June 8, 1959

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.

Kinetic energy of atmospheric motions. Izv.AN SSSR.Ser.geofiz. no.6:892-897 Je '60. (MIRA 13:6)

1. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut.

(Atmosphere)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.

"Seasonal variations in general atmospheric circulation and long-range forecasts" by A.L.Kats. Reviewed by G.V.Gruza. Meteor. i gidrol. no.11:58-61 N '61. (MIRA 14:10)
(Weather forecasting) (Kats, A.L.)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.; NEUSHKIN, A.I.

Comparison of the real and the geostrophic wind according to the data of the expedition. Trudy GGO no.107:47-51 '61.

(MIRA 14:10)

(Winds)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

40055

S/166/62/000/003/003/010
B163/B104

3,5000

AUTHORS: Gruza, G. V., Kaznacheyeva, V. D.

TITLE: On the structure of the height field of isobaric surfaces

PERIODICAL: Akademiya nauk Uzbekskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 3, 1962, 25 - 31

TEXT: If $\phi(\lambda)$ is the height of a given isobaric surface over a point on the ground with geographical longitude λ and latitude φ, a zonal structure function $b_z(\delta)$ is defined as the mean square height difference.

$$b_z(\delta) = \frac{1}{2\pi}\int_0^{2\pi}\left[\phi(\lambda+\delta) - \phi(\lambda)\right]^2 d\lambda$$

It follows from this definition that b_z is an even function of δ. This function is determined for $\varphi = 75, 55$ and 35° northern latitude and the isobaric surfaces corresponding to pressures of 700 and 500 mb for the months January and July, respectively, using data published by the TsIP in the International Geophysical Year 1958. A meridional structure function b_m

Card 1/2

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

is defined and determined to correspond. The first two members of a power series development $b_z(\delta) = B_1 \delta^2 + B_2 \delta^4 + \ldots$, and an anisotropy coefficient $k_a = b_z(\delta = 10^\circ)/b_z(\delta = 10^\circ)$ are evaluated and discussed. The anisotropy coefficient decreases with increasing latitude, and equals unity at about 50° northern latitude. The structure functions make it possible to estimate the error when the first and second spatial derivatives of the height field are replaced by divided differences with a given step width. Standards for the first and second spatial derivatives in latitude and longitude direction are given in a table for a step width of 500 km. There are 1 figure and 4 tables.

ASSOCIATION: Sredneaziatskiy nauchno - issledovatel'skiy gidrometeorologicheskiy institut (Central Asian Scientific Research Institute for Hydrometeorology)

SUBMITTED: August 14, 1961

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

SKUZA, G.V.

Diurnal variations of the wind velocity in the Mirnyy region. Trudy Sred.-Az.nauch.-issl.gidrometeor.inst. no. 8:105-108 '63.

Graphic method for the approximate estimation of correlation coefficients. Ibid.:125-126

Nomogram for the evaluation of the success of forecasts by the coefficient of correlation. Ibid. 127-133 (MIRA 17:5)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ACCESSION NR: AT4012409 S/2648/63/000/015/0128/0131

AUTHOR: Gruza, G. V.

TITLE: Concept of seasons in the free atmosphere

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy*, no. 15, 1963, 128-131

TOPIC TAGS: atmosphere, free atmosphere, season, atmospheric zone, atmospheric temperature, topography, atmospheric circulation, heat exchange, solar radiation, solstice, meteorology

ABSTRACT: By analyzing the processes in the whole Northern hemisphere and considering the average zonal temperature changes in a particular atmospheric layer, the author proposes an objective method to determine the seasons in the free atmosphere. The time of the occurrence of the main maximum (minimum) in the yearly curve of zonal values is taken as the middle of summer (winter), while the point when the speed of the growth (decrease) of the zonal values is the greatest is considered to be the middle of spring (autumn). This determines the middle of each season, but not the dividing line between them, which is difficult to define because there is no sharp transition from one season to

Card 1/3

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ACCESSION NR: AT4012409

another. The fact that the temperature drop in the lower atmosphere usually begins in the polar region and proceeds to more moderate latitudes is expected, but the fact that warming up after minimum winter temperatures occurs earlier in high latitudes is unexpected. This is explained by consideration of the circulation and the laws of the interlatitudinal macro-turbulent heat exchange. When temperatures are maximum in summer, a heat balance is established in high latitudes, the weakening of the meridonal heat flow in summer compensating for the small radiation losses. These heat losses gradually increase, the meridonal heat flow and its convergence remain weak, and the temperature begins to fall. In the north this occurs during the last 10 days of June, sufficiently close to the solstice. At that time, the inflow of solar radiation is sufficiently great in lower latitudes, its outflow at the expense of the meridonal heat transfer is still small, and warming continues. The inter-latitudinal temperature contrast begins to grow. The minimum temperature gradient in moderate latitudes also occurs during the last 10 days of June. With the growth of temperature contrasts, the zonal transfer and inter-latitudinal exchange increase. The heat losses at the expense of the divergence of the macro-turbulent heat flow in low latitudes become greater, which begins the cooling; this cooling at a latitude of 30° N occurs in August only. In the winter, the situation is reversed. The

Card 2/3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ACCESSION NR: AT4012409

middle of winter and summer in sub-polar regions is close to the winter and summer solstices, while at lower latitudes solstices occur later, during the first 10 days of February and August. Orig. art. has: 1 figure and 1 table.

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut, Tashkent (Central Asian Scientific-Research Hydrometeorological Institute)

SUBMITTED: 00 DATE ACQ: 20Feb64 ENCL: 00

SUB CODE: ES NO REF SOV: 006 OTHER: 000

Card 3/3

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ACCESSION NR: AT4012396 S/2648/63/000/015/0003/0012

AUTHOR: Gruza, G. V.; Kaznacheyeva, V. D.; Strel'nikova, Yu. P.

TITLE: The structure and ageostrophicity of a wind field over the valleys and mountainous regions of Central Asia

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut. Trudy*, no. 15(30), 1963, 3-12

TOPIC TAGS: wind, saturation rate, ageostrophicity atmospheric circulation, wind velocity, wind profile

ABSTRACT: The main characteristic of the structural function of winds over mountains is its rapid saturation, which occurs first at short distances and later does not depend on distance. A formula is derived to calculate this independence of the structural function and the distance. Because of local circulations connected with the diversity of the mountain relief, wind velocities, even at short distances, are also statistically independent. To find out the difference between the absolute values, average coefficients were calculated characterizing the anisotropy. It was proved that the flow of wind over mountains is more isotropic than over valleys. The turbulent influence of mountain systems

Card 1/2

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ACCESSION NR: AT4012396

causes an increase in the intensity of the wind. The comparison between real and geostrophic winds is important, but the differences between these winds do not correctly represent the ageostrophicity of atmospheric movements. The ageostrophic deviations depend on acceleration while the average acceleration in the atmosphere equals 0. The coefficient of the connection between the vectors of a real and a geostrophic wind is shown and the value of the vector connection is calculated according to a derived formula. The vector connection between the two types of winds is no worse over mountains than over valleys. The real and geostrophic winds are, on the average, stronger over valleys than over mountains. The braking effect of orographic obstacles occurs upward along the flow. "A. Zhamankulova, M. Ibragimova, S. Magdaliyeva, and T. Samsonova, students of the Tashkentskiy gosudarstvenny*y universitet im. V. I. Lenina (Tashkent State University) participated in the collection and processing of data for the article."

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut, Tashkent (Central Asian Scientific Research Hydrometeorological Institute, Tashkent)

SUBMITTED: 00 DATE ACQ: 20Feb64 ENCL: 00

SUB CODE: ES NO REF SOV: 013 OTHER: 001

Card 2/2

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ACCESSION NR: AP5016517 UR/0050/65/000/007/0003/0010

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B

AUTHORS: Bykhovskiy, M. L. (Doctor of technical sciences, Professor); Gruza, G. V. (Candidate of physico-mathematical sciences)

TITLE: Principles of an objective method for weather forecasting based on information probability logic

SOURCE: Meteorologiya i gidrologiya, no. 7, 1965, 3-10

TOPIC TAGS: weather forecasting, information analysis, probability

ABSTRACT: It is assumed that the task of forecasting consists of a selection of a terminal number of previously formulated predictions corresponding to several weather phases. When the number of phases is two, we have to do with alternative predictions--the simplest type of phase prediction. The authors describe an algorithm suitable for establishing a method of weather forecasting. This was developed for medical diagnosis and was used successfully at the Institut khirurgii im. V. A. Vishnevskogo (Surgical Institute) in Moscow. The method is based on the information-probability approach to the problem of recognition. Conditional

Card 1/3

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probability and information measure of predicatable characteristics are first considered. From these it follows that the probability of any weather phase may be computed for any group of observed characteristics. The probability of the phase may be arranged in decreasing order, the most probable phase coming first, but this does not supply an absolute solution. A system of thresholds may be introduced, one for each weather phase, and an absolute solution may then be obtained. An example of applicability is described. The procedure most frequently successful is the following: 1) after all variables have been made discrete, compute the information or communication index, 2) arrange the variables in order of decreasing communication (linkage), 3) make predictions according to one variable most closely linked to the phase function, 4) make predictions according to pairs of variables and select the best pair, and 5) test the best pair of variables in combination with the remaining pairs and find the best triplet. This process is continued until no appreciable improvement is obtained in results. Orig. art. has: 1 table and 17 formulas.

ASSOCIATION: Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut (Central Asian Scientific Research Hydrometeorological Institute)

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Card 2/3

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APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, Georgiy Vadimovich; PETROSYANTS, L.A., div. red.; SLABKOVICH, G.I., red.

[Integral characteristics of the general circulation of the atmosphere] Integral'nye kharakteristiki obshchei tsirkulyatsii atmosfery. Leningrad, Gidrometeoizdat, 1965. 145 p. (MIRA 18:10)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, G.V.

Zonal structure of general atmospheric circulation and macroturbulent exchange according to IGY data, 1958.
(MIRA 19:1)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

ACC NR: AM5001044 (A) Monograph UR/

Gruza, Georgiy Vadimovich

Integral characteristics of general atmospheric circulation (Integral'nyye kharakteristiki obshchey tsirkulyatsii atmosfery) Leningrad, Gidrometeorizdat, 65. 0123 p. illus., biblio., charts. (At head of title: Glavnoya upravleniye gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologicheskiy institut) 1,030 copies printed.

TOPIC TAGS: meteorology, climatology, atmospheric circulation, atmospheric turbulance, geostrophic wind, atmospheric pressure, atmospheric physics

PURPOSE AND COVERAGE: In this book results are given of studies on general atmospheric circulation with the aid of characteristics of macroturbulence. Basic new material has been obtained from the data of 1958, the central period of the International Geophysical Year. Also some general questions on aeroclimatology, [illegible] of the baric field and other questions. This book is recommended for meteorologists, aspirants and students of advanced courses on physics of the atmosphere.

TABLE OF CONTENTS (abridged):

Preface ---3

UDC: 551.513

Card 1/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

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Introduction ---5
Ch. I. Integral characteristics of atmospheric circulation and their empirical determination ---11
Ch. II. Statistical structure of the field of geopotential heights of isabaric surfaces --- 33
Ch. III. Zonal structure of baric field and its seasonal variations ---59
Ch. IV. Zonal structure of the western transfer (latitudinal component geostrophic wind) --- 67
Ch. V. Kinetic energy of geostrophic circulation ---73
Ch. VI. Zonal structure of the field of resulting geostrophic wind average monthly maps of baric topography ---96
Ch. VII. Geographic distribution of some statistics of geostrophic wind --104
Ch. VIII. Some additional problems ---109
Bibliography ---122
Appendix ---125

SUB CODE: 04/ SUBM DATE: 09Jul65/ ORIG REF: 047/ OTH REF: 005

Card 2/2

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, Georgiy Vadimovich; PETROSYANTS, M.A., red.; VAYTSMAN, A.I., red.; SERGEYEV, A.N., tekhn. red.

[Large-scale turbulence in general atmospheric circulation] Makroturbulentnost' v obshchei tsirkuliatsii atmosfery. Pod red. M.A. Petrosiants. Leningrad, Gidrometeorologicheskoe izd-vo, 1961. 102 p. (MIRA 14:10)

(Atmospheric turbulence)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZA, V.V.

Linear paragenesis of the main rock formation elements of Devonian acid effusives in the Altai-Sayan fold ---- and practice of genetic interpretation of them. Sov. geol. 7 no.12:27-38 D '64. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

[illegible], V.J.

Example of a study of the petro[illegible] [illegible] of [illegible] similar in composition using mathematical statistics. Geokhimiia no. 3:123-125 Ja '65. (MIRA 18:1)

1. Veesoyuznyy nauchno [illegible] [illegible] [illegible] [illegible], Leningrad.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZAKOV, D. E. Senior Veterinarian, Komi ASSR.
"Fat-free sour milk in treatment of endometrites of cattle."
SO: Veterinariia 25 (3), Mar 1948, p 42

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZANS, A., inzh.; RIZOVS, A., arkhitekt; KIEKSTS, I., red.

[Fundamentals of construction and sanitary engineering] Celtniecibas pamati un eku sanitara tehnika. Riga, Latvijas Valsts izd-ba, 1963. 418 p. [In Latvian] (: IRA 18:2)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

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S/666/61/000/000/003/004
D215/D305

AUTHORS: Poplavko, M.V., Manuylov, N.N. and Gruzbeva, L.A.

TITLE: The welding of titanium alloys

SOURCE: Svarka tsvetnykh metallov i splavov; sbornik statey. Balkovits, D.S. and Poplavko, eds. Moscow, Oborongiz, 1961, 72-110

TEXT: A general review of the subject. Pickling is necessary to remove oxide and gas-saturated layer prior to welding. Solution 1: 280-350 cm^3 HCl (s.g.1.19) + 50 g NaF per liter; solution 2: 340-350 cm^3 HCl + 55-60 cm^3 HNO_3 (s.g.1.14) + 50 g NaF per liter. If surface contamination is severe, then after preliminary descaling by cold rolling or sand blasting the metal is pickled in 80:20 $NaOH:NaNO_3$ at 420-450°C or in phosphoric acid at 270 ± 10°C followed by solutions 1 or 2. In the more powerful pickling agents hydrogen absorption is a potential danger and may cause porosity on welding. For good welding it is necessary to (a) use

Card 1/3

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D215/D305

The welding of titanium ...

material at the lower strength limit, but with ample ductility, (b) avoid Mark BT1-2 (VT1-2) commercial Ti, (c) limit interstage pickling, (d) avoid surface coatings in areas to be welded, and (e) use clean filler wire - preferably vacuum annealed. A discussion is given of welding technology, tungsten-arc welding, typical conditions, nozzle diameter (up to 12-14 mm for manual and 14-16 for automatic welding). Measures to ensure freedom from contamination (gas backing, interpass cleaning etc) are given. For submerged-arc welding AH-T1 (AN-T1) flux is used, and for electroslag welding (above 50 mm thick) AH-T2 (AN-T2), with argon to shield the slag pool. In resistance welding the electrode tips must be spherical, with a radius of 20-250 mm. Alpha-phase alloy welds are only heat treated for stress relief, and normally only manual tungsten arc welds require this. Oxygen in welds is restricted to a maximum of 0.1 - 0.2%; up to 14.5% can be dissolved by α-Ti which it stabilizes and embrittles. Nitrogen acts in a similar fashion, and is restricted to 0.03 - 0.05% maximum. Together, these gases promote crack formation and reduce ductility, while hydrogen can cause delayed cracking due to volume changes accompanying the precipitation of Ti hydride, and is kept below 0.015%. Similar effects occur

Card 2/3

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D215/D305

The welding of titanium ...

in gas-contaminated surface layers. Impact strength if adversely affected by hydrogen, particularly at low temperatures, but a mixed α-β structure is less sensitive than pure α. H_2 also caused porosity at the weld junction. Effects of alloying elements on joint properties, particularly fracture strength and bend angle, are described, mentioning Al, Sn, Zr, Mn, Fe, Ti-Al-Mn alloys, influence of Mo, Ta, Nb, Ti-Al-Mo, Ti-Al-V and Ti-Al-Cu alloys. The influence of small additions of B, Zr, Ce, La and Re on the weldability of Ti alloys (mainly in terms of effect on angle of bend) is discussed. There are 41 figures, 22 tables and 20 references: 12 Soviet-bloc and 8 non-Soviet-bloc. The 4 most recent references to the English-language publications read as follows: G.E. Faulkner, Welding Journal, v.34, no. 6, (1955); J.R. Ridy, J.B. McAndrew and H. Schwartz, Welding Journal, v. 33, no. 8, (1954); Welding and Metal Fabrication, v. 25, no. 7, (1957); Metal Industry, v. 21, no. 5, (1960).

Card 3/3

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZD, I. A.

"Cutaneous contagious diseases of agricultural animals." Stalinabad, 1948
34 pages, price 90 kopeks, 6,000 copies.
SO: Veterinariya 26(3). March 1949

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

BABALYAN, B.; IVANOV, G.; GRUZDEV, A.; SERGEYEV, L.; IVANOV, I.

For a model main air route. Grazhd. av. 21 no.6:20-21 Je '64. (MIRA 17:8)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

6(4) SOV/107-58-12-15/55

AUTHOR: Gruzdev, A.

TITLE: They Are Studying Radio (Izuchayut radiodelo)

PERIODICAL: Radio, 1958, Nr 12, p 12 (USSR)

ABSTRACT: A brief description of radio operators' courses initiated at the Noril'sk Town Committee of DOSAAF: 15 persons have successfully completed 10 months hard study without having their normal work interrupted. 3 female radio operators who have completed the courses are shown. There is 1 photograph.

ASSOCIATION: The Noril'sk Town Committee of the DOSAAF.

Card 1/1

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZDEV, A., deputat Verkhovnogo Soveta SSSR

New tasks and forms of material incentives. Sots.trud 7 no.4:95-104 Ap '62. (MIRA 16:1)

1. Direktor Leningradskogo metallicheskogo zavoda im. XXII s"yezda Kommunisticheskoy partii Sovetskogo Soyuza.
(Leningrad—Wages—Metal industries)
(Bonus system)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

AUTHOR: Gruzdev, A.A., Engineer SOV/118-58-12-10/17

TITLE: The Mechanization of Wheel Guide-Rail Planing on Log Roads for Cars (Mekhanizatsiya strozhki kolesoprovoda avtolezhnevykh dorog)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhemkikh rabot, 1958, Nr 12, p 35 (USSR)

ABSTRACT: The Sverdlovskiy nauchno-issledovatel'skiy institut lesnoy promyshlennosti (the Sverdlovsk Scientific Research Institute of the Lumber Industry) has designed and manufactured (designing engineer G.A. Stefanov,, Engineer) a machine of the type SS-1m for the planing of guide-rails for MAZ-200 and MAZ-501 trucks. The average capacity of the planing machine is 139 running meters, the maximum performance being 189 running meters of planed wheel guide-rail per shift. There is 1 set of drawings.

Card 1/1

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

L 31217-66 EWT(m)

ACC NR: AP6022789 SOURCE CODE: UR/0217/66/011/001/0181/0183

AUTHOR: Gruzdev, A. D.; Tsellarius, Yu. G.

ORG: Institute of Cytology and Genetics, SO AN SSSR, Novosibirsk (Institut tsitologii i genetiki SO AN SSSR)

TITLE: Effect of preliminary irradiation with short-wave ultraviolet on the luminescence of some biological objects excited by long-wave ultraviolet

SOURCE: Biofizika, v. 11, no. 1, 1966, 181-183

TOPIC TAGS: radiation biologic effect, luminescence, uv irradiation, photochemistry, amino acid

ABSTRACT: Experiments carried out on human cartilage, bovine blood serum, tyrosine, phenylalanine, and the tripeptide, glycyl-glycyl-glycine indicated that preliminary irradiation of those substances and biological objects with short-wave UV increased the intensity of luminescence induced by irradiation with long-wave UV. The maximum luminescence involved was in the 480-520 millimicron range. The relative increase in the intensity of induced luminescence, which may be ascribed to a photochemical process, decreased with the dose of radiation applied, i.e., saturation was reached. Study of a number of organic substances showed that many of them exhibited the effect in question in the crystalline state, but did not emit luminescence in the visible range in solutions either before or after irradiation with short-wave UV. Crystalline organic substances which showed considerable luminescence before

Card 1/2

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L 31217-66

ACC NR: AP6022789

irradiation with short-wave UV (e.g., salicylic, fluorescent dyestuffs, tryptophan) exhibited the opposite effect: the intensity of their luminescence on excitation with long-wave UV increased after preliminary irradiation with short-wave UV. This did not apply to tryptophan in solutions, which behave like the other amino acids studied. The luminescence of collagen prepared by dialysis of its solutions in a citrate buffer or in acetic acid was enhanced by preliminary irradiation with short-wave UV. Collagen films obtained by rapid drying of these solutions, which normally do not exhibit luminescence under the effect of long-wave UV, were activated by irradiation with short-wave UV. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 06, 20 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 001

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

AGROSKIN, L.S.; BRODSKIY, V.Ya.; GRUZDEV, A.D.; KOROLEV, N.V.

Some problems in the quantitative spectrophotometric analysis of the cell. TSitologiia 2 no.3:337-352 My-Je '60. (MIRA 13:7)

1. Institut morfologii zhivotnykh AN SSSR, Moskva i Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

(SPECTROPHOTOMETRY) (CELLS)

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZDEV, A.D.; KURNAEVA, I.L.

Effect of ultraviolet microirradiation on a plant cell. Citologiia 5 no.5:585-587 S-O '63. (MIRA 17:4)

1. Laboratoriya obshchey tsitologii Instituta tsitologii i genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZDEV, A.D.

Effect of topical irradiation dividing cell on osmosis in the formation of cell membrane. Radiobiologiia 4 no.3:430-434 '64. (MIRA 17:11)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZDEV, A.D.

Orientation of microscopic particles in electric fields.
Biofizika 10 no.6:1091-1093 '65. (MIRA 19:1)

1. Institut tsitologii i genetiki Sibirskogo otdeleniya AN SSSR, Novosibirsk. Submitted January 25, 1965.

APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7"

"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

SHPIL'BERG, B.A.; SHELESTOV, M.S.; GRUZDEV, A.K.; PRAVEDNYKH, Ye.Z.
FILICHKIN, I.Ye.; ZHAVORONOK, V.I.

Zyryanovsk deposit sulfide complex ore dressing in heavy suspensions.
Biul. TSIIN tsvet. met. no.19/20:34-39 '57. (MIRA 11:5)
(Zyryanovsk--Sulfides)
(Ore dressing)

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GRUZDEV, A.N.

10

3362

HEAT TRANSFER AND THERMOPHYSICAL PROPERTIES OF MOLTEN ALKALI METALS. I. I. Novikov, A. N. Solovyev, E. M. Khabakhpasheva, V. A. Gruzdev, L. I. Pridantsev, and M. Ya. Vasenin. Soviet J. Atomic Energy 4, 545-60(1956).

An investigation was undertaken of heat transfer to molten sodium during turbulent flow in a round copper or nickel tube. An interpolation formula was obtained. Experiments were conducted to determine thermal resistance between liquid sodium and a solid wall of copper, nickel, and stainless steel. Methods were developed for measurement of viscosity, temperature conductivity and density of molten metals. Results are given for measurements of these physical parameters for molten alkali metals (sodium, potassium, lithium and the eutectic solution of sodium and potassium) in a broad interval of temperatures. (auth)

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SOSNENKO, Mikhail Nikolayevich; KONSTANTINOV, L.S., kand.tekhn.nauk, retsenzent; GRUZDEV, A.N., inzh., retsenzent; SMETANIN, A.A., inzh., red.; GRUSHEVSKAYA, G.M., red.izd-va; UVAROVA, A.F., tekhn.red.

[Present-day founding molds] Sovremennye liteinye formy. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 274 p. (MIRA 12:6)

(Molding (Founding))

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GRUZDEV, Aleksey Nikolayevich; KOLOSOV, V.N., red.; ABOLENOV, V.P., red.

[Mechanized coremaking for foundry molds] Mekhanizirovannoe izgotovlenie sterzhnei dlia liteinykh form. Moskva, Vysshaia shkola, 1965. 293 p. (MIRA 18:2)

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NIKOLAYEVA, N.V., inzhener; PAMYATNYKH, A.S., inzhener; MUSATOV, T.P., inzhener; MAKHMUROV, L.D., inzhener; DANYELIAN, G.E., inzhener; IOFFE, E.F., inzhener; GRUZDEV, A.V., inzhener; KLEMENT'YEV, D.P., inzhener; MOS'KIN, V.S., inzhener.

On the organization of service for district substations. Elek. sta.25 no.2:36-42 F '54. (MLRA 7:2)

1. Azenergo (for Nikolayeva, Pamyatnykh and Makhmurov). 2. Donbassenergo (for Musatov and Danyelian). 3. Mosenergo (for Klement'yev). 4. Gorenergo (for Ioffe, Gruzdev and Mos'kin). (Electric substations)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZDEV, A.V., inzhener.

Dispatcher control of electric power systems. Elek. sta. 28 no.6: 52-53 Je '57. (MLRA 10:8)

(Electric power plants)

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

GRUZDEV, B. I.

USSR/Medicine - Roentgenology

Card 1/1

Authors : Gruzdev, B. I., Candidate Medical Sciences

Title : Concerning the laminar investigation of the gall bladder (cholecystography)

Periodical : Vest Rentgen i Radiol 1, 40-45, 1954

Abstract : Properly administered laminar roentgenological investigation not only permits the detection of concrements in the gall bladder not possible by ordinary methods, but also increases the possibilities of cholecystography. Three drawings.

Institution : Roentgenological Department (Chief-Professor I. A. Shekhter) of the State Scientific-Research Institute of Roentgenology and Radiology imeni V. M. Molotov (Director-Professor P. D. Yal'tsev)

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GRUZDEV, B.A.

Chemistry in shrub control. Avtom., telem. i svyaz' 7 no. 8:31-32 Ag '64. (MIRA 17:10)

1. Starshiy elektromekhanik Mirovskoy distantsii Gor'kovskoy dorogi.

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Device for testing the wear resistance of bearing metal.
B. V. Grundev. U.S.S.R. 69,309, Sept. 30, 1947. M. H.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000617120016-7

[illegible], [illegible]

146. On the Composition of the Collegium of the Ministry of the Automobile and Tractor Industries. Sob. Post. Sovmin SSSR, No 7, Oct 47

Decree no. 3285, 18 Sep 47, confirming named members of collegium: S.A.Akopov, Chairman, A.M.Aravina, P.D.Borodin, V.F.Garbuzov, Yu. S. Kogan, P.P.Parfenov, N.N.Perovskiy, V.L.Prikazchikov, G.S.Khlamov, B.V.Gruzdev, [illegible].Livshits, and P.F.Yudin

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GRUZDEV, B. V.

Ekonomiia material'nykh resursov na 1-m Gosudarstvennom podshipnikovom Zavode im. L.M. Kaganovich (Conservation of material resources at the L.M. Kaganovich First State Ball Bearing Plant). Moskva, Redizdatsektor Gossnaba SSSR, 1952. 159 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 1953

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