

BEGIN

REEL #59

BOGDANOV, V.S.

TO



BOGDANOV, V.S., student.

Investigating the centers of some types of cross-sections. Trudy  
LVMI no.6:145-151 '57. (MIRA 11:5)  
(Strains and stresses)

62-58-5-3/27

AUTHORS: Mikhaylov, B. M., Kiselev, V. G., Bogdanov, V. S.

TITLE: Radiation-Chemical Conversions of Organic Substances (Radiationno-khimicheskiye prevrashcheniya organicheskikh veshchestv) Communication 3: Conversions of Ethylene Under the Action of Rapid Electrons (Soobshcheniye 3. Prevrashcheniya etilena pod vliyaniyem bystrykh elektronov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Khimicheskikh Nauk, 1958, Nr 5, pp. 545 - 549 (USSR)

ABSTRACT: Mund and Kokh (Reference 2) investigated for the first time the radiation-action of high energy on ethylene. They found out that ethylene is converted into hydrogen under the influence of  $\alpha$ -particles. Lind and his collaborators (Reference 3) obtained hydrogen and small quantities of methane and ethane by means of irradiation of ethylene by  $\alpha$ -particles. Mak-Lennan and Patrik (Reference 4) discovered also acetylene besides  $H_2$  and  $CH_4$  in the reaction products of the radiolysis of ethylene. Moreover it was found that ethylene is con-

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Radiation-Chemical Conversions of Organic Substances. 62-58-5-3/27  
Communication 3: Conversions of Ethylene Under the Action of Rapid Electrons

verted into polyethylene or into liquid products on the action of  $\gamma$ -radiation. In the present work, the conversions of ethylene under the action of rapid electrons were investigated, as well as the influence of the irradiation-time of the initial pressure, the dilution of the initial ethylene by means of nitrogen and hydrogen. Gaseous and liquid reaction-products were subjected to the analysis. The authors found that the initial products of the radiolysis of ethylene do not represent hydrogen and methane, as was previously assumed, but butane and acetylene (References 2 to 4). The gaseous reaction-products contain, besides butane and acetylene, small quantities of  $C_2H_6$ ,  $C_4H_8$  and  $H_2$ , as well as traces of propylene. Liquid reaction-products (boiling out up to  $130^\circ C$ ) consist of aliphatic hydrocarbons  $C_6$  and  $C_8$ . The highest fractions contain important quantities of aromatic and unsaturated hydrocarbons. The formation of hexane, octanes of butane and other highest alkanes is carried out by means of the condensation of aliphatic biradicals and of an even number of carbon-atoms with subsequent hydration of the same. The energetic yield of reaction:

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Radiation-Chemical Conversions of Organic Substances. 62-58-5-3/27  
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16 molecules per 100 eV. A reduction of the initial pressure increases the degree of decomposition of ethylene without influencing the course of reaction. A dilution of ethylene by means of nitrogen increases the conversion substantially (with intense reduction of the yield of gaseous hydrocarbons). A dilution by means of hydrogen does not influence the radiolysis of ethylene. There are 2 figures, 4 tables and 10 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR ( Institute for Organic Chemistry imeni N.D. Zelinskiy, AS USSR)

SUBMITTED: February 8, 1957

1. Organic substances--Effects of radiation 2. Radiation--Chemical effects

Card 3/3

5.4500(B) 8/076/60/034/05/17/038  
AUTHOR: Bogdanov, V. S. (Moskva) B010/B002

TITLE: Investigation of Aerosols Formed During Radiochemical  
Reactions 19

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 5,  
pp.1044-1049

TEXT: The author investigated the formation and the further changes of aerosols which are formed by bombarding various gases with fast electrons under different conditions. For this purpose he used a brass vessel (Fig. 1) into which an electron beam was introduced from above, and through which a beam of light passed from the side (through two opposite glass windows). The light was weakened by the formation of an aerosol mist, which was recorded by a ГЗП-47<sup>3</sup> (GZP-47) mirror galvanometer via a photocell. The dispersity and the electrical properties of the aerosol were determined by means of a Millikan condenser. Gas analyses were carried out by means of a ВТИ-2<sup>2</sup> (VTI-2) apparatus. The author undertook experiments with illuminating gas (96% CH<sub>4</sub>, 3% N<sub>2</sub>, 0.6% C<sub>2</sub>H<sub>6</sub> and 0.4% H<sub>2</sub>), methane - oxygen mixtures (75% CH<sub>4</sub> and 25% O<sub>2</sub>), methane (98% CH<sub>4</sub>, 2% N<sub>2</sub>), and

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Investigation of Aerosols Formed During  
Radiochemical Reactions

S/076/60/034/05/17/038  
B010/B002

ethylene (96.2% C<sub>2</sub>H<sub>4</sub>, 2.5% H<sub>2</sub>, 0.8% N<sub>2</sub>, 0.5% C<sub>2</sub>H<sub>6</sub>), and studied the effect of electron bombardment, temperature, and pressure upon the formation and the properties of the resulting aerosols. It was found that the particle size of the aerosols formed in methane amounts to some tenths of a micron (Table 1), and that the particles are partly positive and partly negative (charges of 1 - 11 elementary units). The major part of particles (66%) has charges of 1 - 3 elementary units, and the number of charged particles depends on the degree of dilution of the aerosol (Table 1). Data on the mean charge calculated from P. Lissovskiy's equation (Ref. 6) are given in Table 2. Furthermore, the author studied the dependence of concentration and yield of aerosols produced from methane on the amount of adsorbed energy. The yield in ethylene is 32 times larger than the highest yield produced in methane. Finally, the author thanks Professor N. N. Tunitskiy for his valuable advice. There are 6 figures, 2 tables, and 6 references: 5 Soviet and 1 American.

SUBMITTED: August 15, 1958

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BOGDANOV, V. S., Cand. Chem. Sci. (diss) "Investigation of Aerosols Arising in Radiation-Chemical Reactions." Moscow, 1961, 14 pp. (Scient. Res. Phys-Chem. Instit. im. L. Ya. Karpov) 150 copies (KL Supp 12-61, 255).

26404  
S/062/61/000/008/009/010  
B117/B206

5.4600

AUTHOR: Bogdanov, V. S.

TITLE: Dispersity and electrical properties of aerosols forming during radiolysis of gaseous hydrocarbons

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniya khimicheskikh nauk, no. 8, 1961, 1520-1 ?

TEXT: The author investigated the dispersity and electrical properties of aerosols formed during radiolysis of methane, ethane, propane, n-butane, ethylene, methane-oxygen mixture (4:1) and ethylene-oxygen mixture (1:1). The radiolysis was done in a 2 l metal reaction-vessel on the accelerator. The mean energy of the accelerated electrons amounted to 112 kv after they have left the outlet. The aerosols formed were investigated by photographic oscillation method according to N. A. Fuks and I. V. Petryanov (Ref. 3: Zh. fiz. khimii 4. 567 (1933); I. V. Petryanov, P. V. Lisovskiy and G. L. Natanson. Zavodsk. laboratoriya, No 10, 1219 (1948)). The potential on the condenser plates amounted to 80 v, the distance between them to 2.08 mm. The commutation period of

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S/062/61/000/008/009/010  
B117/B206

Dispersity and electrical properties...

the reversal of the direction of the electric field amounted to 2 sec). When calculating the sizes and charges of the particles, corresponding viscosity coefficients were used. The density of the droplets was assumed to be equal to the density of the condensate. This was determined by a pycnometer. The aerosols were always produced with a weight concentration of 1 mg/l. This was determined by an CMO (SPP) special filter. The countable concentrations were determined in an ultra-microscope of the type ВДК-4 (ВДК-4), the mode of operation of which was described in Ref. 5 (B. V. Deryagin i G. Ya. Viasekko. St. "Novyye idei v oblasti izucheniya aerozoley" Izd. AN SSSR. M. - L., 1949, str. 7). All experiments were made at room temperature with an electron-beam intensity  $I = 100 \mu\text{a}$  and a gas pressure in the reactor of  $p = 1 \text{ kg/cm}^2$ . In order to obtain the weight concentration of 1 mg/l, the irradiation time was changed between 6 sec and 30 min, according to the gas used. The countable concentrations during irradiation of the substances investigated were:  $5.8 \cdot 10^6$  for  $\text{CH}_4$ ,  $5.7 \cdot 10^6$  for  $\text{C}_2\text{H}_6$ ,  $6.0 \cdot 10^6$  for  $\text{C}_3\text{H}_8$ ,  $5.8 \cdot 10^6$  for  $n\text{-C}_4\text{H}_{10}$ ,  $6.0 \cdot 10^6$  for  $\text{C}_2\text{H}_4$ ,  $5.4 \cdot 10^6$  for  $\text{CH}_4 + \text{O}_2$  and  $5.7 \cdot 10^6$  particles/cm<sup>3</sup>.

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Dispersity and electrical properties...

for  $C_2H_4+O_2$ . The number of measured particles for aerosols was 252  $CH_4$ , 232  $C_2H_6$ , 212  $C_3H_8$ , 231 n- $C_4H_{10}$ , 290  $C_2H_4$ , 220  $CH_4+O_2$ , 234  $C_2H_4+O_2$ . The sizes of the particles were within the range of the radii from 0.4 to 2  $\mu$ , the main mass of the particles being distributed within a still narrower range: between 0.9 and 1.5  $\mu$ . For experiments with ethylene, the distribution curve is displaced into the range of smaller radii, for experiments with  $C_2H_4+O_2$  into the range of greater radii. Compared with the method of the perpendicular electric field (Ref. 1: Autor, Zh. fiz. khimii, 34, No 5, 1050 (1960)), the method described produces more accurate results, since measurements may be made within a few minutes, whereby the aerosol systems hardly change. The dispersity of the aerosols may be differential according to radiation intensity and absorbed energy. Thus, when irradiating methane with a dose of one tenth only, more highly disperse aerosols were obtained. On the one hand, aerosols are forming during the irradiation of gaseous hydrocarbons according to the mechanism of a chemical condensation at room temperature. On the other hand, they form right from the start in strongly ionized, bipolar atmosphere. For this reason, the majority of the particles is charged. in contrast to

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S/062/61/000/008/009/010  
B117/B206

Dispersity and electrical properties...

condensation aerosols. The charge of the individual particles was measured simultaneously with the determination of the dispersity (Table). 60 to 80 % of the particles were found to be charged negatively as well as positively. The quantity of the charge varies between 1 and 67 elementary charges. The overwhelming majority, however, has relatively small charges. There are 2 figures, 1 table, and 6 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED: February 21, 1961

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88574

S/020/61/136/001/025/037  
B004/B056

5.4500(B)

AUTHOR: Bogdanov, V. S.

TITLE: The Formation of Aerosols During Radiolysis of Gaseous Hydrocarbons

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 1, pp. 121-124

TEXT: Investigation of formation and destruction of aerosols under the effect of radiolysis of gaseous hydrocarbons is the aim of the present paper. Optical method of investigation and determination of aerosol weight concentration was already described in Ref. 1. Irradiation was made by 112-keV electrons. For comparison with the investigations described in Refs. 2-7, experiments with ethane, propane, n-butane, ethylene, propylene, and methane-oxygen mixture were made in a brass reaction vessel, those with acetylene in an iron vessel, and those with ethylene-oxygen mixture in an aluminum container. Volume of the vessels was 2 liters. Fig. 1 illustrates attenuation of light versus time for the aerosols produced during 30 min of irradiation of  $C_2H_6$ ,  $C_3H_8$ , and  $n-C_4H_{10}$  at  $20^\circ C$ ,  
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The Formation of Aerosols During Radiolysis of Gaseous Hydrocarbons

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S/020/61/136/001/025/037  
B004/B056

1 atm, and an intensity I of the electron beam of  $10\mu\text{a}$  and  $100\mu\text{a}$ . Fig. 2 shows the results of irradiation of  $\text{CH}_4 + \text{O}_2$  (4 : 1),  $\text{C}_2\text{H}_4 + \text{O}_2$  (1 : 1) at  $p = 1$  atm,  $I = 100\mu\text{a}$ ,  $t = -10^\circ\text{C}$  (curves 1,2)  $t = 20^\circ\text{C}$  (curves 3,4) and of  $\text{C}_3\text{H}_6$  at  $p = 1$  atm,  $t = 20^\circ\text{C}$ ,  $I = \mu\text{a}$  (curve 5) and  $100\mu\text{a}$  (curve 6). Time of irradiation for curves 1-5 was 30 minutes, for curve 6, 10 minutes. Temperature dependence of aerosol formation is discussed and referred to the formation of various products (in the case of  $\text{CH}_4 + \text{O}_2$  chiefly  $\text{HCOOH}$ ,  $\text{HCOH}$ , and peroxides, in the case of  $\text{C}_2\text{H}_4 + \text{O}_2$  chiefly products with high boiling point). The changes in the aerosol phase affect the course of the radiochemical reaction. Fig. 3 shows weight concentration versus time for aerosols produced by radiolysis of  $\text{C}_2\text{H}_6$ ,  $\text{C}_3\text{H}_8$ ,  $n\text{-C}_4\text{H}_{10}$ ,  $\text{CH}_4 + \text{O}_2$  (4 : 1),  $\text{C}_2\text{H}_4 + \text{O}_2$  (1 : 1),  $t = 20^\circ\text{C}$ ,  $p = 1$  atm. Fig. 4 gives the weight concentrations for  $\text{C}_2\text{H}_4$ ,  $\text{C}_3\text{H}_6$ ,  $\text{C}_2\text{H}_2$  aerosols. It was found that in the reaction range the aerosol phase is enriched with increasing dose with different rate and concentration for different hydrocarbons, and that a subsequent destruction of this phase takes place. The aerosols last a short time after irradiation. A

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The Formation of Aerosols During Radiolysis  
of Gaseous Hydrocarbons

S/020/61/136/001/025/037  
B004/B056

considerable portion of the products formed on radiolysis passes the aerosol phase. There are 4 figures, 1 table, and 7 references: 6 Soviet and 1 US.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

PRESENTED: July 7, 1960, by B. A. Kazanskiy, Academician

SUBMITTED: July 5, 1960

Legend to Fig. 1: a)  $C_3H_8$ ; б)  $C_2H_6$ ; в)  $n-C_4H_{10}$ ; 1) minutes, 2) luminous flux.

Legend to Fig. 2: a)  $CH_4 + O_2$ ; б)  $C_2H_4 + O_2$ ; в)  $C_3H_6$ ; 1) minutes, 2) luminous flux. ✓

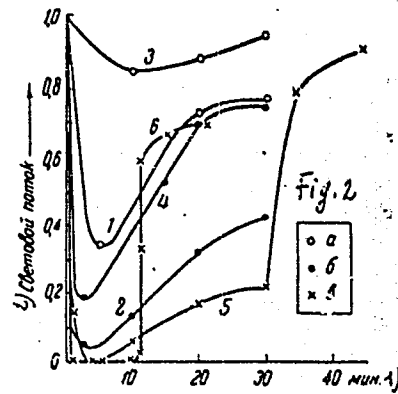
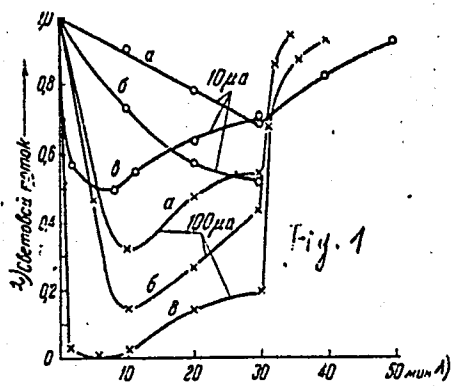
Legend to Fig. 3: a)  $CH_4 + O_2$ ; б)  $C_2H_4 + O_2$ ; в)  $C_2H_6$ ; г)  $C_3H_8$ ; д)  $C_4H_{10}$ ; 1) minutes, 2) mg/l.

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S/020/61/136/001/025/037  
B004/B056

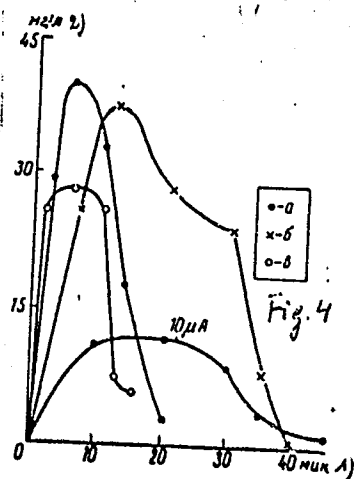
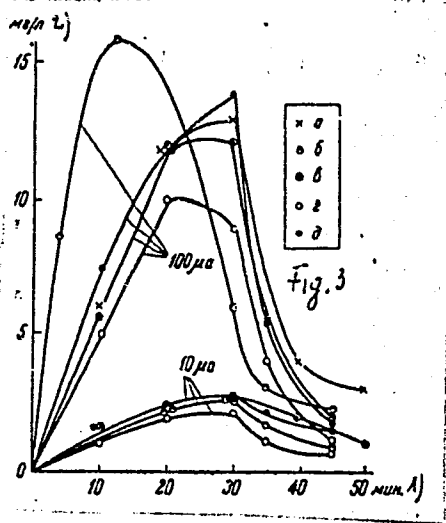
Legend to Fig. 4: a)  $C_3H_6$ ; б)  $C_2H_4$ ; в)  $C_2H_2$ ; 1) minutes; 2) mg/l..



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S/020/61/136/001/025/037  
B004/B056



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43239

S/844/62/000/000/072/129  
D214/D307

20 1430 (10 11024)

AUTHOR: Baylanov, V. S.

TITLE: Aerosols formed during radicchemical reactions

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 415-419

TEXT: The formation and destruction of aerosols was studied during the exposure of various saturated and unsaturated hydrocarbons. Weight concentrations of the aerosols and their ability to absorb light increased to a maximum and then decreased with increasing times of the exposure. The highest weight concentration was found in  $C_3H_6$  (40 mg/l) for a dose of  $1.75 \times 10^{22}$ , and the lowest in  $CH_4$  (1.2 mg/l) for a dose of  $4.3 \times 10^{22}$  ev. An increase in the beam intensity from 10 to 100  $\mu a$  changed the weight concentration of the aerosol in  $n-C_4H_{10}$  from 2.3 to 7.5 mg/l (dose =  $1.1 \times 10^{22}$  ev), while in  $C_3H_6$  (dose =  $3.5 \times 10^{21}$  ev) the concentration fell from

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Aerosols formed during ...

S/844/62/000/000/072/129  
D214/D307

11 to 9.5 mg/l. The number of radiochemically changed molecules of the hydrocarbon found in the aerosol per 100 ev ( $G_a$ ) increased with exposure in  $CH_4$ , passed through a maximum in  $C_2H_6$  and  $C_3H_8$  and decreased in all other systems studied.  $G_a$  values for the unsaturated hydrocarbons were higher than for saturated compounds. The radius of the droplets in  $CH_4$  (exposure time = 30 min, atmospheric pressure,  $20^\circ C$ , intensity = 100  $\mu a$ , weight concentration 1.2 mg/l) was 0.2 - 0.6  $\mu$ . Up to 80% of the droplets were charged with 1 - 10 units, half of which were negatively charged. There are 4 figures and 1 table.

ASSOCIATION: Institut organicheskoy khimii AN SSSR im. N. D. Zelinskogo (Institute of Organic Chemistry AS USSR im. N. D. Zelinskiy)

Card 2/2

CHEGOLIN, P.M.; BOGDANOV, V.S.

Automatic photoelectronic decoder of printed information. Izv.  
vys.ucheb.zav.; prib. 5 no.6:58-66 '62. (MIRA 15:12)

1. Ryazanskiy radiotekhnicheskiy institut. Rekomendovana kafedroy  
priborov upravleniya i vychislitel'noy tekhniki.  
(Electronic data processing)

1 2177-65 EPE(c)/ENG(1)/EWA(h)/EWP(3)/EWT( )/EWA(1) PC-4/Pr-4/Pob RAEM(1)

ACCESSION NR: AP4044708

S/0062/64/000/008/152-1526

AUTHOR: Mikhaylov, B. M.; Kiselev, V. G.; Bogdanov, V. S.

TITLE: Conversion of water gas by means of fast electrons

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 8, 1964, 1524-1526

TOPIC TAGS: water gas, water gas conversion, fast electrons, radiolysis, reaction mechanism, bicarbonyl, glyoxal, carbon suboxide, glycol aldehyde, methanol, peroxide formation

ABSTRACT: The radiolysis by fast electrons (115 kev, integral dose rate of 0.4-3.3 x 10<sup>23</sup> ev) of mixtures of CO and H<sub>2</sub> was studied under equilibrium conditions at room temperature. The product yield, depending on initial composition, subjected to radiolysis, is summarized in fig. 1. The main oxygen-containing products were glyoxal, CO<sub>2</sub> and C suboxides (C<sub>3</sub>O<sub>2</sub>)<sub>x</sub>; no glycol aldehyde, methanol, peroxides or gaseous hydrocarbons were detected. A small amount of H<sub>2</sub> increased the decomposition of CO; additional H<sub>2</sub> had little effect. 50-56% of

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L 21777-65  
ACCESSION NR: AP4044708

the initial C, 25-40% of the H<sub>2</sub> and 70-95% of the C appeared in the radiolysis products, indicating additional compounds (high molecular oxygen-containing compounds and hydrocarbons) were formed also. On increasing pressure from 0.2 to 1 atmosphere the yield of all radiolysis products increased, except for CO<sub>2</sub> which decreased. The following mechanism was proposed: an excited CO molecule reacts with another CO molecule, even in the presence of H<sub>2</sub>, to form the bicarbonyl -C≡C-CO-, which then reacts with H<sub>2</sub> to form glyoxal. Or the bicarbonyl reacts with additional CO to form CO<sub>2</sub> and the suboxides. Orig. art. has: 3 figures.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences, SSSR)

SUBMITTED: 08Jan64

ENCL: 01

SUB CODE: GC

NO REF SOV: 002

OTHER: 005

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L 21777-65

ACCESSION NR: AP4044708

ENCLOSURE #1

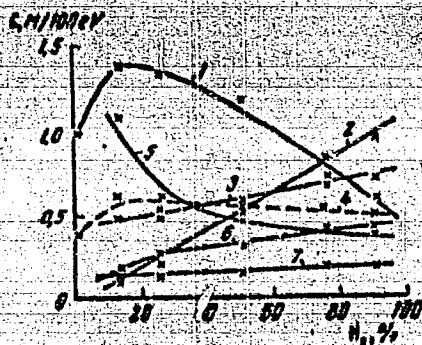


Fig. 1

Relationship of the radiation-chemical yields to the composition of the initial mixture. 1--CO<sub>2</sub>; 2--CH<sub>2</sub>O x 10; 3--(CHO)<sub>2</sub>; 4--CO/10; 5--RCOOH; 6--H<sub>2</sub>/10; 7--HCOOH

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MIKHAYLOV, B.M.; NISELEV, V.G.; BOGDANOV, V.S.

Conversion of water gas by fast electrons. Izv. AN SSSR. Ser.  
khim. no.8:1524-1526 Ag '64. (MIRA 17:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

MIKHAYLOV, B.M.; BOGDANOV, V.S.; KISELEV, V.G.

Reduction of carbon dioxide by hydrogen under the effect of fast electrons.  
Izv. AN SSSR. Ser. khim. no.7:1271-1273 '65. (MIRA 18:7)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

ZHOEHOVSKIY, M.K.; BOGDANOV, V.S.

Experimental determination of volume jump on the melting of benzene and nitrobenzene under pressure up to 10,000 kg/cm<sup>2</sup>. Zhur.fiz.khim. 39 no.10:2520-2525 0 '65. (MIRA 18:12)

1. Vsesoyuznyy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy. Submitted August 4, 1964.

L 21561-66 ENT(m)/EM(J)/T

ACC NR: AP6009805

VW/JW/JWD/RM

SOURCE CODE: UR/0062/66/000/002/0386/0386

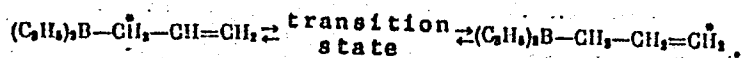
AUTHOR: Mikhaylov, B. V.; Bogdanov, V. S.; Lagodzinskaya, G. V.;  
Pozdnev, V. F. 36ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, Academy of  
Sciences SSSR (Institut ~~organicheskoy~~ khimii Akademii nauk SSSR)

TITLE: Allylic rearrangement in triallylboron 112

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 2, 1966, 386

TOPIC TAGS: organoboron compound, allyl compound, isomerization

ABSTRACT: The study of triallylboron by means of NMR spectra led to the discovery of allylic rearrangement in this compound. This rearrangement is shown as follows:



The rate of this rearrangement varies with temperature: from 4.7 cps at -25C to 3.3 cps at 80C. The lifetime for each state in this temperature range varies from  $2 \cdot 10^{-1}$  to  $3 \cdot 10^{-4}$  sec. The calculated activation energy of the process is 11 kcal/M. The authors intend to continue their studies of boron allylic compounds. Orig. art. has: 1 formula. [EW]

SUB CODE: 07/ SUMB DATE: 24 Nov 65/ ATD PRESS: 4219

Card 1/1 VLR

L 23736-66 EWT(1)/EWT(m)/EWT(w)/EWA(d)/T/EWT(t)/EWP(k) LJI(c) JD/WI/JG/GG  
ACC NR: AP6006801 SOURCE CODE: UR/0386/66/003/001/0044/0047

AUTHOR: Bogdanov, V. S. 29  
B

ORG: All-Union Scientific Research Institute of Physicotechnical and Radiotechnical Measurements (Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy)

TITLE: Jump in volume and melting curve of cesium at pressures up to 17,000 kg/cm<sup>2</sup> 18 27

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 1, 1966, 44-47

TOPIC TAGS: cesium, melting, pressure effect, temperature dependence

ABSTRACT: The author shows that confirmation of the experimentally observed maximum on the melting curve of cesium, which is presently under doubt because the experiments were carried out in apparatus with a quasihydrostatic medium, and which cannot be checked otherwise for lack of a complete theory of melting, can be verified by measurement of the jump of volume along the melting curve. On approaching

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L 23736-66

ACC NR: AP6006801

the maximum the magnitude of the volume should tend to zero, in accord with the Clayperon-Clausius equation. He then reports an experiment in which this volume jump was determined, using apparatus and a procedure described in detail elsewhere (ZhFKh v. 39, 2520, 1965). A plot of the dependence of the volume jump on the melting temperature is presented and is shown to fit the empirical formula  $\Delta V = 0.0125 - 0.066 \log(T/302.9)$ . Extrapolation of the plot to zero jump yields a temperature of 469.2K for the maximum on the melting curve of cesium, and agrees with the value (470K) obtained by G. C. Kennedy et al. (Phys. Rev. 126, 1363, 1962). The pressure variation of the melting temperature obtained by the author differs somewhat from Kennedy's data, which were obtained with a quasihydrostatic medium, and the reasons for the systematic discrepancy are explained. It is concluded that the experimental measurement of the jump in the volume of cesium as a function of the melting temperature points to the existence of a maximum on the melting curve. Orig. art. has: 2 figures and 1 formula.

SUB CODE: 20/ SUBM DATE: 17Nov65/ ORIG REF: 003/ OTH REF: 005

Card

2/2 *UVR*

L 36517-66 EWT(m)/EWP(j) WW/JW/RM SOURCE CODE: UR/0062/66/000/005/0944/0945

ACC NR: AP6017885

AUTHOR: Bogdanov, V. S.; Lagodzinskaya, G. V.; Pozdnev, V. F.; Mikhaylov, B. H.

ORG: Institute of Organic Chemistry im. N. D. Zelinskiy, Academy of Sciences, SSSR  
(Institut organicheskoy khimii Akademii nauk SSSR)

TITLE: Allyl rearrangement in allylboracyclopentane and triallylborane-pyridine

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 5, 1966, 944-945

TOPIC TAGS: organoboron compound, NMR spectrum

ABSTRACT: The NMR spectra (60Mc) of allylboracyclopentane  $[(CH_2)_4BC_2H_5]$ , dimethyl allylboronate  $[(C_3H_5B(OCH_3)_2)]$ , allylboronic anhydride  $(C_3H_5BO)$ , diallylboronic anhydride  $[(C_3H_5)_2B]_2$ , allyl borate  $[B(OC_3H_5)_3]$ , triallylborane-pyridine complex  $[(C_3H_5)_3B-NC_5H_5]$ , triallylsilane  $[(C_3H_5)_3Si]$  were investigated at various temperatures, with hexamethyldisiloxane as the internal standard. The equilibrium exchange of  $CH_2$  groups in the allyl radical was found to occur only in two compounds, i.e., allylboracyclopentane and triallylborane-pyridine. In allylboracyclopentane (as well as triallylborane), the following equilibrium exchange occurs:

$$BCH_2CH=C^*H_2 \rightleftharpoons \text{transition state} \rightleftharpoons BC^*H_2CH=CH_2,$$

UDC: 542.952.1 + 661.718.4 + 541.67

Card 1/2



L 36517-66

ACC NR: AP6017885

but its rate is less rapid than in triallylborane. In the triallylborane-pyridine complex, an  $AX_4$ -type spectrum arises only at about 160°C, and the rate of exchange is two orders of magnitude smaller than in triallylborane. When the complex is diluted with pyridine, the rate of exchange drops by a factor of approximately 4, which leads to the assumption that the allyl rearrangement occurs at the instant of dissociation of the complex.

SUB CODE: 07/ SUBM DATE: 16Feb66/ ORIG REF: 001

Card 2/2/MLP

BOGDANOV, VASIL T.

BULGARIA/ Chemical Technology. Chemical Products and Their Application. Pesticides I-7

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12410

Author : Bogdanov Vasil T.

Inst : Ministry of Agriculture

Title : Comparative Characteristics of Arsenic-Containing Insecticides Used as Sprays in Bulgaria

Orig Pub : Sravnitel'na kharakteristika na upotrebyavanite v B"lgariya arsen s"d"pzhashchi insektitside za pr"skane. Nauch. tr. M-vo zned. Ser. rastennev"detvo, 1956, 1, No 2, 41-49 (Bulgarian; Russian and English summaries)

Abstract : Characteristics are provided of the following products of the plant ineni Angel Vylev: Paris Green (I), arsenates of Pb (II) and of Ca (III). Described are the quality control standards for I, II and III, and their inadequacy is pointed out, and other indices are proposed in lieu thereof. Comparative results are presented of

Card 1/2

- 33 -

STEFANOVICH, M.A.; SHPARBER, L.Ya.; BOGDANOV, V.V.

Reducing effect of gases in blast furnace stacks. Stal' 22  
no.8:687-692 Ag '62. (MIRA 15:7)

1. Magnitogorskiy gorno-metallurgicheskiy institut i  
Magnitogorskiy metallurgicheskiy kombinat.  
(Blast furnaces)  
(Gases)

BOGDANOV, V.V.

Making large products without using cement. Stroi. mat. 7  
no. 1:17-19 Ja '61. (MIRA 14:1)

1. Glavnyy inzhener zavoda zhelezobetonnykh izdeliy No. 1  
Kalininskogo sovmarkhoza.  
(Kalinin Province--Precast concrete)  
(Sand-line products)

ACC NR: AP6035893

SOURCE CODE: UR/0413/66/000/020/0130/0130

INVENTOR: Gol'tsman, F.M.; Birman, A. Ye.; Moiseyev, O. N.; Slutskovskiy, A. I.; Bogdanov, V. V.; Yungans, V. Yu.; Kartavtsev, S. M.; Nakhamkin, S. A.

ORG: None

TITLE: A device for producing summation tapes based on the method of controlled directional reception of seismic waves. Class 42, No. 187333

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 130

TOPIC TAGS: seismic wave, seismography, data analysis, electronic equipment

ABSTRACT: This Author's Certificate introduces: 1. A device for producing summation tapes based on the method of controlled directional reception of seismic waves. The installation consists of a magnetic recorder, amplifiers and a multichannel summation unit. The speed of seismogram analysis is increased by basing the multichannel summation unit on delay lines equal in number to the channels to be added. Taps are made from each line corresponding to the various directions of summation, as well as taps from the various delay lines corresponding to one and the same direction of summation. These taps are connected through decouplers and resistors placed at the inputs of the summation amplifiers to filters with their outputs connected to recording galvanometers. 2. A modification of this device in which the winding of the step

Card 1/2

UDC: 550.340.8

ACC NR: AP6035893

switcher which reverse the magnetic recording heads is connected to a contact mechanism on the magnetic recording drum. 3. A modification of this device in which scatter in the amplification factors of the summation amplifiers is compensated by making the resistors at the input to these amplifiers in two sections, one of which is a potentiometer. 4. A modification of this device in which summation quality is improved by using an automatic amplification control system after the frequency filters during playback.

SUB CODE: 09 08 / SUBM DATE: 23Apr65

Card 2/2

ACC NR: AP7002979 (A) SOURCE CODE: UR/0413/66/000/024/0077/0077

INVENTOR: Slutskovskiy, A. I.; Bogdanov, V. V.; Yungans, V. Yu.

ORG: None

TITLE: A procedure for making kinematic corrections in analyzing seismic recordings. Class 42, No. 189599 [announced by the All-Union Scientific Research Institute of Geophysical Exploration Methods (Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 24, 1966, 77

TOPIC TAGS: seismologic instrument, wave analysis, tape recorder, SEISMOGRAPHY

ABSTRACT: This Author's Certificate introduces a procedure for making kinematic corrections in analyzing seismic recordings tape-recorded by the reflected wave method. Time delay is used for improving accuracy during forward or reverse playback of the oscillations. A programmed switch is used for varying the number of links in the electric delay line during transcription of a single channel. This switch is mechanically connected to the rotating axle of the magnetic tape drum. In passing from transcription of one channel to transcription of another, the delay time of each link and of the line as a whole is changed by varying the magnetization current passing through the auxiliary windings of the chokes in the delay line in such a way that corrections are made for any channel by exact formulas in minimum time.

SUB CODE: 08, 09/ SUBM DATE: 29Aug64.

Card 1/1

UDC: 550.834

BOGDANOV, V.V. instruktor

Creatively, with all their hearts.... Okhr. truda i sots. strakh.  
3 no.9:25-28 S '60. (MIRA 14:4)

1. Sverdlovskiy oblsovprof.  
(Sverdlovsk--Turbomachines)  
(Sverdlovsk--Industrial hygiene)



BOGDANOV, V.V.

Interesting activities. Okhr.truda i sots. strakh. 5 no.2:17  
F '62. (MIRA 15:2)  
(Mining engineering--Hygienic aspects)

L 59602-65 EEO-2/ENG(j)/EPI(d)/FSS-2/ENG(r)/EPI(1)/FS(v)-3/EEC(k)-2/ENG(v)/EWA(d)/  
 ENG(a)-2/EED-2/ENG(c)/EMP(1)/EBA(h) Po-4/Pe-5/Pa-4/Pac-4/Pa-4/Pae-2/Peb/P1-4/P2-4.  
 ACCESSION NR: AT5013040 LJP(c) AST/BB/IT/GG/CS/ UR/0000/64/002/000/009/0099  
 RD/GH

AUTHOR: Baysvakiy, R. M. (Moscow); Bordanov, Y. V. (Moscow); Zhdanov, A. M. (Moscow);  
Kazar'yan, L. A. (Moscow); Yazdovniy, V. I. (Moscow)

TITLE: Computer monitoring of physiological conditions in space flight

SOURCE: Vsesoyuznaya konferentsiya po avtomaticheskomu kontrolyu i metodam elektricheskikh izmereniy. 4th, Novosibirsk, 1962. Avtomaticheskii kontrol' i metody elektricheskikh izmereniy; trudy konferentsiy, t. 2: Teoriya izmeritel'nykh informatsionnykh sistem. Sistemy avtomaticheskogo kontrolya. Elektricheskiye izmereniya neelektricheskikh velichin (Automatic control and electrical measuring techniques; transactions of the conference, v. 2: Theory of information measurement systems. Automatic control systems. Electrical measurements of nonelectrical quantities). Novosibirsk, Radizdat Sib. otd. AN SSSR, 1964, 93-99

TOPIC TAGS: digital computer system, space physiology, space medicine equipment, diagnostic instrument, biosensor, life support system, bioastronautics

Card 2/9

I 59502-65

ACCESSION NR: AT5013040

**ABSTRACT:** The digital computer technique of monitoring the physiological state of spaceship crews and life support systems permits complete simulation of medical logic in cases which can be described by a definite algorithm. The general principles of "machine diagnosis" pertain equally to clinical electronic diagnostic equipment and medical monitoring systems for space flight. The only basic difference is that the spaceship monitoring system is made for the direct input of data from sensors positioned on the human body. Table 1 lists methods currently in use for medical monitoring. Typically, a special complex of sensors and amplifiers is used to measure the necessary physiological parameters, which are fed directly into the computer. A basic problem is the reliability of measurements during prolonged flights, with external interference and movement by the subject being monitored. With the proper selection of the biopotential tapping points, good fitting of the electrodes, and an interference-free measuring system, the electrocardiographic method provides a reliable pulse rate recording over long periods of time. Fig. 1 is a schematic of a pulse-measuring channel. For measuring skin temperature, six semiconductor thermistors connected in series in one arm of a measuring bridge are used (Fig. 2). Conditioned

Card 2/9

L 59602-65

ACCESSION NR: AT5013040

Table 1. Methods of medical monitoring during space flight

Method	Parameter	Range of measurement	Required accuracy
Electrocardiography	Pulse rate	30--300/min	$\pm 1$ /min
Pneumography	Respiration rate	6--120/min	$\pm 1$ /min
Cutaneous thermometry	Skin temperature	20--40C	$\pm 0.10$
Motor activity	Muscular movement	0--7 rel. units	$\pm 1$
Cutaneo-galvanometry	Cutaneo-galvanic reaction	0--100 mv	$\pm 1$ mv

( Table 1 continued on card 4/9)

Card 3/9

L 59602-65

ACCESSION NR: AT5013040

(Continued from card 3/9)

0

Pericardiac ballisto- cardiography	Mechanical work of the heart	10—20 mm/sec <sup>2</sup>	+1 mm/sec <sup>2</sup>
Recording of conditioned- motor reactions	Latent period of conditioned reac- tions	0.1—2 sec	+0.01 sec

motor reactions are measured by automatic switching of light and sound stimuli to which the person being tested must react. Fig. 3 shows the circuit used; it includes two electronic time relays and an audio-frequency

Card 4/9

L 59602-65

ACCESSION NR: AT501304(1)

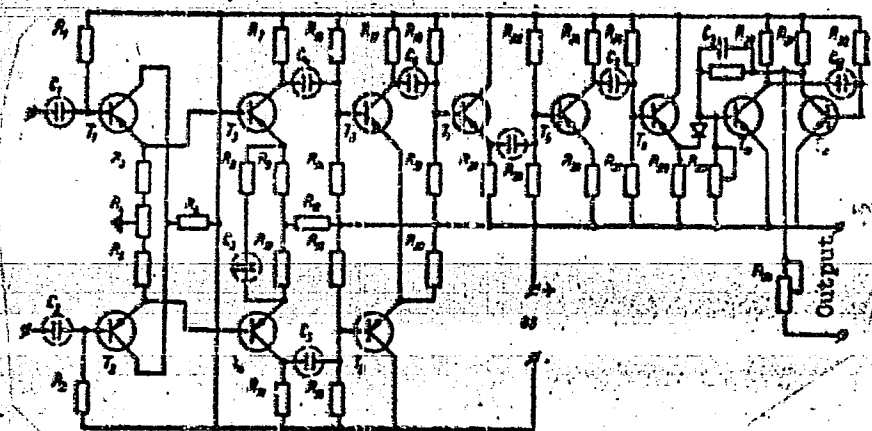


Fig. 1. Pulse channel

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L 59602-65  
ACCESSION NR. AF9013040

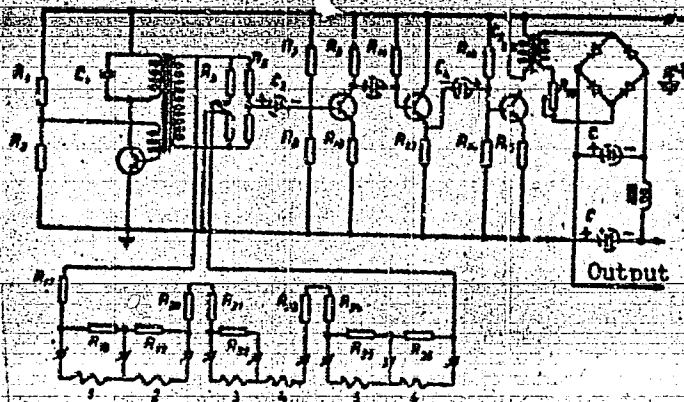


Fig. 2. Circuit for measuring skin temperature

Card 6/9

L 59602-55

ACCESSION NR: AF5013040

oscillator. Upon command from the digital computer, a light signal is switched on; if no response follows, a sound stimulus is given after a certain time has elapsed. The prescribed duration of this signal is regulated within 0—10 sec. The instants of application of the stimulus and the reception of the response signal are recorded by the computer, and the duration of the latent period of response is calculated.

The measuring system is a separate assembly. It can be used for direct recording of physiological data without the computer. Monitoring of the cabin pressure and temperature, gas composition of the air, g-forces, vibration, and radiation is also computerized.

The digital computers used for biomedical monitoring differ from general-purpose computers in only a few specific details of individual units. The duration of the measuring cycle varies for individual stages of the

Card 7/9



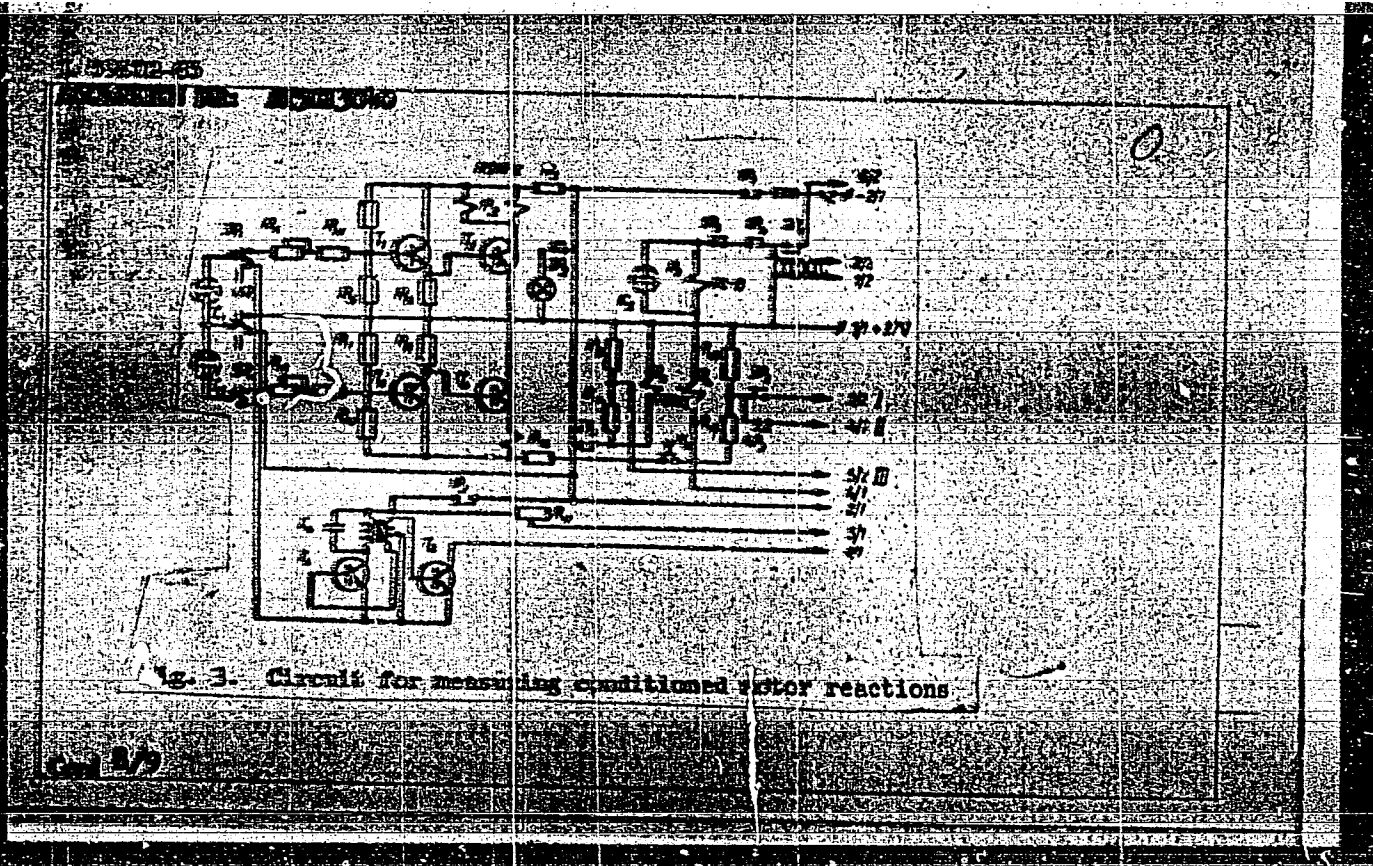


Fig. 3. Circuit for measuring conditioned motor reactions

L 59602-65

ACCESSION NR: AT5013040

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flight, e. g., from 10—20 sec during the powered portion, when g-forces, vibrations, and noise attain maximum intensity, up to 5—10 min during the orbital portion. The computation rate of the arithmetic unit for fixed-point calculations is several thousand operations per sec. The permanent storage carries the program and the numerical constants. The microprogramming principle is used in the control system. The output unit is equipped with an alphanumeric printer and warning indicators. The computer provides for a quick rearrangement or self-correction of the program during the operation. Orig. art. has: 5 figures, 3 tables.

ASSOCIATION: none

SUBMITTED: 17Nov64

ENCL: 00

SUB CODE: DP,PH

NR REF SOV: 000

OTHER: 000

FSB v. 1, no.8

Card

*DR*  
9/9

ACCESSION NR: AT4037707

S/2865/64/003/000/0379/0388

AUTHOR: Vayevskiy, R. M.; Bogdanov, V. V.; Voskresenskiy, A. D.; Yegorov, A. D.;  
Chekhonadskiy, N. A.

TITLE: The application of mathematical methods in space medicine

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy\* kosmicheskoy  
biologii, v. 3, 1964, 379-388

TOPIC TAGS: space medicine, mathematics, cybernetics, space flight, pulse rate,  
acceleration, cosmonaut, manned space flight

ABSTRACT: This article deals with the interpretation of results and concepts  
presented in six articles which were published in 1962-1963. These articles were  
written chiefly by the author of the article reviewed here. It is stressed that  
in the last few years new trends have appeared in biology and medicine where  
mathematical methods are extensively used. These trends appear to be of great  
importance in space biology and space medicine because of special conditions af-  
fecting biological experiments and medical protection of organisms during space

Card 1/3

ACCESSION NR: AT4037707

flights. An important problem of space biology and medicine is that of obtaining scientific information during space flights and transmitting the information to earth by means of radiotelemetering systems. The determination of optimal methods for coding such information which will ensure the most effective utilization of channels is the most important factor in designing radiotelemetering systems in space ships. For the solution of such problems the mathematical apparatus of the information theory is proposed. As an example, certain problems in coding electrocardiograms are presented. The problem of coding of information includes the problem of designing simple and economical coding devices such as digital computers, integrators, and others. Functions to be performed by computers in spaceships and the principles of their design are analyzed. It is noted that development of algorithms for computers in spaceships is a very complicated problem whose solution will require the use of mathematical logic, probability theory, and other mathematical disciplines in addition to biological and medical information. As an example, an algorithm for processing electrocardiograms is presented. The methods of mathematical simulation must be applied to the construction of schemes for analyzing and prognosing changes in the state of an astronaut. Mathematical models reflecting the dynamics of physiological indices (pulse rate, blood pressure, etc.) due to the action of certain factors during space flight can be

Card 2/3

ACCESSION NR: AT4037707

developed on the basis of experimental data obtained in laboratories by using the methods of mathematical statistics. Statistical indices such as mathematical expectation, variance, and correlation function must be established. Peculiarities encountered in determining statistical indices for space biology and space medicine are analyzed. As an example, the problem of prognosing the pulse rate when a cosmonaut is subjected to linear accelerations is presented. It is concluded that quantitative descriptions of physiological processes and the construction of mathematical models reflecting the principal changes in organisms under various space flight conditions are possible. The authors believe that the problems analyzed in the article represent only a small part of the questions in space biology and space medicine which will require mathematical methods for their solution.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MA, PH

NO REF SOV: 006

OTHER: 000

Card 3/3

L 22356-66

ACC NR: AP6013268

SOURCE CODE: UR/0413/66/000/008/0060/0060

INVENTOR: Shcherbakov, K. K.; Bogdanov, V. V.; Kukushkin, Yu. A.

17  
B

ORG: none

TITLE: Device for measuring the volume of inhaled and exhaled air.  
Class 30, No. 180735 AM

SOURCE: Izobreteniya, promyshlennyye obrazttsy, tovarnyye znaki, no. 8, 1966, 60

TOPIC TAGS: respiration, human physiology, respiration sensor

ABSTRACT: An Author Certificate has been issued for a device to measure the volume of inhaled and exhaled air. It consists of active

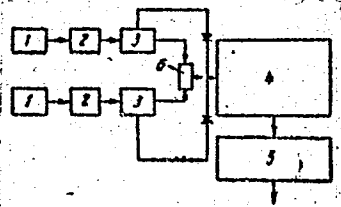


Fig. 1.

- 1 - inhalation and exhalation sensors;
- 2 - impulse amplifier-shapers; 3 - cali-
- brators; 4 - reversible trigger counter;
- 5 - adder; 6 - transducer

Card 1/2

UDC: 625.47:  
:612.2-087

2

L 22356-66

ACC NR: AP6013268

sensors of inhalation and exhalation, impulse amplifier-shapers, and small batteries. To increase the accuracy of measurement and to decrease the weight and dimensions of the apparatus, a sequential count transducer and an adder, the voltage of which varies proportionally with air volume, has been added. The output of the transducer, which varies proportionally with the rate of air flow through the sensors, is recorded in units of volume by a reversible trigger counter (see Fig. 1). Orig. art. has 1 figure. [CD]

SUB CODE: 06/ SUBM DATE: 31Oct64/ ATD PRESS: 4240

Card 2/2 dda

ACC NR: AP0017901 SOURCE CODE: UR/0413/66/000/010/0085/0085

INVENTOR: Slutskovskiy, A. I.; Bogdanov, V. V.; Pishchulin, V. V.; Veksler, B. Ye.; Ayzman, Yu. A.; Malinskiy, S. A.

ORG: None

TITLE: Automatic gain control for amplifiers in seismic prospecting units. Class 42, No. 181828

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 85

TOPIC TAGS: seismic prospecting, automatic gain control

ABSTRACT: This Author's Certificate introduces an automatic gain control for amplifiers in seismic prospecting units. The device is based on Author's Certificate No. 119689. Recording clarity with respect to amplitude is improved and the width of the illegible washout zone is reduced in the region of first arrivals by using stabilitrons in charging and discharging the filter capacitor for various purposes.

SUB CODE: 09, 08/ SUBM DATE: 29May63

Card 1/1

UDC; 534.632;681.892



ACC NR: AP7005645

SOURCE CODE: UR/0413/67/000/002/0094/0094

INVENTOR: Slutskovskiy, A. I.; Bogdanov, V. V.; Yungans, V. Yu.

ORG: None

TITLE: A method for introducing kinematic corrections. Class 42, No. 190595  
[announced by the All-Union Scientific Research Institute of Geophysical Exploration  
Methods (Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov  
razvedki)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 94

TOPIC TAGS: seismologic instrument, error correction, circuit delay line, magnetic recording

ABSTRACT: This Author's Certificate introduces a method for input of kinematic corrections during analysis of seismic recordings made on magnetic tape by the reflected wave method. The procedure is based on the use of a multiple-element electrical delay line in which the delay time is controlled by the magnetizing current and the number of elements. To increase accuracy in the introduction of kinematic corrections, the delay of the line is varied during retranscription of the oscillations in one channel by changing the amplitude of the magnetizing current in conformity with the first term in the series of the kinematic correction formula. A programmed switch is used for selecting the matching load impedance at the line output, and the number of elements in the line during retranscription of each channel is selected in proportion to the square of the distance from the point of the blast.

SUB CODE: 08, 09/ SUBM DATE: 29Aug64

Card 1/1

UDC: 550.834

*BOGDANOV, V. V.*

CHERNYSHEV, V.V., kandidat tekhnicheskikh nauk; BOGDANOV, V.V., inzhener

New apparatus for testing the wear resistance of metals. Sbor.st.  
NIIKHIMMASH no.14:124-130 '53. (MLRA 7:11)  
(Metals--Testing)

SHAPIRO, M.B., inzhener; BOGDANOV, V.V., inzhener.

Tempering crankshaft pins of compressors with an oxyacetylene torch. Vest.  
mash. 33 no.10:56-58 0 '53. (MLRA 6:10)  
(Tempering) (Cranks and crankshafts)

BOGDANOV, V.V.

10(3,\*) PHLASE I BOOK EXPLOIATION 507/3193

Leningrad. Politehnicheskii Institut imeni M.I. Kalinina  
[Pravdy, no. 198] Tekhnicheskaya gidromekhanika (Industrial Hydro-  
mechanics) Moscow, Mashtab, 1956. 230 p. Krrata slip inserted.  
1,500 copies printed.

Redp. M.I. V.S. Saurov, Doctor of Technical Sciences, Professor  
of this book. L.G. Loytzyanskiy, Doctor of Physical and  
Mathematical Sciences, Professor; Managing Ed. for Literature  
on the Design and Operation of Machinery (Leningrad Division,  
Mashtab): F.I. Petelov, Engineer; Tech. Ed.: K.G. Politskiy.  
FOREWORD: This book is intended for engineers working in the field  
of steam-turbine construction.

CONTENTS: This collection of articles contains the results of  
original work in the field of theoretical and applied hydroaero-  
dynamics, carried out in the aerodynamics laboratory of the LPI  
(Leningrad Polytechnic Institute) by members of the department  
of hydroaerodynamics and the department of theoretical mechanics.  
The book is divided into four parts. The first article gives the  
studies of turbine steam-turbines. The first article gives the  
results of a laboratory study on model-experiments on a test-  
stand and the author's conclusions drawn therefrom. The second  
part contains articles on the theory of laminar and turbulent  
flow of a viscous fluid. The articles treat the hydrodynamic  
theory of friction in bearings and suspensions, boundary layers  
and jets, the initial part of a pipe in the presence of a vortex,  
and the motion of air under the action of a corona discharge.  
The articles in the third part belong to the field of applied  
hydroaerodynamics. One of the articles is of a radar antenna. The  
second article contains the results of aerodynamic analyses of  
fish-net models. The fourth part of the book contains the results of  
laboratory experiments on establishing new methods of aero-  
dynamic measurements (friction forces on the surface of a  
streamlined body, pressure distributions in nonstationary flows).  
References accompany individual articles.

PART ONE. A STUDY OF TURBINE STEAM EXHAUSTS

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LEPIKHIN, L.A., inzh.; Primalni uchastiye: STEFANOVICH, M.A., doktor tekhn.nauk; BABARYKIN, N.N., kand.tekhn.nauk; NEYASOV, A.G., kand.tekhn.nauk; SHPARBER, L.Ya., inzh.; BOGDANOV, V.V., inzh.; ZHARKOV, P.N., master pechi; PANIN, O.G., master pechi; FEDOTOV, V.G., master pechi; FEOFANOV, N.M., master pechi; SAGAYDAK, I.I., inzh., rukovoditel'raboty

Evaluating the effect of various methods of charging a blast furnace on the state of the gas flow in its upper part. Stal' 23 no. 3:198-204 Mr '64. (MIRA 17:5)

1. Magnitogorskiy metallurgicheskiy kombinat (for Lepikhin).

BOGDANOV, V.V.

Mr., Geological Institute, The Turkman Affiliate of the Academy of Sciences of the USSR

"Problem of studying runoff from takyr"  
Izv. Turk. fil. AN SSSR, no. 2: 18-21 1949  
(Submitted May 1948)

BOGDANOV; V.V., Cand Geol-Min Sci--(disc) <sup>11</sup> ~~Geology~~ <sup>14</sup> and the coal-bearing  
capacity of the Tarbagatay ~~deposits~~ <sup>deposits</sup> region." Len, 1958. 19 pp (Min  
of Geology and Conservation of ~~the~~ Mineral Resources ~~of the~~ USSR. All-  
Union Sci Res Geol Inst), 100 copies (Kl, 45-58, 143)  
VSEGEI

- 37 -

BOGDANOV, V.V.

Physicogeographical characteristics and hydrography of the Ponyo  
Basin. Vodnoenerg.res.Kol'.poluos. no.2:5-23 '58. (MIRA 12:3)  
(Ponyo Valley--Physical geography)



BOGDANOV, V.V.; BELOKOSKOVA, T.I.

Linear characteristics of the Kola Peninsula river system. Izv.  
Kar. i Kol'.fil.AN SSSR no.4:83-89 '58. (MIRA 12:5)

1. Otdel gidrologii i gidroenergetiki Kol'skogo filiala AN  
SSSR.

(Kola Peninsula--Rivers)

SHELYKOV, M.O.; BOGDANOV, V.V.

Improving the characteristics of SS-26-51D seismic station  
amplifiers. Rasved. i prem. geofiz. no.21:41-43 '58.

(MIRA 11:10)

(Prospecting--Geophysical methods--Equipment and supplies)

BOGDANOV, V.V.

A survey of the study of lakes of the Kola Peninsula.  
Uch.zap.LGU no.292:160-195 '60. (MIRA 13:7)  
(Kola Peninsula--Lakes)

BOGDANOV, V.V., starshiy nauchnyy sotrudnik

Physicogeographical characteristics and the lake and river network  
of the Varzina and Drozdovka Basins. Vodnoenerg. res. Kol'. poluos.  
no.4:5-38 '60. (MIRA 13:10)

1. Kol'skiy filial AN SSSR.  
(Varzina Valley--Hydrography)  
(Drozdovka Valley--Hydrography)

BOGDANOV, V.V.

Features of lake distribution and impregnation in the river  
basins of the Murmansk hydrographical region. Izv. Vses.  
geog. ob-va 96 no.5:423-427 S-O '64. (MIRA 17:12)

BOGDANOV, V. YA.

PA 247T53

USSR/Engineering - Hydraulics, Dams

Jul 52

"Preventing Hydraulic Impacts in Pipelines During the Construction of the Tsimlyanskaya Earth Dam by Hydraulic Fill," Engr V. Ya. Bogdanov

Gidrotekh Stroi, No 7, pp 26-29

Analyzes phenomena of hydraulic impacts and their major causes, such as compact earth plugs inside of pipes, complete or partial clogging of intake pipe, sudden interruption in operation of suction pumps, etc. Discusses measures for preventing damage of pipelines, describing flap louvers on intake pipe,

247T53

starting slide valve on pressure pipe, and safety valves in points of most frequent breaks in pipelines. Drawings of devices are given.

247T53

BOGADANOV, V.YA., Eng.

Water Hammer

Measures against water hammer in mud carrying pipe lines during the hydraulic fill  
of the TSimlyansk earth dam

Gidr. stroi. 21, no. 7, 1952

Bogdanov, V. YA.

Subject : USSR/Hydr. Eng. AID P - 3952  
Card 1/1 Pub. 35 - 16/19  
Authors : Bogdanov, V. Ya., N. I. Burenkova, and M. N. Uvarov, Engs.  
Title : Improving the performance of dredges by preliminary mellowing of soil.  
Periodical : Gidr. stroi., 7, 43, 1955  
Abstract : The article reports on satisfactory results achieved at the Kuybyshev Hydro Power construction project by loosening soil before starting dredge operations. A special plowshare is fastened on the cutter and used for this work. The authors claim that the hydraulic fill mass obtained has a 1:3 ratio.  
Institution : None  
Submitted : No date



BOGDANOV, V.Ya., inzhener; KLIMENTOV, A.N., inzhener; CHEBOTAREV, F.N.,  
inzhener.

Improve the equipment and technology for hydraulic mining. Mech.  
trud.rab 9 no.10:27-29 0 '55. (MLRA 9:1)  
(Hydraulic mining)

BOGDANOV, V. Y., Master Tech Sci — (USSR) "The hydro-abrasive wear of the suction-  
dredging equipment." Moscow, 1957. 20 pp (M.I.I. Higher Educ USSR. The Moscow Kuybyshev  
Engin--Const inst), 110 copies (KL, No 39, 1957) 95

BOGDANOV, V.Ya., inzhener.

Prolonging the life of dredging machinery. Mekh.stroi. 14 no.3:11-  
14 Mr '57. (MIRA 10:4)

(Dredging machinery)

BOGDANOV, V.Ya., kapitan.

~~BOGDANOV, V.Ya., kapitan.~~  
Reroute the traffic of diesel-engine propelled freighters from  
the Canal to Lake Ladoga. Rech.transp. 16 no.5:12-13 My '57.  
(MLRA 10:5)  
(Ladoga, Lake--Inland water transportation) (Freighters)

BOGDANOV, V.Y. inzhener.

Measures for prolonging the life of dredges. Gidr. stroi. 26 no. 3  
33-35 Mr '57. (MIRA 10:4)

(Dredging machinery)

*БОГ ДАВУДОВ В. Я.*  
BOGDANOV, V.Ya., pensioner

V.I. Lenin's participation in the creation of a joint transportation  
worker trade union. Rech.transp. 16 no.11:45 N '57. (MIRA 10:12)

1. Byvshiy kapitan Severo-Zapadnogo parokhodstva.  
(Trade unions)

98-58-7-6/21

AUTHORS: ~~Bogdanov, V.Ya.~~, Candidate of Technical Sciences; Gorin, K.A.  
and Zaytsev, N.I., Engineers.

TITLE: Utilization of Hydrocyclones in the Hydromechanization of  
Earth Works. (Primeneniye gidrotsiklonov pri gidromekhani-  
zatsii zemlyanykh rabot.)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, Nr 7, 1958, pp 22-23

ABSTRACT: Experience acquired in the US has shown that hydrocyclones  
can be successfully used in mechanized mining and earth  
works. The Laboratory of the Hydromechanization of TsNIIS  
of the Ministry of Transport Constructions tried out a hy-  
drocyclone with the capacity of 360 - 920 cubic m/hour,  
whereby pulp with initial density of 18% was concentrated  
to 88%. The authors describe various cases in which a hy-  
drocyclone can be used for the hydromechanization of earth  
works. There is 1 diagram and 1 French reference.

1. Mining--Development 2. Hydrocyclones--Operation 3. Hydro-  
cyclones--Applications

Card 1/

BOGDANOV, V.Ya., kapitan

Eliminate ice jams and prolong navigation on the Neva. Rech. transp.  
17 no. 6:34 Je '58. (MIRA 11:7)  
(Neva River--Inland navigation)  
(Ice on rivers, lakes, etc.)



BOGDANOV, V.Ya.; kand.tekhn.nauk; GORIN, M.A., inzh.; ZAYTSEV, N.I., inzh.

Using hydrocyclones in connection with hydraulic fill methods of  
earthwork. Gidr. stroi. 27 no.7:22-23 J1 '58.      (MIRA 11:8)  
(Separators (Machines)) (Earthwork)

BOGDANOV, V.Ya., kand.tekhn.nauk

Remote control for hydraulic excavators. Transp.stroi.  
9 no.9:35-36 S '59. (MIRA 13:2)

(Remote control)

(Excavating machinery--Hydraulic driving)

SOV/98-59-10-15/20

10(9), 30(1)

AUTHOR: Bogdanov, V.Ya., Candidate of Technical Sciences

TITLE: A Remote Control Hydraulic Excavator

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 10, pp 51-52 (USSR)

ABSTRACT: The article is a brief description of a new remote control hydraulic excavator. The main faults of the present ones are that they are manually operated and have to function at some distance from the actual work-site, which distance is determined by the formula  $h = \alpha H$ , where  $\alpha$  is the coefficient of the material being treated, varying from .5 to 1.2, and H is the height of the bank in meters. However, in order to raise efficiency, the machine should be much nearer the site, as can be seen from the following VNIOMS (All-Union Scientific Research Institute for the Organization and Modernization of Construction) function:

$$p_1 \left[ \frac{40.7}{\frac{L}{d_0} + 30} \right]^2 p_0 \text{ (kgs/cm}^2\text{)},$$

Card 1/2

where  $p_1$  is the average specific pressure of the jet at the nozzle in  $\text{kgs/cm}^2$ , L is the distance in meters, and  $d_0$  is the diameter of

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A Remote Control Hydraulic Excavator

the nozzle in meters. Fig.1 shows a general diagram of a remote control hydraulic excavator designed by the KB "Transgidrostroy". The moving of the shaft on a horizontal plane to  $90^{\circ}$  and on a vertical plane to  $60^{\circ}$  is carried out by means of hydraulic cylinders (1 and 2); an oil pump with an electric motor, a 3-position side-valve switch and other equipment requiring tubing is contained in a metal casing. The machine is designed for use in soft earth which is partially inundated, and it is protected against dirt and water. The specifications are: diameter of the tubing - 250 mm, weight - 1 ton, nozzle diameters - 35, 50, 65, 75, 90, 100 and 110 mm. The machine is controlled from a point which allows the machine to be kept in view, and the layout of the remote control apparatus is seen in fig.2. The first of these machines were made in 1958 and production is expected to increase in the future. There are 2 diagrams.

Card 2/2

BOGDANOV, V. Ye. Doc Med Šci -- (diss) "Treatment of chronic gastritis and ulcers with mineral waters of the Psekups drinking-water springs." Krasnodar, "Soviet Kuban'", 1959. 23 pp (Min of Health USSR. Tbilisi State Med Inst), 250 copies (KL, 43-59, 127)

COUNTRY : USSR  
CATEGORY : Farm Animals. Poultry. Q  
ABS. JOUR. : RZhBiol., No. 6, 1959, No. 25929  
AUTHOR : Bogdanov, Ya. A.  
INST. : -  
TITLE : Winter Raising of Chicks in the Primorskiy Rayon.  
ORIG. PUB. : Ptitsevodstvo, 1958, No 4, 22-25  
ABSTRACT : No abstract.

CARD: 1/1

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~~BOGDANOV, Yakov Mikhaylovich; KRAKOVIYAK, Grigoriy Mironovich; KUSHNIR, I.I.,~~  
redaktor; ~~MAPIKA, M.P.~~, tekhnicheskiy redaktor

[Hygiene] Gigiena. Izd. 2-oe, perer. Moskva, Gos. izd-vo  
"Fiskul'tura i sport," 1956. 384 p. (MLBA 10:3)  
(HYGIENE)

BOGDANOV, Ya.M.; KRAKOVIYAK, G.M.

Petr Frantsevich Lesgafit (1837-1909). Gig. i san. 25 no.3:49-50  
Mr '60. (MIRA 14:5)

1. Iz Instituta fizicheskoy kul'tury imeni P.F.Lesgafita.  
(LESGAFT, PETR FRANTSEVICH, 1837-1909)



BOGDANOV, Yakov Mikhaylovich, dots.; KRAKOVYAK, Grigoriy Mironovich,  
dots.; DOBROV, A.A., red.; REKLISOVA, T.D., tekhn. red.

[Hygiene] Gigiena. Moskva, Izd-vo "Fizkul'tura i sport," 1961.  
167 p. (MIRA 15:2)  
(HYGIENE) (PHYSICAL EDUCATION AND TRAINING)

BOGDANOV, Ye. (Irkutsk)

Miniature mirror-type camera. Sov. foto 19 no.10:70 '59.

(MIRA 13:1)

(Miniature cameras)

BOGDANOV, Ye., inzh. (Irkutsk)

One camera contains ten devices. Izobr. i rats. no.7:24-25  
'63.

(MIRA 16:9)

(Cameras)

BOGDANOV, Ye., inzhener-kapitan

Targets detected at maximum ranges. Voen.vest. 43 no.7:88-90  
Jl '63. (MIRA 16:11)

BOGDANOV, Ye., inzhener-kapitan

Skillfully exploit technology in winter. Voen. vest. 43 no.12:70-72  
D '63. (MIRA 17:2)

BOGDANOV, Ye., inzhener-kapitan

Regulation work and the workshop. Tekh. i vooruzh. no.2:48-49  
F '64. (MIRA 17:9)

BOGDANOV, Ye. A.

"Methods of Investigating Mechanical Losses in Tractor Engines With Self-Ignition." Cand Tech Sci, Khar'kov Polytechnic Inst imeni V. I. Lenin, Min. Higher Education USSR, Khar'kov, 1954. (KL, No 10, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

BOGDANOV, Ye.S., kandidat tekhnicheskikh nauk.

Friction of piston rings. Avt.1 trakt.prom. no.6:11-15 Je '57.

1.Tadzhinskiy sel'skokhozyaystvennyy institut.  
(Piston rings)



TAKHTAROV, Anatoliy Taukenovich; BOGDANOV, Ye.A., red.; GRZHEGORZHEVSKIY,  
A.N., kand..ekon. nauk, dSUS, red.; MARTYNOVA, M.N., tekhn.red.

[Technological development in agricultural machinery  
manufacture and the increase of labor productivity; based  
on the materials on agricultural machinery manufacture of  
the Central Asian Economic Council] Tekhnicheskii progress  
v sel'skokhoziaistvennom mashinostroenii i rost proizvodi-  
tel'nosti truda; na materialakh sel'skokhoziaistvennogo ma-  
shinostroeniia Sredneaziatskogo sovmarkhoza. Moskva, Izd-  
vo "Mysl'," 1964. 87 p. (MIRA 17:3)

BOGDANOV, Ye.A.

Power losses in the D-54 tractor engine. Izv. Otd. est.nauk AN  
Tadzh.SSR no. 18:35-47 '57. (MIRA 11:8)

1. Kafedra traktorov i avtomobiley Tadzhikskogo sel'skokhozyaystvennogo  
instituta.

(Tractors--Engines)

BOGDANOV, Ye.A. (Leningrad S-24, Nevskiy prospekt, d.147, kv.63)

Setting dislocations of the thumb by the hydraulic method.  
Ortop., travm. i protez. 25 no.11:55-57 N '64.

(MIRA 18:11)

1. Iz travmatologicheskogo punkta Moskovskogo rayona  
Leningrada. Submitted May 18, 1964.

BOGDANOV, Ye.A. (Leningrad S-24, Nevskiy prosp. d. 147, kv. 63)

Frequency of traumatic dislocations according to data  
of a first aid station. Ortop., travm. i protez. 26  
no.11:36-38 N '65. (MIRA 18:12)

1. Iz travmatologicheskogo punkta Moskovskogo rayona  
Leningrada.