

Production of Dicarboxylic Acids by Oxidation  
of "Oxy Acids" With Nitric Acid. Communica-  
tion III

77660

SOV/80-33-2-35/52

ASSOCIATION: All-Union Scientific Research Institute for Petrochemical  
Processes (Vsesoyuznyy nauchno-issledovatel'skiy  
institut nef'tekhimicheskikh protsessov)

SUBMITTED: March 3, 1959

Card 4/4

MOLDAVSKIY, B.L.; BLINOVA, M.V.

Thermal conversion of succinic acid into  $\gamma$ -ketopimelic acid.  
Neftekhimia 5 no.1:108-110 Ja-F '65. (MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftekhimicheskikh protsessov.



BLINOVA, N.I.; GARAYEVSKAYA, L.S.

Atlas of the world, published in 1959; book format. Sbor.st.po kart.  
no.13:69-78 '61. (MIRA 15:5)

(Atlases)

PETRZHAK, K.A.; TOLMACHEV, G.M.; USHATSKIY, V.N.; BAK, M.A.;  
BLINOVA, N.I.; BUGORKOV, S.S.; MOSKAL'KOVA, E.A.; OSIPOVA,  
V.V.; ~~PETROV~~, Yu.G.; SOROKINA, A.V.; CHERNYSHEVA, L.P.;  
SHIRYAYEVA, L.V.

[Yields of certain fragments in  $U^{235}$ ,  $U^{238}$ , and  $Pu^{239}$  fis-  
sion by neutrons] Vykhody nekotorykh oskol'kov pri delenii  $U^{235}$ ,  
 $U^{238}$  i  $Pu^{239}$  neutronami deleniia. Moskva, Glav. upr. po is-  
pol'zovaniiu atomnoi energii, 1960. 14 p. (MIRA 17:2)

*BLINOVA, N.I.*

32986

S/641/61/000/000/013/033  
B104/B102

*246600*

AUTHORS: Petrzhak, K. A., Tolmachev, G. M., Ushatskiy, V. N., ~~Blinova, N. I.~~  
~~M. A. Blinova, N. I.~~, Bugorkov, S. S., Moskal'kova, E. A.,  
Osipova, V. B., Petrov, Yu. G., Sorokina, A. V.,  
Chernysheva, L. P., Shirayeva, L. B.

TITLE: Yields of some fragments in the fission of  $U^{235}$ ,  $U^{238}$ , and  
 $Pu^{239}$  by fission neutrons

SOURCE: Krupchitskiy, P. A., ed. Neytronnaya fizika, sbornik statey.  
Moscow, 1961, 217-223

TEXT: The authors determined the yield of  $Sr^{89}$ ,  $Zr^{95}$ ,  $Mo^{99}$ ,  $Ag^{111}$ ,  $Cd^{115}$ ,  
and  $Ba^{140}$  in the fission of  $U^{235}$ ,  $U^{238}$ , and  $Pu^{239}$  by fission neutrons. A  
 $U^{235}$ -enriched uranium plate arranged in the thermal column of a heavy-water  
reactor of the AS USSR served as neutron source. 300-mg tablets and 1- $\mu$ g  
targets were produced from each substance to be fissioned. The fission  
events were recorded in a fission chamber during the entire irradiation  
period (Fig. 1). The fission fragment yields were determined from their  
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B104/B102

Yields of some fragments in ...

$\beta$ -activity. The absolute  $\beta$ -activity was measured by two standard instruments with end-window counters. These standard instruments were calibrated with preparations of the fission fragments to be studied which had been applied to a collodium film. The absolute  $\beta$ -activity of the standard preparations was determined either with a  $4\pi$ -counter or with an end-window counter having a window thickness of  $0.005 \pm 0.001$  mg/cm<sup>2</sup>. Six to eight measurements were made in three to four tablets (Fig. 3). The determination error of the fragment yield was between 6 and 11%. The fragment yield is found to depend on the isotope mass number. There are 3 figures, 3 tables, and 7 references: 3 Soviet and 4 non-Soviet. The four references to English-language publications read as follows: Engelkemeir, D., Novey T., Schover D., Radiochemical Studies: The Fission Products, Book 3, div. IV, vol. 9, 1334 (1951); Radiochemical Studies: The Fission Products. Book 3, div. IV, vol. 9, Appendix B, 2003 (1951); Keller R., Steinberg E., Glendenin L., Phys. Rev., 94, 4, 969 (1954); Turkevich A., Niday J., Phys. Rev., 84, 1, 52, (1951).

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29820  
S/O20/61/140/006/017/030  
B103/B101

21.4100

AUTHORS: Blinova, N. I., Solntsev, V. M., and Tolmachev, Yu. M.

TITLE: Some particularities of the interaction between uranium mixed oxide and acids

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 140, no. 6, 1961, 1314-1316

TEXT: The authors studied the discrepancy between the initial and final  $UO_2^{2+} : U^{4+}$  ion ratios on dissolution of uranium mixed oxide in acids without oxidizers. This ratio is 2:1 on final solution, whereas in the initial stage, mainly U(VI) is dissolved, so that the ratio U(VI) : U(IV) is much higher than 2:1. High-purity  $U_3O_8$  powder was dissolved in  $CO_2$  atmosphere at constant temperatures (25 or 90°C) in a) sulfuric, b) perchloric, and c) acetic acids. The solutions were analyzed after 100 min ( $H_2SO_4$ ), 10 min ( $HClO_4$ ), and 40 min ( $CH_3COOH$ ). U(IV) was determined in the solution by titrating with  $KMnO_4$ , the total quantity of U by

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S/020/61/140/006/017/030

Some particularities of the interaction ... B103/B101

precipitation as ammonium diuranate and igniting to  $U_3O_8$ . Ratios of 76 : 1 in a), 60 : 1 in b), and 300 : 1 in c) were found for the beginning solution of  $U_3O_8$ . After 2 hr, the ratio U(VI) : U(IV) in the solution became 1 : 1 and remained constant, until dissolving was completed. A precipitation is deposited in the final stage of dissolving, in which the ratio varies between 2:1 and 1:1. Once the ratio of 1:1 is reached in the solution as well as in the precipitation, the composition of the precipitation does not change anymore. This is a dark, slightly violet colored powder which becomes grey-green on drying in air, the ratio U(VI) : U(IV) approximating 2:1. A ratio of 1:1 is maintained for 48 hr in the powder, when the water is saturated with  $CO_2$ . When  $U_3O_8$  is dissolved in  $HNO_3$ , a stable ratio of 2:1 is conserved in the powder during the entire time of dissolving. It was found that the uranium atoms in  $U_3O_8$  do not play the same role. It is difficult to find a different explanation for the varying U(VI) : U(IV) ratios in the solution and in the precipitation during the reaction of  $U_3O_8$  with acids. It is presumed that  $U_2O_5$  which is

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Some particularities of the interaction...B103/B101

possibly a compound of U(V) forms in the final stage of  $U_3O_8$  solution in acids. Probably, U(V) disproportionates to U(VI) and U(IV) in a ratio of 1:1, when it is dissolved in acids. It might be possible, however, that  $U_2O_5$  is not a compound of U(V), but for instance  $UO_3 \cdot UO_2$ . When it is dissolved in acids, a ratio of U(VI) : U(IV) = 1:1 will result. In this case,  $U_3O_8$  should have a composition of say  $UO_3 \cdot UO_3 \cdot UO_2$ .  $UO_3 \cdot U_2O_5$  is suggested, until the structure of  $U_3O_8$  is finally cleared up. The  $U_3O_8$  formed reacts, however, much slower with acids than the initial  $U_3O_8$  molecule. It is presumed that the peculiar course of the reaction described is characteristic of many chemical compounds; oxides, sulfides, and further compounds (basic and double salts) of metals, the atoms of which show different valences, will react, presumably, sometimes in an analogous way. Papers by Vikt. I. Spitsyn, G. M. Nesmeyanova, Ye. A. Kanevskiy (ZhNKh, 5, 1938 (1960)) and by G. M. Nesmeyanova, G. M. Alkhasashvili (Atomnaya energiya, 8, 330 (1960)) are mentioned. There are 3 tables and 6 references: 4 Soviet and 2 non-Soviet.

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S/020/61/140/006/017/030  
See particularities of the interaction... B103/B101

ASSOCIATION: Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR  
(Radium Institute imeni V. G. Khlopin AS USSR)

PRESENTED: May 24, 1961, by A. A. Grinberg, Academician

SUBMITTED: May 18, 1961

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BLINOVA, N.I.; TOLMACHEV, Yu.M.

Problem of the equivalence of uranium atoms in uranous-uranic  
oxide. Radiokhimiya 4 no.4:447-451 '62. (MIRA 15:11)  
(Uranium oxide)

ELINOVA, N.I.; ROMANOV, G.A.; SOLNTSEV, V.M.; TOLMACHEV, Yu.M.

Magnetic properties of  $U_2O_5$ . Dokl. AN SSSR 147 no.5:1112-1113  
D '62. (MIRA 16:2)

1. Radiyevyy institut im. V.G. Khlopina AN SSSR. Predstavleno  
akademikom A.A. Grinbergom.  
(Uranium oxides--Magnetic properties)

L 36979-65 ENG(j)/EWT(m)/EPF(c)/EPR/EWP(t)/ESP(b) Pr-4/PS-1 IJP(c)  
ACCESSION NR: AP4043855 J ES/IG S/0186/64/006/004/0463/0466

AUTHOR: Blinova, N. I.; Kurbatov, V. V.; Sointsev, V. M.

TITLE: A roentgenometric study of the system U sub 3 O sub 8 - U sub 2 O sub 5

SOURCE: Radiokhimiya, v. 6, no. 4, 1964, 463-466

TOPIC TAGS: uranium oxide, oxide crystal structure, xray diffraction pattern,  
lattice constant, rhombic lattice, uranium pentoxide

ABSTRACT: The authors prepared  $U_2O_5$  either by dissolving  $U_3O_8$  in sulfuric acid or by reducing  $U_3O_8$  with hydrogen at  $370^\circ C$ , and then determined the lattice constants by x-ray diffraction analysis during the reoxidation of  $U_2O_5$  to  $U_3O_8$ . They found that, as  $U_2O_5$  is saturated with oxygen, only the  $U_2O_5$  crystal structure is observed in all the intermediate stages, and stable diffraction lines characteristic of the  $U_3O_8$  lattice appear only after reaching an empirical composition of  $UO_2.62$ . The entire range of compositions from  $U_2O_5$  to  $U_3O_8$  is thus homogeneous. Visual comparison of the x-ray diffraction patterns led the authors to conclude, in opposition to the hypothesis of Milne (Am. Miner., 36, 5-6, 417, 1951) and others, that the  $U_3O_8$  lattice is a deformed  $U_2O_5$  lattice. On the basis of homology, the

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ACCESSION NR: AP4043855

most likely structure for the  $U_3O_8$  lattice is a rhombic structure, produced by the gradual penetration of oxygen atoms into the  $U_2O_5$  unit cell. "The authors thank Prof. Yu. M. Tolmachev for his valuable advice." Orig. art. has: 2 tables and 1 figure.

ASSOCIATION: None

SUBMITTED: 18Jan64

ENCL: 00

SUB CODE: IC, OP

NO REF SOV: 004

OTHER: 012

*rec*  
Card 2/2

BLINOVA, N.G.

Productivity of bits and economic efficiency of rotary drilling.  
Trudy VNIIBT no.6:150-161 '62. (MIRA 16:6)  
(Boring)



SHUROV, S.I., obshchiy red.; ~~BLINOVA, N.I.~~, otv.red.; IVANOV, Yu.M., red.  
kart; IGNATENKO, A.N., red.kart; KOLESNIKOVA, A.G., red.kart;  
LEBEDEVA, S.K., red.kart; PENTSON, Ye.E., red.kart; PERFIL'YEVA,  
N.A., red.kart; SERGEYEVA, S.I., red.kart; SMIRNOVA, A.L., red.  
kart; KHOLODOK, V.D., red.kart; SHURAN, Ye.M., red.kart; KUZNETSOVA,  
O.L., tekhn.red.; LIPSHITS, N.I., tekhn.red.; SKALICHEV, A.T.,  
tekhn.red.

[World atlas] Atlas mira. Moskva, Glav.upr.geodez. i kartografii  
MVD SSSR, 1959. 324 p. (MIRA 12:12)  
(Atlases)

USSR/Nuclear Physics - Cosmic Rays      21 Sep 50  
Showers

"Investigating the Width of Cosmic Particle Showers at Sea Level," I. Kh. Rydus, N. M. Blinova, V. G. Vaidenskiy, I. D. Suvorov

"Dok Ak Nauk SSSR" Vol LXXIV, No 3, pp 477-480

Wide showers consist of 2 parts: electron-photon shower developing according to laws of classical cascade theory and extensive periphery formed by particles of another origin. Shower particles (electrons and photons) can appear in quantity at

174947

USSR/Nuclear Physics - Cosmic Rays      21 Sep 50  
((Contd))

greater distances than according to present cascade theory. Submitted 17 Jul 50 by Acad D. V. Skobel'tsyn.

174947

BLINOVA, N. M.

KHOLIN, A.I.; BLINOVA, N.M., mladshiy nauchnyy sotrudnik.

Using the neutron-gamma-ray method for determining the position of  
oil-water contact in formations penetrated by the well. Trudy MNI  
no.15:213-221 '55. (MLRA 9:8)

(Oil well logging, Radiation)

PHASE I BOOK EXPLOITATION 749

Barsukev, Oleg Aleksandrovich; Blinova, Nina Mikhaylevna; Vybornykh, Sergey Fedorovich; Gulin, Yuriy Aleksandrovich; Dakhnov, Vladimir Nikolayevich; Larionov, Vyacheslav Vasil'yevich; Kholin, Arkadiy Ivanovich

Radioaktivnyye metody issledovaniya neftyanykh i gazovykh skvazhin (Radioactive Methods for Exploring Oil and Gas Wells) Moscow, Gostoptekhizdat, 1958. 314 p. 5,000 copies printed.

Reviewers: Tarkhov, A.G., Doctor of Physical and Mathematical Sciences, Professor, Department of Ore Geophysics of the Sverdlovsk Mining Institute imeni V.V. Vakhrusheva; Executive Ed.: Shorokhova, L.I.; Tech. Ed.: Polosina, A.S.

PURPOSE: The book was authorized as a textbook by the Ministry of Higher Education for students of geological and geophysical sections at petroleum vuzes. It is also intended as a handbook for geologists and geophysicists dealing with the theory and techniques of modern radioactive methods of oil well exploration.

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## Radioactive Methods for Exploring (Cont.)

749

COVERAGE: The authors stress the physical principles of radiometry of oil and gas wells, describe the operation of radiometric instruments and measuring procedures, and interpret the obtained data. In 1953, the authors working at the Laboratoriya Radioaktivnykh Metodov Issledovaniya Skvazhin (Laboratory of Radioactive Oil Well Logging) of the Moscow Petroleum Institute were the first to solve one of the most important problems, i.e., the use of radioactive methods to determine the location of oilfield water in cased wells. The authors developed the radioactive isotope method and the special modifications of neutron methods for well surveying which have been used extensively by industry since 1954 in the exploration of petroleum resources. A method using sodium activation to establish the location of oilfield water was developed in 1954 at the Petroleum Institute of the USSR Academy of Sciences. N.M. Blinov wrote chapter I; V.N. Dakhnov, the introduction and chapters II, V, and VII; A.I. Kholin, chapter III; O.M. Arutinov, O.A. Barsukov, Ya. Ya. Gorskiy, and V.V. Larionov, chapter IV; V.V. Larionov and A.I. Kholin, chapter VI; Yu.A. Gulin and I.I. Fel'dman, chapter VII; O.A. Barsukov and K.A. Barsukov, chapter VIII; O.A. Barsukov, chapter IX; O.A. Barsukov and A.I. Kholin, chapter X; and S.F. Vybornykh, chapter XI. There are 66 references scattered through the book, 37 of which are Soviet, and the rest English. The book contains 21 tables and 146 drawings.

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Radioactive Methods for Exploring (Cont.) 749

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AVAILABLE: Library of Congress		

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IS/jmr  
11-26-58

CHALOV, N.V.; LAPPO-DANILEVSKIY, Yu.K.; GORYACHEKH, Ye.F.; BLINOVA, N.N.;  
ZHDANOVA, L.A.

Chemicomechanical degradation of linters in the presence of  
sulfuric acid. Sbor.trud.NIIGS 12:87-98 '64.

(MIRA 18:3)

BLINOVA N. P.  
USSR / Cultivated Plants. Fodders.

M-4

Abs Jour: Ref Zhur-Biol., No 6, 1958, 25096

Author : Kaplunovskiy, S. P., ~~Blinova, N. P.~~  
Inst : "Askaniya-Nova" Institute of Hybridization and  
Acclimatization of Livestock  
Title : Experimental Sowing of Corn at the "Askaniya-Nova"  
Institute

Orig Pub: V sb.: Kukuruzna v 1955 g. vyp. 6, M., Sel'khogiz,  
1956, 110-114

Abstract: The "Askaniya-Nova" Institute of Hybridization and  
Acclimatization of Livestock conducted in 1955 a  
series of experiments to study the agrotechny of  
corn raising for green feed and grain. The highest  
green stuff yield with two harvests came from square-  
pocket planting (50 x 50) with 4 plants per bunch.  
Good results were also shown by mixed sowings of

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TELEPNEVA, A.Ye.; AVERBUKH, T.D.; BLINOVA, N.P.; MATUSEVICH, V.S.;  
SHCHELKUNOVA, N.V.; BASHKIROVA, Ye.M.

Processing of waste thiosulfate liquors produced in the removal  
of hydrogen sulfide from gases. Koks i khim. no.12:40-44 '60.  
(MIRA 13:12)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut (for  
Bashkirova).  
(Sewage—Purification) (Sodium thiosulfate)



AVERBUKH, T.D.; APAKHOV, I.A.; MAYDUROVA, O.V.; BAKINA, N.P.; ELINOVA,  
N.P.; BURBA, A.A.; AVDEYEVA, I.V.

Removal of sulfur from waste gases of copper and sulfur plants  
by the method of afterburning. Khim.prom. no.4:281-288 Ap '62.  
(MIRA 15:5)

1. Ural'skiy nauchno-issledovatel'skiy khimicheskiy institut i  
Mednogorskiy medno-sernyy kombinat.  
(Gases--Purification) (Sulfur oxides)

MATUSEVICH, L.N.; BLINOVA, N.P.

Crystallization of salts from aqueous solutions at different  
temperatures. Zhur. prikl. khim. 37 no. 4:710-716 Ap '64.  
(MIRA 17:5)

MATUSEVICH, L.N.; BLINOVA, N.P.

Isohydric crystallization at the various cooling rates of  
solutions. Zhur. prikl. khim. 37 no.10:2310-2314 0 '64.  
(MIRA 17:11)

MATUSEVICH, L.N.; BLINOVA, N.P.

Effect of the conditions of a crystallization on the capture  
of adsorbed impurities by crystals. Zhur. prikl. khim. 38 no.4:  
721-729 Ap '65. (MIRA 18:6)

*BLINOVA, N.S.*

PHASE I BOOK EXPLOITATION

SOV/5721

Vsesoyuznaya astrrometricheskaya konferentsiya.

Trudy 14-y Astrrometricheskoy konferentsii SSSR, Kiyev, 27-30 maya 1958 g.  
(Transactions of the 14th Astrrometrical Conference of the USSR, Held in Kiyev  
27-30 May 1958) Moscow, Izd-vo AN SSSR, 1960. 440 p. Errata slip inserted.  
1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Glavnaya astronomaicheskaya observatoriya  
(Pulkovo).

Resp. Ed.: M. S. Zverev, Corresponding Member, Academy of Sciences USSR; Ed. of  
Publishing House: N. K. Zaychik; Tech. Ed.: R. A. Zamarayeva.

PURPOSE: The book is intended for astronomers and astrophysicists, particularly  
those interested in astrrometrical research.

COVERAGE: This publication presents the Transactions of the 14th Astrrometrical  
Conference of the USSR, held in Kiyev 27-30 May 1958. It includes 27 reports  
and 55 scientific papers presented at the plenary meeting of the Conference

Card ~~1/56~~

60

Transactions of the 14th Astronomical (Cont.)

SOV/5721

and at the special sectional meetings. An appendix contains the resolutions adopted by the Conference, the composition of the committees, the agenda, and the list of participants at the Conference. A brief summary in English is given at the end of each article. References follow individual articles. The Presidium of the Astronomical Committee (Chairman M. S. Zverev), which supervised the preparation of this publication, expresses thanks to the members of the secretariat: V. M. Vasil'yev, I. G. Kol'chinskij, A. B. Onegina, and Kh. I. Potter.

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Address by A. A. Mikhaylov, Chairman of the Astronomical Council of the Academy of Sciences USSR

7

REPORTS OF THE ASTRONOMICAL COMMITTEE AND SUBCOMMITTEES  
INFORMATION ON ASTRONOMICAL WORK PRESENTED BY VARIOUS INSTITUTIONS

Card 2/16

Transactions of the 14th Astronomical (Cont.)	BOV/5721	
Vasil'yev, V. M., and D. D. Polozhentse. Application of Punch-Card Machines for Calculations Made by the Time Service at the Main Astronomical Observatory		328
Yesipova, M. I., and D. V. Zagrebii. Solution of the Problem of Compiling a Catalogue of Right Ascensions of 358 Stars, Using Punch-Card Machines		332
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BLINOVA, N.V.; SOVZ, I.Ye.

Investigation of the Picht's three-mirror telescope. Sbor.st.LITMO  
no.47:91-97 '59. (MIRA 16:10)



PETROV, N.Yu.; BLINOVA, N.V., red.; SHCHEDRINA, N.L., tekhn.red.

[Economic Councils; historical and legal sketch] Sovety narodnogo  
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lit-ry, 1958. 83 p. (MIRA 12:1)  
(Russia--Economic policy)

LAZAREV, Boris Mikhaylovich; BLINOVA, N.V., red.; BYKOVA, V.V., tekhn.red.

[Enforcing the observance of prices and regulations in Soviet  
commerce] Kontrol' za sobliudeniem tsen i pravil sovetskoi  
torgovli. Moskva, Gos.isd-vo iurid.lit-ry, 1959. 82 p.

(MIRA 12:6)

(Retail trade)

(Price regulation)

KOZLOVA, Yekaterina Ivanovna; UMANSKIY, Ya.N., dotsent, otv.red.;  
BLINOVA, N.V., red.; LEBEDOVA, V.I., tekhn.red.

[Soviet construction; textbook for a specialized course]  
Sovetskoe stroitel'stvo; uchebnoe posobie po spetskursu.  
Moskva, M-vo vysshego i srednego spetsial'nogo obrazovaniia  
RSFSR, 1960, 150 p. (MIRA 14:12)  
(Construction industry)

KALININ, G.S., dots.; GONCHAROV, A.F., dots., otv. red.; BLINOVA, N.V.,  
red.

[The Soviet state and law in the law in the period of the  
consolidation of Soviet rule, October 1917-July 1918] Sovet-  
skoe gosudarstvo i pravo v period uprocheniia Sovetskoi vlasti,  
oktiabr' 1917 - iul' 1916 gg.; leksii dlia studentov VIUZI.  
Moskva, Vses. iurid. zaochnyi in-t. No.1. 1960. 88 p.  
(MIRA 15:1)

(Russia--Politics and government)  
(Russia--Revolution, 1917-1921)

BLINOVA, N. Ye.

"The Carbon Dioxide and Oxygen Content of Venous Blood in Rickets Cases," Vop. Ped. i Okhran Mater. i Det., 16, No.6, 1948

Chair, Pediatric Faculty and Chair Biochemistry, Leningrad Pediatric Med. Inst.

CA

Acid-base equilibrium in septic and toxic conditions in children. R. M. Muravina and N. K. Blinova (Leningrad Pediat. Inst.). *Voprosy Pediat. i Okhrany Materinstva i Detsko* 18, No. 1, 9-14 (1960).—In septic cases the total blood CO<sub>2</sub> was 5 vol. % below normal in most instances. In toxic cases the drop was 17 vol. %. Oxygen content was similarly low: 7.2-7.3 vol. % against normal 8.3%. Bisulfite-binding substances are slightly supernormal in septic cases and almost 100% supernormal in toxic cases. Cl is low in the plasma, especially in toxic cases, but individual variations are great: Cl in erythrocytes is very low in toxic cases (140 mg. %). G. M. K.

CA

Enzyme systems in the blood and their reactions in toxic and septic conditions. E. I. Kazanskaya and N. R. Bliuzova, (Leningrad Pediat. Inst.). *Voprosy Pediat. i Otkrany Materinstvo i Detstva* 18, No. 2, 27-30(1960).-- Both the level of the enzymes and the type of reaction response to parenteral administration of milk are different in septic and toxic conditions. In the former, low levels of lipase and catalase are characteristic, with a considerable enhancement of lipolysis on irritation by milk administration. In toxic conditions a higher catalase with less lowering of lipase is found, and the milk reaction is generally neg. In children with combined conditions lipase and amylase are low, catalase is rather high, and the milk reaction is variable. G. M. Kovalapoff

SAFIULINA, S.K.; ANAN'INA, N.V.; BLINOVA, N.Ye.

Dynamics of some biochemical indices in children during an interparoxysmal period of rheumatic fever. Vop.okh.mat. i det. 8 no.2:22-27 F'63. (MIRA 16:7)

1. Iz kafedry fakul'tetskoy pediatrii (zav.- deystvitel'nyy chlen AMN SSSR zasluzhennyi deyatel' nauki prof. M.S.Maslov [deceased] Leningradskogo pediatricheskogo meditsinskogo instituta.

(RHEUMATIC FEVER) (BLOOD--ANALYSES AND CHEMISTRY)



SAPIR, A.D.; BIRYUKOV, N.D.; KATAL'NIKOV, S.G.; FROLOVA, Z.M.;  
NEGINA, V.R.; SHUVANOVA, N.V.; KRASHENINNIKOVA, Ye.P.;  
BLINOVA, R.V.

Exchange of experience. Zav.lab. 28 no.6:670-671 '62.

(MIRA 15:5)

1. Chelyabinskiy metallurgicheskiy zavod (for Sapir).
2. Institut neorganicheskoy khimii Sibirskogo otdeleniya AN SSSR (for Biryukov).
3. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva (for Katal'nikov, Frolova).

(Chemistry, Analytical)

PROZOROVSKIY, S.V.; LEVINA, G.A.; BLINOVA, S.V.; VINNIKOVA, N.I.

Some physiological characteristics of L-form bacteria of various types and Mycoplasma as possible sources of their differentiation. Vest. AMN SSSR 20 no.8:23-29 '65. (MIRA 18:9)

1. Institut epidemiologii i mikrobiologii imeni N.F.Gamalei AMN SSSR, Moskva.

ANDREYEV, M.A., red.; BLINOV, S.Ya., red.; KRASNOV, A.I., tekhn.red.

[Problems in the economics of the agriculture of the Chuvash A.S.S.R.; a collection of articles] Voprosy ekonomiki sel'skogo khoziaistva Chuvashskoi ASSR; sbornik statei. Pod red. M.A. Andreeva. Cheboksary, Chuvashskoe gos.izd-vo, 1957. 242 p. (MIRA 12:6)

1. Cheboksary. Chuvashskiy nauchno-issledovatel'skiy institut yazyka, literatury, istorii i ekonomiki. (Chuvashia--Agriculture--Economic aspects)

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The use of comparisons in a 5th class program. Geog. v shkole no.2:36-39  
Mr-Apr '53. (MLRA 6:5)

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BLINOVA, T. A.

BLINOVA, T. A. -- "Effects of Low Concentrations of Benzene, Styrene, and Alpha-Methyl Strene on the Blood Under Chronic Experimental Conditions." \*Dissertations For Degrees In Science and Engineering Defended at USSR Higher Educational Institutions) (29) Min Public Health RSFSR, Lenengrad Sanitary-Hygienic Inst, Leningrad, 1955

SO: Knizhnaya Letopis' No 29, 16 July 1955

\* For the Degree of Candidate in Medical Sciences

BLINOVA, V.A.; PLOTNIKOVA, N.V.; VOLKOV, N.M.; SYSOYEVA, A.V.; AVDEYEV, P.P.;  
KATSEVMAN, Kh.A.; RODINA, P.M.; GUSEVA, L.L.; KAMENSKIY, V.I., red.;  
BYKOV, A.N., tekhn.red.

[Economy of Tambov Province; a statistical manual] Narodnoe khoziai-  
stvo Tambovskoi oblasti; statisticheskii sbornik. [Tambov] Izd-vo  
"Tambovskaya pravda," 1957. 187 p. (MIRA 11:3)

1. Tambovskaya oblast'. Statisticheskoye upravleniye. 2. Statisti-  
cheskoye upravleniye Tambovskoy oblasti (for all except Kamenskiy,  
Bykov). 3. Nachal'nik Statisticheskogo upravleniya (for Kamenskiy)  
(Tambov Province--Statistics)

BLINOVA, V.A.

137-1958-3-4882

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 61 (USSR)

AUTHORS: Lidov, V. P., Blinova, V. A.

TITLE: Experience in Smelting Lead-copper Matte With Sodium Sulfide  
(Opyt plavki svintsovo-mednogo shteyna s sernistym natriyem)

PERIODICAL: Sb. nauchn. tr. Gos. n.-i. in-t tsvetn. met., 1957, Nr 13,  
pp 232-234

ABSTRACT: The shaft smelting of Pb-Cu matte was carried out under industrial conditions. The matte was composed of 19.2 percent Pb and 13.4 percent of Cu, with an addition of converter slag (composed of 2.4 percent Pb, 1.3 percent Cu, 14 percent ZnO, 36.8 percent FeO, 28.8 percent SiO<sub>2</sub>, 10.61 percent CaO, and 6.54 percent Al<sub>2</sub>O<sub>3</sub>), some industrial sodium sulfide (approximately 70 percent Na<sub>2</sub>S), and some Fe- scrap; the charge ingredients, namely: the matte, the converter slag, the sodium sulfide, and the Fe scrap, constituted, respectively, 57 percent, 35.3 percent, 6.2 percent, and 1.5 percent of the charge. In comparison with the smelting of an analogous charge, but without the addition of Na<sub>2</sub>S, the weight relationship Cu:Pb in the matte obtained increased from 1.9-2.6 to 3.8 (5.4 percent of Pb instead

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137-1958-3-4882

Experience in Smelting Lead-copper Matte With Sodium Sulfide

of 10.4 - 14.4 percent); Pb content in the waste slag was reduced from 0.9 - 1.7 to 0.7 percent. Cu content in the matte diminished from approximately 27 percent to 20.7 percent.

Ye. Z.

Card 2/2



ZHILINSKIY, Ye.S., zasluzhennyy vrach RSFSR; EYDEL'SHTEYN, S.I., kand.  
med.nauk; Prinsipali uchastiye: AGRONIK, S.Ye., vrach; BLINOVA,  
V.A., vrach; GOSPODINOVA, N.V., vrach; MARAKINA, V.N., vrach;  
TIMOFEYEVA, K.I., vrach.

Importance of microbiological analysis in the treatment of  
otorhinolaryngological diseases with antibiotic aerosols.  
Sbor.nauch.-prak.rab.Poliklin.im.F.E.Dzerzh. no.2:152-162 '61.

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(OTORHINOLARYNGOLOGY)

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BLINOVA, V.A.; ZHILINSKIY, Ye.S. [deceased]

Prevention of side reactions in antibiotic therapy. Antibiotiki  
9 no.7:667-669 JI '64. (MIRA 18:3)

1. Poliklinika imeni Dzerzhinskogo (glavnyy vrach I.G. Karakozov),  
Moskva.

NOVIKOVSKAYA, N.A.; STEPANOVA, A.G.; BLINOVA, V.I.

Determination of thiourea and disulfide impurities in thiomen  
dioxide. Trudy IREA no.25:252-257 '63.

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BLINOVA, V.L.; KRAVTSOVA, V.I.

Drainage map in the glacier atlas of Mount Elbrus. Inform.sbor.  
o rab.Geog.fak.Mosk.gos.un.po Mezhdunar. geofiz.godu no.9:93-102  
'62. (MIRA 16:2)

(Elbrus, Mount--Glaciers)  
(Elbrus, Mount--Drainage--Maps)

BLINOVA, V.I.

Studying the discharge of the Gara-Bashi River using the  
hydrochemical method. Inform.sbor.o rab.Geog.Fak.Mosk.gos.un.  
po Mezhdunar.geofiz.godu no.9:103-116 '62. (MIRA 16:2)  
(Gara-Bashi River--Runoff)

~~BLINOVA, V.M.~~; DEMIDOV, A.A.; KOLIN, Ya.S.; MAKUSHKIN, Ya.G.; MYZIN, L.M.;  
PERMYAKOV, N.P.; PONEDELKO, A.I.; BOROVIK, Z.G.; YEFREMOV, I.A.;  
KOPAYGORODSKIY, A.B.; MARINOV, A.M.; NEKHOROSHKOVA, O.I.; POKROVSKIY,  
A.F.; ROMANOVSKIY, A.A.; RASSADNIKOV, Ye.I., red.; SAVEL'YEV, V.I.,  
red.; FRIDKIN, A.M., tekhn.red.

[Electric power in the Urals during the past 40 years] Energetika  
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(MIRA 11:5)

(Ural Mountain region--Electric power)

BLINOVA, V.N., inzh.; KOZEL'SKIY, V.B., inzh.

Gas relay protection of transformers in power systems. Elek.sta. 29  
no.6:87 Je '58. (MIRA 11:9)  
(Electric transformers) (Electric relays)

BLINOVA, V.N., inzh.; KOZEL'SKIY, V.B., inzh.

Automatic unloading of electric power lines in Ural power  
systems. Elek.sta. 29 no.11:51-54 N '58. (MIRA 11:12)  
(Ural Mountain region--Electric power distribution)



BLINOVA, Ye.I.

Materials on the distribution of bottom vegetation in the region of the White Sea Biological Station of the Moscow State University. Trudy Belomor.biol.sta.MGU 1:22-34 '62. (MIRA 16:1)

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(White Sea--Algae) (White Sea--Benthos)

BLINOVA, Ye.I. (Murmansk)

Elgrass in the Barents Sea. Priroda 51 no.12:105 D '62.

(MIRA 15:12)

(Barents Sea--Elgrass)

BLINOVA, Ye.I.

Distribution and quantitative indices of commercial algae  
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no. 4:583-590 '65 (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo  
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1965.

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Vertical distribution and quantitative evaluation of macrophytes  
of Aynovy Islands (the Barents Sea). Trudy MMBI no.8:41-55 '65.

Epiphytes of Laminaria of the Murmansk Coast of the Barents Sea.  
Ibid.:56-62 (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut morskogo rybnogo  
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KOZHIN, N.I., prof., glav. red.; ABAKUMOV, V.A., zam. glav.  
red.; BLINOVA, Ye.N., red.; BYKOV, V.P., red.;  
MAKSIMOV, S.I., red.; ORADOVSKIY, S.G., red.;  
POLULYAK, S.I., red.; VELICHKO, Ye.M., red.

[Papers of young scholars] Trudy molodykh uchenykh.  
Moskva, Pishchevaia promyshlennost', 1964. 261 p.  
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1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
morskogo rybnogo khozyaystva i okeanografii. Vsesoyuznyy  
nauchno-issledovatel'skiy institut morskogo rybnogo kho-  
zyaystva i okeanografii, Moskva (for Abakumov, Blinova,  
Bykov).

BLINOVA, Ye. N.

"A Hydrodynamical Theory of Pressure and Temperature Waves and of Centers of Atmosphere Action," Dokl. AN SSSR, 39, No.7, 1943

Chief, Geophysics Observatory

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APPROVED FOR RELEASE: 08/22/2000

CIA-RDP86-00513R000205520012-4"

BLINOVA, YE. N.

USSR/Meteorology  
Temperature - Measurements

Jan 1947

"Average Yearly Distribution of Temperature in the  
Earth's Atmosphere Taking into Account the Continents  
and Oceans," Ye. N. Blinova, Cent Inst Prognosis,  
11 pp

"Izv Akad Nauk SSSR, Ser Geograf i Geofiz" Vol XI,  
No 1

Author solves problem of average yearly distribution  
of temperature in the earth's atmosphere. Radiation  
and turbulent heat conduction taken into account. In-  
stead of the temperature  $T$ , convenient to find the  
function  $F = f(\sigma^{-1})$ , where  $f$  is Hilbert's factor,  
50169

USSR/Meteorology (Contd)

Jan 1947

taking into account selective absorption, and  $\sigma$  the  
Stefan-Boltzmann constant. Problem leads to the  
solution of one linear partial differential equation  
for  $F(z, \theta, \psi)$ , where  $z$  is the height above the  
earth's surface, colatitude, and  $\psi$  longitude. Re-  
sults of calculation given, and compared with empiri-  
cal data. Submitted by Academician L. S. Leybenzon.

50169



*Blinnar, C. W.*

551.547.2  
 ✓ *Blinnar, E. N. K. vopros ob opredelenii davleniya na erovno moria.* [Determination of pressure at sea level.] *Akademiia Nauk SSSR, Doklady*, 92(3):557-560, Sept. 21, 1953, 29 eqs. ;DLC--In a previous paper (*Ibid.*, 39(7), 1943) the author developed a method for determining the average planetary pressure field over a large time interval for a given temperature field using an equation of FAIRMAN expressing the change of vortex vector in a given particle. The equation was projected along a vertical axis, and members with vertical velocity were neglected and the simplified equation was used to calculate the pressure for a mean synoptic level. In this paper these equations are solved without neglecting the members with vertical velocity. *Subject Headings:* 1. Sea level pressures. 2. Pressure fields. 3. Vertical velocity.—*I.L.D.*

*23/21*  
*geophys*

*68* *80* *650*

*B. I. V. A. A. A. A.*

T. F. W.

Blinova, E. N. A method of solution of the non-linear  
problem of atmospheric motions on a planetary scale

BLINOVA, Ye. N.

3(7)

p. 2, 3

PHASE I BOOK EXPLOITATION

SOV/1837

Akademiya nauk SSSR. Institut fiziki atmosfery

Raboty po dinamicheskoy meteorologii (Works on Dynamic Meteorology)  
Moscow, Izd-vo AN SSSR, 1958. 186 p. (Series: Its: Trudy, vyp. 2)  
1,500 copies printed.

Resp. Ed.: I.A. Kibel', Corresponding Member, USSR Academy of  
Sciences; Ed. of Publishing House: K.P. Gurov.

PURPOSE: The issue of the Institutes' Trudy [Transactions] is  
intended for scientists and research workers engaged in weather  
forecasting and climatology.

COVERAGE: This collection of articles represents the results of  
12 studies in dynamic meteorology, carried out from 1951  
through 1954. They treat weather forecasting techniques using  
the methods of dynamic meteorology as well as general  
theoretical questions in the study of climate. All authors,

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Works on Dynamic Meteorology

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except N.I. Buleyev and A.D. Christyakov, are associated with the Geofizicheskiy institut (Geophysical Institute of the Academy of Sciences). A.D. Christyakov and N.I. Buleyev are associated with the Tsentral'nyy institut prognozov (Central Institute of Forecasts), GUGMS. References accompany each article.

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23

Monin, A.S. Transformations of Energy in the Zonal Circulation of the Atmosphere

50

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SOV/1837

- Blinova, Ye. N. The Effect of Non-linear Terms in the Equations of Thermohydrodynamics When Solving a Problem Dealing With the Long-range Forecast of Meteorologic Elements 54
- Buleyev, N.I., and G.I. Marchuk. The Dynamics of the Large-scale Atmospheric Processes 66
- Blinova, Ye.N., and G.I. Marchuk. The Theory of the Annual Rate of a Purely Zonal Circulation 105
- Marchuk, G.I. The Annual Rate of the Circulation Index 114
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Card 3/4

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- Christyakov, A.D. Forecasting Temperature and Wind in the  
Upper Troposphere and the Lower Stratosphere 160
- Kogan, S.Ya. The Short-range Forecast of Pressure Field in  
the Central Troposphere With the Aid of the Linear  
Fridman's Equation 167
- Kogan, S.Ya. The Solution of a Non-linear Problem Related  
to the Short-range Forecast of Pressure Field 177

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6-15-59

Card 4/4

AUTHORS: Blinova, Ye. N., Corresponding Member AS USSR SOV/20-120-2-15/63  
Belousov, S. L.

TITLE: Non-Linear Non-Steady Problem of the Determination of the Planetary Flow Pattern at the Midlevel of the Atmosphere (Nelineynaya nestatsionarnaya zadacha opredeleniya poley davleniya planetarnogo masshtaba na srednem urovne atmosfery)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 2, pp. 281 - 284 (USSR)

ABSTRACT: In 1943 one of the authors of this paper recommended a hydrodynamic method for the long-term forecast of pressure fields and the flow lines at atmospheric midlevel. An equation for the vortex (a simplified equation by A.A.Fridman) and one of the Euler (Euler) equations were used for solving this problem. This aim was achieved by a linearization of the equations with respect to west-east transfer. The solution of the non-linear problem of long-term weatherforecast by the methods of hydrodynamics was facilitated by electronic computers. The most simple solution is obtained for the midlevel of the atmosphere. Some variants of such a solution were suggested in 1954. In this paper the methods

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Non-Linear Non-Steady Problem of the Determination of the SOV/20-120-2-15/63  
Planetary Flow Pattern at the Midlevel of the Atmosphere

and some results of the application of one of these variants are discussed. The equation for the flow function can be used as the initial equation, as was done previously:

$$\Delta \frac{\partial \psi}{\partial t} + \frac{1}{a_0^2 \sin \theta} (\psi, \Delta \psi) + 2 \omega \frac{\partial \psi}{\partial \lambda} = 0, \text{ where } a_0 \text{ and } \omega \text{ denote}$$

the radius and the angular velocity respectively of the earth. Further, the equation

$$\frac{\partial \psi}{\partial t} = - \frac{1}{4\pi a_0^2} \int_0^{2\pi} \int_0^{\pi/2} \ln \frac{1 - \cos \chi}{1 + \cos \chi} \left[ (\psi, \Delta \psi) + 2\omega a_0^2 \sin \theta' \frac{\partial \psi}{\partial \lambda'} \right]$$

: dθ' dλ' holds.

Let the function ψ be known. The forecast of the values of ψ can be achieved by means of time steps in the computation. Computation is discussed in short. The authors also make a few suggestions for the performance of this computation by means of electronic computers. The problem under discussion was carried

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Non-Linear Non-Steady Problem of the Determination of SOV/20-120-2-15/63  
Planetary Flow Pattern at the Midlevel of the Atmosphere

out with the BECM (Bol'shaya elektronnyaya schetnaya mashina AN SSSR) (great electronic computer of the AS USSR). Examples concerning the forecast of the absolute topography of the 700 millibar surface covering periods of up to 10 days are computed. One of these examples is illustrated by three figures. There are 3 figures and 3 Soviet references.

ASSOCIATION: Tsentral'nyy institut prognozov (Central Institute of Weather Forecast)

SUBMITTED: February 14, 1958

1. Planetary atmospheres--Theory
2. Weather forecasting
3. Mathematics--Applications

Card 3/3

3(7)

AUTHOR:

Blinova, Ye. N., Corresponding  
Member, Academy of Sciences, USSR

SOV/20-123-3-16/54

TITLE:

On the Problem of the Forecasting of the Smoothed Values of the  
Meteorological Elements at the Mean Level of the Atmosphere  
(K voprosu o prognoze sglazhennykh znacheniy meteorologicheskikh  
elementov na srednem urovne atmosfery)

PERIODICAL:

Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 3, pp 440-442  
(USSR)

ABSTRACT:

The field of the current function  $\psi$  on the mean level of the  
atmosphere may be calculated by means of the transport equation  
of the absolute curl

$$\frac{\partial \Delta \psi}{\partial t} + \frac{1}{a_0^2 \sin \theta} \left( \frac{\partial \psi}{\partial \theta} \frac{\partial \Delta \psi}{\partial \lambda} - \frac{\partial \psi}{\partial \lambda} \frac{\partial \Delta \psi}{\partial \theta} \right) + 2\omega \frac{\partial \psi}{\partial \lambda} = 0$$

$a_0$  denotes the radius of the Earth;  $\omega$  - the angular velocity of  
the Earth's revolution;  $\theta$  - the complement of the latitude;  
 $\lambda$  - the longitude (which increases from West to East) of the  
place;  $t$  - the time. Moreover it holds that

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$$\Delta \psi = \frac{1}{\sin \theta} \frac{\partial}{\partial \theta} \left( \sin \theta \frac{\partial \psi}{\partial \theta} \right) \frac{1}{\sin^2 \theta} + \frac{\partial^2 \psi}{\partial \lambda^2}$$

On the Problem of the Forecasting of the Smoothed SOV/20-123-3-16/54  
 Values of the Meteorological Elements at the Mean Level of the Atmosphere

The motion on the mean level of the atmosphere is assumed to be turbulent and the author endeavors to find a summarizing statistical description of this motion by means of the first equation. This investigation is carried out according to a method developed by L. V. Keller (Ref 1). The first equation contains only one function  $\psi(\theta, \lambda, t)$  and the author seeks the smoothed values  $\bar{\psi}(\theta, \lambda, t)$  of this function. The deviations from the smoothed values are denoted by  $\psi'(\theta, \lambda, t)$  so that  $\psi'(\theta, \lambda, t) = \psi(\theta, \lambda, t) - \bar{\psi}(\theta, \lambda, t)$ . Smoothing is then applied to the first equation. The equation deduced in this way (besides the sought function  $\bar{\psi}$ ) contains the 2 smoothed quantities

$\frac{\partial \psi'}{\partial \theta} \Delta \psi'$  ,  $\frac{\partial \psi'}{\partial \lambda} \Delta \psi'$  which may be expressed by the moments of correlation (moment svyazi). Calculations are discussed step by step and the final expression is given explicitly. Smoothing may be carried out by various methods.

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On the Problem of the Forecasting of the Smoothed Values of the Meteorological Elements at the Mean Level of the Atmosphere SOV/20-123-3-16/54

If it is carried out by averaging over a circle of latitude, a system of equations is obtained the solution of which can immediately give the forecast of the circulation index. There is 1 Soviet reference.

ASSOCIATION: Institut prikladnoy geofiziki Akademii nauk SSSR  
(Institute of Applied Geophysics of the Academy of Sciences, USSR)

SUBMITTED: August 6, 1958

Card 3/3

28413

S/169/61/000/007/073/104  
A006/A101

3,5000

AUTHOR: Blinova, Ye.N.

TITLE: On the theory of a long-range weather forecast by taking into account vertical velocities and fluctuations of the tropopause level

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 7, 1961, 69-70, abstract 7B431 (V sb. "Vopr. dinamich. meteorol.", Moscow, AN SSSR, 1960, 12-20)

TEXT: The present study solves the problem of a long-range pressure and temperature forecast with the attempt of taking into account the effect of vertical velocities and fluctuations of the tropopause level. Initial values are: the equation of the tropopause and conditions on it in spherical coordinates, written down for the tropopause altitude  $\xi(\theta, \lambda, t)$ ; the equation of continuity in spheric coordinates integrated over  $Z$  from 0 to  $\xi(\theta, \lambda, t)$  taking into account the condition on the tropopause the equations of motion along axes  $\theta, \lambda$  and the barometric formula. In the equations of motions those terms are neglected which contain the component of velocity along the radius. It is considered that the motion of the atmosphere consists of a purely zonal circulation and its disturbances. The velocity of the basic motion is represented through the angular ve-

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20413 S/169/61/000/007/073/104  
A006/A101

On the theory ...

locity of air motion in respect to the earth. If the pressure on the tropopause is equal to zero, the barometric formula serves to obtain the value of pressure at a purely zonal circulation and deviation from pressure. The equation of motion along axis  $\theta$  and the equation of pressure at a purely zonal circulation pre-determines the altitude of the tropopause. Linearization of the condition on the tropopause and of the equation of motion yields a formula for determining the elements of disturbance of velocity and pressure components. Instead of the disturbances of components it is convenient to take their products by the altitude of the tropopause, which are then replaced by the derivatives, with respect to the axes, of some functions  $\varphi$  and  $\psi$ . Three equations are obtained to determine  $\varphi$ ,  $\psi$  and  $\xi'$ . To integrate the obtained system of equations, the Haff method is employed. The solution is sought for in the form of a product of two functions one of which depends only on the latitude, and the other one on the longitude and time. To determine the unknown functions a uniform system of conventional differential equations is obtained. If the solutions are searched in the form of series in associated Legendre polynomials, an infinite system of algebraic equations for  $\xi'^m$  is obtained after eliminating the functions  $\varphi^m(\theta)$  and  $\psi^m(\theta)$ . Using the presence of a small parameter, in the system to be solved, the solution of equations may be represented by expansion in a series in powers of

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On the theory ...

this parameter. Assuming the altitude of the tropopause over the pole to be equal to infinity, terms with small parameters vanish. Representing the solution of the problem by series in spherical functions, the value  $\varphi$  is eliminated and already solved equations of long-range weather forecast are obtained. Taking this solution as an initial one (as the first approximation) the solution of the actual problem is represented with an accuracy up to the magnitude of first order in respect to the small parameter. The final solution for  $\varphi$ ,  $\psi$  and  $\xi$  is obtained in the form of the sum of associated Legendre polynomials with different coefficients, determined from boundary and initial data. As initial data the author uses the distribution of pressure for the northern hemisphere at the initial moment. When finding the distribution of vertical velocities, the following formula is taken as a basis:

$$v_{\lambda} = \frac{z}{a \sin \theta} \left[ \frac{\partial (v_{\theta} \sin \theta)}{\partial \theta} + \frac{\partial v_{\lambda}}{\partial \lambda} \right]$$

$V_{\theta}$  and  $V_{\lambda}$  are excluded by means of  $\psi$  and  $\varphi$  by the aforementioned method. Using the values found for  $\varphi$  and  $\psi$  an expression for vertical velocities is obtained. The formula obtained for the forecast of the field of vertical velocities is similar to formulae for pressure forecast.

[Abstracter's note: Complete translation]

N. Chuzavkova

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BĹINOVA, Ye.N.

Hydrodynamical investigation of nonstationary atmospheric processes  
on a planetary scale. Dokl. AN SSSR 140 no.2:354-357 S '61.

(MIRA 14:9)

1. Ob'yedinennyy meteorologicheskyy vychislitel'nyy tsentr AN SSSR  
i Gidrometeorologicheskoy sluzhby SSSR. Chlen-korrespondent AN SSSR.  
(Geophysics) (Atmosphere)



BLINOVA, Ye.N.

Hydrodynamical theory of climates and long-range weather forecasting.  
Dokl. AN SSSR 140 no.3:571-574 S '61. (MIRA 14:9)

1. Член-корреспондент Академии Наук СССР  
и Гидрометеорологической службы СССР. Член-корреспондент АН СССР.  
(Climatology) (Weather forecasting)

BLINOVA, Ye. N.

Three-dimensional problem concerning the forecasting of  
flattened values of meteorological elements, Dokl. AN SSSR  
147 no.6:1355-1358 D '62. (MIRA 16:1)

1. Vychislitel'nyy meteorologicheskij tsentr. Chlen-korrespondent  
AN SSSR.

(Weather forecasting)

ACCESSION NR: APh0114029

S/0049/64/000/001/0110/0123

AUTHOR: Blinova, Ye. N

TITLE: The status and immediate objective of the hydrodynamic theory of climate and of long range weather prediction [Presented at the Symposium on Numerical Methods of Weather Prediction, Moscow, 24 June 1963]

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 1, 1964, 110-123

TOPIC TAGS: hydrodynamic theory, hydrodynamic climate theory, weather prediction, weather forecasting, long-range weather prediction, long-range forecasting, boundary value problem, thermodynamics

ABSTRACT: The author gives a brief survey of modern hydrodynamical methods of short- and long-range forecasting. Basic trends in developing a theory of climate and of long-range forecasting are discussed. Previous works on the hydrodynamical theory of climate have developed a theory that permits one, for a given configuration of continents and oceans and for a given influx of solar heat, to determine the basic features of climatic distribution of temperature, pressure, and wind (in which there is a yearly period) by solving the boundary value problem of

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ACCESSION NR: AP4014029

thermodynamics. This theory may now be refined and, at the same time, generalized for the problem of long-range weather forecasting in which processes with a yearly period are not distinguished but are examined together with nonperiodic processes (depending on initial data). Beginning with velocity functions that neglect previous quasigeostrophic or quasisolenoidal movements, the author derives expressions for the various parameters required in any adequate climatic theory to permit long-range forecasting. Work of this kind should make it possible not only to extend the forecasting interval and to improve the quality of the predictions, but it should aid in solving the basic questions on hydrodynamics and thermodynamics of atmospheric movements on a planetary scale. And, in particular, it should aid in solving problems associated with the goal of controlling climate. Orig. art. has: 23 formulas.

ASSOCIATION: Vy\*chislitel'ny\*y meteorologicheskij tsentr (Meteorological Computing Center)

SUBMITTED: 19Jul63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: AS

NO REF SOV: 016

OTHER: 002

Card 2/2

BLINOVA, Ye.N.

Determining the initial wind and pressure fields from the distribution of temperatures and the vertical motions of air. Dokl. AN SSSR 149 no.4:824-826 Ap '63. (MIRA 16:3)

1. Vychislitel'nyy meteorologicheskiy tsentr. Chlen-korrespondent AN SSSR.

(Atmospheric pressure) (Winds)

BLINOVA, Ye.N., otv.red.; NIKOLAYEVA, L.K., red.izd-va; VOLKOVA,  
V.V., tekhn. red.; MAKUNI, Ye.V., tekhn. red.

[Hydrodynamic long-range weather forecasting] Gidrodinami-  
cheskii dolgosrochnyi prognoz pogody. Moskva, Izd-vo  
"Nauka," 1964. 105 p. (MIRA 17:2)

1. Akademiya nauk SSSR. Ob"yedinennyi meteorologicheskii  
vychislitel'nyi tsentr. 2. Chlen-korrespondent AN SSSR (for  
Blinova).

ACCESSION NR: AT4034671

S/0000/64/000/000/0005/0018

AUTHOR: Blinova, Ye. N.

TITLE: The hydrodynamic theory of climate and long-range weather forecasting

SOURCE: AN SSSR. Ob'yedinenny\* meteorologicheskij vy\*chislitel'ny\* tsentr. Gidrodinamicheskij dolgosrochny\* prognoz pogody\* (Hydrodynamic long-range weather forecasting). Moscow, Izd-vo "Nauka," 1964, 5-18

TOPIC TAGS: meteorology, weather forecasting, long-range weather forecasting, climate, climatology, climate theory

ABSTRACT: In earlier studies (Dokl. AN SSSR, 140, No. 2, 1961; Dokl. AN SSSR, 140, No. 3, 1961) the author reduced the problem of long-range forecasting of meteorological elements to the solution of a system of differential equations describing not only aperiodic processes, but also processes possessing an annual period (climatic processes). On the basis of this initial work the author now has proposed a specific scheme for solution of the derived system of differential equations. The paper begins with a general consideration of the problem, followed by a detailed solution of the equations and selection of numerical values of the parameters in the problem. The forecasting problem is solved in time steps. All equations in the problem are written so that an implicit system is obtained relative to the

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ACCESSION NR: AT4034671

Linear terms. Orig. art. has: 62 formulas and 2 tables.

ASSOCIATION: Ob'yedinennyy meteorologicheskii vy\*chislitel'nyy tsentr (Joint Meteorological Computation Center)

SUBMITTED: 22Nov63

DATE ACQ: 16Apr64

ENCL: 00

SUB CODE: ES

NO REF SOV: 005

OTHER: 004

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BLINOVA, Ye.N.

State and prospects of the development of the hydrodynamic theory  
of climate and long-range weather forecasting. Trudy MMTs no.2:  
3- 20 '64 (MIRA 18:1)

L 4572-66 EWT(1)/PCC CW

ACC NR: AT5024853

SOURCE CODE: UR/3118/65/000/005/0003/0013

AUTHOR: Blinova, Ye. N.

ORG: World Meteorological Center (Mirovoy meteorologicheskij tsentr)

TITLE: Computation scheme for hydrodynamic long-range weather forecasting

SOURCE: Mirovoy meteorologicheskij tsentr. Trudy, no. 5, 1965. Dinamika atmosferykh dvizheniy planetarnogo masshtaba i gidrodinamicheskij dolgosrochnyy prognoz pogody (Dynamics of atmospheric movements in a planetary scale and hydrodynamic long-range weather forecasting), 3-13

TOPIC TAGS: atmospheric movement, hydrodynamics, weather forecasting

ABSTRACT: A detailed computation scheme was prepared for long-range weather forecasting on the basis of hydrodynamic theory of climactic conditions. The parameter characterizing the altitude is given by

$$\xi = \frac{\tilde{p}(z)}{p(0)}$$

and the computation is carried out at altitudes  $\xi = 0.1, 0.5, 0.9,$  and  $1.0$  for

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PROCESSING AND PROPERTY INDEX

*Blind 21*

**Production of granitol from used cinematographic films.**  
 Z. A. Blinnova. *Lepkova Prom.* 2, No. 7/8, 21-2 (1942).—  
 It has been detd. exply. that used films can be used for the  
 production of the leather substitute, granitol. The  
 scarce solvents used in the process (EtOH, acetone, etc.)  
 can be replaced by AcOH, AcOEt, and solvent 146  
 (AcOH 15, AcOEt 15, BuOH 15, and benzene 55%) and  
 the diluents (EtOH and benzene) by BuOH and gasoline.  
 W. R. Henn

METALLURGICAL LITERATURE CLASSIFICATION

ASSOCIATION OF METALLURGICAL ENGINEERS

MATERIALS INDEX

COMMON VARIETIES INDEX

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ca  
1951

BLINCOVA, Z.A.

Elastomers

Aging of rubbers and their vulcanizates used in making synthetic leather. Z. A. Blinova. *Light Prom.* 11, No 3, 37-4(1951); cf. following abstr. Characteristics of natural, butadiene styrol, Na butadiene, chloroprene, polyisobutylene, and Butyl rubbers are discussed.  
H. Z. Kamich