

BORISONIK, Z.B., kand. sel'skokhozyaystvennykh nauk; YANITSKIY, V.I., starshiy nauchnyy sotrudnik

How deep to plow bare fallows in arid steppes of the Ukraine.
Zemledelie 7 no.11:88-91 N '59 (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy.
(Ukraine--Fallowing) (Plowing)

BORISOV, A.

Diver Sergeyev. Rech.transp. 23 no.11:10 N '64.

(MIRA 18:3)

BORISOV, A., kand.ekon.nauk (Leningrad)

Moving small buildings. Zhil.-kom.khoz. 9 no.10:14-16
'59. (MIRA 13:2)

(Moving of buildings, bridges, etc.)

BORISOV, A.; TUL'SKIY, V.

Motor vehicles in people's Poland. Za rul. 16 no.3:10-11 Mr '58.
(MIRA 13:3)

(Poland--Transportation, Automotive)

AID P - 311

Subject : USSR/Aeronautics
Card : 1/1
Author : Borisov, A., Col.
Title : War Radioactive Products
Periodical : Vest. Vozd. Flota, 7, 82-86, J1 1954
Abstract : A review of U.S. publications on radioactive products.
Diagrams.
Institution : None
Submitted : No date

BORISOV, A.

"Cities of Omsk Province" by M.K. Urasova. Reviewed by A.
Borisov. Geog. v shkole 23 no. 6:91-92 N-D '60.
(MIRA 13:11)

(Omsk Province--Cities and towns)
(Urasova, M.K.)

BORISOV, A.; KLIMOVA, Ye.

Simplified method of manufacturing raw-smoked sausage. Mias.ind.
SSSR 33 no.2:21 '62. (MIRA 15:5)

1. Kolbasnyy zavod No.2 Leningradskogo myasokombinata.
(Sausages)

BELKIN, A.; BORISOV, A.; GENIN, B.; GUSLITSER, I.; GRUZDEV, V.; DICH, S.;
DUSEYEVA, Ye.; YEGOROVA, A.; ZAK, S.; KAZYMOV, A.; KRUPENNIKOVA, Ye.;
KONKIN, A.; MOGILEVSKIY, Ye.; PAKSHVER, A.; SMELKOV, G.;
CHICHKHIANI, A.; CHUGUNOV, K.; SHIFRIN, L.; YUNOVICH, E.

Sergei Alekseevich Tairov. Khim.volok. no.3:79 '62.
(MIRA 16:2)
(Tairov, Sergei Alekseevich)

ALEKHIN; BORISOV; VOLKOV; GRIGOR'YANTS; GRUZDEV; DICH; DUSEYEVA;
LAVRUSHIN; LOPINSKIY; IVANOVA;; KONKIN; MEOS; MIKHAYLOV;
MOGILEVSKIY; PAKSHVER; ROGOVIN; TAIROV; SHIFRIN

Deserving workers of the synthetic fibers industry. Khim.
volok. no.3:79 '61. (MIRA 14:6)
(Birger, Georgii Efimovich, 1886)

BORISOV, A.

"Underdeveloped countries in the world capitalistic economy" by
V. Rymalov, V. Tiagunenko. Reviewed by A. Borisov. Vnesh. torg.
42 no.9:47-50 '62. (MIRA 15:9)
(Underdeveloped areas—Commerce) (Rymalov, V.)
(Tiagunenko. V.)

BORISOV, A.

Attention to problems of economy and thrift. Form. Vooruzh. S11
5 no.19:38-44 0 '64. (MIRA 17:12)

1. Inspektor Komiteta partiyno-gosudarstvennogo kontrolya
TSentral'nogo Komiteta Kommunisticheskoy partii Sovetskogo
Soyuza i Soveta Ministrov SSSR.

BORISOV, A., starshiy pomoshnik kapitana.

Marking the load line from the water level at various draw differentials.
Mor.i rech.flot 13 no.6:28 0 '53. (MIRA 6:10)
(Load line)

BORISOV, A.

Production of synthetic protein casings. Mias.ind.SSSR 32
no.6:13-14 '61. (MIRA 15:2)

1. Leningradskiy kolbasnyy zavod No.2.
(Sausage casings)

BORISOV, A.

stands as good as his work. Veterinaria 41 no.12:7-8 D '64.
(MIRA 18: 9)

BORISOV, A.

On the forward edge of the fight for a system of economy. Komm.
Vooruzh. Sil 46 no.12:50-55 Je '65. (MIRA 18:10)

1. Inspektor Komiteta partiyno-gosudarstvennogo kontrolya
TSentral'nogo Komiteta KPSS i Soveta Ministrov SSSR.

BORISOV, A.A., doktor geogr. nauk, prof.; ZNAMENSKAYA, O.M., kand. geogr. nauk; BLAGOVIDOV, N.L., kand. sel'khoz. nauk; MINYAYEV, N.A., kand. biol. nauk; SHUL'TS, G.E., kand. biol. nauk; RODIONOV, M.A., kand. biol. nauk; MAL'CHEVSKIY, A.S., prof., doktor biol. nauk; TOMSON, N., doktor med. nauk, prof., akademik; VERESHCHAGIN, N.K., doktor biol. nauk; NEYELOV, A.V., aspirant; TYUL'PANOV, N.M., inzh. lesnogo khoz.; KUROVSKIY, G.I., inzh.-parkostroitel'; SOKOLOV, M.P., arkhitekt; SOKOLOV, S.Ya., doktor biol. nauk, prof., nauchn. red.; MAL'CHIKOVA, V.K., red.

[Nature of Leningrad and environs] Priroda Leningrada i okrestnostei. Leningrad, Lenizdat, 1964. 249 p.

(MIRA 17:7)

1. Akademiya nauk Estonskoy SSR (for Tomson). 2. Zoologicheskii institut AN SSSR (for Neyelov).

BORISOV, A. (Parnu, Estonskoy SSR)

Fascinating initiative. Za rul. 21 no.1:2 Ja '63.

1. Spetsial'nyy korrespondent zhurnala "Za rulem". (MIRA 16:1)
(Parnu—Karting)

BORISOV, A.A.; KOGARKO, S.M.; SKACHKOV, G.I.

Spontaneous ignition in systems with unbranched chain reactions.
Dokl. AN SSSR 162 no.2:366-369 My '64. (MIRA 18:5)

1. Institut khimicheskoy fiziki AN SSSR. Submitted November 11, 1964.

~~1-63760-8~~ EWI(m)/EPA/EPF(c)/EWA(c) NW/JW

ACCESSION NR: AP5018085 UR/0020/65/163/001/0129/0132

AUTHOR: Borisov, A. A.; Skachkov, G. I.

TITLE: Spontaneous thermal chain combustion in systems with energy branchings

SOURCE: AN SSSR. Doklady, v. 163, no. 1, 1965, 129-132

TOPIC TAGS: spontaneous combustion, chain combustion, energy branching, oscillationally excited molecule, hydrogen fluoride, halogen fluoride, ignition delay, heat balance

ABSTRACT: The possibility of energy branchings during the fluorination of hydrogen is well-known. Currently the reaction $HF^* + F_2 \rightarrow 2F + HF$ (where HF^* is oscillationally excited energy-rich molecule of hydrogen fluoride) encounters no theoretical objections and has been reasonably confirmed by experiment. The possibility of a branching of this type in the system $H_2 + Cl_2$, on the other hand, still has not been investigated. Since the concentration and lifetime of energy-rich molecules of HX^* are small, their experimental detection is extremely difficult. The effect of oscillationally excited molecules on the course of the reaction must therefore be assessed according to the overall effects such as the

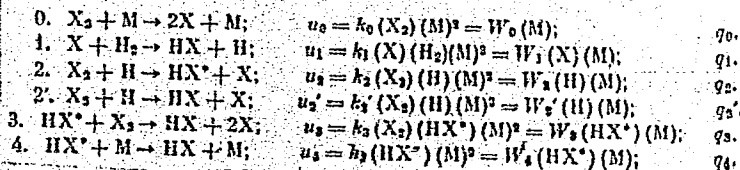
Cord 1/3

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L 63760-65

ACCESSION NR: AP5018085

ignition limits and ignition delays. According to the author, the scheme of the chain reaction of the thermal chlorination or fluorination of hydrogen is:



where H and X are atoms of hydrogen and halogen, respectively; M is any particle; u_i , q_i , and k_i are the rates, thermal effects, and rate constants of the elementary reactions. Proceeding from a system of kinetic differential equations and the equation of energy conservation for the case of ignition under adiabatic conditions, the author derives equations of the total ignition delay and ignition limit. The accuracy of the analytic expression derived for the delay in spontaneous thermal chain combustion in a system with energy branchings is verified by means of a numerical integration of the kinetic equations and the equation of heat balance. The obtained expression may be used to determine the ratios $W_1 W_2 W_3 / (W_1 + W_2 + W_2') (W_3 + W_4)$. If W_1 and W_2' are known, the ratio $W_2 W_3 / W_4$ may be

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ACCESSION NR: AP5018085

calculated (since $W_3 \ll W_4$). Orig. art. has: 1 figure, 15 formulas.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR)

SUBMITTED: 22Dec64

ENCL: 00

SUB CODE: NP, G-C

NO REF SOV: 003

OTHER: 000

slk
Card 3/3

L 15269-66 EWT(m)/EPF(n)-2/T/EWP(t)/EWP(b) IJP(c) JD/WW/JW/JWD

ACC NR: AP6004425

SOURCE CODE: UR/0414/65/000/003/0010/0019 73

AUTHOR: Borisov, A. A. (Moscow); Kogarko, S. M. (Moscow); Skachkov, G. I. (Moscow) 83

ORG: none

TITLE: Composite thermal and branched-chain autoignition in hydrogen-chlorine mixtures

SOURCE: Fizika goreniya i vzryva, no. 3, 1965, 10-19

TOPIC TAGS: combustion kinetics, hydrogen, chlorine, argon, gas dissociation, dissociation constant

ABSTRACT: The authors studied delays in combustion as a function of temperature in chlorine-hydrogen-argon mixtures in the 600-1400°K range. Mixtures of equal amounts of hydrogen and chlorine were studied with additions of 50% and 80% argon. Curves are given showing combustion delay as a function of temperature. An analytical expression is given for the rate constant of chlorine dissociation in terms of the various characteristics of branched-chain and thermal combustion in a mixed gas system. A comparison of the rate constants for thermal dissociation of molecular chlo-

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UDC: 536.46

L 15269-66

ACC NR: AP6004425

rine calculated from this formula with respect to the hydrogen-chlorine and methane-chlorine interactions shows satisfactory agreement at high temperatures. At lower temperatures, the rate constant for chlorine decay is considerably higher when calculations are made with respect to the hydrogen reaction than when the methane interaction is used. It is shown that the divergence in the rate constants calculated from data on thermal chlorination of methane and hydrogen cannot be explained by experimental error nor by errors in calculation. Two theoretical mechanisms are proposed to explain the contradiction. These two schemes are reduced to a single system. The heat balance equation for the process in adiabatic conditions is given. Analytical expressions are derived for calculating combustion delays. Orig. art. has: 5 figures, 9 formulas.

SUB CODE: 21/

SUBM DATE: 15Jan65/

ORIG REF: 006/

OTH REF: 002



Card 2/2

POPOV, G.N.; GORODETSKIY, P.I., professor, doktor tekhnicheskikh nauk, retsenzent; POLYAKOV, N.N., dotsent, retsenzent; SHABLYGIN, A.I., dotsent, retsenzent; BORISOV, A.A., dotsent, retsenzent; NEKRASOVSKIY, Ya.E., professor doktor tekhnicheskikh nauk, retsenzent.

[Working mineral deposits] Razrabotka mestorozhdenii poleznykh iskopayemykh. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1953. 531 p. (MLRA 7:4)

1. Kafedra razrabotki rudnykh mestorozhdeniy Leningradskogo gornogo instituta (for Shablygin, Polyakov, Borisov). 2. Zaveduyushchiy kafedroy P.I.Gorodetskiy. (Mining engineering)

BORISOV, A.A., kandidat tekhnicheskikh nauk.

New techniques in mining level coal strata. Bezop. truda v prom. 1
no.4:12-14 Ap '57. (MIRA 10:6)

1. Leningradskiy gornyy institut.
(Coal mines and mining)

BAKINOV, G.P.; BOKIY, B.V.; BOKIY, O.B.; BORISOV, A.A.; BORISOV, D.F.;
VAYPOLIN, A.F.; GALAYEV, N.Z.; GOLOVIN, G.M.; GORODETSKIY, P.I.;
DUBRAVA, T.S.; ZOLOTAREV, N.D.; KAZAKOVSKIY, D.A.; KELL', L.N.;
KOMAROV, V.B.; MAKHO, Ye.Ya.; MISHIK, Yu.M.; MUSTAL', P.I.;
PISKUNOV, I.N.; SEMEVSKIY, V.N.; KHANUKAYEV, A.N.; SHABLYGIN, A.I.;
POPOV, V.M.

Aleksandr Mikhailovich Aliamskii; an obituary. Gor. zhur. no.2:
76-77 '58. (MIRA II:3)
(Aliamskii, Aleksandr Mikhailovich, d. 1957)

BORISOV, A. A. (Leningrad Mining Inst.)

"The Application of Conveying Systems."

report presented at a Sci.-Tech. Conf. on Improving the Exploitation System
in coal Beds, called by Mining Inst, AS USSR, at Prokop'yevsk 20-22 Jan 1958.
(Vest. Ak Nauk SSSR, '58, No.4, 105-7, author Lyakhov, G. M.)

BORISOV, A.A.

Trends in establishing mining systems for thin and medium
thickness seams. Zap.Len.gor.inst. 36 no.1:30-37 '58.

(MIRA 12:4)

(Coal mines and mining)

31304
S/124/61/000/010/039/056
D251/D301

11.7100
AUTHORS:

Borisov, A.A., Kogarko, S.M. and Lyubimov, A.V.

TITLE:

On applying shock tubes to the investigation of chemical reactions

PERIODICAL:

Referativnyy zhurnal. Mekhanika, no. 10, 1961, 91, abstract 10 B639 (Zh. prikl. mekhan. i tekhn. fiz., 1960, no. 3, 175-183)

TEXT:

By the method of penumbral photoanalysis, the distribution is investigated of shock waves within a shock tube filled in one case with argon or nitrogen and in the other with the mixture 97% Ar + 3% (11/12 O₂ + 1/12 C₇H₁₆). Measurement of the time of existence of stationary conditions behind the wave, reflected from the end of the shock tube established that the experimental value of this time differs considerably from that obtained from the theory. In the investigation of an exothermic reaction after reflection from the end and incidence on the end of the shock waves, it was estab-

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D251/D301

On applying shock tubes...

lished that even with a strong dilution of the reagents by an inert gas the reaction has an explosive character with the formation of intensive compression waves behind the reflected wave. In these conditions an empirical formula is obtained for the time of ignition delay τ (in sec) $\tau = 10^{-7} p^{-1.8} \exp(C/RT)$, where p is the initial pressure for the reaction (3 ± 20 atm), T is the temperature ($2400 \pm 1500^\circ K$), $C = 30,000$ cal/mole, R is the gas constant. The authors conclude that the investigation of exothermic reactions behind the reflected wave in shock tubes, by the registration of the velocity of the reflected shock wave, is complicated by interaction with the flow behind the incident wave and the breakdown of uniformity of pressure behind the reflected wave. In this connection, the region of applicability of the method of reflected shock waves as a means of measuring the ignition delay is limited to mixtures strongly diluted by inert gases and at not too great Mach numbers of the incident waves. It is shown that in investigating exothermic reactions behind the incident waves, the consideration arises of the absence of an ideal homogeneous picture with a plane

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D251/D301

On applying shock tubes...

front of the shock wave and homogeneous combustion. [Abstracter's
note: Complete translation]

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X

BORISOV, A. A.

Doc Tech Sci - (diss) "New methods of investigation and calculations of mining pressure in lava of slanting layers." Leningrad, 1961. 48 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Leningrad Orders of Lenin and Labor Red Banner Mining Inst imeni G. V. Plekhanov); 250 copies; price not given; (KL, 5-61 sup, 186)

GORODETSKIY, P.I., prof., red.; BORISOV, A.A., dots., red.;
SMIRENSKIY, M.M., red. ~~Izd-va~~; IL'INSKAYA, G.M., tekhn.
red.; PROZOROVSKAYA, V.L., tekhn. red.

[Theory of rock pressure] Voprosy teorii gornogo davlenia.
Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu,
1961. 299 p. (MIRA 15:2)

1. Leningrad. Gornyy institut.
(Rock pressure) (Mining engineering)

FEDYNSKIY, V.V., doktor fiziko-matem. nauk, red.; SHIROKOV, A.S., red.; KOVALEVA, A.A., red.; GRATSIANOVA, O.P., nauchn. red.; BORISOV, A.A., nauchn. red.; FEDYUK, V.I., nauchn. red.; KOTLYAREVSKIY, B.V., nauchn. red.; POMERANTSEVA, I.V., nauchn. red.; MOZZHENKO, A.N., nauchn. red.; LOZINSKAYA, A.M., nauchn. red.; SHNEYERSON, M.B., nauchn. red.; BOGDANOV, A.Sh., nauchn. red.; NIKITSKIY, V.Ye., nauchn. red.; KUDYMOV, B.Ya., nauchn. red.; PETROV, L.V., nauchn. red.; KOMAROV, S.G., nauchn. red.; GORBUNOV, G.V., nauchn. red.; DUNCHENKO, I.A., nauchn. red.; FEL'DMAN, I.I., nauchn. red.; POMETUN, D.Ye., nauchn. red.; BEKMAN, Yu.K., ved. red.; VORONOVA, V.V., tekhn. red.

[Status and prospects for developing geophysical methods for mineral prospecting] Sostoianie i perspektivy razvitiia geofizicheskikh metodov poiskov i razvedki poleznykh iskopaemykh; materialy. Pod red. V.V. Fedynskogo. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 623 p. (MIRA 14:11)

1. Nauchno-tekhnicheskaya geofizicheskaya konferentsiya, Moscow, 1959.
2. Ministerstvo geologii i okhrany neдр SSSR (for Fedynskiy, Petrov). (Prospecting—Geophysical methods)

BORISOV, A.A.; KOSYGIN, Yu.A.

Using geophysical investigation methods in studying tectonic structures. Metod. izuch.tekt.struk. no.2:142-219 '61.

(MIRA 14:8)

(Geology, Structural) (Prospecting--Geophysical methods)

BORISOV, Aleksey Alekseyevich; CHECHKOV, L.V., red. izd-va; PRONINA, N.D., tekhn. red.

[New methods of designing and calculating rod bolting] Novye metody rascheta shtangovoi krepki. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1962. 62 p.

(MIRA 15:3)

(Mine timbering)

BORISOV, A. A.

Spatial regularities of petroleum and gas deposits. Analele
geol geogr 16 no.1:39-44 Ja-Mr '62.

BORISOV, A. A.

Nitriding instead of cementation. Mashinostroitel' no.10:29
0 '62. (MIRA 15:10)

(Case hardening)

AMURSKIY, G.I.; BORISOV, A.A.

Manifestation of regional faults in the sedimentary cover of Turkmenia. Izv. AN SSSR. Ser. geol. 29 no.9:30-41 S '64.

(MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki i Tsentral'naya kompleksnaya tematicheskaya ekspeditsiya Upravleniya geologii i okhrany neдр pri Sovete Ministrov Turkmenskoy SSR, Ashkhabad.

L 6487-66 EWT(m)/EPF(c)/EWP(j)/I/ETC(m) RPL WW/JW/RM

ACC NR: AP5028022 SOURCE CODE: UR/0405/65/000/001/0015/0024

AUTHOR: Borisov, A. A.; Kogarko, S. M.; Skachkov, G. I. 68
B

ORG: None

TITLE: Self-ignition of methane-chlorine mixtures 744.56

SOURCE: Nauchno-tehnicheskiye problemy goreniya i vzryva, no. 1, 1965, 15-24

TOPIC TAGS: methane, chlorine, ignition, ignition lag, ignition test, exothermic effect, heat of reaction, chemical reaction kinetics, reaction rate

ABSTRACT: Studies of the kinetics of exothermic high temperature reactions often use methods related to the determination of ignition delays. Although the magnitude of such delays is easy to determine experimentally, the theoretical results yield only overall kinetic characteristics which may be used for qualitative estimates of the mechanism and the chemical reaction rate. In certain cases relationships between the ignition lag and the chemical reaction rate constants may be written down in the form of analytic expressions, which, however, must be analyzed as to their accuracy and applicability. The present authors carry out such an analysis on the example of the chlorination reaction of methane. Following the general formulation of the problem, the authors 1) investigate experimentally the relatively large ignition lags in the low and intermediate temperature regions, 2) describe the details of the chlorination process viewing it as a classical $H_2 + Cl_2$ chain reaction (justified by the

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ACC NR: AP5026022

results of photochemical and thermal chlorination studies), and discuss (on the basis of data from the literature) various problems concerning molecular dissociation, 3) emphasize the need for the establishment of a quantum mechanical model of the decay of diatomic molecules which would explain the magnitudes of pre-exponents which exceed by many times the number of collisions, and 4) discuss the origin and magnitude of the various components of the experimental error during reaction rate determinations. At high temperatures the values of the chlorine decomposition constant obtained by various indirect and direct methods are in good mutual agreement. This is not the case in the low temperature region where the ignition lag theory should be most accurate, and no satisfactory comparison of the theoretical and experimental data has yet been achieved. The recombination coefficient, k_r , of chlorine within the 600 - 1500K interval is given by $k_r = 10^{34.17 + 2509/T}$. Orig. art. has: 34 formulas and 7 figures.

SUB CODE: GC, FP / SUBM DATE: 30Dec64 / ORIG REF: 003 / OTH REF: 007

beh.
Card 2/2

BORISOV, A.A.

Geophysical characteristics of platform areas. Geotektonika
no.3:3-13 My-Je '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh
metodov razvedki.

BORISOV, A.A.

Quantitative indices of paleoclimates on the U.S.S.R. territory in various geological periods. Izv. Vses. geog. ob.-va 97 no.2:155-159
Mr-Apr '65. (MIRA 18:5)

BORISOV, A.A.; YERMOLAYEV, M.M.; KATTERFEL'D, G.N.; KOZLOV, V.V.; KOZYREV, N.A.;
LOZINA-LOZINSKIY, L.K.; LYUBARSKIY, K.A.; SUSLOV, A.K.; FROLOV, P.M.;
KHODAK, Yu.A.

Nikolai Ivanovich Kucherov, 1891-1965; obituary. Izv. Vses. geog.
ob-va 97 no.4:388-390 JL-Ag '65. (MIRA 18:8)

~~L 63760-65~~ EWT(m)/EPA/EFF(c)/EWA(c) WA/JW

ACCESSION NR: AP5018085

UR/0020/65/163/001/0129/0132

44
23
B

AUTHOR: Borisov, A. A., Skachkov, G. I.

TITLE: Spontaneous thermal chain combustion in systems with energy branchings

SOURCE: AN SSSR. Doklady, v. 163, no. 1, 1965, 129-132

TOPIC TAGS: spontaneous combustion, chain combustion, energy branching, oscillationally excited molecule, hydrogen fluoride, halogen fluoride, ignition delay, heat balance

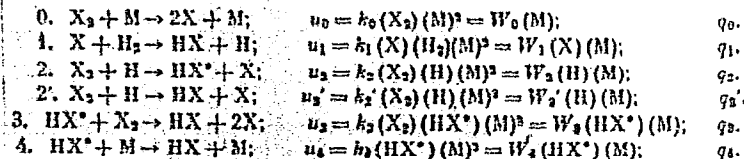
ABSTRACT: The possibility of energy branchings during the fluorination of hydrogen is well-known. Currently the reaction $HF^* + F_2 \rightarrow 2F + HF$ (where HF^* is oscillationally excited energy-rich molecule of hydrogen fluoride) encounters no theoretical objections and has been reasonably confirmed by experiment. The possibility of a branching of this type in the system $H_2 + Cl_2$, on the other hand, still has not been investigated. Since the concentration and lifetime of energy-rich molecules of HX^* are small, their experimental detection is extremely difficult. The effect of oscillationally excited molecules on the course of the reaction must therefore be assessed according to the overall effects such as the

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L 63760-05

ACCESSION NR: AP5018085

ignition limits and ignition delays. According to the author, the scheme of the chain reaction of the thermal chlorination or fluorination of hydrogen is:



where H and X are atoms of hydrogen and halogen, respectively; M is any particle; u_i , q_i , and k_i are the rates, thermal effects, and rate constants of the elementary reactions. Proceeding from a system of kinetic differential equations and the equation of energy conservation for the case of ignition under adiabatic conditions, the author derives equations of the total ignition delay and ignition limit. The accuracy of the analytic expression derived for the delay in spontaneous thermal chain combustion in a system with energy branchings is verified by means of a numerical integration of the kinetic equations and the equation of heat balance. The obtained expression may be used to determine the ratios $W_1W_2W_3/(W_1 + W_2 + W_2')(W_3 + W_4)$. If W_1 and W_2' are known, the ratio W_2W_3/W_4 may be

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ACCESSION NR: AP5018085

calculated (since $W_3 \ll W_4$). Orig. art. has: 1 figure, 15 formula;

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR)

SUBMITTED: 22Dec64

ENCL: 00

SUB CODE: NP, G-C

NO REF SOV: 003

OTHER: 000

plh
Card 3/3

L 2933-66 EWT(m)/EPF(c)/EWP(j)/T/EWA(c) WE/RM

ACCESSION NR: AP5023369

UR/0020/65/164/001/0125/0126

AUTHORS: Borisov, A. A.; Kogarko, S. M.; Lyubimov, A. V.

TITLE: On the instability of a liquid surface during sliding of detonation and impact waves upon it

SOURCE: AN SSSR. Doklady, v. 164, no. 1, 1965, 125-126 and top half of ineert facing page 126

TOPIC TAGS: liquid surface, impact wave, detonation wave, glycerin, flash point, cetane

ABSTRACT: The effect of sliding detonation and impact waves on a liquid surface and the flash points of the vapors resulting from the passage of the waves over the liquid surface were determined. The rate of gas flow over the liquid surface in all experiments performed exceeded the critical velocity U_0

$$U_0 < \frac{4\alpha g \rho}{\rho_1}$$

where α is the surface tension coefficient, g - acceleration due to gravity, ρ - the density of the liquid, and ρ_1 the gas density behind the wave front. Photographs of the disturbance produced on the surface of glycerin by the passage of detonation waves over it are presented. The waves were produced by the explosion of
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L 2933-66

ACCESSION NR: AP5023369

an oxygen-hydrogen mixture. Flash points of kerosene and cetane vapors produced by oxygen impact waves were determined. It was found that the flash point of the vapor-oxygen mixture was dependent on the Mach number. A cetane-oxygen mixture ignites at Mach number 2.1 and a cetane-air mixture at Mach number 2.6. Orig. art. has: 1 equation. [Abstracter's note: no photographs are included in the present article.]

ASSOCIATION: Institut khimicheskoy fiziki, Akademii nauk SSSR (Institute for Chemical Physics, Academy of Sciences, SSSR); Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-Physics Institute) 44,55

SUBMITTED: 06Feb65

ENCL: 00

SUB CODE: GC, ME

NO REF SOV: 004

OTHER: 001

PC

Card 2/2

BORISOV, A.A., inzh.

Reducing deformations of heavy loaded parts subjected to heat
treatment. Mashinostroenie no.1:71 Ja-F '65. (MIRA 18:4)

AMURSKIY, G.I.; BORISOV, A.A.; ZHUKOBORSKIY, F.Ya.

Swells associated with deep fractures in the Kara Kum region of
the Epi-Hercynian platform. Neftegaz.geol. i geofiz. no.12:32-35
'64. (MIRA 18:3)

1. TsKTE pri Sovete Ministrov Turkmenskoy SSR i Vsesoyuznyy
nauchno-issledovatel'skiy institut geofizicheskikh metodov
razvedki.

BORISOV, A.A.; SKACHKOV, G.I.

Methane oxidation at the initial stage of reaction. *Kin.i kat.*
5 no.6:968-975 N-D '64. (MIRA 18:3)

1. Institut khimicheskoy fiziki AN SSSR.

BORISOV, Aleksey Alekseyevich, prof., doktor tekhn. nauk; AVERSHIN, S.G., akademik, retsenezent; ZHUKOV, V.V., kand. tekhn.nauk, otv.red.; SAIRENSKIY, M.M., red.izd-va; IL'INSKAYA, G.M., tekhn. red.

[Calculation of rock pressure in longwalls of flat seams]
Raschety gornogo davleniia v lavakh pologikh plastov. Mo-
skva, Izd-vo "Nedra," 1964. 277 p. (MIRA 17:4)

1. Akademiya nauk Kirgizskoy SSR (for Avershin).

BORISOV, A.A.; KRUGLYAKOVA, G.I.

Deep-seated structure of the earth's core at Transcarpathia.
Izv. AN SSSR. Ser. geofiz. no.11:1497-1501 N '62.(MIRA 15:11)

1. L'vovskiy filial Instituta geofiziki AN UkrSSR.
(Transcarpathia--Earth--Internal structure)

BORISOV, A. A.

"Meteorological Research in Finland," No 4, pp 79-81.
(Meteorologiya i Gidrologiya, No 6 Nov/Dec 1947)

SO: U-3218, 3 Apr 1953

BORISOV, A. A.

RT-1364 /The climate of southern Finland/ O klimato iuzhnoi Finliandii.
Izvestiia Vsesoiuznogo Geograficheskogo Obshchestva, 79(2): 189-198, 1947.

COMMON VARIANTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	AMS/A+B	2-156 *Klimat A. A. Klimat SSSR. [Climate of the U.S.S.R.] Uchpedgiz, Moscow, 1948. 724 p., 317 figs., 48 tables, 64 refs. DLC--This publication is intended as a text for advanced students in universities. The first section is devoted to a discussion of the various climatic elements in logical order: solar radiation, pressure and general circulation, temperature, humidity, cloudiness and sunshine, snow cover and evaporation, with special attention to their annual and geographical variation. The second part takes up the climate of various sections of the USSR divided according to maritime regions, plains and lowlands, and mountainous regions. Some very interesting charts and tables are presented for the first time in one volume: intensity and total solar radiation for various parts of European and Asiatic USSR in various seasons; frequency of air mass types in various regions; new January and July isobar, wind and isotherm charts for the whole USSR; earth temperatures at several depths; height and duration of snow cover and evaporation dates; a table of world and USSR extremes; thermal wind roses; characteristic features of various regions, etc. Several elaborate colored outline fish-in charts are in a pocket in the back: one a detailed chart of evaporation; one "climatic charts" shows total annual precipitation, January and July temperatures, pressures, winds, and air flow, boundary of permafrost and ice in the sea; one a "climatic zone" chart by L. S. Berg showing movements of air masses and frequency along various axes; one a Köppen type climatic classification chart after Voensensky (revised); and one shows bar charts of annual march of precipitation over all the USSR. Several errors strike the eye during a casual perusal of this volume. Mention is made of the early observations made in Russia under the direction of the "Palatine Meteorological Society" with a note that that society was formed in Rome and got its name from the Palatine Hill in Rome, when actually it was founded at Mannheim and named from the "Palatinata" or "Pfalz," a province of Germany along the Rhine above Cologne. Also a chart of total solar radiation received on a horizontal surface throughout the USSR bears a footnote stating that: "the total solar radiation received on a horizontal surface is greatest at Bukhta Tikhaya, west of Pavlovsk and least at Tashkent," when the data both on the chart and in the accompanying table show that the exact reverse is true, the ratio being 14:40:102 thousand calories per year. It is interesting to note that the author still accepts -68°C . (-90°F .) at Verkhhoianak as the lowest temperature on record on earth. <i>Subject Headings: Climatology, Textbooks, USSR.</i>	531.562(02)(47) 1950 M COMMON VARIANTS: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
		ASB-5LA METALLU ESON: 51V182294 67080 *2	

BORISOV, A. A.

PA 167T96

USSR/Meteorology - Tropopause
Lapse Rate Jan/Feb 48

"Vertical Distribution of Temperature and the Height of the Tropopause According to Observations in Ilmale (Helsinki)," A. A. Borisov

"Meteorol i Gidrol" No 1, pp 93-94.

Results of radiosondes made by observatory in Helsinki, 1933 - 1942. Reached heights of 23-24 km and 27 km in winter and summer, respectively. Found lapse rate of 0.5-0.60/100 m and 0.6-0.80/100 m in lower and upper troposphere. Height of tropopause was 9-10 km in winter,

10-11 km in spring, 11-12 km in summer, and 10 km in fall. Submitted 21 Sep 47

167T96

BORISOV, A.A.

[Climatology] Klimatologiya. Leningrad, Gidromet. izd-vo, 1949.
225 p. (MIRA 12:1)

(Climatology)

BORISOV, A.A.

20588 BORISOV, A.A. Voprosy o rayonirovanii klimatov SSSR po dinamicheskim i landshaftnym priznakam. Uchen. zapiski (Leningr. gos. un-t im. Zhdanova), Seriya geogr. nauk, vyp. 5, 1949, s. 175-8)

SO: LETOPIS ZHURNAL. STATEV - Vol. 28, Moskva - 1949

BORISOV, A.A.

20587 BORISOV, A.A. Granitsa sredivemnomorskogo tipa godovog knoda osackov v yuzhnom krymu. Uchen. Zapiski (Leningr. gos. un-tim. Zhdanova). Seriya geogr. nauk, vyp. 5, 1949, s-182-84, s kart.

SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva - 1949

BORISOV, A.A.

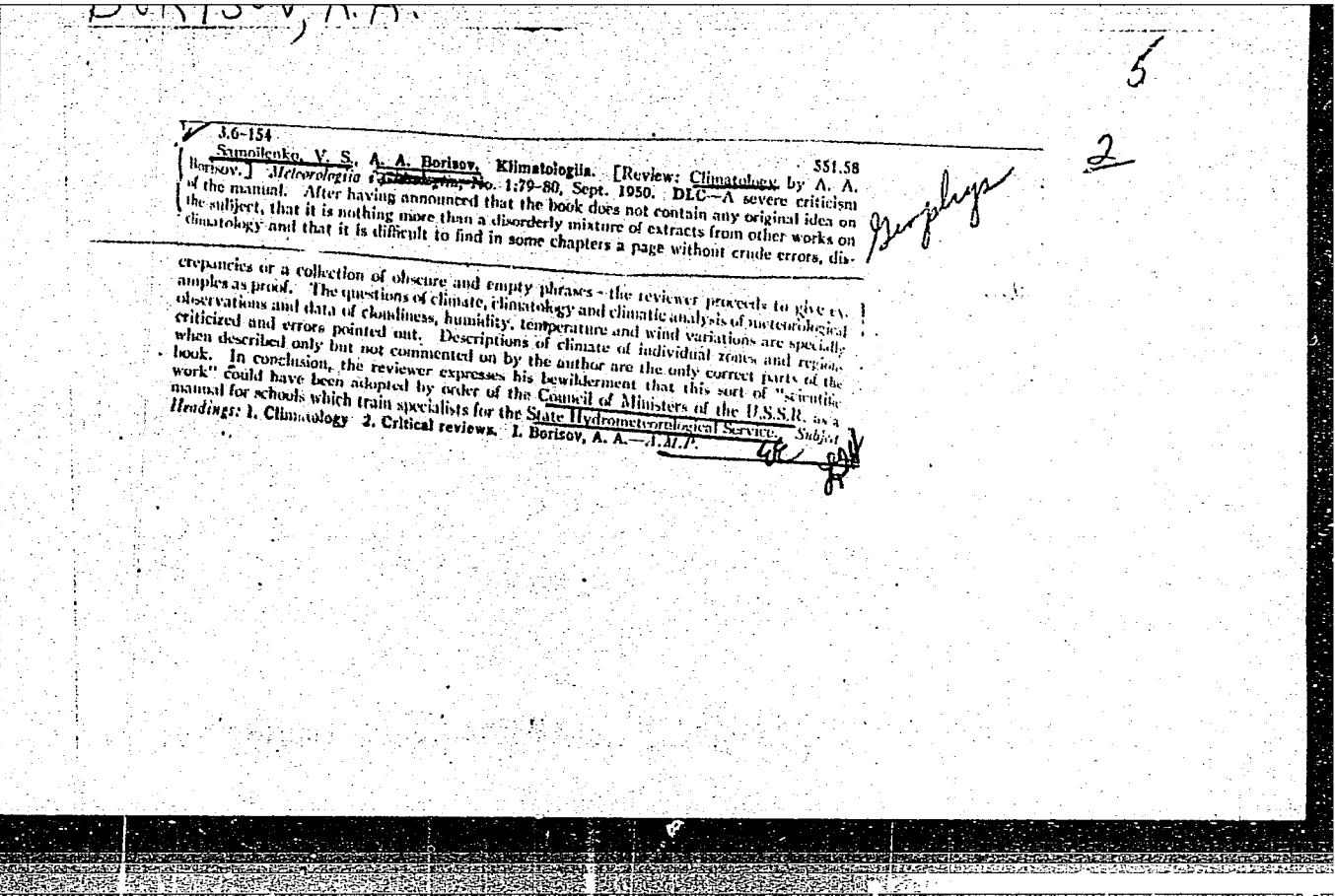
Adducing precipitation to one period on the basis of its genetic characteristics. Uch.zap.Len.un. no.124:159-168 '49.(MIRA 9:6)
(Crimea--Precipitation (Meteorology))

~~SECRET~~
BORISOV, A.A.

Division of climates of the U.S.S. R. into districts on the basis
of dynamic features and physical environment. Uch.zap.Len.un.
no.104:175-181 '49. (MLRA 10:1)
(Climatology)

BORISOV, A.A.

Limit of the Mediterranean type of annual precipitation variation in
southern Crimea. Uch.zap.Len.un. no.104:182-184 '49. (MIRA 10:1)
(Crimea--Precipitation (Meteorology))



BORISOV, A. A.

Geographical Distribution of Radiational Balance and Its Components in the Territory of USSR, A.A.Borisov, Vest Leningrad U, Ser Biol, Geog, Geol, Vol 7, No 10, pp 63-75, Oct 52.

Shows five charts of USSR geographical distribution of radiation. Acknowledges that absence of factual data on albedo and effective radiation make it impossible to obtain exact values of radiational balance and to construct detailed charts. Notes definite correlation between continentality (K%) of climate and effective radiation (E in $Kcal/cm^2$ yr), as revealed by scattergram.

252T55

Meteorological Abst. 4.6-194
Vol. 4 No. 6
June 1953
Climatology and
Bioclimatology

551.58(09) (47)

Borisov, A. A., Opredelenie poniatia "klimat" v sviazi s razvitiem klimatologii v Sovetskom Soiuze. [Definition of the concept "climate" in connection with the development of climatology in the Soviet Union.] Vsesoiuznoe Geograficheskoe Obshchestvo, Izvestia, 84(4):391-398, July/Aug. 1952. refs. DLC--The development of climatology in Russia from the 18th century to the present day and various definitions of climatology with their meteorological bases and implications are reviewed. The development of climatology in Russia is divided into three periods; up to 1847, 1947-1917 and 1917 to date. In the last period climatology is reviewed by Soviet climatologists from three aspects: 1) meteorological, 2) synoptic or weather and 3) geographic; the names of the more important investigators included with their points of view are listed. A list of definitions of climate, formulated by both Russian and non-Russian climatologists, arranged in chronological order, is appended to the article. Subject Headings: 1. History of climatology 2. Definitions 3. U.S.S.R.--I.L.D.

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Izmenilsia li klimat Leningrada (Has
the climate of Leningrad changed?) Leningrad, Lenin-
grad. universit., 1953. 20 p.

SO: Monthly List of Russian Accessions, Vol. 7, No. 5, August 1954

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BORISOW, Anatoliy Aleksandrovich; DOLININ, Aleksey Arkad'yevich; DOROSHKE-
VICH, Lyudmila Ivanovna; NIKOLAYEVA Nadeshda Vasil'yevna; TRUBITSYN,
V.I., redaktor; GLEBYKH, D.A., tekhnicheskiy redaktor

[Finland; a sketch of its economy and geography] Finliandia; eko-
nomiko-geograficheskii ocherk. Moskva, Gos.izd-vo geogr.lit-ry,
1955. 143 p. (MIRA 9:1)

(Finland--Economic conditions)

BORISOV, A.A.

Historical study of the climate of Crimea. Trudy Ukr. NIGMI no.3:
86-91 '55. (MLRA 9:10)

1. Leningradskiy Gosudarstvennyy universitet imeni A.A. Zhdanova.
(Crimea--Climate)

BORISOV, A.A.

~~Climates of the Crimea during different geological ages.~~
Vest.Len.un. 10 no.4:85-97 Ap '55. (MLRA 8:8)
(Crimea--Paleoclimatology)

DDKISOM, A/1

... and the area as a whole is divided into climatic zones characterized by features such as continentality, steppe, wind regime, etc. ... and precipitation. In turn these zones are subdivided into types of climate ... 2. Microclimatology 3. Crimea - I.L.D.

BORISOV, A.A.

Fluctuations in the climate of the Crimea during the
historical epoch. Izv.Vses.geog.ob-va 88 no.6:532-541
N-D '56.

(MLRA 10:2)

(Crimea--Climate)

BORISOV, A.A.

KAMESNIK, S.V., red.; DUROV, A.G., red.; BABKOV, I.I., red.; BORISOV, A.A., red.; ZOLOTNITSKAYA, R.L., red.; MAVRODIN, V.V., red.; MALYSHEV, M.O., red.; SHIBANOV, P.A., red.; KELAREV, L.A., red. izd-va; SEMENOVA, A.V., tekhn. red.

[St. Petersburg - Leningrad; a historicogeographical atlas]
Peterburg - Leningrad; istoriko-geograficheskii atlas [Leningrad].
Pt. 1. 1957. 54 p. (MIRA 11:4)

1. Leningrad. Universitet.
(Leningrad - Maps)

AUTHOR: Borisov, A.A. 12-90-2-25/30

TITLE: Book Reviews (Retsenzii)

PERIODICAL: Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, 1958,
Vol 90, Nr 2, page 200 (USSR)

ABSTRACT: The critic reviews a book named "The Climate of Leningrad"
by T.V. Pokrovskaya, published by Gidrometeorologicheskoye
izdatel'stvo, in 1957.

AVAILABLE: Library of Congress

Card 1/1 1. ~~Literature-Review~~ 2. Meteorology

IVANOV, Nikolay Pavlovich; PAVLOVSKIY, Ye.N., akademik, glavnyy red.; BORISOV, A.A.; doktor geografiy, otvetstvennyy red.; TSVETKOV, N.V., red. izd-va; AROMS, R.A., tekhn. red.

[Atmospheric humidification in tropical and adjacent countries]
Atmosfernoe uvlazhnenie tropicheskikh i sopedel'nykh stran zemnogo shara. Moskva, Izd-vo Akad. nauk SSSR, 1958. 274 p.
(Geograficheskoe obshchestvo SSSR, Zapiski. Novaya seriya, Vol. 18)
(Tropics--Humidity) (MIRA 12:1)

BORISOV, A.A.

The first climatological study of Russia [with summary in English].
Vest. LGU 13 no.6:140-141 '58. (MIRA 11:5)
(Climatology)

BORISOV, A.A.

Climatic factors affecting land forms in Vologda Province
[with summary in English]. Vest.LGU 13 no.18:115-124 '58.
(MIRA 12:1)
(Vologda Province--Climatology) (Physical geography)

BORISOV, A. A.

Meteorological effectiveness of irrigation and forest belts
along the course of the North Crimea Canal. Trudy UkrNIGMI
no.14:91-98 '58. (MIRA 12:5)
(Crimea--Climate) (Irrigation)
(Forest influences)

BORISOV, Anatoliy Aleksandrovich; FISHCHEVA, T., red.; VASIL'YEVA, O.,
red.; PODOL'SKAYA, M.Ya., red.kart; KOVALENKO, V.L., tekhn.red.

[Climates of the U.S.S.R.; teacher's manual] Klimaty SSSR;
posobie dlia uchitelei. Izd.2. Moskva, Gos.uchebno-pedagog.
izd-vo M-va prosv.RSFSR, 1959. 274 p. (MIRA 13:4)
(Russia--Climate)

3(3)

SOV/12-91-3-5/14

AUTHOR: Borisov, A.A.

TITLE: The Paleoclimatic Conditions Responsible for Important Baric Centers of the Contemporary World Climate

PERIODICAL: Izvestiya VGO, 1959, Vol 91, Nr 3, pp 255-265 (USSR)

ABSTRACT: This is an attempt to systemize and generalize the results of research concerning the changes and fluctuations of the paleoclimates on Soviet territory starting with the miocene period, also to draft a basic scheme of the paleoclimates including their peculiarities. One of the practical motives for this study is the possibility of establishing a certain dependence of the contemporary mineral deposits on ancient climates. The method used by the author includes: a) palinological analyses; b) results of the respective research done by other scientists; c) harmony in the opinions of scientists in respect to geographical processes and geological data; d) climatological inter-

Card 1/2

SOV/12-91-3-5/14

The Paleoclimatic Conditions Responsible for Important Baric Centers
of the Contemporary World Climate

pretation of geological data. The results of the study are tabled and charted. The Pliocene period is said to be that one in which the most intense differentiation of the climates had been started and our contemporary atmospheric circulation was established. There are 3 tables, 5 charts, and 11 references, 10 of which are Soviet and 1 German.

Card 2/2

BORISOV, A.A.

~~History of climatological study of the U.S.S.R.~~ Uch.zap.LGU
no.769:3-23 '59. (MIRA 12:6)
(Russia--Climate)

BORISOV, A. A.

Climate and its uses; basic results of the study of the Crimean
climate as related to national economic problems. Vest. LGU 15
no.18:83-96 '60. (MIRA 13:9)

(Crimea--Climate)

STEPANOV, A.Ya.

"Climates of the U.S.S.R." by A.A. Borisov. Reviewed by A.IA. Stepanov.
Geog. v shkole 23 no.4:94-96 Ji-Ag '60. (MIRA 13:10)
(Russia--Climate) (Borisov, A.A.)

BORISOV, A. A.

Role of the geographical factors and geographical science
in the development of production forces of the society in
various social historical stages. Analele geol geogr 16 no.1:
144-153 Ja-Mr '62.

BORISOV, A.A.

Role of geographical factors and the science of geography in the growth of productive forces in society in various social and historical periods. Vest. LGU 16 no. 6:10-18 '61. (MIRA 14:4)
(Geography, Economic)

BORISOV, A.A.

Continentality as a climate indicator. Vest. LGU 19 no.18:105-107
'64.

(MIRA 17:11)

BORISOV, A.A.

Radiation regime of the Crimea. Mat.po meteor.i klim. no.1:24-40
'63.

Climatic regions of Finland. Ibid.:41-51 (MIRA 17:3)

BORISOV, A.A.

Climatic boundaries and characteristics of the U.S.S.R. territory
during various geological periods. Izv. Vses. geog. ob-va 95
no.5:406-414 S-0 '63. (MIRA 16:12)

BORISOV, A.A.

Radiation features of the Mineral'nye Vody climate. Izv.
Vses. geog. ob-va 96 no.5:430-432 S-0 '64. (MIRA 17:12)

STOL'NIKOV, V.V., prof., doktor tekhn. nauk; LITVINOVA, R.Ye., kand. khim.
nauk, starshiy nauchnyy sotrudnik; BORISOV, A.A., inzh.

Evaluation of the crack resistance of cement mortars. Izv. VNIIG
76:61-76 '64. (MIRA 18:10)

BORISOV, Anatolij Aleksandrovich; DUBROVSKAYA, I.P., red.

[Paleoclimates of the U.S.S.R.] Paleoklimaty territorii
SSSR. Leningrad, Leningr. univ., 1965. 111 p.
(MIRA 18:12)

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Vodnyi put Kama-Pechora-Indiga. [The Kama-Pechora-Indiga waterway]. (Soverskaia Azia, 1931, no. 11-12, p. 65-72).
DLC: H8.S4

SO: Soviet Transportation and Communications. A Bibliography, Library of Congress Reference Department, Washington, 1952, Unclassified.

BORISOV, R. A.,

Borisov, A. A., and Sokolov, V. A. "The Gas Survey in the Region of Southern Ishimbaev Should be Made in Organized Manner." *Vostochnaia Neft*, Moscow, No. 6, 1939, p. 44.
Chikryzov, G. S. "Gas Survey for Determining Deposits of Coal Buried at Depth." *Razvedka Nedr*, Moscow, No. 7, 1938, pp. 62-64.

BORISOV, A. A. engineer. The second Baku Moskva. Gos. nauchno-tekhn. izd-
fo neftianoi i gornotoplivnoi lit-ry 1940 93 p. (51-46967)

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1. BORISOV, A.A.
2. USSR (600)
4. Russian Platform - Prospecting - Geophysical Methods
7. Dissemination of material concerning geophysical explorations in the Russian Platform in connection with the problem of its oil potential. (abstract) Izv. Glav. upr. geol. fon no.2, 1947

9. Monthly list of Russian Accessions, Library of Congress, March 1953, Unclassified

BORISOV AA.

VASIL'YEV, Viktor Grigor'yevich; KALENOV, Yevgeniy Nikolayevich; KARASEV, Ivan Petrovich; KRAVCHENKO, Yevgeniy Vasil'yevich; MANDEL'BAUM, Mark Mironovich; BORISOV, A.A., redaktor; FILIPPOVA, Ye.A., vedushchiy redaktor; POLOBINA, A.S., tekhnicheskij redaktor.

[Geological structure of the southern Siberian Platform and the oilbearing prospects of Cambrian rocks] Geologicheskoe stroenie iuga Sibirskoi platformy i neftenosnost' kembriia. Pod red. A.A.Borisova. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gornotoplivnoi lit-ry, 1957. 226 p. (MIRA 10:11)
(Siberian Platform--Geology, Structural) (Petroleum geology)

BORISOV, A.A.

Some structural features of the West Siberian lowland. Geol.nefti 1
no.11:48-49 N '57. (SIRA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Geofizika.
(Siberia, Western--Petroleum geology)

BORISOV, A.A.

BORISOV, A.A.

Anomalies of force of gravity and the genesis of structures of
the Russian Platform. Geol. nefti 1 no.9:43-49 S '57. (MLRA 10:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut Geofizika.
(Gravity) (Russian Platform--Geology, Structural)