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YAKUBOV, A.A.; ZEYNALOV, M.M.

New data on mud volcanoes in Kobystan. Izv.vys.uchob.zav.; neft' i gaz 1 no.11:3-7 '58. (MIRA 12:5)

1. Azerbaydzhanskiy industrial'nyy institut im. M.Azizbekova.
(Kobystan--Mud volcanoes)

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3(10) SOV/152-59-1-2/31

AUTHOR: Yakubov, A. A.

TITLE: Eruption of the Mud Volcano of Banka Makarova (Izverzheniye gryazevogo vulkana Banka Makarova)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Neft' i gaz, 1959, 2, Nr 1, pp 9-12 (USSR)

ABSTRACT: The peninsula Apsheron and the surrounding regions are characterized by mud volcanoes which are closely connected with oil and gas deposits. The archipelago near Baku possesses a series of mud volcanoes which are the remainders of volcanoes. The article gives a brief summary of these small islands and then goes on to describe the eruption which occurred on the small island of Banka Makarova on October 15, 1958. Banka Makarova is located south of the island Peschanyy, 40 km south of Baku. The eruption took place at 9:50 PM. The height of the flame was 200 m, its width at the bottom about 50 m. 2 to 3 repeated explosions were observed during one powerful eruption lasting 30 to 40 minutes. A water vapor cloud was clearly discernible above the gas flame. The eruption could be observed

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from 140 km west of Baku, from Shemakha (100 km northwest of Baku) and Lenkoran' (200 km southwest of Baku). 30 to 40 minutes after the eruption the several fires started on Banka Makarova were extinguished by the motor boat "Shkval" and the fire boat of the UPO (Administration of Fire Security). Next day the author and a team of geologists of the MNP (Ministry of the Petroleum Industry) of the Azerbaydzhanskaya SSR visited the site of the eruption. A few currents starting from submarine sources were observed. Among these, two gas currents of especially great pulsation intensity were noted.-The mud volcano of Banka Makarova is one of the biggest submarine volcanoes of the Caspian trough. Eruptions of the volcano occurred in 1875, 1906, 1912, 1921, 1925, 1933 and 1941. Since 1951 the area has been subjected to extensive geological and geophysical investigations. Prospecting was done in 1955 and 1956. At depths ranging from 1770 to 3384 m horizons containing profitable amounts of oil and/or gas were found. It was found that the bottom of the sea near the island of Banka Makarova is covered with new sediments, while the crater is surrounded by boulders from the mud volcano accumulated to a depth of almost 150 m. Under the cover of the new sediments

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Eruption of the Mud Volcano of Banka Makarova

gray or brown sandy loams of the original Caspian Sea are to be found. On the basis of geological data presently available it can be assumed that the area of "Banka Makarova" is tectonically an independent elevation connected with the island of Peschanyy. This elevation is connected with the anticlinal fold whose central part - in the northwestern direction toward the island of Peschanyy - is too heavily disturbed. The currents bursting forth after the eruption seemed to be related to this regional disturbance. There are 2 figures.

ASSOCIATION: Azerbaydzhanskiy industrial'nyy institut im. M. Azizbekova (Azerbaydzha Industrial Institute imeni M. Azizbekov)

SUBMITTED: November 6, 1958

Card 3/3

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ALIZADE, A.A., prof., doktor geologo-mineral. nauk; YAKUBOV, A.A., prof., doktor geologo-mineral. nauk

Editorial: Founder of the Soviet petroleum geology; on the 20th anniversary of the death of Academician I.M. Gubkin, A.A. Alizade, A.A. IAkubov. Izv. vys. ucheb. zav.; neft' i gaz 2 no.4:3-5 '59. (MIRA 12:10)

(Gubkin, Ivan Mikhailovich, 1871-1939)
(Petroleum geology)

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YAKUBOV, A.A.

Mud volcanoes in Azerbaijan, their genesis and association with oil and gas fields. Sov.geol. 2 no.12:52-63 D '59. (MIRA 13:5)

1. Azerbaydzhanskiy institut nefti i khimii.
(Azerbaijan--Mud volcanoes)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.

Eruption of the Lok-Batan mud volcano. Izv.vys.ucheb.zav.; neft' i gas 3 no.3:17-21 '60. (MIRA 14:10)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova.
(Lok-Batan volcano--Petroleum geology)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; BAGIRZADE, F.M.

"Neftyanyye Kamni" by F.I. Samedov. Reviewed by A.A. IAkubov, F.M. Bagirzade. Izv. vys. ucheb. zav.; neft' i gaz 3 no.1:131-132 '60. (MIRA 14:10)

(Neftyanyye Kamni region--Petroleum geology)
(Neftyanyye Kamni region--Gas, Natural--Geology)
(Samedov, F.I.)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; KIREYEV, V.F.

Nature of sediments and an oil- and gas-bearing cross section of the Sub-Kirmaki series of the Zyrya field. Izv. vys. ucheb. zav.; neft' i gaz 4 no.1:3-7 '61. (MIRA 15:5)

1. Azerbaydzhanskiy institut nefti i khimii imeni M. Azizbekova.
(Apsheron Peninsula--Petroleum geology)
(Apsheron Peninsula--Gas, Natural--Geology)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; KHARITONOV, M.F.; MATVEYEV, Ye.I.

Method for processing temperature measurements of wells. Izv.vys. ucheb.zav.; neft' i gaz 5 no.8:3-9 '62. (MIRA 17:3)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; MUSTAFAYEV, I.S.; MOLDAVSKIY, B.S.

New manual on prospecting for oil and gas. Izv. vys. uch. zav.; neft' i gaz 5 no.9:62,70 '62. (MIRA 17:5)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; ZEYNALOV, M.M.

Genesis of mud volcanoes. Izv.vys.ucheb.zav.; neft' i gaz 5 no.12:15-19 '62. (MIRA 17:4)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova i Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche nefti.

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LAZAREV, V.N. (Ufa); DEVLIKAMOV, V.V. (Ufa); YAKUBOV, A.A. (Baku); KHARITONOV, M.F. (Baku)

Concerning the book by M.A. Zhdanov "Petroleum geology." Izv. vys. ucheb. zav.; neft' i gaz 6 no.8:110-112 '63. (MIRA 17:6)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; KERIMOV, R.M.

Method for determining the permeability of oil-bearing rocks from data on the specific resistance. Izv. vys. ucheb. zav.; neft' i gaz 7 no.3:11-14 '64. (MIRA 17:6)

1. Azerbaydzhanskiy institut nefti i khimii imeni Azizbekova.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; KERIMOV, R.M.

Method for determining the absolute permeability of petroleum-bearing rocks from their specific resistance. Izv.vys. ucheb. zav.; neft' i gaz 6 no.11:3-5 '63. (MIR, 17:9)

1. Azerbaydzhanskiy institut nefti i khimii im. M.Azizbekova.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.A.; DADASHEV, F.G.; MAGERRAMOVA, F.S.

Eruption of the Ayrantekyan mud volcano. Dokl. AN Azerb. SSR 21 no.2:33-38 '65. (MIRA 18:5)

1. Institut geologii AN AzerSSR.

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YAKUBOV, A.A.; RAKHMANOV, R.R.; RAZZHIVINA, L.A.

Eruption of the Agzybir mud volcano. Izv. vys. ucheb. zav.; neft' i gaz 8 no.3:13-15 '65. (MIRA 18:5)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.

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YAKUBOV, A.B.

Generative properties of basic mulberry varieties grown for seeds. Uzb. biol. zhur. 9 no.4:65-68 '65. (MIRA 18:10)

1. Institut eksperimental'noy biologii tekhnicheskikh i zernovykh kul'tur AN UzSSR.

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10164

USE OF SCINTILLATION COUNTERS IN RADIOMETRIC

DEPOSITS

Materials: Izvest Akad Nauk S.S.S.R. Ser Fiz. 31.

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YAKUBOV, A.M.; RAKHMANOV, R.R.

Effect of trace elements on the yield and chemical properties of cotton. Uzb. biol. zhur. no.4:33-37 '61. (MIRA 14:10)

1. Institut genetiki i fiziologii rasteniy AN UzSSR.
(UZBEKISTAN--COTTON GROWING) (TRACE ELEMENTS)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.M.; VEL'COBSKAYA, N.N.

Distribution of manganese and its forms in the soils and waters of the Samarkand Oasis. Pochvovedenie no.6:49-53 Je'64 (MIRA 17:7)

1. Institut pochvovedeniya Ministerstva sel'skogo khozyaystva Uzbekskoy SSR.

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YAKUBOV, A.M.

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USSR/

2620. Amperometric titrations with anthranilic acid. A. P. Zhdanov, R. I. Tseitlin and A. M. Yakubov (Zavod. Lab., 1955, 21 [1], 7-10).—Conditions for the amperometric determination of Cu, Zn, Ni and Co with 0·17 M Na anthranilate of pH 5·4 are studied. The optimum conditions are pH 4·5 to 5·5, 15 to 20 per cent. of ethanol, and 15 to 30 mg of the element sought in 30 ml of the solution for titration. For Cu a suitable supporting electrolyte is 0·1 or 1 M KNO_3 in the presence of 1 ml of 0·5 per cent. gelatin solution; the potential applied can be zero or −0·6 V. For Zn, Ni and Co the supporting electrolyte can be 0·5 to 2 M KNO_3, KSCN, KCl, Na_2SO_4 or Na acetate; the applied potential is −1·4 V for Zn, and −1·6 V for Ni and Co. Hydrogen is used to remove dissolved oxygen. The results for Cu, Ni, Zn and Co are satisfactory in the presence of large amounts of Mg, and salts of Mg can be used as supporting electrolytes. Aluminium (0·1 M) causes no interference and, with Ni and Co, Cr (0·04 M) causes no interference. When Pb is present the same solution can be used for an amperometric determination of Pb, using Na_2SO_4, and an amperometric determination of Cu, Zn, Ni or Co by the method described. G. S. Smith

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YAKUBOV, A.M

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

Yakubov, A. M.

USSR/Analytical Chemistry - Analysis of Organic Substances G-3

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 8584

Author : Usmanov, Kh. U., Yakubov, A. M., and Tillayev, R. S.
Inst : Academy of Sciences, Uzbek SSR
Title : Determination of Organic Acids by Paper Partition Chromatography

Orig Pub : Dokl. An UzSSR, 1956, No 5, 23-25 (with Uzbek summary)

Abstract : The adsorption of organic acids during partition chromatography on paper causes the formation of "comets" (the acids do not move in narrow bands but trail each other) which complicates the identification of the acids. The addition of small amounts of a volatile acid (e.g., CHOOH or CH_3COOH) to the mobile phase markedly decreases the adsorption and reduces the effect of the concentration on the retention time. The possibility of making chromatographic identification and quantitative estimation organic acids has been established by the determination of 46 acids of the aliphatic and aromatic series (using a water-saturated solution of n-butyl alcohol containing 5% CHOOH as the solvent, and a 0.04% solution of bromocresol

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USSR/Analytical Chemistry - Analysis of Organic Substances G-3

Abs Jour : Referat Zhur - Khimiya, No 3, 1957, 8584

blue in alochol as the developing agent). Rosolic, picric, and aminopicric acids do not require a developer for their qualitative determination since they form characteristic coloured spots.

Card 2/2

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ABIDOVA, Z.Kh.; YAKUBOV, A.M.; USMANOV, Kh.U.; KHODZHAYEV, G.Kh.

Paper chromatography used for the separation and determination of aromatic acids. Dokl. AN Uz. SSR no.6:29-32 '57. (MIRA 11:5)

1. Institut khimii AN UzSSR. 2. Chlen-korrespondent AN UzSSR (for Usmanov).

(Acids) (Chromatographic analysis)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.M.; USMANOV, Kh.U.; UZENBAYEV, Ye.Kh.

Effect of gamma rays on the germinating force and ability of cottonseed of different varieties. Dokl. AN Uz.SSR no.7:51-53 (MIRA 11:10)

1. Sredneaziatskiy politekhnicheskiy institut. 2. Chlen-korrespondent AN UzSSR (for Usmanov).
(Plants, Effect of gamma rays on) (Cottonseed)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

USMANOV, Kh. U., YAKUBOV, A.M.

Distribution of trace elements in the cotton plant.
Trudy Sred.-Az. politekh.inst. no.3:5-17 '57. (MIRA 13:6)
(Trace elements) (Cotton)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

USMANOV, Kh.U.; YAKUBOV, A.M.

Microelements in cotton. Dokl. AN Uz. SSR no.9:37-39 '57. (MIRA 11:5)

1. Sredneaziatskiy gosudarstvennyy universitet im. V.I. Lenina.
2. Chlen-korrespondent AN UzSSR (for Usmanov).
(Cotton) (Biosynthesis) (Plants--Chemical analysis)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

RAKHMANOV, R.R.; YAKUBOV, A.M.

Paper chromatographic method for the determination of gossypol in cotton seeds. Dokl. AN Uz. SSR no.9:51-55 '57. (MIRA 11:5)

1. Institut genetiki i fiziologii rasteniy AN UzSSR. Predstavleno chlenom-korrespondentom AN UzSSR S.S. Sadykovym.
(Gossypol) (Cottonseed)

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

MIRZAKARIMOV, R.M.; YAKUBOV, A.M.

Chromatographic separation and determination of fatty acids in cottonseed oil. Dokl. AN Uzb. SSR no.3:29-33 '58. (MIRA 11:6)

1. Sredneaziatsiy politekhnicheskiy institut. Predstavleno chlenom-korrespondentom AN UzSSR I.P. Tsukervanikom.
(Cottonseed oil) (Acids, Fatty)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A. M., Candidate Chem Sci (diss) -- "Trace elements and their effect on the chemical composition, yield, and oil content of cotton seeds". Tashkent, 1959. 20 pp (Min Higher Educ, Central Asia State U im V. I. Lenin, Chem Faculty, Central Asia Polytech Inst), 250 copies (KL, No 22, 1959, 110)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

USMANOV, Kh.U.; YAKUBOV, A.M.; MIRZAKARIMOV, R.M.; KUCHKAREV, A.B.

Effect of the Co^{60} gamma-irradiation of cottonseeds before sowing on the accumulation and chemical composition of cottonseed oil. Uzb.khim.zhur no.3:45-51 '61. (MIRA 14:11)

1. Institut khimii polimerov AN UzSSR i Sredneaziatskiy politekhnicheskiy institut. 2. Chlen-korrespondent AN UzSSR (for Usmanov).

(Cottonseed oil)
(Gamma rays)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, Anvar Mirabidovich, kand. khim. nauk; ASKAROV, M.A., kand. tekhn. nauk, retsenzent; ISROILOV, Z., red.; ALIMBOYEVA, R., tekhn. red.

[Polymers and their uses; textbook for teachers and students of the senior grades of secondary schools] Polimerlar va ularning ishlatilishi; urta maktab ukituvchilari va iukori sinf ukuvchilari uchun kullanma. Toshkent, Urta v olii maktab, 1961. 174 p. [In Uzbek] (MIRA 15:6)

(Polymers)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.M.; ZAKIROV, K.Z.; SAGATOV, S.S.; SHAPIRO, L.V.

Distribution of copper, manganese, and molybdenum in soils and in the plants, Polygonum coriarium Grig. and Rumex tianschanicus A. Los. Uzb. biol. zhur. 7 no.3:12-17 '63. (MIRA 16:9)

1. Institut botaniki AN UzSSR i Institut pochvovedeniya Ministerstva sel'skogo khozyaystva UzSSR.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ABRAMOV, M.D.; YAKUBOV, A.M.; SADYKOV, A.S.

Ash composition of cotton organs infected by wilt. Uzb. khim. zhur. 7 no.5:30-33 '63. (MIRA 17:2)

1. Tashkentskiy gosudarstvennyy universitet imeni Lenina i Gerganskiy pedagogicheskiy institut.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.M.; ABRAMOV, M.D.

Effect of microelements on the yield of cotton and the distribution of ashes in it. Uzb. biol. zhur. 9 no.1: 23-26 '65. (MIRA 18:6)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut pochvovedeniya pri Gosudarstvennom komitete po khlopkovodstvu Sredney Azii.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

GOL'DFARB, Ya.L.; YAKUBOV, A.P.; BELEN'KIY, L.I.

Formylation of some sulfides of the furan series. Izv. AN SSSR. Ser. khim. no.7:1281-1283 '65. (MIRA 18:7)

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

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

KOST, A.N.; SUGROBOVA, I.P.; YAKUBOV, A.P.

Phenylindoles and the conjugation of the benzene ring with the indole ring. Zhur. org. khim. 1 no.1:124-129 Ja '65. (MIRA 18:5)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.Ya.; MUMINOV, Kh.U.

Determination of the energy expenditure by cotton-growing collective farmers. Zdrav. Tadzh. 8 no. 2:45-47 '61. (MIRA 14:4)

1. Iz Stalinabadskogo instituta epidemiologii i gigiyeny.
(METABOLISM) (COTTON GROWING—HYGIENIC ASPECTS)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.Ya., mladshiy nauchnyy sotrudnik

Health condition of workers using mercaptophos and intrathion in control of cotton pests in soem districts of Tadzhikistan (preliminary report). Zdrav. Tadzh. 8 no.4:28-31 Jl-Ag '61. (MIRA 14:10)

1. Iz Stalinabadskogo instituta epidemiologii i gigiyeny.
(PHOSPHORUS ORGANIC COMPOUNDS)
(TADZHIKISTAN--COTTON--DISEASES AND PESTS)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.Ya.

Physiological changes in the body and the working conditions of people who come in contact with phosphorus organic insecticides. Zdrav.Tadzh. 9 no.5:37-40 '62. (MIRA 15:12)

1. Iz Dushanbinskogo instituta epidemiologii i gigiyeny i Kiyevskogo instituta gigiyeny truda i professional'nykh zabolevaniy.

(PHOSPHORUS ORGANIC COMPOUNDS--TOXICOLOGY)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.Ya.

Second All-Union Conference on the Hygienic Aspects and Toxicology of Pesticides. Zdrav. Tadzh. 10.no.1:48-49 '63. (MIRA 16:7)

(Pesticides—Toxicology)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.Ya.

Sanitary and hygienic characteristics of working conditions in treating cotton with organophosphorus insecticides from an airplane. Gig. i san. 28 no.7:97 Jl '63.
(MIRA 17:1)

1. Iz Tadzhikskogo instituta epidemiologii i gigiyeny i Kiyevskogo instituta gigiyeny truda i professional'nykh zabolevaniy.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, A.Ya., mladshiy nauchnyy sotrudnik

Working conditions in treating cotton with organophosphorus insecticides. Gig. i san. 28 no.7:24-27 Jl '63. (MIRA 17:1)

1. Iz Dushanbinskogo instituta epidemiologii i gigiyeny i Kiyevskogo instituta gigiyeny truda i professional'nykh zabolevaniy.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ZOTOV, A.; YAKUBOV, B.; SMIRNOV, N.; CHABROV, G.; KOCHEROV, V., red.; BAKHTIYAROV, A., tekhn. red.

[Cities of the Fergana Valley; concise reference book] Goroda Ferganskoi doliny; kratkii spravochnik. Perer. 2 izd. Tashkent, Gos.izd-vo Uzbekskoi SSR, 1963. 157 p. (MIRA 16:11)

(Fergana--Cities and towns)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YUGANOV, Ye.M.; KAS'YAN, I.I.; GUROVSKIY, N.N.; KONOVALOV, A.I.; YAKUBOV, B.A.; YAZDOVSKIY, V.I.

Sensory reactions and voluntary movements in man under conditions of weightlessness. Izv. AN SSSR. Ser.biol. no.6:897-904 N-D '61. (MIRA 14:11)

1. Institute of Normal and Pathological Physiology, Academy of Medical Sciences of the U.S.S.R., Moscow.
(WEIGHTLESSNESS)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

S/245/62/000/006/006/006
D222/D307

AUTHORS: Korolenok, K. Kh. and Yakubov, B. A.

TITLE: On some forms of spatial disorientation in pilots during flight

PERIODICAL: Voprosy psikhologii, no. 6, 1962, 63-68

TEXT: Classification and statistical data are given for 184 cases of spatial disorientation observed during 1944-1960. The two main classes are: (a) disorientation within the coordinate planes (82.6%) and (b) disorientation w.r.t. locality (17.4%). Under the first heading are discussed: illusory evolution, i.e. illusions of curvilinear flight with a rectilinear trajectory (62%); unnoticed curvilinear evolution (7.6%); loss of coordinate orientation (4.3%); illusion of inverted (upside down) flight (8.7%). Under the second heading are discussed: illusory rotation of the environment in the horizontal plane (4.9%); nonrecognition of familiar locality (12.5%). The conditions under which these disturbances arise most often are flight in clouds, at night, and under

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On some forms of ... S/245/62/000/006/006/006
D222/D307

complex meteorological conditions, i.e. when the natural horizon is not visible and ground cues for orientation are not available. Such factors as theoretical and practical training, intoxication by alcohol, postinfectional asthenia, fatigue and depression also influence the appearance of disorientation. There are 3 tables.

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, D.Kh.

Petrographic study of the Miskanskiy fault zone. Uzb. geol. zhur. 7 no.6:58-65 '63. (MIRA 17:8)

1. Institut geologii im. Kh.M. Abdullayeva AN UzSSR.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, D.Kh.

Distribution of trace elements in the Zhelezhnyy fault area (Kurama Range). Uzb. geol. zhur. no.6:13-20 '60. (MIRA 14:1)

1. Institut geologii AN UzSSR.
(Kurama Range--Trace elements)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, D.Kh.; BORISOV, O.M.

Kara-Tau - Pamir deep fault. Uzb.geol.zhur. 6 no.4:10-21 '62. (MIRA 15:9)

1. Institut geologii AN UzSSR.
(Kara-Tau--Faults (Geology)) (Pamirs--Faults (Geology))

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

AKHMEDZHANOV, M.A.; BORISOV, O.M.; MUSIN, R.A.; YAKUBOV, D.Kh.

Tectonic pattern of the Almalyk ore zone. Uzb. geol. zhur. 7 no.3:55-61 '63. (MIRA 16:11)

1. Institut geologii imeni Kh.M. Abdullayeva AN UzSSR.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUNIN, G.I.; YAKUBOV, F. Ya.

Efficient direction of the cooling duct in a lathe tool. Izv. AN Uz. SSR. Ser. tekh. nauk 9 no. 6:53-54 '65 (MIRA 19:1)

1. Tashkentskiy politekhnicheskiy institut. Submitted March 2, 1965.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

L 4110-66 EWT(m)/EPF(c)/EWP(i)/T/EWP(t)/EWP(k)/EWP(b) IJP(c) JD/DJ

ACC NR: AP5025669 UR/0167/65/000/004/0037/0043

53
50
B

AUTHOR: Yakunin, G. I.; Umarov, E. A.; Yakubov, P. Ya.
44,55 44,55 44,55

TITLE: Investigation of the causes of toughness maxima as a function of the relation of cutting speed to the toughness of the cutting tool

SOURCE: AN UzSSR. Izvestiya. Seriya tekhnicheskikh nauk, no. 4, 1965, 37-43

TOPIC TAGS: cutting tool, toughness, metal film, metal oxidation, metal cutting, high speed metal cutting
44,55

ABSTRACT: It has been established that the toughness of the cutting tool is a non-monotonic function of the cutting speed; as the cutting speed increases, up to a point, the toughness increases and reaches a maximum, beyond which it decreases. A theory accounting for this phenomenon is given by Avakov (Fizicheskiye osnovy teoriy stoykosti rezhushchikh instrumentov, Moscow, Mashgiz, 1960), who also points out that it is analogous to wear resistance during bearing contact and infers that both phenomena have common roots. During bearing contact, wear resistance sharply increases owing to the formation of oxide films on the friction surfaces; a similar phenomenon is assumed to occur during the cutting of metals by means of hard alloy-tipped cutting tools. Experiments with this cutting in different atmospheres (nitrogen, oxygen, air) were performed to determine the relationship between various cutting parameters and the nature (and the presence or absence) of the oxide films

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forming during the cutting. It is established that the toughness maxima are definitely attributable to the presence of oxide films on the friction surfaces and that these maxima are conditioned by the strength of these films. A comparatively simple method of determining the toughness maxima is described: the experiments begin with a low cutting speed (say, 20 m/min); after the thermo-e.m.f. for this speed is recorded, a higher speed is applied, and so on. It is shown that the presence of several toughness maxima is due to the formation of different oxide films on the friction surfaces, such that each film is maximally strong at a different temperature. Further, by means of preliminary machining in regimes corresponding to its toughness maximum, the toughness of a cutting tool may be markedly enhanced. Orig. art. has: 4 figures

ASSOCIATION: Tashkentskiy politekhnicheskiy institut (Tashkent Polytechnic Institute)

SUBMITTED: 20Oct64 ENCL: 00 SUB CODE: IE, MT

NO REF SOV: 010 OTHER: 000

BVK

Card 2/2

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, G.A.

10(2) PHASE 1 BOOK EXPLOITATION SOV/[illegible]

Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956

Trudy (Transactions of the Conference on Applied Gas Dynamics) Alma-Ata, Izd-vo AN Kazakhskoy [illegible], 1959. 235 p. Errata slip inserted. [illegible]

Sponsoring Agency: Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

Ed.: V.V. Aleksandriyskiy; Tech. Ed.: Z.P. Rorokina; Editorial Board: L.A. Vulis (Resp. Ed.), V.P. Kashkarov, T.P. Leont'yeva, and B.P. Ustimenko.

PURPOSE: This book should be of interest to scientists and engineers working on problems of applied gas dynamics and may be of use to students.

COVERAGE: This book presents reports and brief summaries of the discussions which took place at the Conference on Applied Gas Dynamics in Alma-Ata in October 1956. The conference was subdivided into three areas of applied gas dynamics: jet flows of fluids and gases, the aerodynamics of heating processes, and the discharge of a fluid. The practical value of the "Transactions of the Conference" consists in the development of theory, methods of technical calculation and methods for systematic measurement applied to heating, furnace, and other industrial processes for which, in most cases, aerodynamic phenomena are decisive factors.

Volkov, Ye.V. Some Problems in the Aerodynamics of a Two-phase Flow in a Cyclone Furnace 142

Tonkonogiy, A.V., and I.P. Basina. On the Working Process in a Cyclone Chamber 152

Yakubov, G.V. Generalization of the Aerodynamic Laws of Cyclone Chambers 158

Brief Summary of the Discussions 158

Session of October 25, 1956 (evening)

Reznyakov, A.B. Direct-flow Pulverized-coal Torch 160

Telegin, A.S. Combustion Laws of a Gas Torch 160

Yershin, Sh.A. Aerodynamics of a Turbulent Gas Torch 168

Kokarev, N.I. Industrial Testing of New Ports for Siemens-Martin Gas Furnaces 178

Bogdanov, Ye.P. On the Thermodynamics of the Gasification Process 186

Brief Summary of the Discussions 186

Session of October 26, 1956

Zhulayev, R.Zh. Survey of the Work on Hydrodynamics Done by the Electric Power Institute of the Academy of Sciences of the Kazakh SSR 187

Romanenko, S.V. (Deceased). Basic Problems of the Thermodynamics of Flow for Real Boundary Conditions 197

Vulis, L.A. On the Circular Motion of a Viscous Gas 208

Mironenko, T.K. Effect of the Local Redistribution of Energy in a High-speed Gas Flow 215

Lifshits, A.G. Discharge of Boiling and Hot Water Through Conical Nozzles 215

Radchenko, G.A., and Beloborodov, P.V. Fields of Concentration of Highly-dispersed Aerosols in Airducts 223

Brief Summary of the Discussions 229

Resolutions of the Conference on Applied Gas Dynamics Held in Alma-Ata, October 23 - 26, 1956 231

AVAILABLE: Library of Congress

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, G.V.

PHASE I BOOK EXPLOITATION SOV/5290

Soveshchaniye po prikladnoy gazovoy dinamike. Alma-Ata, 1956

Trudy Soveshchaniya po prikladnoy gazovoy dinamike, g. Alma-Ata, 23-26 oktyabrya 1956 g. (Transactions of the Conference on Applied Gas Dynamics, Held in Alma-Ata, 23-26 October 1956) Alma-Ata, Izd-vo AN Kazakhskoy SSR, 1959. 233 p. Errata slip inserted. 900 copies printed.

Sponsoring Agency: Akademiya nauk Kazakhskoy SSR. Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova.

Editorial Board: Resp. Ed.: L.A. Vulis; V.P. Kashkarov; T.P. Leont'yeva and B.P. Ustimenko. Ed.: V.V. Aleksandriyskiy. Tech. Ed.: Z.P. Rorokina.

PURPOSE: This book is intended for personnel of scientific research institutes and industrial engineers in the field of applied fluid mechanics, and may be of interest to students of advanced courses in the field.

Transactions of the Conference (Cont.) SOV/5290

COVERAGE: The book consists of the transcriptions of 31 papers read at the conference on gas dynamics which was convened under the initiative of the Kazakhskiy gosudarstvennyy universitet imeni S.M. Kirova (Kazakh State University imeni S.M. Kirov) and the Institut energetiki Akademii nauk Kazakhskoy SSR Institute of Power Engineering of the Academy of Sciences Kazakhskaya SSR) and held October 23-26, 1956. Three branches of applied gas dynamics were discussed, namely: jet flow of liquids and gases, aerodynamics of furnace processes, and the outflow of liquids. The practical significance of the "Transactions" of the conference consists in the adaptation of theory to methods of technical computation and measuring methods related to industrial furnaces and other industrial processes in which aerodynamic phenomena play a predominant role. Eight papers read at the Conference are not included in this collection for various reasons. The authors of the missing papers are: L.D. L'vov (Thermal and Aerodynamic Characteristics of Pulverized Coal Flame Burners) and A.A. Goleyevskiy (Outlines and Physical Models of the Jet Motion Mechanics of Fluids), K.I. Akatnov, Ye. P. Boginov, S.V. Bukhman, T.K. Mironenko, A.B. Reznyakov, and G.V. Yakubov. L.G. Loytsyanskiy is mentioned as being in charge of a department of the Kazakh State University, and I.D. Malyukov, Candidate of Physical and Mathematical Sciences, Docent, as a member of the same university. References are found at the end of

Session of October 24, 1956 (Morning)

Antonova, G.S. Investigating Turbulence Characteristics of a Free Nonisothermic Jet and an Open Flame 45

Kashkarov, V.P. (Candidate of Physical and Mathematical Sciences). On Parallel and Contrary Motion of Two Uniform Flows of Compressible Gas 55

Transactions of the Conference (Cont.) SOV/5290

Leont'yeva, T.P. (Candidate of Technical Sciences). Expansion of Axially Symmetrical Jets in Parallel and Contrary Flows 62

Bukhman, S.V. Regularity of Motion and Combustion of Coal Particles 69

Kazarchuk, M.M., and N.I. Pol'skiy. On the Crisis in the Viscous Flow of Gas in a Flare Parallel Channel 69

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Chebyshev, P.V. (Vsesoyuznyy elektrotekhnicheskiy institut (All-Union Electrotechnical Institute)). Electrothermometers and Their Use in Investigating Nonisothermic Gas Flows 85

Card 5/6

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

Trofimenko, A.T. Investigating a Semirestricted Turbulent Jet 100

Akatnov, N.I. Survey of the Works of the Department of Hydroaerodynamics of the Leningrad Polytechnical Institute imeni Kalinin on the Jet Theory 107

Shepelev, S.F., and S. Tsoy. Plane Jet in a Cross Section of an Air Conduit 108

Bespalova, V.G. Use of Hydrointegrators For Solving Jet Problems 115

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Session of October 25, 1956 (Morning)

Katsnel'son, B.D. [Candidate of Technical Sciences; Docent; Tsentral'nyy kotloturbinnyy institut imeni Polzunova, Leningrad (Central Turbine and Boiler Institute imeni Polzunov, Leningrad)].
Some Problems of the Aerodynamics of Furnace Cyclone Chambers and of the Combustion of Coal Powder Pulverized Coal 123

Pstimenko, B.P. Candidate of Technical Sciences, Aerodynamics of an Involute Jet and of a Cyclone Chamber 134

Volkov, Ye. V. Some Aerodynamic Problems of a Two-Phase Flow in a Cyclone Furnace 142

Tonkonogiy, A.V., and I.P. Basina. On the Problem of the Working Process in a Cyclone Chamber 152

Yakubov, G.V. Generalizing Aerodynamic Laws of Cyclone Chambers 153

Contents of the Discussion in Brief 158

Session of October 25, 1956 (Evening)

Reznyakov, A.B. [Doctor of Technical Sciences; Institut energetiki (Institute of Power Engineering)]. Unflow Flame of Pulverized Coal 160

Telegin, A.S. Regularities of Gas Flame Burning 166

Yershin, Sh. A. Aerodynamics of a Turbulent Gas Flame 168

Kokarev, N.I. [Candidate of Technical Sciences; Ural'skiy politekhnicheskiy institut imeni Kirova, Sverdlovsk (Ural Polytechnical Institute imeni Kirov, Sverdlovsk)]. Industrial Testing of New Gas Heads of Open Hearth Furnaces 170

Bogdanov, Ye. P. On the Thermal Regime of the Gasification Process 186

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Zhulayev, P. Zh. [Candidate of Technical Sciences; Docent]. Survey of Work on Hydrodynamics Done by the Institut Energetiki AN KazSSR (Institute of Power Engineering of the Academy of Sciences Kazakhskaya SSR) 187

Rosenenko, S.V. (Deceased). Basic Problems of Flow Thermodynamics in Real Boundary Conditions 197

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, G.V.

Concerning certain mechanisms of the motion of gases in cyclone chambers. Trudy Inst. energ. AN Kazakh. SSR 2:285-293 '60. (MIRA 15:1)

(Furnaces)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

S/124/62/000/005/017/048
D251/D308

AUTHOR: Yakubov, G.V.

TITLE: The mechanism of the motion of gases in cyclonic chambers

PERIODICAL: Referativnyy zhurnal. Mekhanika, no. 5, 1962, 40 -41, abstract 5B240 (Tr. Kazakhsk. s. - kh. in-ta, 1960, v. 8, no. 3, 191 - 206)

TEXT: A survey is made of the experimentally determined facts which touch on the motion of gases in cyclonic chambers which have still not been determined, in the author's opinion, with sufficient physical explanation. The first fact is the growth of the tangential component of velocity in the chamber in comparison with the velocity of the air at the intake of the chamber. The second fact is the excess of the value of the tangential component of velocity in the burner during combustion in comparison with the quantity for its cold products. A description is given of the method and results for the experimental investigation of the mechanism of motion of the air in two model cyclonic burners with their cold air products. The

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magnitudes of the velocities and pressures in various sections of the model are measured. On the basis of the experimental data and theoretical analysis an explanation is given of the experimental facts described above. [Abstractor's note: Complete translation].

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10,1500

S/196/62/000/008/016/017
E114/E135

AUTHOR: Yakubov, G.V.

TITLE: Application of the methods of the theory of similarity to the investigation of movement of gases in certain aerodynamic equipment

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.8, 1962, 3, abstract 8 G22. (Tr. Kazakhsk. s.-kh. in-ta, v.8, no.3, 1960, 207-214)

TEXT: A theoretical presentation showing the possibility of applying similarity theory for investigating the motion of gases in cyclone furnaces is given. For all cyclone chambers and their models a considerable qualitative likeness exists in spite of absence of (strict) similarity. A notion of likeness is introduced (in contrast to similarity) for aerodynamic equipment similar in design but differing as regards the proportions of the dimensions of the individual elements as well as for phenomena occurring in them. The equations describing these phenomena are practically identical and this allows establishing (using usual methods) criteria which should be numerically equal to those

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characterizing phenomena occurring in like systems. To determine the criteria of likeness for the flow of gas in various models, equations of motion are utilized as well as the laws of conservation of matter and energy, the law of conservation of momentum and also the boundary conditions. Criteria of likeness are derived. Evaluation of the experimental results of the author and of other investigators as regards criteria of likeness enabled obtaining a generalization of the relationship for cyclone chambers for changes in the whole range of the parameters of the inlet and outlet conditions, the relative length and the roughness of the walls. The derived conclusions are sufficiently general to be utilized for various groups of like phenomena. There are 3 references.

[Abstractor's note: Complete translation.]

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

S/196/62/000/013/010/018
E200/E135

AUTHOR: Yakubov, G.V.

TITLE: On the mathematical expression of the second law of thermodynamics and on the entropy of an isolated system. (Topic for discussion)

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.13, 1962, 5, abstract 13 G 20. (Tr. Kazakhsk. s.-kh. in-ta, v.8, no.3, 1960, 180-190)

TEXT: The author investigates the known equations of thermodynamics:

$$\oint \frac{dq}{T} = 0, \quad (1)$$

$$\oint \frac{dq}{T} < 0 \quad (2)$$

with emphasis upon the exact separate determination of the change in entropy of the thermodynamic system and the environment surrounding it. It is shown that as a result of realising a

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reversible cyclic process the change in entropy of the system as well as of its environment equals zero. Applying the concept of mean temperature of a system (environment) for the elementary process in which the system receives heat, the author gives a mathematical description of the entropy change of the system (environment) for irreversible processes. Noting that the expression dq/T under the integral sign in Eq.(2) is not an entropy change of the environment or of the system, the author deems that the generalization of Eqs. (1) and (2) is not valid. The following mathematical expression for the second law of thermodynamics is proposed for reversible and irreversible cycles as applied to the environment:

$$\Delta S_{env.} = \oint \left(\frac{dq}{T}\right)_{env.} \geqslant 0 \qquad (3)$$

where dq denotes the total heat received by the environment, including the heat of irreversibility, i.e. the heat received as result of the irreversible transformation of the other forms of

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

energy into heat. Finally, the author considers the change in entropy of an isolated system in the presence of reversible and irreversible processes.
12 references.

[Abstractor's note: Complete translation.]

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

BLINOV, N.O; YAKUBOV, G.Z.; ARTAMONOVA, O.I.; KHOKHLOVA, Yu.M.

Isolation of antibiotics of the mycetin-violarin group by paper chromatography. Antibiotiki 7 no.12:1063-1069. D '62. (MIRA 16:5)

1. Institut khimii prirodnykh soyedineniy i Institut mikrobiologii AN SSSR.
(ANTIBIOTICS) (PAPER CHROMATOGRAPHY)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, G.Z.; KHOKHLOVA, Yu.M.; BLINOV, N.O.

Studying the conditions for partitioning the antibiotics of the mycetin-violarine group by paper chromatography. Mikrobiologiia 31 no.3:526-533 My-Je '62. (MIRA 15:12)

1. Institut mikrobiologii i Institut khimii prirodnykh soyedineniy AN SSSR.

(PAPER CHROMATOGRAPHY) (ANTIBIOTICS)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

KRASIL'NIKOV, N.A.; YAKUBOV, G.Z.; KHOKHLOVA, Yu.M.; ARTAMONOVA, O.I.; ULEZLO, I.V.

Study of antibiotics produced by actinomycetes of the violet group. Mikrobiologiia 32 no.5:748-754 S-O'63 (MIRA 17:2)

1. Institut mikrobiologii AN SSSR.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

SHAPOSHNIKOV, V.N., akademik; BEKHTEREVA, M.N.; YAKUBOV, G.Z.; KHOKHLOVA, Yu.M.

Effect of cultivation conditions on the correlation of components of an antibiotic produced by Actinomyces violaceus, strain no. 719. Dokl. AN SSSR 153 no.5:1195-1198 D '63. (MIRA 17:1)

1. Institut mikrobiologii AN SSSR.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

BLINOV, N. O.; OPARYSHEVA, Ye. F.; KHOKHLOVA, Yu. M.; YAKUBOV, G. Z.; PUCHNINA, A. V.; FEDKINA, N. G.; KHIRYASHCHEVA, K. M.; KHOKHLOV, A. S.

"Classification of antibiotics according to 'chromatographic spectra'."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

Inst forChemistry of Natural Compounds, Inst of Microbiology, AS USSR, All-Union Res Inst for Antibiotics, Moscow.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, G.Z.; BLINOV, N.O.; SERGEYEVA, L.N.; ARTAMONOVA, O.I.; KHOKHLOV, A.S.

Mycetins B_1, B_2 and C, the new antibiotics of the rhodomycin group. Antibiotiki 10 no.9:771-776 S '65. (MIRA 18:9)

1. Institut khimii prirodnykh soyedineniy i Institut mikrobiologii AN SSSR, Moskva.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, I.

27-4-17/25

AUTHORS: Petukhov, S., Engineer of Main Labor Reserve Administration,
Yakubov, I., Engineer of Trade School No. 4 (Chimkent)

TITLE: Reed Board Press (Kamyshitovyy press)

PERIODICAL: Professional'no-Tekhnicheskoye Obrazovaniye, 1958, # 4, pp 24-25 (USSR)

ABSTRACT: A horizontal press, type ПКТР-3 is simple and valuable for pressing reeds for building material. The first of these machines was turned out by the Chimkent factory No. 4 to conform with ГОСТ 7483-55 , which dictates dimensions of the slabs into which the reed-stuff is rolled. The slabs are sewn with cold-drawn wire of at least 1.6 mm. Weight must be 300-400 kg per m^3 when machine-prepared (200-260 when by hand). About 100 of these presses will be manufactured in 1958. The presses are described in detail.

There are 4 figures and 1 photograph.

ASSOCIATION: Glavnoye upravleniye trudovykh rezervov (Main Labor Reserves Administration)

AVAILABLE: Library of Congress

Card 1/1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

YAKUBOV, I.R., starshiy prepodavatel'

Scientific and technical conference. Izv. vys. ucheb. zav.; av. tekh. 7 no.3:132 '64. (MIRA 17:9)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

69832

S/051/60/008/03/002/038
E201/E191

24.6510

AUTHORS: Biberman, L.M. and Yakubov, I.T.

TITLE: An Approximate Method of Calculation of the Frank-Condon Factors

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 3, pp 294-299 (USSR)

ABSTRACT: The distribution of intensities in an electron-vibrational system of bands of a diatomic molecule is given in terms of the Frank-Condon factors, which are squares of the integrals of overlapping of vibrational wave-functions of the upper and lower electron states:

$$q(v', v'') = [(v', v'')]^2 = \left[\int_0^\infty \Psi v'(r) \cdot \Psi v''(r)\, dr\right]^2. \quad (1)$$

The number of papers dealing with calculations of the Frank-Condon factors is large. Nevertheless the subject is not closed since the published methods are suitable only for calculations in the case of small quantum numbers v. The approximate method, with its three variants, described in the present paper can be used to calculate the Frank-Condon factors for large v.

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69832

S/051/60/008/03/002/038
E201/E191

An Approximate Method of Calculation of the Frank-Condon Factors

Calculation of the Frank-Condon factors is difficult because of the special properties of the generalized Laguerre polynomials. The present paper describes three variants of solution of the problem. (A) for large values of v the Laguerre functions can be replaced by asymptotic expressions which are obtained using the W.K.B. method to solve Schrödinger's equation with a Morse potential. (B) In the regions of the "turning" points where the W.K.B. method cannot be used, the Laguerre functions are approximated by means of monotonic sections of selected Hermite functions. These can be found fairly easily and (v', v") can be found by graphical integration. The precision of the results will increase with increase of v' and v" until the Morse function represents accurately the experimental potential curve. (C) Some problems do not require accurate knowledge of q(v', v"). In such cases an approximate method of calculation of the Frank-Condon factors can be employed in asymptotic expressions for the Laguerre functions which need not be plotted and this eases considerably the calculations.

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E201/E191

An Approximate Method of Calculation of the Frank-Condon Factors

To check the variant (C) the authors calculated the values of $q(v', v'')$ for $v' = 0, \ldots, 6$ and $v'' = 12 = \text{const.}$, making assumptions identical with those of Kivel, Mayer and Bethe (Ref 1) and using tabulated Hermite functions. The results are given in Table 1 where they are compared with the values calculated by Kivel et al (Ref 1), who used a computer. The variant (C) was also used to calculate $q(v', v'')$ of the first positive system of N_2 with $v'' = 8$. For $v \geqslant 4$ the present authors employed functions obtained using the W.K.B. method. For $v = 2$ and 3 "distorted" functions were obtained by a modified Pillow method (Ref 4). For $v = 0$ and $v = 1$ the authors used harmonic functions. The results obtained for N_2 are compared in Table 2 with the results of Jarmain and Nicholls (Ref 2); the latter authors published the only known table of the Frank-Condon factors, obtained by very laborious graphical integration of the Laguerre functions. Tables 1 and 2 show that the approximate method described in the present paper gives satisfactory results; the

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

69832
S/051/60/008/03/002/038
E201/E191

An Approximate Method of Calculation of the Frank-Condon Factors

errors do not exceed 20%. The large Frank-Condon factors, which are of main interest, can be calculated more precisely than the small factors.
There are 3 figures, 2 tables and 10 references, of which 1 is Soviet, 8 English and 1 German.

Card
4/4

SUBMITTED: June 9, 1959

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

S/051/60/009/003/015/019/XX
E201/E191

AUTHOR: Yakubov, I.T.

TITLE: Franck—Condon Factors of the Schumann—Runge Band System of the Oxygen Molecule

PERIODICAL: Optika i spektroskopiya, 1960, Vol 9, No 3, pp 409-412

TEXT: An approximate method of calculating Franck—Condon factors for large values of (v' + v") developed by the author and L.M. Biberman (Ref 7) was applied to the Schumann—Runge band system of O_2. The results are tabulated on p 411 for v' from 0 to 5 and for v" from 6 to 20. The author's Franck—Condon factors (curves 3 and 6 in a figure on p 411) agreed reasonably well with the values obtained by Losev (Ref 4), who used a computer to solve exactly the Schrödinger equation (curves 1 and 4), and with those reported by Fraser, Jarmain and Nichol (Ref 3) which are shown as curves 2 and 5. Acknowledgement is made to L.M. Biberman who directed this work.
There are 1 figure, 1 table and 10 references: 2 Soviet, 1 French, 6 English and 1 German.

SUBMITTED: November 12, 1959

Card 1/1

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

MOSKVIN, Yu.V.; YAKUBOV, I.T.

Franck-Condon factors for the band systems of a lithium molecule.
Izv.vys.uchsb.zav.; fiz. no.4:173-175 '61. (MIRA 14:10)

1. Moskovskiy energeticheskiy institut.
(Molecules) (Lithium)

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

S/140/63/000/001/005/006
E032/E314

AUTHOR: Yakubov, I.T.

TITLE: Asymptotic expression for the generalized Laguerre polynomials

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Matematika, no. 1, 1963, 169 - 171

TEXT: Published asymptotic expressions for the generalized Laguerre polynomials $L_v^a(z)$ are available only when one of the indices is large and the second small. In the present note, an asymptotic expression is obtained for large v and large fractional a. The required asymptotic expression is found by approximate integration of the Schroedinger equation for a Morse oscillator using the WKB method. The asymptotic expressions are derived for the following values of the argument:

$$z > (2v + a + 1) + \sqrt{(2v + 1)(2v + 2a + 1)} ;$$

$$(2v + a + 1) - \sqrt{(2v + 1)(2v + 2a + 1)} < z < (2v + a + 1) + \sqrt{(2v + 1)(2v + 2a + 1)}$$

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

and

$$(2v + a + 1) - \sqrt{(2v + 1)(2v + 2a + 1)} > z .$$

The asymptotic expressions do not hold in the neighbourhood of

$$z_{1,2} = (2v + a + 1) \pm \sqrt{(2v + 1)(2v + 2a + 1)}$$

since at these points they become infinite.

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power Engineering Institute)

SUBMITTED: January 25, 1960

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

S/051/63/014/002/004/026
E039/E120

AUTHORS: Lagar'kov, A.N., and Yakubov, I.T.

TITLE: The influence of radiation on the state of a gas before the front of a shock wave

PERIODICAL: Optika i spektroskopiya, v.14, no.2, 1963, 199-207

TEXT: The distribution of excited atoms before the front of a shock wave in a monatomic gas is examined. Firstly, the concentration n_a of excited atoms before a front arising as a result of the absorption of radiation emitted by the front is considered and integro-differential equations with respect to n_a are derived. Transitions can occur between different excited states and the effect of the presence of a metastable state for the case of a shock wave passing through mercury vapor is shown to produce a considerable increase in the concentration of excited atoms. The concentration of electrons before a shock as a result of photo-ionization is also considered in detail. These results are compared with experiment; in particular with the work of H.D. Weymann (Phys. of Fluids, v.3, 1960, 545, and Bull. Amer. Phys. Soc., v.6, 1961, 212). He shows that at 5 cm from the front

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

the diffusion is ambipolar while at greater distances (5-50 cm) charge separation occurs. The velocity of the electric precursor signal is also shown to be about twice the wave velocity. This effect may be connected with non-stationary waves of photo-electrons.
There are 4 figures.

SUBMITTED: April 5, 1962

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

BIBERMAN, L.M.; YAKUBOV, I.T.

Establishment of ionization equilibrium behind the shock wave front in an atomic gas. Zhur. tekh. fiz. 33 no.11:1344-1353 N '63. (MIRA 16:12)

1. Moskovskiy ordena Lenina energeticheskiy institut.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ACCESSION NR: AP4042458

AUTHOR: Biberman, L. M.; Sevast'yanenko, V. G.; Yakubov, I. T.

association of oxygen ahead of the front of a shock wave in air

SOURCE: Teplofizika vysokikh temperatur

TOPIC TAGS: shock wave, dissociation, photodissociation, air absorption, photoionization

... rate of photodissociation ahead

strong shock wave ... pressure (p) of the air behind the shock wave front was ...

... in Fig. 1 of the Enclosure: $\beta(x) = \frac{n_O(x)}{n_O(x)+n_{O_2}(x)}$; n_O and n_{O_2} are the

... approased in terms of (x) the

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

L 9092-65

ACCESSION NR: AP4042458

state of equilibrium. Fig. 1 shows that the degree of dissociation of oxygen is [illegible] degree of dissociation is close to unity [illegible]

[illegible] As a result of elastic collisions, the [illegible] transferred to other gas particles. Therefore, when oxygen is completely [illegible] [illegible] Orig. art. has: [illegible]

ASSOCIATION: Moskovskiy energicheskiy institut (Moscow Power Engineering Institute)

SUBMITTED: [illegible] ENCL: 01

OTHER: [illegible]

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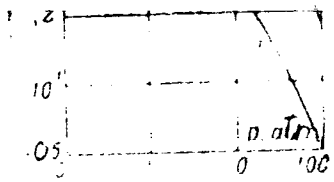

Fig. on p. 335

Fig. 1. The degree of dissociation of oxygen at the front of a shock [illegible] $\beta(o)$ in air as a function of gas pressure behind the wave front. The temperature of the emitting gas behind the wave front [illegible] values of $\beta(o)$ close to unity are shown by a [illegible] [illegible] decrease its value

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ACCESSION NR: AP4041567 S/0293/64/002/003/0441/0454

AUTHOR: Biberman, L. M.; Vorob'yev, V. S.; Norman, G.E.; Yakubov, I. T.

TITLE: Radiation heating in the case of hypersonic flow

SOURCE: Kosmicheskiye issledovaniya, v. 2, no. 3, 1964, 441-454

TOPIC TAGS: radiation heating, hypersonic flow, shock wave, aerodynamic heating, blunt body, boundary layer

ABSTRACT: The problem of the heating of a blunt body by shock-wave radiation in the case of hypersonic flow (velocities > 8 km/sec) is examined with particular attention given to the case of heating caused by flow under conditions where the gas is almost completely dissociated following a density jump. General expressions are given to compute the radiant fluxes. The main elementary radiation processes involved in the determination of the plasma formed after the density jump are analyzed. Methods of computing the contribution of the individual radiation processes to the radiating capacity of the air are presented. The radiation in the continuous spectrum and in the entire aggregate of spectral lines is considered. Compu-

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ACCESSION NR: AP4041567

tations indicate that: 1) there is a broad interval of temperatures, pressures, and thicknesses of the radiating layer in which the lines make the major contribution to the energy emitted by the plasma, 2) the total energy of a large number of weak lines, computed integrally, with a growth of optical density may noticeably increase the contribution of the individually computed strong lines, and 3) in addition to the visible lines, the lines in the ultraviolet may also play an important role. Computations were also made of the coefficients of absorption and the degree of air darkening in the pressure interval p = 0.001—100 atm and for temperatures to 20,000K. The values of the flow parameters at which the radiant heat flux may exceed the convective flow and cause aerodynamic heating are found. The state of the gas behind the shock wave front is discussed. The causes for the departure from a state of equilibrium and the regions of relaxation and quasi-stationary inequilibrium are analyzed. The main processes determining the structure of the inequilibrium zone at high flow velocities are explained. Orig. art. has: 5 formulas and 3 figures.

ASSOCIATION: none

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ACCESSION NR: AP4011479 S/0051/64/016/001/0003/0010

AUTHOR: Sevast'yanenko, V.G.; Yakubov, I.T.

TITLE: Radiative cooling of gas heated by a strong shock wave

SOURCE: Optika i spektroskopiya, v.16, no.1, 1964, 3-10

TOPIC TAGS: shock wave, shock wave front, shock wave heating, radiative cooling, plasma cooling, argon, inert gas, shock wave tube, shock wave temperatures

ABSTRACT: Propagation of a shock wave through gas is accompanied by changes in the state of the gas, which leads to formation of a region of hot strongly radiating gas behind the shock wave front. Although local thermodynamic equilibrium is rapidly established, this region of hot gas is not uniform. Experiments with argon in shock tubes carried out by H.Petschek, P.Rose, H.Glick, and A.Kantrowitz (J.Appl. Phys.26,83,1955) have shown that the gas behind the shock wave front cools rapidly, and that in studying this region in a shock tube the rate of cooling must be taken into account. Petschek et al also carried out theoretical calculations for the rate of cooling based on the assumption that the radiation is mainly in the continuum and that the radiation in the regions of the spectrum lines is negligible. The results

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ACC.NR: AP4011479

of their calculations are in reasonable agreement with the experimental data but careful analysis shows that their approach is not entirely satisfactory. Accordingly, in the present paper more detailed and comprehensive calculations are carried out for the rate of cooling of the gas behind the shock wave front. The calculations are based on expressions for the energy balance. All the radiative processes (radiation in the continuum and in the regions of the lines) are considered and their relative roles are evaluated. The set of equations describing the state of the gas is solved approximately and then integrated to obtain a final solution for the cases of interest. Numerical evaluations are made for the case of argon and the results are in good agreement with the data of Petschek et al. Although the specific calculations are made for the case of argon plasma in a hemispherical volume, the equations and computation procedure should be applicable to any atomic gas. Evaluations of thermal conductivity show that the temperature field in the proximity of the tube walls is virtually time independent. From this it follows that although the temperature is virtually constant over most of the cross section of the tube, it falls off rapidly at the walls. "The authors are grateful to L.M.Biberman for suggesting the topic and following the course of the work. The authors are also indebted to V.S. Vorob'ev and G.E.Norman for discussion of individual problems." Orig.art.has: 32 formulas and 4 figures.

Card 2/3

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ACCESSION NR: AP4035700 S/0057/64/034/005/0879/0882

AUTHOR: Yakubov, I.T.

TITLE: Ionization relaxatin behind a shock wave in argon containing cesium

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.5, 1964, 879-882

TOPIC TAGS: shock wave, ionizatinn, shock wave ionization relaxation, argon, cesium

ABSTRACT: The time constant (relaxation time) for the approach to ionizatinn equilibrium behind a shock front in argon containing cesium is calculated, and the results are compared with experimental data of A.F.Haught (Phys.Fluids,5,1337,1963). It is assumed that the important process is exciation of cesium atoms, and tha a cesium atom, once it is excited, becomes ionized without appreciable further delay. The excitation of cesium atoms by radiation from the equilibrium region is discussed, and it is concluded that the effect of this process is negligible under the conditions of Haught's experiments, although it could be important at higher cesium concentrations. Radiative processes are therefore neglected, and the kinetic equations describing the production and heating of the electron gas contain terms to account for the following processes: excitation of cesium atoms by impact with argon atoms

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"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ACCESSION NR: AP4035700

and with electrons; ionization of (unexcited) cesium atoms by electron impact; and elastic collisions of electrons with cesium atoms, argon atoms, and ions. The cross section for excitation of cesium by argon impact is assumed to rise linearly with energy and to reach the value 10^{-20} cm^2 at 1 eV above the threshold. The cross section for excitation of cesium by electron impact is assumed to be equal to the known cross section for sodium. The cross sections for the elastic processes were taken from recent sources (H.Petschek and S.Byron, Ann.Phys.1,270,1957; L.M.Biberman, I.T. Yakubov,ZhTF,30,1344,1963; C.L.Chen and M.Raether,Phys.Rev.128,2679,1963). The temperatures were introduced by averaging the cross sections over appropriate Maxwellian distributions, and the kinetic equations were solved numerically with the assumptions that the total gas pressure and the atom and ion temperatures are constant. Curves are given showing the calculated relaxation time as a function of cesium concentration for fixed argon concentration and temperature, and as a function of argon temperature for fixed argon and cesium concentrations. These calculated curves are compared with experimental data of Haught, and good agreement is found. "The author is grateful to Prof.L.M.Biberman for discussing the work." Orig.art.has: 5 formulas and 2 figures.

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APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"

"APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0

ACCESSION NR: AP4035700

ASSOCIATION: Moskovskiy energeticheskiy institut (Moscow Power Engineering Inst.)

SUBMITTED: 10May63 DATE ACQ: 20May64 ENCL: 00

SUB CODE: ME, NP NR REF SOV: 005 OTHER: 009

Card 3/3

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L 14836-66 EWT(1)/EWT(m)/ETC(F)/EPF(n)-2/EWG(m)/EWP(t)/EWP(b) IJP(c) JD/AT

ACC NR: AP5025293 SOURCE CODE: UR/0051/65/019/004/0497/0500

AUTHOR: Yakubov, I. T.

ORG: None

TITLE: Energy radiated by argon plasma in spectral lines /Paper presented at the Symposium on the Intensities and Contour Shapes of Spect[illegible] Lines held in Krasnoyarsk in June-July 1964/

SOURCE: Optika i spektroskopiya, v. 19, no. 4, 1965, 497-500

TOPIC TAGS: argon, plasma radiation, spectral line, spectral energy distribution, electron transition

ABSTRACT: The article is devoted to the calculation of the energy radiated by an equilibrium argon plasma in the 6,000—17,000C temperature range with particular emphasis on the energy radiated in numerous spectral lines. The continuous spectrum is also considered. At pressures of 1 and 10 atm, the calculations were made for the energy radiated by a hemispherical volume of gas through a unit area located at the center of the base of the hemisphere

$$E = \int_0^\infty B_\nu (1 - e^{-k_\nu l})\, d\nu,$$

Card 1/2 UDC: 533.9.07:535.33

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962010011-0"