

USSR/Physics - Illumination Jan 50

"New Standard of Light in USSR," A. Adamov

"Nauka i Zhizn'" Vol XVIII, No 1, pp 37-39

In 1946 the unit of light was established as that emitted by a special radiator from an area of 0.5305 sq mm at the temp of solidification of platinum.

213T113

Vasilii Platon. Povest' o russkoi izobretatel'skoi Vasilii Platon; story about a Russian inventor. Khud. I. I. Starobol'skii. Moskva, Izdatel'stvo, 1952. 104 p.

SC: Monthly List of Russian Authors, Vol 7, No 2, July 1951.

ADWCV, A.

Russians in Spitzbergen

Russians on Spitzbergen., Znanie-sila, no. 1, 1952

9. Monthly List of Russian Accessions, Library of Congress, March ¹⁹⁵²~~1953~~. Unclassified.

ADAMOV, Arkadiy

Explorers, Russian

Noteworthy travels. Znan. sila no. 3 '52.

9. Monthly List of Russian Accessions, Library of Congress, July ²195~~7~~. Unclassified

"APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000100320006-9

ADAMOV, Arkadiy

"Famous Travels; to Egypt and the Sudan," Znan. Sila, No.5, 1952

APPROVED FOR RELEASE: 06/05/2000 CIA-RDP86-00513R000100320006-9"

1. ADAMOV, Arkadiy
2. USSR (600)
4. United States - Geopolitics
7. "American" version of geography. Znan. sila, No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953, Uncl.

ADAMOV, Ark.

East from Kamchatka. Vokrug sveta no.7:38-44 J1 '53. (MLBA 6:7)
(Aleutian Islands - Exploring expeditions)

OBRUCHEV, V.A. [author]; ADAMOV, A. [reviewer].

"In the wilds of Central Asia." V.A. Obruchev. Reviewed by A. Adamov.
Znan.sila no.9:39 S '53. (MIRA 6:9)
(Obruchev, Vladimir Afanas'evich, 1863-) (Geography--Juvenile
literature)

ADAMOV, Arkadiy.

~~ADAMOV, Arkadiy.~~
The mystery of Andreevland. Znan.sila no.12:6-8 D '53. (MLRA 6:12)
(Arctic regions)

ADAICY, A. A.

Elementarnyy sposob dlya izucheniya osnovnykh konceptov trekhmernogo porjadka
po daniyu u. vvedeniya v dekartovykh koordinatakh. 1948, 108 s., 11d. (1948), 1-130

SC: Mathematics in the USSR, 1917-1947
 edited by Kurosh, A.G.,
 Markushevich, A.I.,
 Rashvskiy, P.K.
 Moscow-Leningrad, 1948

FREYDLIN, G.N.; ADAMOV, A.A.; ZAYTSEV, P.M.

Vinyl monomers on a base of dicarboxylic acids. Part 6:
Direct vinylation of the monoesters of dicarboxylic acids
with acetylene. Zhur. org. khim. 1 no.4:666-670 Ap '65.
(MIRA 18:11)

L 15890-66 EWT(m)/EWP(j) US/RM

ACC NR: AT6004036

SOURCE CODE: UR/0000/65/000/000/0037/0040

AUTHOR: Freydlin, G. N.; Adamov, A. A.; Pershenkova, L. A.

ORG: Severo-Donetskiy Branch, State Institute of the Nitrogen Industry and Organic Synthesis Products (Severo-Donetskiy filial Gosudarstvennogo instituta azotnoy promyshlennosti i produktov organicheskogo sinteza)

TITLE: Vinyl monomers based on dicarboxylic acids. Part 5: . Study of the reaction of vinyl exchange

SOURCE: AN SSSR, Otdeleniye obshchey i tekhnicheskoy khimii. Problemy organicheskogo sinteza (Problems in organic synthesis). Moscow, Izd-vo Nauka, 1965, 37-40

TOPIC TAGS: aliphatic dicarboxylic acid, ester, mercury compound, acetate, organic synthetic process

ABSTRACT: In the synthesis of vinyl methyladipate, the following catalysts of the reaction of vinyl exchange were tested: acetates of copper, zinc, and cadmium, copper chloride, palladium chloride, boron trifluoride etherate, and sulfates of zinc, cadmium, lead, and copper. None of these substances catalyzed this reaction at various temperatures and pressures. When mercury acetate was employed, the reaction time was shortened (equilibrium was reached in less than 24 hr), the

Card 1/2

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ACC NR: AT6004036

reaction rate was accelerated by a rising temperature, high yields of vinyl esters (vinyl stearate, benzoate, oleate, butyrate, methyladipate) were obtained, and no by-products or tars were formed. The vinyl exchange reaction can also be used to synthesize high-boiling vinyl esters. Orig. art. has: 1 figure and 1 table. 3944

SUB CODE: 07 / SUBM DATE: 24Dec63 / ORIG REF: 002 / OTH REF: 003

Card 2/2 *Q*

KREMS, A.Ya; ZDOROV, S.F.; BONDARENKO, S.M.; ADAMOV, A.I.; ZOTKIN, M.M.
redaktor; SHMELEV, A.A., redaktor; POLOSHINA, A.S., tekhnicheskiy
redaktor.

[Oil mining] Shakhtania razrabotka neftiannykh mestorozhdenii. Pod
red. M.M. Zotkina i A.A. Shmeleva, Moskva, Gos. nauchno-tekhn.
izd-vo neftianoi i gornotoplivnoi lit-ry. 1955. 273 p. (MLRA 8:8)
(Petroleum engineering)

ADAMOV, A.I.; IMANOVA, R.Yu.

Some results of flooding the NKG-3 horizon in the Azizbekov oil
field. Azerb.neft.khoz. 35 no.5:8-10 My '56. (MLRA 9:10)

(Azizbekov (Azerbaijan)--Oil field flooding)

ADAMOV, A.I.; TSVETKOVA, N.L.

Some results from the study of injection wells by the
activated suspension method in a flooded area of the
Kirmaki series 9-12 in the Oil Field Administration of the
Azizbekov Azerbaijan Research Institute. Azerb. neft. khoz.
39 no.2:21-23 F '60. (MIRA 14:8)
(Oil field flooding)

ADAMOV, A.k., kapitan med. sluzhby

Comparative evaluation of the sensitivity and specificity of certain serological reactions. Voen. med. zhur. no.2:43-46 F '59. (MIRA 12:7)

(SERODIAGNOSIS

comparison of sensitivity & specificity of various serol. reactions (Rus))

ADAMOV, A.K.

Effect of short-term administration of vitamins on leukocytic reaction and on barrier function of the serous membranes of the abdominal cavity in white mice. Vop.pit. 18 no.5:35-39 S-0 '59. (MIRA 13:1)

1. Iz Tsentral'noy nauchno-issledovatel'skoy laboratorii pitaniya (nachal'nik - prof. V.M. Vasyutochkin) Voenno-meditsinskoy ordena Lenina akademii imeni S.M. Kirova, Leningrad.

(VITAMINS pharmacol.)

(LEUKOCYTE COUNT pharmacol.)

(IMMUNITY pharmacol.)

ADAMOV, A.K.

Effect of certain organic compounds on the growth of pathogenic
Leptospira. Zhur.mikrobiol.epid.i immun. 30 no.8:104-107 Ag '59.
(MIRA 12:11)

1. Iz Voenno-meditsinskoy akademii imeni Kirova.
(LEPTOSPIRA pharmacol.)

ADAMOV, A.K.

Elective adsorption as a method for the rapid isolation of saprophytic microbes from mixed suspensions of pathogenic and saprophytic microbes. Zhur.mikrobiol., epid.i immun. 30 no.12:6-11 D '59. (MIRA 13:5)

1. Iz Voenno-meditsinskoy akademii imeni Kirova.
(BACTERIA)

ADAMOV, A.K., kapitan meditsinskoy sluzhby

Use of alizarin suspension agglutins for the rapid detection and
identification of pathogenic microbes. Voen.-med. zhur. no. 5:65-
68 My '60. (MIRA 13:7)
(AGGLUTININS) (BACTERIA, PATHOGENIC)

SIROKO, A.L., prof. [deceased]; YAPAYEV, R.Kh., kand.meditsinskikh nauk;
ADAMOV, A.K., kand.meditsinskikh nauk

Agglomeration reaction of carbon serum. Vest. AMN SSSR 15 no. 5:23-
33 '60. (MIRA 14:2)

1. Voenno-meditsinskaya ordean Lenina akademiya im. S.M. Kirova.
(BACTERIOLOGY---TECHNIQUE) (CARBON, ACTIVATED)

ADAMOV, A.K.

Vitamin supply for patients with chronic dysentery. Vop. pit. 19
no. 6:37-40 A-D '60. (MIRA 13:10)

1. Iz Tsentral'noy nauchno-issledovatel'skoy laboratorii pitaniya
(nachal'nik - prof. V.M. Vasyutochkin) Voenno-meditsinskoy ordepa
Lenina akademii ime i S.M. Kirova, Leningrad.
(DYSENTERY) (VITAMINS)

ADAMOV, A.K.

Rapid method for the analysis of food products for salmonella.
Gig. i san. 25 no. 5:67-69 My '60. (MIRA 13:10)

1. Iz sanitarno-epidemiologicheskoy laboratorii.
(FOOD—MICROBIOLOGY) (SALMONELLA)

ADAMOV, A.K.

Immunological activity and specificity of the antibodies adsorbed
on solid adsorbents. Zhur.mikrobiol. epid. i immun. 31 no.3:127-
128 Mr '60. (MIRA 14:6)

(ANTIGENS AND ANTIBODIES)

ADAMOV, A.K.

Studies on copro- and hemocultures with the use of the agglomeration
reaction of alizarin-agglutin suspensions. Report No.3. Zhur.
mikrobiol.epid.i immun, 31 no.11:67-70 N '60. (MIRA 14:6)
(SALMONELLA) (SERUM DIAGNOSIS)

ADAMOV, A.K.

Dependence of the adsorption of immune antibodies on the chemical structure of adsorbents. *Biul. eksp. i biol. med.* 50 no. 8:107-111 Ag '60. (MIRA 13:10)

1. Predstavlena deystv. chlenom AMN SSSR N. N. Zhukovym-Verezhnikovym.
(ANTIGENS AND ANTIBODIES) (ADSORPTION) (ADSORBENTS)

ADAMOV, A.

Concerning the antibiotic properties of vitamins. Vestis Latv ak
no.8:145-148 '60. (EEAI 10:9)

(VITAMINS) (ANTIBIOTICS)

ADAMOV, A.K.

Immunological activity of antibodies adsorbed on solid adsorbents.
Biul. eksp. biol. i med. 50 no. 11:71-76 N '60. (MIRA 13:12)

1. Iz sanitarno-epidemiologicheskoy laboratorii (nachal'nik
F.A. Mordvintsev, nauchnyy konsul'tant - chlen-korrespondent
AMN SSR prof. A.Ya. Alymov).
(ANTIGENS AND ANTIBODIES)

ADAMOV, A.K.

Agglomeration reaction of alizarin agglutinin suspensions as a method for a rapid identification of pathogenic microbes (a new serological reaction). Report No.2. Zhur.mikrobiol.epid.i immun. 32 no.3:84-91 Mr '61. (MIRA 14:6)
(SERUM DIAGNOSIS)

ADAMOV, A.K., kapitan meditsinskoy sluzhby; STEPANOV, A.I., kapitan
meditsinskoy sluzhby

Pneumatic holder for pasteurizing pipettes. Voen.-med. zhur.
no.11:81 N '61. (MIRA 15:6)
(BACTERIOLOGICAL LABORATORIES—EQUIPMENT AND SUPPLIES)

ADAMOV, A.K.; POPOVA, Ye.M.

Phenomenon of adsorption immobilization of Leptospira. Trudy Len.
inst.epid.i mikrobiol. 23:261-266 '61. (MIRA 16:3)

1. Iz sanitarno-epidemiologicheskoy laboratorii Riga i laboratorii
osobo opasnykh infektsiy i rikketsiozov Leningradskogo instituta
epidemiologii i mikrobiologii imeni Pastera.
(LEPTOSPIRA) (BACTERIA--MOTILITY) (ADSORPTION)

ADAMOV, A.K.; GOL'DFARB, L.M.; KUZNETSOVA, N.I.

Method for identifying plague microbes using antiplague
alizarin suspension agglutinins. Biul. eksp. biol. i med. 53
no.5:103-107 My '62. (MIRA 15:7)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta "Mikrob"
(nauchnyye konsul'tanty - chlen-korrespondent AMN SSSR prof.
A.Ya. Alymov i kand. med. nauk G.N. Lenskaya), Saratov. Pred-
stavlena deystvitel'nym chlenom AMN SSSR N.N. Zhukovym-
Verezhnikovym.

(PASTEURELLA PESTIS) (AGGLUTININS)
(ALIZARIN)

ADAMO, .K. (Kostov-ra-Denu)

Effect of certain conditions on the adsorption of microbes by
substituted calcium phosphate. Mikrobiol. zhur. 26 no.3:77-

8) '64.

(M RA 18:5)

ASSOCIATION: none

SUBMITTED: 11Dec63

ENCL: 00

SUB CODE: LS

ADAMOV, A.K.

Properties of antibodies fixed on particles and aspects of their use
in microbiology. Report No.5. Zhur. mikrobiol., epid. i immun. 4.
no.11:3-7 '65. (MIRA 18:5)

ADAMOV, A. K.; RUDNICKI, V. I.

Absorption of immune antibodies on the particles of a suspension.
Zhur. mikrobiol., epid. i immun. 41 no.12:83-89 B 164.

(MIRA 18:3)

ADAMOV, A.K. [Adamov, O.K.]

Effect of various conditions on the adsorption of agglutinins
by nonspecific adsorbents. Mikrobiol. zhur. 27 no.1:49-53 '65.
(MIRA 18:7)

ADAMOV, A.K.; KARFUZIDI, K.S.

Rapid method to identify brucella using alizarin suspension
agglutinins. Zhur. mikrobiol., epid. i immun. 42 no.1:103-107
Ja '65. (MIRA 18:6)

1. Rostovskiy-na-Donu protivochumnyy institut.

ADAMOV, A.K.

Characteristics of antibodies fixed to particles and prospects
of their use in microbiology. Report No.6. Zhur.mikrobiol., epid.
i immun. 42 no.2:100-105 F '65. (MIRA 18:6)

ACC NR: AP6006642 SOURCE CODE: UR/0016/65/000/001/0103/0107

AUTHOR: Adamov, A. K.; Karpuzidi, K. S. 26B

ORG: Rostov-on-Don Antiplague Institute (Rostov-na-Donu protivochumnyy institut) le 44155

TITLE: Rapid method of identifying Brucella by means of alizarin suspension agglutinins

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 1, 1965, 103-107

TOPIC TAGS: bacteria, bacteriology

ABSTRACT: The authors propose a new serological method for rapid identification of Brucella -- the reaction of agglomeration of brucellar alizarin suspension agglutinins. The method is very simple and easily used under field conditions, for it does not require complicated laboratory equipment. The agglomeration reaction is strictly specific and permits rapid identification of both typical and substantially changed Brucella strains. It is sensitive enough to detect Brucella in pure and mixed cultures in a concentration of 25-250 million microbial cells per ml. Orig. art. has: 3 tables. [JMRS]

SUB CODE: 06 / SUBM DATE: 26Aug63 / ORIG REF: 011

Card 1/1 HW UDC: 576.851.42.078

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ADAMOV, A.N.

Effective moment of raising the bit from the well bottom.
Neft.khoz.34 no.4:15-22 Ap '56. (MLRA 9:7)
(Oil well drilling)

Adamov, A.N.

93-5-4/19

AUTHOR: Adamov, A. N.

TITLE: The Effect of Irregularity of the Turbodrill Shaft Rotation on Bit Performance (Vliyaniye stepeni neravnomernosti vrashcheniya vala turbobura na pokazateli raboty dolota)

PERIODICAL: Neftyanoye Khozyaystvo, 1957, Nr 5, pp. 11-15 (USSR)

ABSTRACT: The author discusses the effect of a flywheel device on the irregular rotation of the turbodrill shaft. Since an irregular rotation of the turbodrill affects adversely the latter's drilling efficiency, efforts have been made to find a way of decreasing, if not eliminating, this rotational irregularity. The idea of a flywheel had its origin in the use of a weighted drill pipe (UBT) placed between the body of the turbodrill and the bit, as a means of straightening deflected holes and increasing its penetration rate. The UBT used at one of Ordzhonikidze drilling enterprises (Well No. 824) in 1953, at depths ranging from 865 to 1461 m, was 11.4 m long. An electric turbotachometer

Card 1/3

93-5-4/19

The Effect of Irregularity of the Turbodrill Shaft Rotation (Cont.)

recorded the r.p.m. of the turbodrill. Although this device decreased the deflection angle and increased the rate of penetration, it had one draw-back, namely due to a considerable space between the turbodrill body and the bit, the device had a tendency to become suspended in the well. Data in Table I shows that the UBT decreased the degree of irregularity of the turbodrill shaft rotation 2-4 times. Considering the fact that the turbodrill becomes suspended and that the moment of gyration increases as the fourth power of the diameter of the flywheel, the VNIIBurneft' (All-Union Scientific Research Institute of Oil Drilling) designed 3 types of short (not to exceed 4 m) flywheel arrangement (10, 8 and 6 inches in diameter). This flywheel (Fig. 1.) was tested at two Ordzhonikidze drilling enterprises (Wells No. 921 and 1624). The test results listed in Table 2 show that the flywheel has substantially reduced the degree of irregularity of the turbodrill rotation. In 1956, the Al'met'-yevburneft' trust tested a similarly constructed (Fig. 2) flywheel with the positive results shown in Table 3. Both the average footage per bit and the penetration rate show an approximate 50% gain in the Podol'skaya and Serpukhovskaya formations.

Card 2/3

93-5-4/19

The Effect of Irregularity of the Turbodrill Shaft Rotation (Cont.)

In the Serpukhovskaya formation the footage per bit increased from 16.5 without a flywheel to 27.2 m with a flywheel. The positive effect of a flywheel on bit efficiency at other drilling enterprises can be seen from data on Tables 4 and 5. The use of the flywheel helps also to keep the hole straight. This was confirmed during drilling operations in Tatariya. All evidence points to the fact that the application of the flywheel aids in keeping the rotation of the turbodrill more uniform, increases the gyration moment aiding the bit in drilling a straight hole and decreases the bit wear. It is also mentioned that in many instances drillers had objected to using a flywheel because it made the shaft wobble. That was due, however, to an improper balancing of the flywheel and for this reason the factories manufacturing flywheels should make sure that their product is properly balanced before it is delivered to the consumer. There are five tables, two figures, and five Soviet references.

AVAILABLE: Library of Congress

Card 3/3

ADAMOV, A. N.: Master Tech Sci (diss) -- "Investigation of the effectiveness of operation of a chisel on a cutting face". Moscow, 1958. 10 pp (Min Higher Educ USSR, Moscow Order of Labor Red Banner Inst of the Oil-Chem and Gas Industry USSR im Acad I. M. Gubkin), 200 copies (KL, No 3, 1959, 109)

ADAMOV, A.N.

Evaluating efficient rock destruction methods. Neft.khoz. 36
no.2:7-13 F '58. (MIRA 12:4)
(Boring)

ADAMOV, A.N.

Arrangement of a drilling string base. Neft.khoz. 41 no.10:
15-19 0 '63. (MIRA 17:4)

ADAMOV, A. P.

Report presented at the Conference of ... and Faculty ...
Kiev, USSR, 5-15 June 61.

RW-2570
51

- 306. P. T. Smolovskiy, Thermal Loss and Heat Generation at Surface of Solid Surface by Freezing Process.
- 307. G. S. Kononov, Heat and Mass Generation at Freezing of Film.
- 308. V. V. Kozel'skiy, Investigation of General Freezing Properties of Composites with Various Compositions.
- 309. K. D. Simulskiy, Investigation of Freezing on the Inner Surface of Panel Joints by Experimental Methods.
- 310. S. L. Prid, Heat and Mass Transfer Problem at Layer Heat Engineering Structures.
- 311. N. Ye. Patman, Investigation of the Thermal Heat Transfer Theory for Heating of Solid Surfaces of Composites.
- 312. Yu. P. Serezh, Investigation of Thermal Expansion of the Porous of Organic Solids for Determination of the Thermal Expansion Coefficient of Solid-State Polymers.
- 313. K. Sh. Yegorov, Investigation of Thermal Volume on the Basis of Solid-State Polymers.
- 314. A. B. Verbitskiy, The Method of Constant Power Current.
- 315. P. G. Aleksey, Complex Determination of General Properties of Polymers and Investigation of Their Dependence on the Structure of Invariant.
- 316. B. P. Parshin, Change of General Conductivity of Solid Media and Alloys at Heating.
- 317. Kh. I. Akhmedov, A. P. Akhmedov, L. H. Levina, Thermal Conductivity of Carbon Fibers and the Kinetics of Their Growth in the Critical Region.
- 318. S. M. Gulyaev, Investigation of the Properties of Thermal Expansion of Composites with Various Compositions.
- 319. V. S. Petrovskiy, L. S. Zolotarev, The General Method of Heat Transfer of Composites.
- 320. V. S. Petrovskiy, Experimental Investigation of Heat Transfer under the

AMIRKHANOV, Kh. I.; ADAMOV, A. P.; LEVINA, L. N.

Thermal conductivity of carbon dioxide along the boundary
curve including the critical region. Teplo- i massoper. 1:
105-108 '62. (MIRA 16:1)

1. Dagestanskiy filial AN SSSR, g. Makhachkala.

(Carbon dioxide--Thermal properties)

AMIRKHANOV, Kh.I., akademik; ADAMOV, A.P., inzh.

Thermal conductivity of carbon dioxide along a boundary curve
and in the region of the critical state. Teploenergetika 10
no.7:77-82 J1 '63. (MIRA 16:7)

1. Dagestanskiy filial AN SSSR. 2. AN AzerSSR (for Amirkhanov).
(Carbon dioxide---Thermal properties)

AMIRKHANOV, Kh.I., doktor fiz.-matem.nauk, prof.: ADAMOV, A.P., inzh.

Heat transmission of steam in near-critical and supercritical
states. Teploenergetika 10 no.10:69-72 0'63 (MIRA 17:7)

1. Dagestanskiy filial AN SSSR.

L 65265-55

The total sensitivity of cardiac muscle to the effects of digitalis is

... the total sensitivity of cardiac muscle to the effects of digitalis is

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POPOVIC, Ivo; ADAMOV, Dragoljub

Bronhiektazije. Srpski arh. celok. lek. 87 no.2:173-180 Feb 59.

1. Hirursko odeljenje Bolnice Dr Dragisa Misovic u Beogradu. Sef.
doc. dr Ivo Popovic.

(BRONCHIECTASIS,
(Ser))

. ADAMOV, Dragoljub; MILOVANOVIC, Milan; MARTINIC, Uros; KOVACEVIC, Milan;
JANKOVIC-BRMBOLIC, Ana; SIMIC, Vera

Primary bronchiectasic aspergilloma. Srpski arh. celok. lek.
87 no.6:582-592 Je '59.

1. Gradska bolnica za grudobolne u Beogradu, Zemun - Bezanska Kosa,
upravnik: prim. dr Ljubisa Ilic; Mikrobioloski institut Medicinskog
fakulteta u Beogradu, upravnik: prof. dr Milutin Burisic; Institut
za tuberkulozu NR Srbije u Beogradu, direktor: prof. dr Milic Grujic.
(ASPERGILLOSIS compl.)
(BRONCHIECTASIS etiol.)

KHVOSTENKO, V.V.; ADAMOV, E.V.

Interfactory schools for the exchange of progressive practices in
the field of controlling technological processes in nonferrous metal
ore dressing plants. TSvet.met. 35 no.2:79-80 F '62.

(MIRA 15:2)

(Ore dressing--Study and teaching)

ADAMOV, E.V.; KISLYAKOV, L.D.; NAGIBNYAK, F.I.; TROITSKIY, A.V.,
otv. red.

[Ore dressing practices for nonferrous, rare, and noble
metals] Praktika obogashchenia rud tsvetnykh redkikh i
blagorodnykh metallov na fabrikakh SSSR. Moskva, Izd-vo
"Nedra," 1964. 238 p. (MIRA 17:8)

1. Ural'skiy nauchno-issledovatel'skiy institut mekhani-
cheskoy obrabotki poleznykh iskopayemykh.

ADAMOV, E.V.; KISLYAKOV, L.D.; NAGIRNYAK, F.I.; TROITSKIY, A.V.,
otv. red.

[Practice of dressing ores of nonferrous, rare and noble
metals in the factories of the U.S.S.R.] Praktika oboga-
shcheniia rud tsvetnykh, redkikh i blagorodnykh metallov
na fabrikakh SSSR. Moskva, Nedra, 1964. 238 p.

(MIRA 18:7)

1. Sverdlovsk. Nauchno-issledovatel'skiy i proyektnyy
institut obogashcheniya i mekhanicheskoy obrabotki polez-
nykh iskopayemykh.

ADAMOV, G. A.

USSR/Physics - Hydrodynamics, Gas Flow 21 May 52
in Vertical Pipes

"Flow of Real Gases in Vertical Pipes," G. A. Adamov,
All-Union Sci Res Inst of Natural Gases

"Dok Ak Nauk SSSR" Vol LXXXIV, No 3, pp 457-460

Derives a practically exact formula for the vertical flow of real gases at high pressures, which formula permits one to compute particularly the actual underground pressure in the gas wells, taking the force of gravity on the upward flowing gas into account. Submitted by Acad S. A. Khristianov 24 Mar 52.

225T79

SOV/124-57-9-10290

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 9, p 56 (USSR)

AUTHOR: Adamov, G. A.

TITLE: Approximate Calculation Formulas for the Coefficient of Hydrodynamic Resistance (Priblizhennyye raschetnyye formuly dlya koeffitsiyenta gidrodinamicheskogo soprotivleniya)

PERIODICAL: Vestn. inzh. i tekhnikov, 1953, Nr 2, pp 74-79

ABSTRACT: On the basis of exact universal-type formulas previously worked out by the author for the determination of the resistance coefficient under turbulent flow conditions (Adamov G. A. Vestn, inzh. i tekhnikov, 1952, Nr 1) a number of approximate power formulas are recommended for use as more convenient for practical application since they ensure any prescribed degree of approximation. The value of λ for rough pipes under conditions of turbulent self-similarity is obtained from the type of formula proposed below

$$\lambda = \frac{1}{4} \left(\log_{10} \frac{7.41}{\epsilon} \right)^{-2} \quad (1)$$

Card 1/2 This formula for different numerical ranges of the relative roughness ϵ

SOV/124-57-9-10290

Approximate Calculation Formulas for the Coefficient of Hydrodynamic Resistance
 is reduced to a series of formulas of the type given below for any prescribed degree
 of approximation

$$\lambda = C \epsilon^n \quad \text{or} \quad \lambda = C \frac{e_k^n}{D^n} \tag{2}$$

where e_k is the equivalent (hydraulic) absolute roughness. The value of λ for
 smooth pipes is obtained from the equation

$$\frac{1}{\sqrt{\lambda}} = 2 \log_{10} \frac{R \sqrt{\lambda}}{2.51} \tag{3}$$

which for different ranges of Reynolds number R is reduced to the following formula

$$\lambda = C / R^n \tag{4}$$

An approximate two-term formula is also proposed in general form. In conclusion
 a synoptic table of formulas for various degrees of approximation is given for the
 determination of λ . Within a given range of ϵ and R variations these tables
 ensure any required degree of approximation as compared with that of formulas (1)
 and (2). No comparisons are made between calculations obtained by means of the
 recommended formulas and those arrived at according to other well-known formulas.

Card 2/2

V. I. Gotovtsev

SOV-115-58-4-20/45

AUTHOR: Adamov, G.A.

TITLE: Measuring the Density and Specific Gravity of Suspensions,
Boiling Layers, Liquids and Gases in Upcurrents (Izmereniye
plotnosti i udel'nogo vesa suspenziy, kipyashchikh sloyev,
zhidkostey i gazov v voskhodyashchem potoke)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 4, pp 37-42. (USSR)

ABSTRACT: A simple method for constant measurement of the density
and specific gravity of suspensions in a vertical upcurrent
(whose speed may be variable) is given. Two indicating
bodies, suspended from each arm of a sensitive balance, are
immersed in the liquid. The bodies have the same true
weight and aerodynamic resistance but different volumes.
The balance thus measures the weight of a part of the sus-
pension which corresponds to the difference in the volumes
of the two bodies. Various possible body forms and types

Card 1/2

ADAMOV, G.A. (Moskva)

Magnetic separation of coal with activated admixtures.
Izv. AN SSSR. Otd. tekhn. nauk. Met. i topl. no.4:128-136
Jl-Ag '61. (MIRA 14:8)

(Coal preparation)
(Magnetic separation of ores)

S/180/61/000/006/019/020
E025/E135

AUTHOR: Adamov, G.A. (Moscow)

TITLE: A general formula for calculating the resistance to relative motion of particles and a medium

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Metallurgiya i toplivo, no.6, 1961, 168-176

TEXT: The general formulae applicable to the relative motion of a body and a medium are stated. For low values of the Reynolds number the aerodynamical resistance depends only on the viscosity, the dynamical pressure having a negligible effect and the resistance being proportional to the first power of the Reynolds number. On the other hand, for high values of the Reynolds number the viscosity has no effect; the resistance is determined by the dynamical pressure and is proportional to the square of the Reynolds number. In the intermediate region the resistance is determined by both the viscosity and dynamical pressure and is proportional to some power of the Reynolds number between the

Card 1/ 4

A general formula for calculating ... S/180/61/000/006/019/020
E025/E135

first and second. Existing formulae are given and their limitations pointed out. The particular case of a spherical body is described and the formulae of Stokes, Newton, Rayleigh and Allen given, and it is pointed out that each of them corresponds only to a certain range of variation of the Reynolds criterion. The author then gives general formulae in dimensional and dimensionless forms for resistance in relative motion between a body and a medium which are correct for all forms of resistance for any value of the Reynolds number, that is including all forms of streamlining from laminar to completely turbulent, but assuming that Mach's criterion is negligible. These formulae are represented by a family of curves, each curve having the same two asymptotes corresponding respectively to resistance varying as the first and second power of the Reynolds number. Between these asymptotes the values of a parameter in the formula determine a family of intermediate curves of varying curvatures corresponding to different laws of transition. A general formula is given for a spherical body in free motion and a value of the parameter chosen from experimental results. This is stated to be very

Card 2/4

A general formula for calculating... S/180/61/000/006/019/020
E025/E135

gives as limiting cases the finite velocities corresponding to linear and square law resistance. The linear law applies to high viscosity or small dimensions of the moving body; the square law applies to low viscosity of the medium and large dimensions of the moving body. The deviations of the values given by the formulae from experimental values are discussed. It is stated that these formulae are more accurate than those published by R.B. Rozenbaum (Ref.4: Dokl. Ak. nauk SSSR, v.115, no.3) and K.S. Shifrin (Ref.5: Izv. Ak. nauk SSSR, seriya geofizicheskaya, no.2, 1958). There are 2 figures, 1 table and 5 Soviet-bloc references. ✓

SUBMITTED: August 19, 1960

Card 4/4

NIKOLAYENKO, Ye.G.; RYVKIS, Ya.M.; ADAMOV, G.G.; KUIRINSKIY, V.M.

Semiautomatic machine (model P84) for coremaking. Lit. proizv.
no.11:34-35 N '60. (MIRA 13:12)

(Coremaking)

ADAMOV, G.I.

Using hydraulic cyclones in sugar manufacture. Sakh.prom. 32
no.10:14-20 0 '58. (MIRA 11:11)

1. Gosudarstvennyy institut po proyektirovaniyu novogo stroitel'stva
i rekonstruktsii predpriyatiy sakharnoy promyshlennosti.
(Sugar machinery) (Separators (Machines))

IVANOV, P.Ya.; ADAMOV, G.N.

Improving production layouts and equipment for beet-sugar factories. Sakh.prom. 33 no.6:1-4 Je '59. (MIRA 12:8)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet RSFSR (for Ivanov).
2. Gosudarstvennyy institut po proyektirovaniyu novogo stroitel'stva i rekonstruktsii predpriyatiy sakharnoy promyshlennosti (for Adamov).

(Sugar industry--Equipment and supplies)

ADAMOV, I. I.

Improving the seed characteristics of potatoes by growing them on cultivated bog soils. Trudy VNIISP no.4:94-98 '54. (MLRA 8:12)
(Seed potatoes)

ADAMOV, Iosif Ivanovich.

[The storage of potatoes] Zakhouvanne bul'by. Minsk, Dziarzh.
vyd-va BSSR, 1957. 78 p. (MIRA 10:12)
(Potatoes--Storage)

PUSHKAVEV, I.I., prof., doktor sel'skokhozyaystvennykh nauk, red.; AMBROSOV, A.L.; STEFANISHIN, S.Ye.; ROVDO, A.I.; ALEKSEYCHIK, N.A.; AL'SMIK, P.I.; OGNEV, I.M.; ADAMOV, I.I.; BUTYLIN, G., red.; LARIN, V., red.; STEPANOVA, N., tekhn. red.

[Potato growing in White Russia] Kul'tura kartofelia v Belorusskoi SSR. Pod red. I.I. Pushkareva. Izd.2., ispr. i dop. Minsk, Gos. izd-vo BSSR, 1958. 356 p. (MIRA 11:7)
(White Russia--Potatoes)

NO. 1
CATEGORY : Cultivated Plants. Potatoes. Vegetables.
Cucurbits.
Pub. Jour : Ref Jour: Biologiya No. 5, 1959, No. 20311
AUTHOR : Adarov, I.I.
INST. : --
TITLE : Several Remarks in Regard to Standard Seed
Potatoes.
ORIG. PUB.: Kartofel', 1958, No. 4, 46-48
ABSTRACT : No abstract

CARD: 1/1

KRIVOSHENIN, A.Ye., doktor tekhn. nauk; ADAMOV, I.V., inzh.

Formation of hot cracks in cast-iron chill rolls. Lit. proizv.
no.12:21-23 D '65. (MIRA 18:12)

ACCESSION NR: AP4015555

S/0089/64/016/002/0099/0103

AUTHOR: Adamov, I. Yu.; Dushin, L. A.; Kononenko, V. I.; Pavlichenko, O. S.

TITLE: Microwave emission of an electrodeless induction discharge

SOURCE: Atomnaya energiya, v. 16, no. 2, 1964, 99-103

TOPIC TAGS: microwave plasma emission, electrodeless plasma discharge, hyperthermal plasma emission, betatron emission mechanism

ABSTRACT: The purpose of the present work is the verification of the assumption made by other authors concerning the possibility of a hyperthermal microwave emission by a plasma of an electrodeless induction discharge. The discharge was in hydrogen, the variable magnetic field was created by a one-layer coil, 11 cm in diameter, 20 cm long connected to a 18.6 μ f capacitor. The period of oscillation was 8.6 μ sec. Magnetic probes were used for measuring the magnetic field in and out of the plasma. Both the microwave and the X-ray

Card 1/2

ACCESSION NR: AP4015555

emission were recorded. A correlation of both types of emission was confirmed. The microwave emission appears when there is a critical plasma density for a given frequency. The microwave power emitted is in several orders of magnitude higher than that which corresponds to thermal emission. "The authors are grateful to Ya. F. Volkov, V. A. Suprunenko, V. T. Tolok, and Ya. B. Faynberg for discussions and to L. V. Brzhechko for help with the work." Orig. art. has: 7 figures.

ASSOCIATION: none

SUBMITTED: 22Apr63

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: PH, GE

NO REF SOV: 003

OTHER: 003

Card 2/2

L 2492-66 EWT(1)/ETC/EPP(n)-2/EPA(w)-2/EWG(m) LJP(c) AT
ACCESSION NR: AP 5020724 UR/0057/65/035/008/1394/1400

AUTHOR: Pavilchenko, O. S.; Dushin, L. A.; Kuznetsov, Yu. K.; Adamov, I. Yu.

TITLE: Instability of a plasma discharge with oscillating electrons. 1. Micro-wave radiation

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 8, 1965, 1394-1400

TOPIC TAGS: plasma instability, plasma oscillation, hydrogen, helium, electric discharge, electron oscillation, electron reflection, electron temperature, larmor frequency, nonlinear effect, plasma magnetic field

ABSTRACT: The authors have investigated the microwave radiation from a high voltage PIC reflex discharge plasma in order to obtain more information concerning the oscillations discovered by G.Landauer (J. Nucl. Energy, Pt. C, 4, 395, 1962) at harmonics of the Larmor frequency. The discharge took place in hydrogen or helium in the presence of a uniform longitudinal magnetic field up to 2500 Oe between two 3.5 cm diameter cold aluminum cathodes 80 cm apart and the copper wall of the 10 cm diameter, 100 cm long discharge chamber. The cathodes were located within short porcelain tubes, and a potential difference up to 2 kV was maintained between them and the chamber wall. Microwaves of 3.4 cm wavelength were

1/3
Card

L 2492-66

ACCESSION NR: AP 5020724

UR/0057/65/035/008/1394/1400⁰

received from the interior with a horn antenna and were recorded with a superheterodyne radiometer having a 4 Mc/sec passband. The plasma density was measured with an 0.8 cm wavelength interferometer, the electron temperature was determined from the triplet to singlet intensity ratio in the helium spectrum, and the ion temperature was determined from the Doppler broadening of spectrum lines. In the experiments the plasma densities ranged from 10^{12} to 3×10^{12} cm^{-3} , the electron temperatures from 20 to 50 eV, and the ion temperatures from 0.1 to 0.3 eV. The magnetic field dependence of the noise temperature at 3.4 cm was different in different regions of magnetic field strength. At low field strengths (region I) there was a single maximum at which the noise temperature reached hundreds of electron volts. At magnetic field strengths between about 200 and 1500 Oe (region II) there were many maxima whose heights did not exceed 50 eV. The heights of the region II maxima varied with the pressure and discharge current, but their positions did not; the maxima occurred at those field strengths for which an integral or half odd integral multiple of the Larmor frequency was equal to the radiometer frequency. At a magnetic field strength of perhaps 1500 Oe (depending on pressure and discharge current) there occurred a sudden decrease of the plasma density and a simultaneous increase of the noise temperature (transition to region III). In region III the noise temperature increased smoothly with increasing magnetic field, and reached

Card 2/3

L 2492-66

ACCESSION NR: AP5020724

18

values as high as 1 keV. These phenomena and their variation with pressure and discharge current are discussed at some length and are compared with relevant observations of many other investigators. It is suggested that nonlinear effects are involved, as well as an anomalous diffusion that the authors discuss in the following paper (ZhTF, 35, 1401, 1965; see abstract AP5020725). "In conclusion, the authors express their gratitude to V.N.Orayevskiy, K.N.Stepanov, and I.F. Kharchenko for discussing the results, and to V.I.Kononenko and M.Ye.Mazhichenko for assisting with the work." Orig. art. has: 7 formulas and 7 figures.

ASSOCIATION: Fiziko-tekhnicheskii institut AN UkrSSR, Khar'kov (Physico-technical Institute, AN UkrSSR)

SUBMITTED: 16Nov64

44,55

ENCL: 00

SUB CODE: ME

NR REF SOV: 005

OTHER: 009

Bob

Card 3/3

L 2493-66 EWT(1)/ETC/EPF(n)-2/ENG(m)/EPA(w)-2 IJP(c) AT
ACCESSION NR: AP5020725 UR/0057/65/035/008/1401/1404

AUTHOR: Pavlichenko, O. S.; Dushin, L. A.; Kuznetsov, Yu. K.; Nikol'skiy, I.K.; Adamov, I. Yu.

TITLE: Instability of a plasma discharge with oscillating electrons. 2. Anomalous diffusion of plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 8, 1965, 1401-1404

TOPIC TAGS: plasma instability, plasma oscillation, helium plasma, electric discharge, electron oscillation, electron reflection, plasma diffusion, plasma magnetic field

ABSTRACT: The authors have investigated the stability and anomalous diffusion of the plasma of a high voltage PIG reflex discharge with the apparatus described in the preceding paper (ZhTF, 35, 1394, 1965; see abstract AP5020724). In addition to the measurements described in the preceding paper, measurements were made of the charged particle flux to the wall of the chamber, using a double probe, and the plasma column was observed with a rotating mirror. The charged particle flux at first decreased with increasing magnetic field, but at a certain critical field strength the flux began to increase with increasing field strength. The critical

Card 1/3

L 2493-66

ACCESSION NUR: AP 5020725

9

field was that for transition from region II to region III discussed in the preceding paper. When the magnetic field increased through the critical value the plasma density suddenly decreased, the microwave noise suddenly increased, and oscillations of the plasma column were observed with the rotating mirror. The critical magnetic field strength in helium plasmas increased with rising gas pressure from 1000 Oe at 10^{-4} mm Hg to about 1600 Oe at 2×10^{-3} mm Hg. There was no anomaly in the electron temperature at the critical field. These results are compared with the theory of F.Hoh (Phys. Fluids, 6, 1184, 1963), and it is shown that the magnetic field strength at onset of anomalous diffusion is an order of magnitude less than the theory predicts. It is suggested that a turbulent state with a broad spectrum of low-frequency oscillations may arise from the interaction between the plasma and the oscillating electron beam. The authors hope further to pursue their studies of these phenomena. "In conclusion, the authors express their gratitude to K.D. Sineshnikov for discussing the results and to B.I. Kononenko and M.Ye. Maznichenko for assisting with the work." Orig. art. has: 3 formulas and 4 figures.

ASSOCIATION: none

Card 2/3

L 2493-66

ACCESSION NR: AP5020725

SUBMITTED: 16Nov64

ENCL: 00

SUB CODE: ME

NR REF SOV: 003

OTHER: 005

bel
Card 3/3

ACC NR: AP6018036

SOURCE CODE: UR/0185/66/011/006/0615/0618

AUTHOR: Adamov, I. Yu.; Dushyn, L. O.--Dushin. L. A.; Pavlychenko, O. S.--
Pavlichenko, O. S. 66
B

ORG: Physicotechnical Institute AN URSR, Khar'kov (Fizyko-tekhnichnyy instytut AN URSR)

TITLE: Plasma interferometry with the aid of a laser 25

SOURCE: Ukrayins'kyy fizychny zhurnal, v. 11, no. 6, 1966, 615-618

TOPIC TAGS: plasma diagnostics, electromagnetic wave interference, bridge interferometer, plasma density

ABSTRACT: The authors describe a plasma diagnostic procedure which combines the high phase-measurement accuracy provided by radio-frequency sounding and at the same time increases the range of measured electron density by using the shorter-wavelength optical range. The phase information obtained at radio frequency is converted into optical-frequency information by introducing into the reference arm of an interferometer a single side-band modulator, which modulates in amplitude one of the laser side bands (Fig. 1). The oscillations from both arms of the interferometer are mixed in a quadratic detector (photomultiplier). In this manner the phase shift of the laser signal passing through the plasma is interpreted as the time variation of the laser frequency deviation. Frequency detection and subsequent integration of the obtained signal yield the plasma density, since its rate of change is proportional to the laser frequency deviation. It is shown that the method can be used to estimate changes in

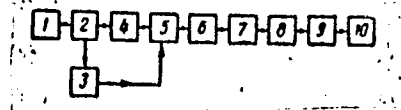
Card 1/2

L 29556-66

ACC NR: AP6018036

the plasma density in the range 10^{12} — 10^{16} cm^{-3} in 10^6 sec at a laser wavelength of 3μ and for a plasma 5 cm in length. Orig. art. has: 1 figure and 6 formulas. [02]

Fig. 1. Diagram of plasma interferometer. 1 - Laser, 2 - beam splitter, 3 - single-band amplitude modulator, 4 - investigated plasma, 5 - photomultiplier, 6 - intermediate frequency amplifier, 7 - limiter, 8 - frequency detector, 9 - integrator, 10 - recording instrument.



SUB CODE: 20/ SUBM DATE: 07Aug65/ ORIG REF: 002/ OTH REF: 002/ ATD PRESS: 5615

Card 2/2 CU

L 04740-57 EST(1) INF(C) AT/CP

ACC NR: AT6020452

(N)

SOURCE CODE: UR/0000/65/000/000/0204/0216

AUTHOR: Pavlichenko, O. S.; Dushin, L. A.; Kuznetsov, Yu. K.; Adamov, I. Yu. 63

ORG: none

B+1

TITLE: Instability of plasma discharge with oscillating electrons

SOURCE: AN UkrSSR. Vzaimodeystviye puchkov zaryazhennykh chastits s plazmoy (Interaction of charged particle beams with plasma). Kiev, Naukova dumka, 1965, 204-216

TOPIC TAGS: plasma discharge, plasma instability, plasma interaction, plasma diffusion

ABSTRACT: The experiments described in the present work revealed that cyclotron harmonics found in radiation from plasma with oscillating electrons and radiations induced by plasma oscillations are of a non-thermal nature and that their source is plasma microinstability. Two types of experiments were performed: observation of microwave emission from the plasma, and determination of the diffusion rates in the plasma. The experiments were performed on a discharge column (hydrogen or helium) of relatively high density (10^{12} cm^{-3}) and high temperature (50 ev). The experimental results are described and analyzed to show the importance of the beam-plasma interaction. It is shown that although the instability is microscopic in nature, it cannot be explained in terms of the model of F. C. Hoh (*Phys. Fluids*, 1963, 6, 1104). The complex relation-

Card 1/2

ACC NR: AT6020452

ship between the parameters of oscillating electron beams and the plasma gives only qualitative answers at present, but does not allow formulation of the rules for the observed anomalous diffusion. The authors also include a review of the most important experimental and theoretical results dealing with this problem. Orig. art. has: 11 figures, 3 formulas.

SUB CODE: 20/

SUBM DATE: 11Nov65/

ORIG REF: 007/

OTH REF: 007

Card 2/2 *ab*

ADAMOV, Konstantin, inzh.

Systems of marking the drawings and other technical documents.
Ratsionalizatsiia 13 no. 10: 22-27 '63.

RIVLINA, A.I.; ADAMOV, L.S.

Silver plating in a cyanic electrolyte containing potassium
nitrate. *Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.*
i tekh.inform. 16 no.10:35-36 '63. (MIRA 16:11)

ADAMOV, M. A.

Adamov, M. A. "Alcoholization of stomach nerves during inoperable cancer of the stomach," Trudy Kirysk, med. in-ta im. Stalina, Vol. XII, 1948, p. 221-24.

SO: U-3850, 16 June 53, (Letopsis 'Zhurnal 'nrdh Statey, No. 5, 1949)

CA

2

Quantum mechanical calculation of the polarizability of the hydrogen molecule. M. O. Veselov and M. N. Aslanov. *Doklady Akad. Nauk S.S.S.R.* 87, 215 A(1947); *Chem. Abstr.* (Russian Ed.) 1948, 1, 1278. - The direct calculation of the polarizability of atoms is difficult, since the formulas contain functions that can be evaluated only with difficulty. The authors obtain the equation $\Delta f \psi_0^2 [(V - E_0)f + 1/2(\text{grad } f)^2] dT = 0$, where ψ_0 is the wave function. This leads to better agreement with exptl. data than Hirschfelder (C.A. 29, 7194) and Easthope (C.A. 30, 5476) obtained.

T. G. Gibian

ADAMOV, M. N.

Calculation of the derivative of the polarizability of the hydrogen molecule with respect to the internuclear distance. M. N. Adamov. *Doklady Akad. Nauk S.S.S.R.* 62, 161 (1948). -The previously derived (Veslov and A., *ibid.* 57, 245(1947)) formula for the polarizability α of H_2 as a function of the internuclear H-H distance R and the parameters of the wave function, effective charge Z and coeff. ϵ of the ionic terms, the value of ϵ being taken from Weinbaum (C.A. 27, 4724), is used to calc. the total deriv. $d\alpha/dR = \alpha, dR + (d\alpha/dZ)(dZ/dR) + (d\alpha/d\epsilon)(d\epsilon/dR)$, giving $dZ/dR = -0.223$, $d\epsilon/dR = -0.019$, and, for $d\alpha/dR$, $(d\alpha/dZ)(dZ/dR)$, $(d\alpha/d\epsilon)(d\epsilon/dR)$, and $d\alpha/dR$, resp.: parallel to the mol. axis, 3.041, 3.852, -0.056, and 0.837; perpendicularly to the mol. axis, 0.319, 3.178, -0.002, and 3.495, with the Bohr radius taken as 0.529 A. Thus, a change of Z has a considerable effect on α , a change of ϵ almost none. The signs of the derivs. are consistent with Volkenshteln's

stn. according to which electronic excitation has a loosening effect on the bond. The degrees of depolarization of the Raman lines of H_2 , calcd. from the above data, differ from those calcd. by Hirschfelder (C.A. 29, 7184) in the sense of a considerably higher anisotropy of $d\alpha/dR$, owing mainly to the inclusion of the 2 ionic structures with alternating polarities of the H atoms, which were neglected by Hirschfelder. With the ionic structures taken into consideration, the calcd. degree of depolarization is in agreement with exptl. data. Inclusion of ionic structures being thus essential in the case of the nonpolar H-H bond in H_2 , it clearly is even more important in the case of polar bonds. N. Thon

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

SECTION 1	SECTION 2	SECTION 3	SECTION 4	SECTION 5	SECTION 6	SECTION 7	SECTION 8	SECTION 9	SECTION 10	SECTION 11	SECTION 12	SECTION 13	SECTION 14	SECTION 15	SECTION 16	SECTION 17	SECTION 18	SECTION 19	SECTION 20	SECTION 21	SECTION 22	SECTION 23	SECTION 24	SECTION 25	SECTION 26	SECTION 27	SECTION 28	SECTION 29	SECTION 30	SECTION 31	SECTION 32	SECTION 33	SECTION 34	SECTION 35	SECTION 36	SECTION 37	SECTION 38	SECTION 39	SECTION 40	SECTION 41	SECTION 42	SECTION 43	SECTION 44	SECTION 45	SECTION 46	SECTION 47	SECTION 48	SECTION 49	SECTION 50
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CA

2.

The nature of the bond and the dipole moment of the lithium hydride molecule. M. N. Adamov. *Zhur. Fiz. Khim.* 23, 1172-8 (1949).—If the electronegativity of the LiH bond is 0.066, the calcd. energy is 0.037 if the bond is homopolar, 0.065 if Li^+H^- also is present, and 0.057 if both Li^+H^- and Li^-H^+ are present. The dipole moment of LiH should be 3.5 D. J. J. Bikerman

ADAMOV, M.N.

Critical Review Surveying the Theories of Temperature Extinction of Luminescence in Crystallophosphors, M.N. Adamov, Vest. Leningrad U, Ser. Mat, Fiz, Khim, Vol. 7, No2, pp. 44-65, 1952

A review of various modifications of the zone theory and potential curve models, including those by E. I. Adirovich (DAN SSSR, 63 (1947); Iz Ak Nauk SSSR, Ser Fiz, 13 (1949); Trudy Fiz Inst Ak Nauk, 5 (1950) and "Some Problems of the Theory of Luminescence of Crystals" (Nekotoryye Voprosy Teorii Lyuminestsentsii Kristallov), 1951

ADAMOV, M. N.

USSR/Physics - Luminescence

Jan 52

"Some Remarks Concerning Scheme of Temperature
Extinction of Luminescence of Crystallophosphors
Suggested by E. I. Adirovich," M. N. Adamov, Phys
Inst, Leningrad State U

"Zhur Eksper i Teoret Fiz" Vol XXII, No 1,
pp 120-122

Discusses application of crystal model suggested
by Adirovich in his works (cf. E. I. Adirovich,
"Dok Ak Nauk SSSR" 63, 111, 1948; "Dok Ak Nauk
SSSR" 63, 635, 1948; "Iz Ak Nauk SSSR, Ser Fiz"
13, 101, 1949; "Trudy Fiz Inst, Ak Nauk SSSR"
5, 387, 1950; "Some Problems of Luminescence of
Crystals" 1951). 204T106

ADAMOV, I. I.

USSR/Physical Chemistry - Molecule. Chemical Bond.

B-4

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14353

Author : Adamov M. N. and Milevskaya I. S.

Inst :

Title : Calculation of the π -electron polarizability of polyenes and benzene from the "metallic" model of the molecules

Orig Pub: Dokl. AN SSSR, 1956, 109, No 1, 57-60

Abstract: In order to calculate the polarizability (α) of molecules with conjugated bonds, the electron is considered in a unidimensional potential box with infinitely high walls and the components for the calculation of the tensor of the polarizability of the π -electrons of benzene in the plane of the ring, the perimeter of the molecule is approximated by the circumference $2\pi R$, equal to $6a$, where a is the length of the C-C bond (2.6 at. units). The unperturbed hamiltonian $H^{(0)} = -\frac{1}{2}(\frac{d^2}{dx^2})$ (in at. units) for the linear box and $1/2R^2 \frac{d^2}{d\varphi^2}$ for the

Card 1/5

USSR/Physical Chemistry - Molecule. Chemical Bond.

B-4

Abs Jour: Ref Zhur-Khimiya, No 5, 1957, 14353

Abstract: $(5/k^2 \pi^2 - 1/3)$. α_k is negative for all perturbed states. An evaluation was made of the longitudinal polarizability $\alpha_{||}$ of a series of polyenes with n number of π -electrons equal to 4, 6, 8, and 10. The energy of perturbation w was taken as equal to $F \cos 30^\circ$, where S is the coordinate along the chain. Then, $\alpha_{||} = 3/2 \sum_{k=1}^n$.

α_k in $\alpha_k L$ was assumed to be equal to $2ma$. As a result, for $n = 4$, $\alpha_{||} = 54$ at. units, $n = 6$, $\alpha_{||} = 204$ at. units, $n = 8$, $\alpha_{||} = 513$ at. units, $n = 10$, $\alpha_{||} = 1032$ at. units. For the basic state of benzene ($k=0$), $\alpha_0 = 2R^4$, for $k = 1$,

$\alpha_1 = -5/3 R^4$ for an even state and $+1/3 R^4$ for uneven, when $k > 1$, $\alpha_k = -2R^4/4k^2 - 1$. 6 π -electrons of benzene fill in the basic state the orbitals $k = 0$ (2 electrons) and $k = 1$ (4 electrons). Their total polarizability $\alpha_{\pi} = 4/3 R^4$, i. e., 50.7 at. units (experiment 55.3), so

Card 4/5

AUTHORS: Adamov, M. N. and Milevskaya, I. S.

51-3-22/24

TITLE: Dispersion formula in a metal model of a molecule with conjugated bonds. (Dispersionnaya formula v metallicheskoj modeli molekuly s sopryazhennymi svyazyami).

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ABSTRACT: This paper presents quantum-mechanical calculations for π -electron optical polarizability for $C_{2m}H_{2m+2}$ polyenes and benzene. The metallic model is used. It is assumed that the many-electron wave-functions can be approximated by an antisymmetrized linear combination of products of orthogonal single-electron wave-functions. Polyene molecules are represented by broken lines lying in one plane whose segments are at 30° with the polyene axis. Each segment is taken to be equal to a (a is the length of the C-C bond, which is 2.6 \AA), and end segments are equal to $1.5 a$. The electrons are taken to move in a rectangular potential box with infinitely high walls. The calculated longitudinal (along the polyene axis) π -electron polarizability for the ground state agrees well with the experimental values for C_4H_6 , C_6H_8 and C_8H_{10} for the frequency of the D-line of sodium. For $C_{10}H_{12}$ the

Card 1/2