"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

05926

9(2) SOV/107-59-7-29/42

AUTHOR: Moin, V., Vedeneyev, G.

TITLE: Silicon Voltage Stabilizers

PERIODICAL: Radio, 1959, Nr 7, pp 42-46 (USSR)

ABSTRACT: The authors describe the structure and the principle of functioning of silicon voltage stabilizers and basic circuit arrangements for their application. Silicon voltage stabilizers, socalled "stabilitrons" are silicon junction diodes having voltampere characteristics analogous to gas discharge stabilizer tubes. The voltage stabilizer diodes D808 - D813, produced by the Soviet industry are designed for application in power supply units, where the feed voltage does not exceed 7-14 volts. Silicon stabilizer diodes are used as pulse limiters, trigger circuits, as variable capacitors for tuning receivers and oscillators, for protecting transistorized devices and for voltage measurements. The authors describe the theoretical premises of such diodes. The authors present some

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

Silicon Voltage Stabilizers

application of these diodes as overvoltage protectors, shown in Figure 8; for spreading measuring ranges of voltmeters, Figure 9; for relays, Figure 10; as voltage limiters, Figure 12; and for pulse shaping circuits, Figures 13, 14, 15, 16. An editorial note preceding this article says that the Soviet industry must produce an adequate assortment of silicon stabilizer diodes, especially those used for replacing variable capacitors. There are 21 circuit diagrams, 1 diagram, 9 graphs, 1 table and 1 Soviet reference.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, G., inzh.; MOSHCHAKOV, V., inzh.

Transistorized voltage converters. Radio no.2:24-27 F '61. (MIRA 14:9)

(Electric current converters)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 10780-65 EWT 1/ EWA(h) Pe-5 AFWL/SSD
ACCESSION NR: AP4045824 S/0105/64/000/009/0047/0050

AUTHOR: Vedeneyev, G. M. (Engineer) (Moscow)

TITLE: Semiconductor pulsed regulators and stabilizers

SOURCE: Elektrichestvo, no. 9, 47-50

TOPIC TAGS: voltage regulator, ac generator, dc generator, transistorized voltage regulator, dc motor speed control

ABSTRACT: Two transistorized voltage regulators intended for controlling the excitation of a-c and d-c electric-power generators are briefly described. The voltage regulator consists of a measuring unit, a pulse-duration modulator, and an amplifier; the transistors operate in switching regimes. Laboratory models of these regulators functioned with an error of ± 2% for generator loads from zero to full. The final-stage switching time was 10—15 microsec. Also described is a circuit for regulating the speed of a d-c motor. This circuit is

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 10786-65
ACCESSION NR: AP4045824

based on the transistorized pulsed voltage stabilizer described earlier by V. I. Aleksandrin ("Transistorized pulsed voltage stabilizers," in Poluprovodnikovy*ye pribory*, 1961, no. 7). Orig. art. has: 5 figures and 4 formulas.

ASSOCIATION: none

SUBMITTED: 14Oct63 ENCL: 00

SUB CODE: EE, EC NO REF SOV: 007 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

S/196/61/000/012/020/029
E194/E155

9,2540

AUTHORS: Vedeneyev, G.M., and Moin, V.S.

TITLE: A semiconductor voltage controller for an a.c. generator

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.12, 1961, 30, abstract 12I 199. (Vestn. elektroprom-sti, no.7, 1961, 34-37)

TEXT: The voltage controller is simple because it combines the function of impulse-width modulator and measuring device. Delay in the measuring device is avoided and comparatively high power can be drawn from the measuring circuits. The controller circuit consists of an amplifier directly linked to transistors, a reference network with stabilitron and a saw-tooth impulse former containing a diode and capacitor which is also a component of the measuring device. When the generator load is altered from zero to rated value the accuracy of voltage control is ± 2%. The regulation characteristic of the voltage controller is linear when the field current is altered over a range from at least

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

S/196/61/000/012/020/029
E194/E155

A semiconductor voltage controller...

1;10. A schematic circuit of the voltage controller is given.
5 illustrations.

[Abstractor's note; Complete translation.]

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, Georgiy Mikhaylovich; VERSHIN, Viktor Yevgen'yevich; PLENKIN, Yu.N., red.; BORUNOV, N.I., tekhn. red.

[Radio receiver with electronic tuning] Radiopriemnik s elektronnoi nastroikoi. Moskva, Gosenergoizdat, 1963. 15 p. (MIRA 16:9)

(Transistor radios)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 23551-66 EWT(1)/EWA(h)

ACC NR: AP6002940 (A) SOURCE CODE: UR/0286/65/000/024/0105/0105

24
B

AUTHOR: Vedeneyev, G. M.

ORG: none

TITLE: A pulse repetition frequency divider. Class 42, No. 177168

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 105

TOPIC TAGS: pulse recurrence frequency, frequency divider, power supply

ABSTRACT: This Author Certificate presents a pulse repetition frequency divider. The design simplifies the circuit, increases the power of the output pulses, and produces a high and adjustable division coefficient. The divider includes a ladder network made of a resistance, inductance, a silicon-controlled rectifier shunted by a capacitor, and a diode connected to the power supply source. All of these are connected in series (see Fig. 1). Switching may be achieved, for example, by a transistor. This transistor is connected between the base of the controlled rectifier and the minus source of the power supply.

UDC: 681.142:621.374.4

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 23551-66

ACC NR: AP6002940

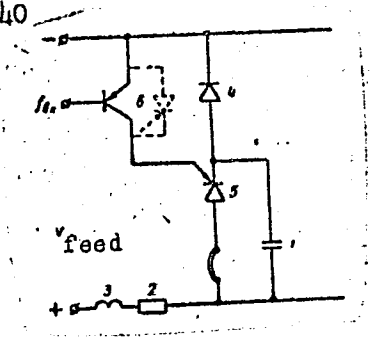


Fig. 1. 1 - capacitor; 2 - resistance; 3 - inductance; 4 - diode; 5 - silicon-controlled diode; 6 - triode (or controlled diode).

Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 03Dec63

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

KUPLYAYEV, I.M. (Leningrad, B. Pushkarskaya ul. d. 30., kv.27); IVLIYEV, N.N. (Gor'kiy, ul. Radistov, d.6, kv.6); CHERNOV, Ya.G. (Gor'kiy, ul. Radistov, d. 6, kv.6); PISAREV, A.L. (Moskva, Lyubertsy, A. pos. Vsesoyuznogo nauchno-issledovatel'skogo ugol'nogo instituta, d.5, kv.5); GASPAROV, R.G. (Moskva, I-51, 2-y Kolobovskiy pereulok d.9/2 kv.18); POPOV, B.I. (Irkutsk, 13, Depovskiy pereulok, d.83, kv.2); PIONTKOVSKIY, B.A. (Moskva, Ye-77, Sredne-Pervomayskaya ul. d.13, kv.4); VEDENEYEV, G.M. (Moskva, I-110, B. Spasskaya, d. 15/17, kv.29); KRECHER, V.G. (Uzhgorod, Zakarpatskaya obl., ul. Kosmodem'yanskoy, d.4, kv.69); SIDORENKO, A.P. (Leningrad, ul. Frunze, d.15, kv.38); SPIRIDONOV, A.V. (Leningrad, ul. Frunze, d.15, kv.38); SEREDA, P.A. (Moskva); IL'IN, V.F.; PEL'TSMAN, L.N.; DANILEVICH, A.I. (Khar'kov, Plekhanovskiy pereulok, d.9a, kv.2); KHIMENKO, L.T. (Khar'kov, Plekhanovskiy pereulok, d.92, kv.2); LYKOV, M.V. (Moskva, Leninskiy prospekt, d.55); RYBAL'CHENKO, G.F. (Moskva, Leninskiy prospekt, d.55); BOYKO, V.F. (Leningrad, M-142, ul. Tipanova, d.3, kv.130); KITAYEV, G.I. (Chelyabinsk, Smolenskaya ul. d.4); SKLYAROV, A.Ye. (Novocherkassk, Rostovskoy obl. pos. Oktyabr'skiy, Gvardeyskaya ul. d.30, kv.29)

Discoveries and inventions. Prom. energ. 19 no.11:57-58 N '64. (MIRA 18:1)

1. Zavod "Amurkabel'", Khabarovsk (for Il'in, Pel'tsman).

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

GOLISHNIKOV, A.A.; SHEVTSOV, V.F.; MIKHAYLOV, A.D.; VEDENEYEV, I.F.

Mobile asphalt-concrete plant. Avt.dor. 27 no.11:17-18 N '64.
(MIRA 18:4)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 00741-66 EWT(m)/EWP(v)/T/EWP(t)/EWP(k)/EWP(b)/EWA(c) JD/HM

ACCESSION NR: AP5021987 UR/0286/65/000/014/0061/0061
621.791.75
621.3.013

33
B

AUTHOR: Bachelis, I. A.; Vedeneyev, I. D.; Moiseyenko, A. S.

TITLE: A method for magnetic control of an electric arc. Class 21, No. 172932

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 61

TOPIC TAGS: arc welding, welding equipment, metal heat treatment, metal melting, alternating magnetic field, electric arc

ABSTRACT: This Author's Certificate introduces a method for magnetic control of an electric arc, e. g. during welding, melting and heat treatment of metals. The arc is dispersed by a transverse alternating magnetic field. Operational conditions are improved and efficiency is increased by moving the dispersed arc on the surface of the workpiece without moving the electrode. This is done by using a controlling magnetic field directed at right angles to the alternating magnetic field.

ASSOCIATION: none

SUBMITTED: 04May62 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

SHAPOSHNIKOV, Yu.K.; VEDENEYEV, K.P.; VODZINSKIY, Yu.V.; LAZAREVA, N.K.

Determining of butanol in butyl acetate with the method of gas-liquid chromatography. Gidroliz.i lesokhim.prom. 15 no.6: 22-24 '62. (MIRA 15:9)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektnyy institut lesokhimicheskoy promyshlennosti (for Shaposhnikov, Vedeneyev, Vodzinskiy). 2. Dmitriyevskiy lesokhimicheskiy zavod (for Lazareva).

(Gas chromatography) (Butanol)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

CHUDINOV, S.V.; VEDENEYEV, K.P.; SHAPOSHNIKOV, Yu.K.

Reaction products of the irreversible catalysis of monocyclic terpenes. Gidroliz. i lesokhim.prom. 16 no.1:13-14 '63. (MIRA 16:2)

1. Tsentral'nyy nauchno-issledovatel'skiy i proyektnyy institut lesokhimicheskoy promyshlennosti.
(Terpenes) (Catalysis)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

SHAPOSHNIKOV, Yu.K.; VEDENEYEV, K.P.; VODZINSKIY, Yu.V.

Separate determining of the butyl esters of volatile acids by the gas-liquid chromatography method. Gidroliz. i lesokhim. prom. 16. no.6:20-22 '63. (MIRA 16:10)

1. TSentral'nyy nauchno-issledovatel'skiy i proyektnyy institut lesokhimicheskoy promyshlennosti.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

SHAPOSHNIKOV, Yu.K.; VEDENEYEV, K.P.; DRUSKINA, E.Z.; KOSYUKOVA, L.V.; VODZINSKIY, Yu.V.

Use of gas chromatography for the analysis of butyl acetate obtained from various technological raw materials. Sbor. trud. TSNIIKHI no.15:100-112 '63.

(MIRA 17:11)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ALIYEV, N.I.; GADZHIYEV, N.G.; VEDENEYEV, L.S.

Small lift of simplified design. Azerb. nefti. khoz. 40 no. 3:32-34 Mr '61. (MIRA 14:5)

(Oil wells--Gas lift)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, N.

VEDENEYEV, N.

Together with the bolsheviks. Za rul. 15 no.7:4 Jl '57. (MLRA 10:9)
(Russia--Revolution, 1917-1921)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, N.

USSR/ Electronics - Radio-phonograph

Card 1/1 Pub. - 21/27

Authors : Vedeneyev, N., and Vavilov, N.

Title : "Daugava" radio-phonograph

Periodical : Radio 1, 49-51, Jan 1955

Abstract : The specifications are presented for a combination radio receiver and phonograph called the "Daugava", manufactured by the A. S. Popov factory in Riga. The sensitivity of the receiver is not less than 20 db. The bands covered by the apparatus are 723-2000 m for long waves, 187.5-576.9 m for medium-length waves and 24.7-31.7 m for short waves. The phonograph part will use either the regular records or the long-playing ones. Full technical details are given for the construction of the apparatus. Illustration, schematic diagram.

Institution : .....

Submitted : .....

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENICHEV, N., general-leytenant tankovykh voysk

The expectations of the reader have not been justified. Voen. vest. 40 no.10:122-123 O '60. (MIRA 14:5)
(Psychology, Military)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, N.K.; GEYLIKMAN, G.R.

Some design of automobile rear suspension and disc brakes. Avt.trakt.prom. no.6:25-27 Je '53. (MLRA 6:6)

(Automobiles--Design and construction)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

MALAKHOVSKIY, Yakov Emmanuilovich; LAPIN, Aleksandr Al'bertovich; VEDENEYEV, Nikolay Konstantinovich; LIPGART, A.A., doktor tekhn. nauk, prof., red.; VASIL'YEVA, I.A., red. izd-va; MODEL', B.I., tekhn. red.

[Cardan transmissions]Kardannye peredachi. Pod red. A.A. Lipgarta. Moskva, Mashgiz, 1962. 153 p. (MIRA 15:9)
(Motor vehicles—Transmission devices)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, N.K.; SHIMANOVSKIY, N.G.; STEFANOVICH, Yu.G., kandidat tekhnicheskikh nauk; LUMEV, I.S., kandidat tekhnicheskikh nauk.

Review of the book by M.I.Lysov and A.I.Korolev "Methods of testing automobiles and automobile mechanisms. Automobile steering mechanisms". Avt. i trakt. prom. no.2:45-46 F '56. (MLRA 9:6)

1.Moskovskiy avtozavod imeni Stalina, Gor'kovskiy avtozavod imeni Molotova i Nauchno-issledovatel'skiy avtomotornyy institut.
(Automobiles--Steering gear) (Lysov, M.I.) (Korolev, A.I.)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, N.K.

Torsion-bar suspensions in modern passenger automobiles. Avt.i trakt.prom. no.5:40-43 My '56. (MLRA 9:8)
(Automobiles--Wheels)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, Nikolay Petrovich; VOLCHENKOV, Aleksandr Ivanovich; KORSAKOV, Vasiliy Dmitriyevich; ACHKINADZE, Sh.D., inzh., red.; GVIRTS, V.L., tekhn.red.

[Punching dies reinforced with hard alloys and their manufacture] Vyrubnye shtampy, armirovannye tverdym splavom, i tekhnologiia ikh izgotovleniia. Leningrad, Leningr.dom nauchno-tekhn.propagandy, 1958. 65 p. (Informatsionno-tekhnicheskii listok, no.28-31. Elektricheskie metody obrabotki materialov). (MIRA 12:4)
(Punching machinery)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, Nikolay Petrovich; VOLCHENKOV, Aleksandr Ivanovich; NOVGORODOV, Aleksandr Stepanovich; ONIKUL, Ya.Ye., inzh., retsenzent; VAYNTRAUB, D.A., kand. tekhn. nauk, red.; LEYKINA, T.L., red. izd-va; SPERANSKAYA, OV., tekhn. red.

[Hard-alloy engineering equipment; dies and press-molds] Tverdosplavnaia tekhnologicheskaia osnastka; shtampy i press-formy. Leningrad, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1961. 119 p. (MIRA 15:2)
(Dies (Metalworking)) (Metalwork)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, Nikolay Petrovich; KUSHLYAN, Rafail Yakovlevich; VEROMAN, V.Yu., red.; ALABYSHEVA, N.A., red.izd-va; GVIRTS, V.L., tekhn. red.

[Standard designs and modern methods for making hard-alloy dies] Tipovye konstruktsii i sovremennye metody izgotovleniia tverdosplavnykh shtampov. Leningrad, 1963. 28 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Seriia: Goriachaia i kholodnaia obrabotka metallov, no.5) (MIRA 17:4)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, Nikolay Petrovich; VOLCHENKOV, Aleksandr Ivanovich; KORSAKOV, Vasiliy Dmitriyevich; NOVGORODOV, Aleksandr Stepanovich; CHERNYAKOVA, I.Z., inzh., red.; BELOGUROVA, I.A., tekhn.red.

[Hard-alloy blanking dies] Tverdosplavnye vyrubnye shtampy. Leningrad, 1960. 30 p. (Leningradskii dom nauchno-tekhnicheskoy propagandy. Obmen peredovym opytom no.18, Seriia: Kholodnaia shtampovka, vyp.2). (MIRA 14:1)
(Punching machinery)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

, S. N.; KHRISTIANSEN, G. B.; ABROSIMOV, A. M.; KHRENOV, DMITRIYEV, V. A.
A, V. I.; SOLOVYEV, K.I.: BELYAYEVA, M.F.; NECHIN, Yu. A.; VEDENEYEV, O.N.;
OV, G. V.; FOMIN, Yu. A.

Summary of the new data on EAS structure obtained with the aid of the complex equipment of Moscow State University.

Report submitted foe the 8th Intl. Conf. on Cosmic Rays (IUPAP) Jaipur, India, 2-14 Dec 1963

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

2c

L 21189-65 EWG(1)/EWT(m)/FCC/T IJP(c) S/0048/64/028/012/2087/2092

ACCESSION NR: AP5002109

AUTHOR: Vernov,S.N.; Khristiansen,G.B.; Abrosimov,A.T.; Atrashkevich,V.B.; Belyayeva,I.F.; Vedeneyev,O.V.; Dmitriyev,V.A.

TITLE: Description of the modernized complex installation for study of extensive air showers (Report, All-Union Conference on the Physics of Cosmic Rays held in Moscow 4-10 Oct 1963)

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v.28, no.12, 1964, 2087-2092

TOPIC TAGS: cosmic ray measurement

ABSTRACT: During the past two years the installation for comprehensiv investigation of extensive air showers and high-energy muons has been greatly improved. The installation is located at Moscow State University and covers an area of about 4 hectares (about 10 acres); it consists of a large number of stationary and mobile "laboratories". The general layout is shown in the Figure (see Enclosure). In the mobile "laboratories" (Nos.7 through 16 in the figure) and in the stationary "laboratories" (1,2 & 3) in the main building the old system of hodoscopic counters has been supplemented by an array of 20 scintillation counters with an area of

1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 21189-65
ACCESSION NR: AP5002109

0.5 m^2 each, which make it possible to determine the strength of a shower and the orientation of its axis in space. In the underground laboratory the area of the muon detector has been increased from 6 to 45 m^2 and there has been installed a new system of 240 ionization chambers shielded by an absorber, intended for statistical measurements of the energy of muon fluxes. The paper gives diagrams of some of the counter and chamber arrays and describes some of the specific design features of the detectors and associated electronic equipment. A few typical curves are reproduced. The underground installation is characterized by an exceptionally large area, good continuity and a high resolution. Orig.art.has: 1 table and 9 figures.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 01

SUB CODE: AA NR REF SOV: 002 OTHER: 002

2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VERNOV, S.N.; KHRISTIANSEN, G.B.; ABROSIMOV, A.T.; ATRASHKEVICH, V.B.; BELYAYEVA, I.F.; VEDENEYEV, O.V.; KULIKOV, G.V.; FOMIN, Yu.A.; NECHIN, Yu.A.; SOLOV'YEVA, V.I.; KHRENOV, B.A.

Fluctuations in the development of extensive air showers with a fixed total number of charged particles and a fixed total number of muons. Izv. AN SSSR. Ser. fiz. 29 no.9:1676-1681 S '65. (MIRA 18:9)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, O.V.; DMITRIYEV, V.A.; KHRISTIANSEN, G.B.

Amplitude distribution of bursts produced by high-energy μ-mesons under very thick filters. Zhur. eksp. i teor. fiz. 44 no.2:556-560 F '63. (MIRA 16:7)

1. Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AP7007081 SOURCE CODE: UR/0048/66/030/010/1685/1689

AUTHOR: Vernov, S. N.; Khristiansen, G. B.; Abrosimov, A. T.; Atrashkevich, V. B.; Belyayeva, I. F.; Vedeneyev, O. V.; Kulikov, G. B.; Nechin, Yu. A.; Solov'yeva, V. I.; Fomin, Yu. A.; Khrenov, B. A.

ORG: none

TITLE: Phenomenological characteristics of broad atmospheric showers with a fixed number of μ-mesons and electrons /Paper presented at the All-Union Conference on Cosmic Radiation Physics, Moscow, 15-20 Nov 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 10, 1966, 1685-1689

TOPIC TAGS: mu meson, cosmic radiation

SUB CODE: 20

ABSTRACT: In an earlier work by Vernov et al (Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 29, 1676, 1965), results obtained in a study at an installation of Moscow State University on broad atmospheric showers with zenith angles of 0-30° were reported. These results included the distribution of showers with a fixed number of electrons N_e with respect to the number of high-energy mesons N_μ and the age parameter S, distribution of showers with a fixed N_μ with respect to N_e and S, and the coefficients of the correlation between S and the fluxes of electrons and μ-mesons. In the work reported in this instance, the same relations were determined for broad atmospheric showers with zenith angles of 30-45°. The fluctuations of N_μ, S, and N_e, observed for an effective atmospheric depth of 1240 g/cm^2, were the same as those for vertical showers established in the earlier work. To determine the differences due to an increase in

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AP7007081

the effective atmospheric depth of 200 g/cm^2, calculations must be carried out with greater statistical precision. When results of the theoretical calculations on characteristics of broad atmospheric showers at 1240 g/cm become available, the experimental data reported will be useful for the determination of the composition of primary cosmic radiation in the superhigh-energy range. Orig. art. has: 5 figures, 2 formulas and 1 table. [JPRS: 39,658]

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

S/056/63/044/002/027/065
B102/B186

AUTHORS: Vedeneyev, O. V., Dmitriyev, V. A., Khristiansen, G. B.

TITLE: Amplitude distribution of bursts produced by high-energy muons under thick filters

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44, no. 2, 1963, 556-560

TEXT: The Monte Carlo method is used for calculating the amplitude distribution of monoenergetic muon bursts ($E_\mu = 10^{13}$ and 10^{14} ev) under one or several lead shields of 15 cm diameter. The bursts are assumed to be due only to pair production and bremsstrahlung in the filter. The contribution of nuclear interactions is ignored since it is at least one order of magnitude smaller than that of bremsstrahlung. The δ-electrons produced by muons can also be neglected if the shower contains many ($n > 10$) relativistic particles; the same is the case for electron-positron pairs of less than $6 \cdot 10^8$ ev since the muon energy losses amount to less than 2%. The muon energy is assumed to remain constant throughout the filter; this can be done since the total range of these high-energy muons

Card 1/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

Amplitude distribution of ...

($\sim 3 \cdot 10^5$ g/cm^2) is much larger than the thickness of the thickest filter (150 cm lead ~ 1700 g/cm^2). The probabilities for muon interactions per t-unit with losses $\geq 6 \cdot 10^8$ ev are 0.045 (10^{13} ev) and 0.090 (10^{14} ev); if only pair production is considered they are 0.044 and 0.089, respectively. The distributions were calculated from the data of 300 events and are shown in Figs. 2 and 3. There are 3 figures.

ASSOCIATION: Institut yadernoy fiziki Moskovskogo gosudarstvennogo universiteta (Institute of Nuclear Physics of the Moscow State University)

SUBMITTED: July 12, 1962

Fig. 2. Amplitude distribution for $E_\mu = 10^{13}$ ev and 15 cm lead (= 33 t-units). Solid line: Pair production plus bremsstrahlung; dashed line: pair production alone.

Fig. 3. Amplitude distribution for $E_\mu = 10^{14}$ ev and 33 t-units (solid line) and 66 t-units (dashed line). Both pair production and bremsstrahlung are taken into account.

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

Amplitude distribution of ...

Fig. 2

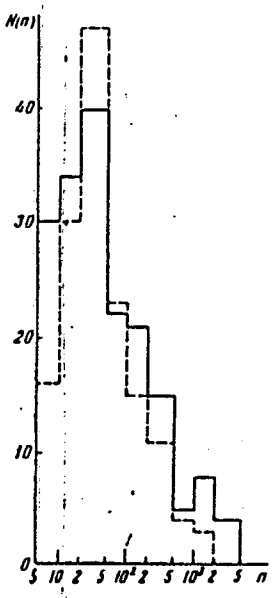
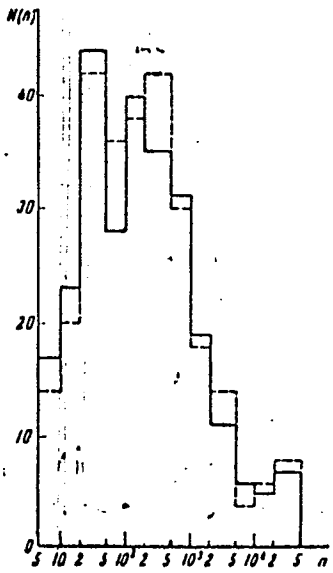


Fig. 3



Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 4528-66 EWT(m)/FCC/T IJP(c)

ACC NR: AP5024632 SOURCE CODE: UR/0048/65/029/009/1676/1681

AUTHOR: Vernov, S.N.; Khristiansen, G.B.; Abrosimov, A.T.; Atrashkevich, V.B.; Belyayeva, I.P.; Yedenayev, O.V.; Kulikov, G.V.; Fomin, Yu. A.; Nechin, Yu. A.; Solov'yeva, V.I.; Khrenov, B.A.

ORG: none

TITLE: Investigations of fluctuations in the development of extensive air showers with a fixed total number of charged particles and a fixed total number of muons /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1676-1681

TOPIC TAGS: cosmic ray shower, muon, charged particle, extensive air shower, particle distributic particle distribution

ABSTRACT: The authors have employed the modernized installation at Moscow State University, described elsewhere (S.N.Vernov et al., Izv. AN SSSR Ser. fiz., 28, 2087, 1964), to investigate the simultaneous distribution of total number N of charged particles, total number M of muons, and age parameter S in extensive air showers. Showers were selected for which the zenith angle of the axis was less than 30°. M was determined from the number of muons recorded by the muon detector and the perpendicular distance of the muon detector from the shower axis with the aid of the known lateral distribution of muons. The relative error in determining M did not exceed 35 %. The

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

L 4528-66

ACC NR: AP5024632

error in determining S was estimated to be 0.02 by processing "artificial" showers of known age, calculated by Monte Carlo methods. The data presented were derived from some 300 showers with total numbers of charged particles ranging from 10^5 to 4×10^6. Histograms are given showing the distribution of showers with respect to N with fixed M, with respect to M with fixed N, with respect to S with fixed N, and with respect to S with fixed M, and scatter plots are given for N versus S with fixed M and for M versus S with fixed N. The correlation coefficient of S with M for fixed N ranged between 0.62 and 0.72; the correlation coefficient of S with N for fixed M was - 0.67. Orig. art. has: 10 formulas, 4 figures, and 1 table.

SUB CODE: NP/ SUBM DATE: 00/ ORIG REF: 005/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AP6018853 SOURCE CODE: UR/0367/65/002/006/1075/1086

AUTHOR: Vernov, S. N.; Belyayeva, I. F.; Vedeneyev, O. V.; Dmitriyev, V. A.; Nechin, Yu. A.; Khristiansen, G. B.

ORG: Institute of Nuclear Physics, Moscow State University (Institut yadernoy fiziki Moskovskogo gosudarstvennogo universitota)

TITLE: Fluctuations of the energy fluxes of the nuclear-active and electron-photon components in extensive air showers /This paper was given at the 14th Annual Conference on Nuclear Spectroscopy, Tbilisi, February 1964/

SOURCE: Yadernaya fizika, v. 2, no. 6, 1965, 1075-1086

TOPIC TAGS: extensive air shower, electron, photon

ABSTRACT: Experimental data are given on the fluctuations of the energy flux of the nuclear-active and electron-photon components in extensive air showers and on the connections of these fluctuations with each other and with fluctuations of the age parameter s. It is shown that the bulk of these data disagrees with the model described by Nymmik and Shestoperov (Materials on the All-Union Conference, Apatites, 1964). The large role of the parameter s and other characteristics for the correct setting-up of experiments concerning extensive air-showers are discussed. Orig. art. has: 10 figures and 3 tables. /Based on authors' Eng. abst./ /JPRS/

SUB CODE: 03 / SUBM DATE: 23Apr65 / ORIG REF: 014 / OTH REF: 003

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

BALABAS', N., VEDENEYEV, P.

Windbreaks, Shelterbelts, Etc.

Merging forest nurseries with shelter belt stations. Les. knoz. 5 no. 3(42), 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VELENEYEV, P. (g. Pugachev).

Combine operator Dan'shin. Sov.profsoiuzy 5 no.10:61-63 O '57.
(MLRA 10:9)

(Dan'shin, Konstantin)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, P.

Socialist Competition

Remains of formalism in the direction of socialist competition. Les.khoz.5, No.7, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

NIKITENKO, A. BOGOSLAVSKIY, V. VEDENEYEV, P.

Botany-Ecology

Significance and role of the overground portion in the life and development of an association of forest plants. Les. khoz. 5 no. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. Unclassified.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

1. BUGOSLAVSKIY, V. M.; VEDENEYEV, P. Kh.

2. USSR (600)

4. Chernigov Province - Reclamation of Land

7. Urgent problems of irrigation and afforestation in the Chernigov region of Polesye, Les i step', 14, No. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

[redacted], [redacted].

Tree Planting

Dense plantings are more productive than sparse plantings. Les i step' 5, No. 2, '53.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, V.A., inzh.

Electromagnetic system for feed water treatment. Energetik 10 no.10:7-8 O '62. (MIRA 15:12)
(Feed-water purification)
(Magnetoelectric machines)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

PUTYAKOV, Konstantin Petrovich, kand. tekhn. nauk; POLONSKIY, Lev Davydovich, inzh.; PATRIN, Nikolay Ivanovich, inzh.; VEDENEYEV, Vasiliy Alekseyevich, inzh.; ZHEBROVSKIY, Aleksandr Stepanovich, inzh.; SHIROKOVA, G.M., red.; SIVITSKIY, K.P., nauchn. red.; SHEVCHENKO, T.N., tekhn.red.

[Industrial construction of sugar] Industrial'noe stroitel'stvo sakharnykh zavodov. Moskva, Gosstroiizdat, 1963. (MIRA 17:2)
163 p.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

UMOV, Pavel Alekseyevich. Prinimali uchastiye: VEDENEYEV, V.A., inzh.; CHLENOV, M.Ya., inzh.; SHALYT, G.M., nauchn. red.; MUPKINA, V.G., red.

[Maintenance of municipal electric power distribution networks] Obsluzhivanie gorodskikh elektricheskikh setei. Moskva, Vysshaia shkola, 1965. 234 p. (MIRA 18:2)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, V. I.

Vedeneyev, V. I.

"The energy of bond dissociation in organic molecules and its utilization in chemical kinetics." Moscow State U imeni M. V. Lomonosov. Chemistry Faculty. Chair of Chemical Kinetics. Moscow, 1956 (Dissertation for the degree of Candidate in Chemical Sciences).

Knizhnaya letopis'
No. 25, 1956. Moscow

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

USSR/Physical Chemistry - Molecule. Chemical Bond B-4

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 3462

Author : Vedeneyev V.I., Voyevodskiy V.V.
Title : Cleavage Energy of C - Cl Bonds of Different Chlorides

Orig Pub : Zh. fiz. khimii, 1956, 30, No 4, 789-793

Abstract : Fulfillment of the correlation $\varepsilon_i = \alpha - \beta D_i$ (1), wherein ε_i -- energy of activation of exothermic reaction, D_i -- cleavage energy of R_iX molecule (R_i -- alkyl radical), and α and β --constants, is illustrated by several examples. Equation (1) is used to calculate the cleavage energy of C - Cl bonds on the basis of known values of $D(C_2H_5\text{-}Cl)$ and $D(CH_3\text{-}Cl)$. Calculated values of cleavage energy are in satisfactory agreement with the available experimental values. The conclusion is drawn that equation (1) can be utilized to evaluate the cleavage energy values of bonds on the basis of known values of energy of activation, and vice versa.

Card 1/1 - 5 -

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

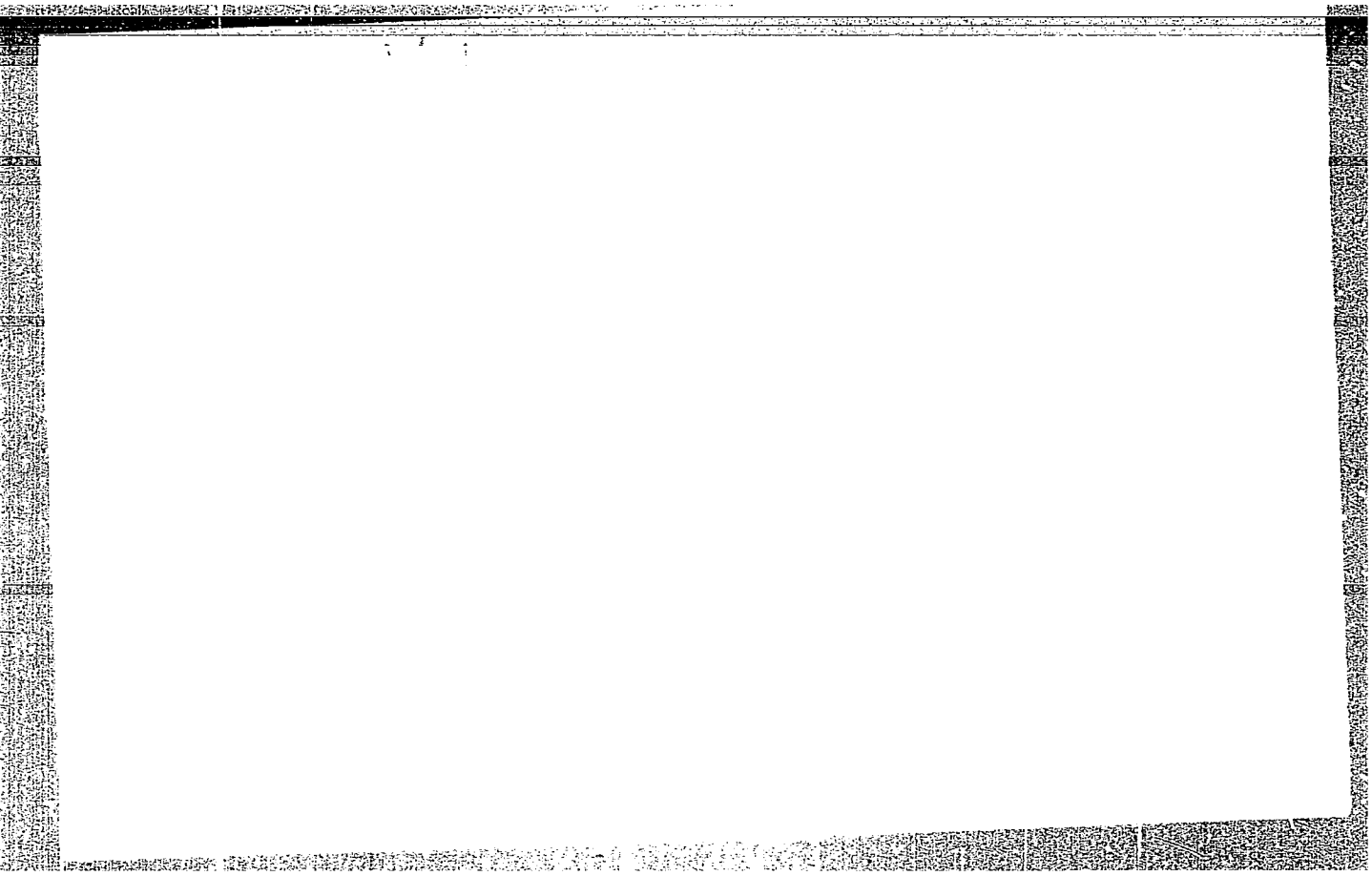
VOYEVODSKIY, V.V.; VEDENEYEV, V.I.

Possible mechanism of degenerated branching in hydrocarbon oxidation reactions. Dokl.AN SSSR 106 no.4:679-682 F '56. (MLRA 9:6)

1.Institut khimicheskoy fiziki Akademii nauk SSSR Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.
(Hydrocarbons) (Oxidation)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

20-114-3-33/60

AUTHOR: Vedeneyev, V. I.

TITLE: The Energy of C - H Bond Rupture in Hydrocarbons (Energiya razryva C - H-svyazey v uglevodorodakh)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 114, Nr 3, pp. 571-574 (USSR)

ABSTRACT: The deviations of the heats of formation of the molecules of the paraffinic hydrocarbons from the additivity are not large. This is an indication that it is not possible to explain by the interaction of the atoms in the molecule itself the relatively narrow dependence of the energies of C - H bonds rupture on molecular structure. As a matter of fact, at transition from methane to the higher terms of the series the average bond energies change by approximately 1 Kcal, whereas the energies of bond rupture change by approximately 8 Kcal. It is well known that in diatomic molecules the rupture energy of the only bond is exactly equal to the average energy. In the case of a dissociation of diatomic molecules only atoms are formed. The decay of a complex molecule results in two radicals, or in one radical and one atom. Naturally, it must be assumed that it is these radicals, formed as a result

Card 1/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

The Energy of C - H Bond Rupture in Hydrocarbons

of the decay, which are responsible for those changes that were observed in the experiments with respect to the rupture energies. For the case of the rupture of the C - H bond, Semenov obtains the formula $D(R - H) = D_H^o - V(R)$, and he points out that the cause of the relatively great change in the energies of bond rupture must not be found in the molecular properties RX, but much rather in the properties of the radicals formed as result of the dissociation of the molecule. The energy gain as a result of the stabilization of radicals is caused by the interaction of the free valence with the other bonds in the radical. It goes without saying that the energetic effect of such an interaction will depend both on the state of the free valence (be it π-state or σ-state) and also on the kind of the bond with which this free valence has to be in interaction. Moreover, it is probable that this free valence will vary according to its distance. The author of the paper under review assumes that the interaction between the free valence and the saturated bonds in the radicals decreases with increasing distance; this decrease takes place in accordance with the exponential law. In such a case, the interaction energy between the free valence and a single bond

Card 2/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

will look as follows:

$$V_n = \alpha_j e^{-\beta n}$$, with α_j and β standing for the coefficients characterizing the interaction, and n standing for the number of the carbon atoms with type j bonds with which a free valence reacts. For a carbon atom carrying on itself the free valence we have n = 0. After summation in the radical R we obtain

$$V(R) = \sum_{j,n} j\alpha_j e^{-\beta n}, \quad D(R - H) = D_H^o - \sum_{j,n} j\alpha_j e^{-\beta n},$$

with j denoting the number of bonds of type j at the n-th carbon atom. It goes without saying that computation of the distance with respect to the number of carbon atoms is only a rough approximation. Table 1 of the paper under review contains the experimental results with respect to the energies of C - H bond rupture in the molecules of the paraffinic hydrocarbons, as obtained by means of different methods. If we have

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

The Energy of C - H Bond Rupture in Hydrocarbons

a set of coefficients α_j and additional components, then it is possible to compute the rupture energy in molecules of hydrocarbons of most different (even substituted) structures (Table 2 of the paper under review). Although this method of computation is only a very approximate one, it nevertheless makes it possible to estimate with relative speed and simplicity the strength of C - H bonds. There are 2 tables and 7 references, 4 of which are Soviet.

ASSOCIATION: Institute for Chemical Physics AS USSR
(Institut khimicheskoy fiziki Akademii nauk SSSR)

PRESENTED: December 24, 1956, by N. N. Semenov, Member of the Academy

SUBMITTED: December 21, 1956

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

20-114-6-36/54

AUTHORS: Lyadova, Yu. I., Vedeneyev, V. I., Voyevodskiy, V. V.

TITLE: Investigation of the Kinetics and the Mechanism of the Thermal Decomposition of Isobutylene (Issledovaniye kinetiki i mekhanizma termicheskogo raspada izobutilena).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 114, Nr 6, pp. 1269-1271 (USSR)

ABSTRACT: The third author (references 1,2) suggested a chain-reaction of the thermal decomposition of olefines which is based upon the redistribution of the H-atom between a radical of the allyl-type and the olefine-molecule, where an alkyl radical and a diene develop. He succeeded in determining from this point of view the composition of the products of this composition of olefines of various structure. It was, however, not possible to extend these conceptions to the cracking of such simple olefines as C_3H_6 and i-C_4H_8, as no H-atoms capable of redistribution reactions exist in the allyl-radicals developing of it. In another paper (reference 2) the third author advocated the opinion that in the case of the two above-mentioned olefines the formation of the reaction products is always preceded by an addition

Card 1/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

of the allyl-radical to the double bond of the olefine. The authors intended to obtain additional data on the chain character of this decomposition as well as to check the hypothesis concerning the transfer of the H-atom to the olefine double bond. The cracking of isobutylene was studied at between 542 and 620° and at a pressure of 100-500 mm torr. Furthermore experiments with a mixture of $i\text{-}C_4H_8$ and C_2H_4 were made at 542-600° and 200-600 mm pressure. The thermo-chromatical gas-analysis showed that the main products (gases) of the isobutylene-cracking are C_3H_6, CH_4, $i\text{-}C_4H_{10}$, C_2H_4 and H_2 beside small quantities of C_2H_6 and C_3H_8. Figures 1 and 2 show the modification of the composition of these gases with a modification of pressure, as well as the percentage of conversion. The extrapolation of the curves which describe the dependence of the composition of the gas products on the percentage of conversion to the zero-percentage of the conversion makes it possible to determine the primary reaction-products and their relations. From the cracking of $i\text{-}C_4H_8$ up to 10% isobutane is obtained

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

as one of the primary products. This quantity increases with increasing pressure and with decreasing temperature. This shows that the addition reaction of the H-atom to the double bond of isobutylene takes place under the conditions given here. In order to further determine the problem of the transfer of the H-atom to the olefine double bond, the cracking of mixtures of i-C_4H_8 with C_2H_4 was studied. The results in table 1 permit the following conclusions:
1) They confirm the conception on the chain mechanism of the reaction. On the other hand the development of ethane in large quantities furnishes another proof that the transfer reaction of the H-atom to the olefine double bond is possible. The authors are of opinion that their tests confirm the assumed reaction in isobutylene-crackings:

$$\dot{R} + \text{i-}C_4H_8 \longrightarrow M + \dot{C}_4H_9.$$

The same applies to the mixture of isobutylene-ethylene:

$$\dot{R} + C_2H_4 \longrightarrow M + \dot{C}_2H_5.$$

Card 3/4 The comparison of the analysis results of the primary gas

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

Investigation of the Kinetics and the Thermal Decomposition of Isobutylene

20-114-6-36/54

products and the composition of the liquids leads to the conclusion that the cracking-scheme suggested by the third author of C_3H_6 and i-C_4H_8 is insufficient. New ways of the transformation of the radical i-$\dot{C}_4H_7$ must be introduced to this scheme. The decomposition to $\dot{C}H_3$ and "allene" may be supposed as such, as well as the transfer reaction of the methyl-radical from i-$\dot{C}_4H_7$ to the isobutylene molecule. Allene-formation was observed in the cracking of isobutylene reference 4). Under the conditions given here it is, however, unstable and completely disappears from the gas phase during the duration of test. There are 2 figures, 1 table, and 5 references, 2 of which are Slavic.

ASSOCIATION: Institute for Chemical Physics AS USSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

PRESENTED: January 14, 1957, by N. N. Semenov, Academician

SUBMITTED: January 12, 1957

Card 4/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, V.I.; GERASIMOV, G.N.; PURMAL', A.P.

Photochemical decomposition of hydrogen peroxide (with summary in English). Zhur. fiz. khim. 31 no.6:1216-1226 Je '57. (MIRA 10:12)

1. Khimiko-tekhnologicheskiy institut im D.I. Mendeleyeva i Institut khimicheskoy fiziki AN SSSR, Moskva.
(Hydrogen peroxide) (Photochemistry)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

MARGOLIS, Liya Yakovlevna,; YELOVICH, S.Yu., otv. red.; VEDENEYEV, V.I., red. izd-va,; POLENOVA, T.P., tekhn. red.

[Tagged atoms in catalysis] Mechenye atomy v katalize. Moskva, Izd-vo Akad. nauk SSSR, 1958. 68 p. (MIRA 11:11)
(Catalysis)
(Radioactive tracers)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

AUTHORS: Vedeneyev, V. I., Purmal', A. P. SOV/76-32-7-5/45

TITLE: The Decomposition Energy of C-F Bonds (Energii razryva C-F svyazey)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 7, pp. 1472-1475 (USSR)

ABSTRACT: Only little information is available concerning the above mentioned problem; this is explained by the fact, that many experimental methods are unsuited or supply insufficient results due to the considerable strength of the C-F bonds. On the other hand a calculation of the decomposition energy for monofluorine derivatives of hydrocarbons is thermochemically also impossible because of the lack of data on the heats of formation of the corresponding compounds. The data obtained by Lossing, Ingold and Henderson (Ref 1) as well as those by Farmer et al. (Ref 2) may not be regarded as being of full value because of errors of determinations and insufficient measurements. According to a table representing the decomposition energies of the bindings CF_2-X (X= H, F, Cl, Br and J) as well as data concerning the heats of formation it is assumed that the value of 118 kcal is closest to the real value

Card 1/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

of the decomposition energy CF_3-X. It is found that the F and H atoms as substituents exert the same influence on the strength of the compounds to be cleft, which fact is proved by the results obtained by Rabinovitch and Reed (Ref 7). Proceeding from the value for $D(CH_3-F)$= 118 kcal the heats of formation for CH_3F, C_2H_5F, n-C_3H_7F, iso-C_3H_7F and tert-C_4H_9F are calculated and data are given which concern the energy of the formation of the C-F bond. It is found that the results obtained by Luft (Ref 11) do not agree with those obtained by the authors of this paper. The exchange of the H-atoms with F does not exert a strong influence on the energy of the splitting of the C-C bonds, as mentioned above. Pritchard and Trotman-Dickenson (Ref 12) estimate the value of D(C-C) in cyclobutane to be 74 kcal, so that the same value may be assumed in the case of octafluorocyclobutane; this is proved by data in publications. There are 4 tables and 13 references, 1 of which is Soviet.

ASSOCIATION: Akademiya nauk SSSR Institut khimicheskoy fiziki, Moskva (Moscow, Institute of Chemical Physics, AS USSR)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

The Decomposition Energy of C-C Bonds [illegible]-7-5/25

SUBMITTED: February 5, 1957

1. Hydrocarbons--Decomposition 2. Hydrocarbons--Heat of formation
3. Chemical reactions--Theory 4. Hydrocarbons--Bonding

Card 3/5

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

5(1,3) SOV/20-123-2-23/50

AUTHORS: Moiseyev, V. D., Lyadova, Yu. I., Vadeneyev, V. I., Neyman, M. B., Voyevodskiy, V. V., Corresponding Member, AS USSR

TITLE: Ways of the Formation of Propylene and Ethylene in Isobutylene Cracking (Puti obrazovaniya propilena i etilena pri krekinge izobutilena)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 2, pp 292-294 (USSR)

ABSTRACT: As is known, up to 50% of the initial substance in thermal isobutylene decomposition are transformed into liquids (olefins, aromatic compounds). Apparently the polymerization of the initial olefin forms the first stage of the liquid formation, with dimeric and trimeric olefin being formed. The latter themselves are capable of being transformed in various ways with the final result being liquid cracking products. The ratio between carbon and hydrogen in these products is about 1 (Ref 2), whereas it is 2 in isobutylene. From this may be supposed that hydrogen and methane are separated in the formation of the liquids; in principle, also heavier cracking gases with 2 and 3 carbon atoms each in the molecule can be formed. The problem

Card 1/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

concerning the type and amount of the gases escaping from the liquids or in their formation is not investigated at all. Propylene is one of the main products of isobutylene cracking. If it were formed from isobutylene only, its formation velocity would decrease with the exhaustion of the isobutylene. If propylene is, however, formed from the liquid or from any other intermediate product of low stability (not from radicals), its formation velocity in the beginning of the reaction must be equal to zero, and then increase according to the law of successive reactions. If both ways of the formation of propylene are correct the two pictures must agree. This was the case in the present experiments. The change of the formation velocity of propylene was investigated by the isotopic kinetic method (Ref 3). Ye. D. Fedorov took part in the synthesis of the marked propylene (with C^{14} on the hydroxyl group). This propylene (15 torr) was subjected together with isobutylene (285 torr) to a cracking in vacuum at 542°. The course of the specific activity α and of the C_3H_6 concentrations are given in figure 1.

Card 2/4 Figure 2 gives the formation velocity of propylene w_1. In the

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

Ways of the Formation of Propylene and Ethylene in Isobutylene Cracking

beginning of the reactions this value w_1 is not equal to zero; it increases during the first 10-12 minutes, i.e. to about 20% isobutylene transformation. This w_1 increase tends to show that a considerable propylene amount in isobutylene cracking is not formed from isobutylene but from any intermediate products of the cracking, obviously from liquids. As may be seen from figure 2, the formation velocity of propylene passes a maximum within the range of 10-14 minutes and then decreases. The authors consider it to be premature to draw any conclusions. The ethylene activity determined in some experiments besides the specific activity of propylene is given in figure 3. As this activity is much lower than that of propylene, this tends to show that only part of the ethylene is formed from propylene. Also ethylene can be formed either from isobutylene directly or from liquids. Based on the experimental results obtained it is not possible to make a decision as to the way of formation prevailing. The fact that propylene is formed from liquids tends to show the possibility of the ethylene formation from the latter. There are 3 figures and 4 references, 2 of which are

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

SOV/20-123-2-23/50

Ways of the Formation of Propylene and Ethylene in Isobutylene Cracking

Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, AS USSR)

SUBMITTED: July 28, 1958

Card 4/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

88843
S/026/60/000/012/001/009
A166/A027

5.4130 1275,1281,1043

AUTHOR: Vedeneyev, V.I.

TITLE: Free Radicals

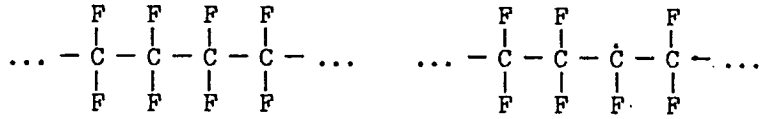
PERIODICAL: Priroda, 1960, No. 12, pp. 10 - 16

TEXT: The article explains the mechanism of free radicals and the part that they play in chemical reactions and chain processes, together with an account of their study by means of "metallic mirrors". The Soviet academician N.N. Semenov has contributed much to the study of chain chemical reactions. Academician V.N. Kondrat'yev has detected hydroxyl radicals in the reaction of the oxidation of hydrogen, using the "metallic mirror" method. A number of radicals were detected with mass-spectrometers. Another useful method of studying the properties of atoms and free radicals is that of electronic paramagnetic resonance, discovered by Ye.K. Zaboyskiy in 1944. At the laboratory of V.V. Voyevodskiy, Corresponding Member of the AN SSSR (AS USSR), detailed studies have been made of the properties of tephlon, irradiated with gamma-rays, using the method of electronic paramagnetic resonance. Under the gamma-radiation, rupture of the C — F bonds occurs in the tephlon, and radicals form of the type:

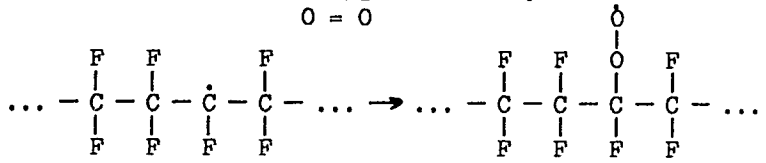
APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

Free Radicals



These radicals react readily with oxygen to form peroxide radicals of the type:

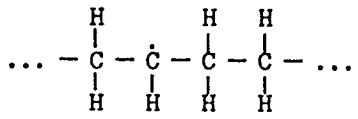


Heating and evacuation causes the peroxide radicals to break down and liberate oxygen, changing into fluoralkyl radicals. Study of this reaction at different temperatures has shown how strongly the oxygen molecule was bonded to the carbon molecule. The angle enclosed by the oxygen molecule and the C — O bond in the radical was also measured. Radicals in tephlon proved to be stable up to 300°C and can cause the polymerization of various monomers. Research has also been carried out into the ionizing irradiation of organic substances, a process which can improve the quality of a polymer. Irradiation of polyethylene leads initially to the formation of the radical

Card 2/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2



At room temperature this radical gradually changes into another radical of undefined type. The uncoupled electron in the radical is not firmly bonded to the carbon atom but can shift along the chain of other carbon atoms. Encounter with another electron leads to recombination of the radicals, a process which is also currently under study. There are 3 photos, 2 diagrams and 3 references: 2 Soviet and 1 American.

ASSOCIATION: Institut khimicheskoy fiziki AN SSSR (Institute of Chemical Physics, AS USSR), Moscow

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

83135

S/020/60/133/005/013/019
B016/B060

5.3200
5.4700

AUTHORS: Likhtenshteyn, G. I., Buchachenko, A. L., Vedeneyev, V. I.

TITLE: A Semiempirical Method of Calculating the Formation Heats of Hydroperoxides and the Conjugation Energies of Some Peroxide Radicals

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 5, pp. 1102-1104

TEXT: For the calculation of the energetics of reactions in which hydroperoxides take part, it is necessary to know the formation heats of the latter. The scarce experimental data on ΔH of hydroperoxides do not permit the use of the well-known semiempirical calculation methods (Refs. 1,2) when calculating the formation heats of organic hydroperoxides. The method suggested here is based on the following considerations: following the ideas developed by N. N. Semenov (Refs. 3,4), the magnitude of the bond energy X - Y (Q_{XY}) can be represented as follows: $Q_{XY} = E_{XY} - B_X - B_Y$, where E_{XY} is the splitting

Card 1/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

energy of the X - Y bond. In this connection, the electron configurations of the free X and Y are assumed to remain equal to those in the initial molecule. B_X and B_Y are the conjugation energies of the radicals X and Y. Consequently, the authors write down equations (1), (2), and (3) for compounds of the types XOOX and XOO·. It follows from the law of energy conservation that the identity $A_1 + A_2 = A_1^0 + A_2^0 = \text{const}$ (4) is preserved regardless of the nature of X, with $A_1^0 + A_2^0$ being the sum of two three-electron bonds in the oxygen molecule. In fact, the transition from the state XOOX to the state $2X + O_2$ can be realized in two ways: a) by the simultaneous splitting of both OX bonds under energy consumption (5), or b) by the successive cleavage of X from XOOX and from $XO_2^{\cdot}$ (6). The combination of equations (1), (2), (5), and (6) yields equation (4) which may be regarded as a thermodynamic criterion for the fact that all of the compounds discussed here correspond to the chemical formulas ascribed to them, that they are tuned thermodynamically, and that they obey the rule of additivity. The numerical calculation of A_1 and A_2 on the basis

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

A Semiempirical Method of Calculating the Formation Heats of Hydroperoxides and the Conjugation Energies of Some Peroxide Radicals

S/020/60/133/005/013/019
B016/B060

of equations (1), (2), and (3) was carried out for cases in which X = H, Cl, ClO, R, F, with R being a hydrocarbon radical. The data used for the calculations are shown in Table 1. It follows from Fig. 1 that the value $A_1 + A_2 = A_1^o + A_2^o = 82 \pm 2$ kcal (4') and is independent of the nature of X. Equation (4') allows the calculation of the formation heats of hydroperoxides (Equations (7), (8), and (9)). Fig. 2 shows that the points corresponding to the experimental results (Refs. 5,6) lie well on the straight line calculated on the basis of equation (9). The constancy of the values $A_1 + A_2$ for different compounds and the applicability of relation (9) for hydroperoxides of different classes allow a fairly reliable calculation of the formation heats of such hydroperoxides for which no experimental data are available, by means of a comparison with the known formation heats of corresponding alcohols. This again permits the splitting energies of the O—O bonds to be calculated. Fig. 1 shows that the conjugation energy of the peroxide radicals drops with decreasing electronegativity of the atom which is directly added to oxygen. Other possibilities of applying equation (4') are finally

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

83135

A Semiempirical Method of Calculating the Formation Heats of Hydroperoxides and the Conjugation Energies of Some Peroxide Radicals

S/020/60/133/005/013/019
B016/B060

mentioned. There are 2 figures, 1 table, and 8 references: 6 Soviet and 2 US.

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

PRESENTED: March 21, 1960, by V. N. Kondrat'yev, Academician

SUBMITTED: March 18, 1960

Card 4/4

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

S/020/60/134/004/012/023
B016/B060

AUTHORS: Kudryavtseva, Yu. I. and Vedeneyev, V. I.

TITLE: The Mechanism of Ethylene Formation During Isobutylene Cracking

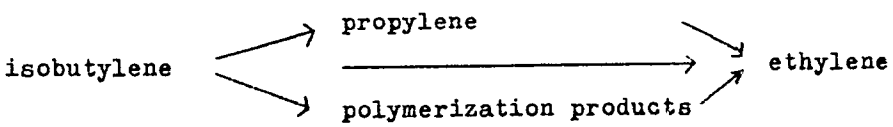
PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 4, pp. 828 - 829

TEXT: An investigation of the mechanism of thermal cracking of olefins (T = 500 - 700°C) is heavily complicated by polymerization reactions. The authors have proved in an earlier paper (Ref. 3) that only a minor part of the resulting ethylene is formed from propylene on the thermal decomposition of isobutylene. As has been further shown, propylene is also formed on the decomposition of isobutylene polymerization products. The authors believe that the same mode of formation also applies to ethylene. In an effort to solve the problem of ethylene formation definitely, they studied the cracking of isobutylene by adding 0.2% of C^{14}-tagged ethylene. A 300-mm mixture was cracked at 545°C. The cracking products were separated in a column with ACM (ASM) silica gel. Untagged ethylene was added to the

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ethylene thus separated, and burned over CuO in a nitrogen flow to form CO_2. The latter was absorbed by means of $Ba(OH)_2$, and the activity of the $BaCO_4$ precipitate was measured by an end-window counter. Fig. 1 shows the changes in concentration (a) and specific activity (b) of C_2H_4 in the course of cracking. Fig. 2 shows the formation rate of C_2H_4 as a function of time. This rate is not equal to zero at the zero point of time. It follows that part of C_2H_4 is formed directly from isobutylene. A scheme illustrates the modes of ethylene formation in the course of thermal cracking of isobutylene:



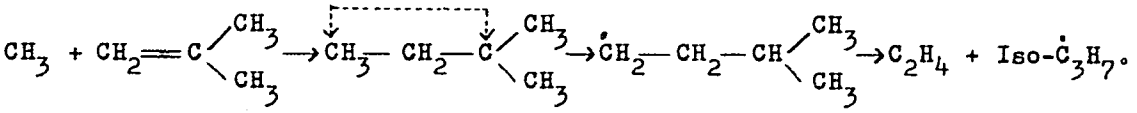
Another scheme illustrates the mechanism of direct ethylene formation from isobutylene:

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

The Mechanism of Ethylene Formation During Isobutylene Cracking

S/020/60/134/004/012/023
B016/B060



Methyl radicals are undoubtedly present in the reaction zone. Unfortunately, there are no experimental data to indicate that isomerization reactions of radicals actually arise in the cracking process of hydrocarbons. There are 2 figures and 4 references: 3 Soviet and 1 US.

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

PRESENTED: May 27, 1960, by V. N. Kondrat'yev, Academician

SUBMITTED: May 24, 1960

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, V.I.; CHAYKIN, A.M.; SHILOV, A.Ye.

Branching in chain reactions involving molecular fluorine. Kin.i kat. 4 no.2:320-321 Mr-Ap '63. (MIRA 16:5)

1. Institut khimicheskoy fiziki AN SSSR.
(Fluorine) (Hydrogen) (Fluorine organic compounds)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

KUDRYAVTSEVA, Yu.I.; PAVLOV, B.V.; VEDENEYEV, V.I.

Kinetics and mechanism of the thermal decomposition of ethane.
Zhur. fiz. khim. 38 no.4:978-980 Ap '64. (MIRA 17:6)

1. Akademiya nauk SSSR, Institut khimicheskoy fiziki.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

KUDRYAVTSEVA, Yu.I.; VEDENEYEV, V.I.

Kinetics and mechanism of ethane thermal decomposition. Kin. i kat. 6 no.4:585-591 Jl-Ag '65. (MIRA 18:9)

1. Institut khimicheskoy fiziki AN SSSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

KUDRYAVTSEVA, Yu.I.; VEDENEYEV, V.I.; NIAZYAN, O.M.

Kinetics and mechanism of the thermal decomposition of ethane (high temperature region). Dokl. AN Arm. SSR 39 no.1:29-33 '64. (MIRA 17:8)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno chlenom-korrespondentom AN Armyanskoy SSR A.Nalbandyanom.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

KUDRYAVTSEVA, Yu.I.; VEDENEYEV, V.I.

Radical recombination mechanism in thermal decomposition of ethane. Kinet. kat. 6 no.5:928-931 S-O '65.
(MIRA 18:11)

1. Institut khimicheskoy fiziki AN SSSR.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, Vladimir Ivanovich; GURVICH, Lev Veniaminovich; KONDRAT'YEV, Viktor Nikolayevich, akademik; MEDVEDEV, Vadim Andreyevich; FRANKEVICH, Yevgeniy Leonidovich; DRAGUNOV, E.S., red.; RYLINA, Yu.V., tekhn. red.

[Energies of chemical bond breaking. Ionization potentials and electron affinity]Energii razryva khimicheskikh sviazei. Potentsialy ionizatsii i sredstvo k elektronu; spravochnik. [By]V.I. Vedeneyev i dr. Moskva, Izd-vo Akad. nauk SSSR, 1962. 215 p. (MIRA 16:2)

(Chemical bonds) (Ionization) (Chemical affinity)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, Vladimir Ivanovich; SHUSTOVA, I.B., red.; NAZAROVA, A.S., tekhn. red.

[Chemical radicals] Khimicheskie radikaly. Moskva, Izd-vo "Znanie," 1963. 47 p. (Narodnyi universitet kul'tury: Estestvennonauchnyi fakul'tet, no.9) (MIRA 16:10)
(Radicals (Chemistry))

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, V.P.

Determination of boundary values of parameters and construction of the zone of stable operation for ferrite-diode shift registers. Trudy MEI no. 60 no. 3:25-35 '65 (MIRA 19:1)

Methods for calculating the parameters of ferrite-diode shift register for a given zone of stable operation. Ibid.:37-56

Special features in the operation of a ferrite-diode shift register and methods for increasing its operational stability. Ibid.:57-66.

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

VEDENEYEV, V.P., inzh.

A measuring and indicating device. Energetik 11 no.2:21 F '63. (MIRA 16:3)
(Pipe bending--Equipment and supplies)

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AR6018969 SOURCE CODE: UR/0271/66/000/002/B036/B036

AUTHOR: Vedeneyev, V. P.

TITLE: Determination of limiting parameter values and the stable region of operation of a ferrite core-diode shift register

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 2B259

REF SOURCE: Tr. Mosk. energ. in-ta, vyp. 60, no. 3, 1965, 25-36

TOPIC TAGS: shift register, magnetic core, logic design, logic element

TRANSLATION: It is noted that for the determination of the stable operational region of logic systems based on ferrite core-diode elements, it is convenient to take advantage of the relation between the magnetic induction of the core which feeds the data and the change in the induction of the next core receiving this information; this relation is called the transfer characteristic. On the basis of the transfer characteristic, the limiting values of any parameter which affects the operational stability of the register may be found and, using these values, the stable operational region of the register may be determined. It is shown that the register will be stable in a given region, the coordinates of which are the magnitude of the synchronizing current, if it is known that the register exhibits stable operation in two extremal points of the given region. It is suggested that this method be applied in the determination of

UDC: 681.142.642.7

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AR6018969

the stable region of operation in the two- and single-cycle transformer type systems and in any other type of ferrite core-diode logic system. 8 figures. N. P.

SUB CODE: 09

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AR6018972 SOURCE CODE: UR/0271/66/000/002/B037/B037

AUTHOR: Vedeneyev, V. P.

TITLE: A method of calculating ferrite core-diode component parameters for a shift register with a specified region of stable operation

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 2B262

REF SOURCE: Tr. Mosk. energ. in-ta, vyp. 60, no. 3, 1965, 37-55

TOPIC TAGS: shift register, magnetic core, logic design, logic element

TRANSLATION: Using the example of an *n*-cycle shift register configuration without suppression of reverse data, the initial design equations are derived and conditions of their application are given. The assumptions are described and the design sequence is formulated. The computations are carried out for rectangular and trapezoidal clock pulse shapes. The technique for calculating the flow of the reverse data is given. Final relations are derived and the sequence of design is established. It is maintained, that the proposed techniques for shift register parameter calculation for a specified region of stable operation allow for the required number of design equations to be derived. The basic design is based on the trial and error method with subsequent correction of the selected initial equations. 4 figures, 2 references. N. P.

SUB CODE: 09

UDC: 681.142.642.7

Card 1/1

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AR6016970 SOURCE CODE: UR/0271/66/000/002/B036/B036

AUTHOR: Vedeneyev, V. P.

TITLE: Certain properties of ferrite core-diode shift register operation and means for increasing its stability

SOURCE: Ref. zh. Avtomat telemekh i vychisl tekhn, Abs. 2B260

REF SOURCE: Tr. Mosk. energ. in-ta, vyp. 60, no. 3, 1965, 57-66

TOPIC TAGS: shift register, magnetic core, logic design, logic element

TRANSLATION: It is noted that in some instances, e. g., in the case of the large values of timing ampere-turns required for the data shift, the design of a shift register cannot be considered satisfactory, even though the register satisfies the given requirements. In the particular case, this leads to the condition where the supply generator feeds an inadmissibly small number of elements. In that case, steps should be taken to increase the stability of the register for a smaller number of turns of the shifting coil. To this end, specially shaped clock pulses are used. The selection of current pulse shape for transformer systems is considered. It is pointed out that in the absence of data feedback, the noise in the register is determined by the change in the magnetic state of the core on the inclined portion of the hysteresis loop; this noise can be considered during design. The use of a ladder type driving pulse sharply

UDC: 681.142.642.7

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AR6018970

improves the operational stability of the register and allows for a wide variation of the transmission characteristics. 3 references, 4 figures. N. P.

SUB CODE: 09

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AT6035243 SOURCE CODE: UR.3043/66/000/005/0146/0161

AUTHOR: Vedeneyev, Ye. P.; Zhidkov, N. P.

ORG: none

TITLE: Resonance solutions of a system of equations for dispersion amplitudes of charged Pi mesons at low values of parameter Gamma

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik. rabot, no. 5,-1966. Vychislitel'nyye metody i programmirovaniye (Computing methods and programming), 146-161

TOPIC TAGS: pi meson, resonance solution, equation system, charged particle

ABSTRACT: At low energies the real and imaginary parts of dispersion amplitude $A_i(\omega)$ ($i = 0, 1, 2$) of charged π-mesons satisfy a system of nonlinear singular integral equations which cannot be solved by known analytical methods. Therefore, it is very important to study the possibility of finding an approximate solution by numerical methods. Such a solution reduces to finding a good initial approximate solution and a rapidly converging iterative process which makes it possible to find an approximate solution to the system by some numerical method making use of the initial approximation. A method has been proposed for constructing limiting resonance solutions with power asymptotics when the resonance positions for each of the three amplitudes of $A_i(\omega)$ coincide. Another so-called "N/D method" selects a partial set of parameters and gives approximate resonance solutions of the system; the initial approximations

Card 1/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

ACC NR: AT6035243

to the solution are taken from the previously mentioned method, but it must be noted that there may be an infinite number of solutions to $A_i(\omega)$ if additional conditions are not imposed to ensure uniqueness of solution in this function class. This follows from the fact that the real and imaginary parts of the dispersion amplitudes are connected as stated above. The present article proves that to obtain a solution to this system when $\gamma \to 0$ the sufficient condition on selection of parameters in the general case is that each of the three amplitudes of dispersion $A_i(\omega)$ have a single resonance and that no two of them coincide. At low values of parameter γ this limiting solution may be a good initial approximation for calculating system solutions by iteration methods. Orig. art. has: 70 formulas and 4 figures.

SUB CODE: 12 18/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

USSR / Microbiology. Antibiosis and Symbiosis. Antibiotics. F

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 19474

Author : Vedeneyeva, V. V.; Konokotina, A. G.; Mel'nikova, T. A.

Inst : Leningrad Chem.-Pharmaceutical Institute

Title : Antibiotic Properties of Preparation No. 13

Orig Pub : Sb. nauchn. tr. Leningr. khim.-farmatsevt. in-t, 1957, 3, 30-52

Abstract : Antibiotic 13 is obtained from Penicillium 214, which is related to the type "asymmetrica fasciculata". In its properties, antibiotic 13 (I) differs from penicillin (it acts not only on gram-positive, but also on gram-negative microbes), from notatin (active in the absence of glucose) and from patulin (according to the antibacterial spectrum).

Card 1/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"

"APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2

USSR / Microbiology. Antibiosis and Symbiosis. F
Antibiotics.

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 19474

of it cause the formation of abscesses. I does not depress the heart action, shows a stimulating effect of central origin on blood pressure, possesses spasmolytic action, and stimulates the depressed respiratory center (at an overdose of urethane). -- T. P. Vertogradova

Card 3/3

APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001859220011-2"