

BRONSHTEYN, L.A., dotsent; AFANAS'YEV, L.L., dotsent, BASH, M.S., dotsent;
VLASKO, Yu.M., inzh.; ZEMSKOV, P.F., inzh.; KRAMARENKO, G.V.,
dotsent; LEYDERMAN, S.R., dotsent; LIV'YANT, Ye.A., ispoln.obyazan-
nosti dotsenta; LYUBINSKIY, N.M., inzh.; NAYDENOV, B.F., inzh.;
FINKEL'SHTEYN, A.L., inzh.; KHROMOV, A.A., inzh.; CHUDINOV, A.A.,
inzh.; GOBERMAN, I.M., red.; GALAKTIONOVA, Ye.N., tekhn.red.;
DONSKAYA, G.D., tekhn.red.

[Centralized automotive freight haulage] Tsentralizovannye pere-
vozki gruzov avtomobil'nym transportom. Pod obshchei red. I.M.
Gobermana. Moskva, Nauchno-tekhn.izd-vo M-va avtomobil'nogo transpor-
ta i shosseinykh dorog RSFSR, 1960. 206 p. (MIRA 13:9)

1. Moscow. Avtomobil'no-dorozhnyy institut.
(Transportation, Automotive)

ANOKHIN, Vasil'y Ivanovich, kand.tekhn.nauk; AFANAS'YEV, L.L., kand.tekhn.
nauk, red.; NAKHIMSON, V.A., red.isd-vs; SOKOLOVA, T.F., tekhn.red.

[Russian motor vehicles] Otechestvennye avtomobili. Moskva, Gos.
nauchno-tekhn.isd-vo mashinostroit.lit-ry, 1960. 758 p.

(MIRA 13:9)

(Motor vehicles)

AFANAS'YEV, L., kand.tekhn.nauk

The 46th International Automobile Exhibition in Paris. Avt.
transp. 38 no.1:55-58 Ja '60. (MIRA 13:5)
(Automobiles--Exhibitions)

AFANS'YEV, L. L.

On roads of peace and friendship. Avt.transp. 38
no.8:47-49 Ag '60. (MIRA 13:8)

1. Predsedatel' avtomobil'nogo komiteta Federatsii
avtomobil'nogo i mototsikletnogo sporta SSSR.
(Automobile racing)

AFANAS'YEV, L.

Taxicab transportation in Paris. Avt.transp. 39 no.4:58-60 Ap
'61. (MIRA 14:5)

(Paris--Taxicabs)

AFANAS'YEV, L.

New optical stand for the inspection of wheel alignment. Avt.
transp. 29 no.5:59-61 My '61. (MIRA 14:5)
(Motor vehicles--Wheels)

AFANAS'YEV, L.

The 47th International Automobile Exhibition in Paris Avt.transp. 39
no.1:58-60 Ja '61. (MIRA 14:3)

(Paris--Exhibitions)
(Automobiles)

AFANAS'YEV, Leonid Leonidovich; KOLYASINSKIY, Boleslav Stanislavovich;
MASLOV, Aleksey Aleseyevich; KRUZE, I.L., nauchnyy red.;
MANAKIN, N.V., red.; BODANOVA, A.P., tekhn. red.

[Garages and service stations; album of drawings]Garazhi i
stantsii obsluzhivaniia avtomobilei; al'bom chertezhei. Mo-
skva, Avtotransizdat, 1962. 104 p. (MIRA 16:1)
(Garages) (Service stations)

AFANAS'YEV, L.; SABININ, A.

Green light to automobile racing. Za rul. 20 no.4:4-5 Ap '62.
(MIRA 15:5)

1. Predsedatel' avtomobil'nogo komiteta Federatsii avtomosporta
SSSR (for Afanas'yev). 2. Zamestitel' predsedatelya avtomobil'nogo
komiteta Federatsii avtomosporta SSSR (for Sabinin).
(Automobile racing)

AFANAS'YEV, L.

Congress of the International Automobile Association. Za rul.
21 no.1:31 Ja '63. (MIRA 16:1)

1. Chlen rukovodyashchego Komiteta Mezhdunarodnoy avtomobil'noy
federatsii (FIA).
(Automobiles—Societies, etc.—Congresses)

AFANAS'YEV, L., prof.

Forty-ninth International Exhibition in Paris. Avt. transp. <
41 no.3:61-62 Mr '63. (MIRA 16:4)

(Paris--Exhibitions) (Motor vehicles)

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L., doktor tekhn. nauk;
DEKHTERINSKIY, L.V.; ILARIONOV, V.A.; SERGEYEV, N.M.;
TSUKERBERG, S.M.; ANOKHIN, V.I., kand. tekhn.nauk,
retsenzent; TSETENKO, V.G., inzh., retsenzent;
YEGORKINA, L.I., red.izd-va; PAKHIMSON, V.A., red. izd-va;
SOKOLOVA, T.F., tekhn. red.

[Motor vehicles; design, operation and repair] Avtomobili;
ustroistvo, ekspluatatsiia i remont. Moskva, Izd-vo
"Mashinostroenie," 1964. 510 p. (MIRA 17:3)

AFANAS'YEV, L.L., prof.

Moscow Highway Institute contributes to highway construction.
Avt.dor. 26 no.12:14-15 D '63. (MIRA 17:4)

1. Rektor Moskovskogo avtomobil'no-dorozhnogo instituta.

AFANAS'YEV, Leonid Leonidovich, doktor tekhn. nauk, prof.;
BRONSHTEYN, L.A., red.

[Automotive transportation] Avtomobil'nye perevozki.
Moskva, Transport, 1965. 350 p. (MIRA 18:6)

1. Moskovskiy avtomobil'no-dorozhnyy institut (for
Afanas'yev).

ARKHANGEL'SKIY, V.M.; AFANAS'YEV, L.L., doktor tekhn. nauk.;
ILARIONOV, V.A.; SERGEYEV, N.M.; TSUKERBERG, S.M.,
DEKHTERINSKIY, L.V.; ANOKHIN, V.I., kand. tekhn. nauk,
retsenzent; TSETENKO, V.G., retsenzent

[Motor vehicles; their design, operation and repair] Avto-
mobili; ustroistvo, ekspluatatsiia i remont. Moskva, Ma-
shinostroenie, 1965. 510 p. (MIRA 18:8)

KALYUZHNYI, Vasilii Avksent'yevich; AFANAS'YEV, L.M., kand.geol.-mineral.-
nauk, otv.red.; GRISHINA, T.B., ~~red.izd-va~~; GUS'KOVA, O.M., tekhn.red.

[Petrography of granitoids and the metallogeny of the eastern part
of the Katun' Alps in the Gornyy Altai] Petrografiia granitoidov i
voprosy metallogenii vostochnoi chasti Katun'skikh Al'p Gornogo
Altaia. Moskva, Izd-vo Akad. nauk SSSR, 1963. 131 p. (Akademiia
nauk SSSR. Institut geologii rudnykh mestorozhdenii, petrografii,
mineralologii i geokhimii. Trudy, no.85). (MIRA 16:5)

(Altai Mountains--Granite)
(Altai Mountains--Ore deposits)

AFANAS'YEV, L. N.

USSR/Electricity - Literature

Dec 52

"New Books on Electricity, Electrical Engineering, and Electric Power Engineering,
Published in 1952"

"Elektrichestvo" No 12, p 89

Lists 17 titles published in 1952, including the following: "Electronic Semiconductors
and Their Applications" (Elektronnyye poluprovodniki i ikh primeneniye"), 56 pp, by
G. M. Abdullayev; and "Synchronization of Induction Motors by the DAG System"
("Sinkhronizatsiya asinkhronnykh dvigateley po skheme DAG"), 84 pp, a short manual by
I. B. Uvarov and L. N. Afanas'yev.

PA 242T34

BAULIN, I.S., inzh.; D'YAKONOV, V.N., kand, tekhn.nauk.; USKOVA, O.N., kand.
tekhn.nauk.; SHUR, Ye.A., inzh.; KONYKHOV, A.D., inzh.; AFANAS'YEV,
L.U., inzh.; EVLIKANOV, A.V., inzh.

Investigating the mechanism of rail contact-fatigue damages
(defects 82 and 64). Vest. TSNII MPS 21 no.4:27-30 '62. (MIRA 15:6)
(Railroads--Rails--Defects)

(1) AND (2) UPPER

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH UPPER

AFANASYEV, L.V.

B

Mechanical Strength of Glass. (In Russian.) L. V. Afan'sev and Yu. E. Fein. *Stekol'naya i Keramicheskaya Promyshlennost* (Glass and Ceramic Industry), v. 4, Nov. 1947, p. 16-20.

The strength of glass is compared with that of metals. The various factors involved are thoroughly discussed.

METALLURGICAL LITERATURE CLASSIFICATION

1947-1950

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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AFANAS'YEV, L.V.
Br. Abs.

Mechanical strength of glass. L. V. Afanasiev and E. Y. Fein
(*Sov. Keram. Prom.*, 1947, No. 12, 18; *Brit. Ceram. Abs.*, 1948,
221A).—The effects of cooling glass rapidly from a temp. above
its softening point are studied and compared with the effects of
similar treatment of metals.
R. B. CLARKE.

AFANAS'YEV, L. V.

At the seminar of track supervisors. Put' 1 put. khoz. 6
no.8:7-8 '62. (MIRA 15:10)

1. Starshiy inzh. sluzhby puti L'vovskoy dorogi.

(Railroads--Maintenance and repair)

ALEKSANDROV, V., general-mayor inzhenerno-tekhnicheskoy sluzhby;
AFANAS'YEV, M., mayor tekhnicheskoy sluzhby zapasa.

Storage and analysis of facts. Av. i kosm. 45 no.11:84
'62: (MIRA 15:11)
(Information storage and retrieval systems)

KHOMENKO, A.; AFANAS'YEV, M. (g.Chkalov)

When will the Ministry of Trade and the "Central Union of Consumers' Cooperatives" answer the questions of radio amateurs?
Radio no.6:17 Je '55. (MLRA 8:8)

1. Rukovoditel' kruzhenka radiolyubitel'ey Stepanovskoy semi-letney shkoly, Bobrinetskiy rayon, Kirovogradskoy oblasti (for Khomenko)
(Radio--Apparatus and supplies)

AFANAS'YEV, M.

For a wide-ranging exchange of experience (letter to the editor).
Sill'.bud. 7 no.12:22 D '57, (MIRA 13:5)

1. Direktor instituta "Bilsil'proyekt."
(Farm buildings)

AFANAS'YEV, M., student IV kursa

Investigating the accuracy of measuring the curvature radii of spherical surfaces by the ring spherometer (with balls).
Trudy MIIGAIK no.42:71-81 '60. (MIRA 14:9)

1. Optiko-mekhanicheskiy fakul'tet Moskovskogo instituta inzhenerov geodezii, aerofotos'yemki i kartografii.
(Spherometer)

AFANAS'YEV, M.

Voluntary inspector. Sov. shakht. 12 no.6:41 Je '63.
(MIRA 16:9)

1. Otvetstvennyy sekretar' mnogotirazhnoy gazety "Shakhter",
g. Karaganda.

(Karaganda--Coal mines and mining--Safety regulations)

AFANAS'YEV, N.A., dotsent (Leningrad).

Lessons on the subjects: chemical reactions, atoms, and chemical elements.
Khim. v shkole no. 4:38-43 J1-Ag '53. (MLBA 6:8)
(Chemistry--Study and teaching)

AFANAS'YEV, M.A. (Leningrad)

Demonstrations with gases (without draft). Khim.v shkole 10 no.3:
58-61 My-Je '56. (MLBA 9:8)
(Chemistry--Experiments)

REF ID: A67777

PANOVKO, Yakov Gilelevich, doktor tekhnicheskikh nauk, professor; BEZUKHOV,
N.I., doktor tekhnicheskikh nauk, professor, retsenznet; ~~AFANAS'YEV~~
~~M.A.~~ kandidat tekhnicheskikh nauk, dotsent, redaktor; MARTENS, S.L.,
inzhener, redaktor izdatel'stva; TIKHANOV, A.Ya., tekhnicheskii
redaktor; SOKOLOVA, T.F., tekhnicheskii redaktor

[Foundations of the applied theory of elastic vibrations] Osnovy
prikladnoi teorii uprugikh kolebaniy. Moskva, Gos. nauchno-tekhn.
izd-vo mashinostroit. lit-ry, 1957. 335 p. (MIRA 10:11)
(Vibration)

AKSEL'ROD, Isay Solomonovich; AFANAS'YEV, Mikhail Aleksandrovich;
VEYNBLAT, Boris Markovich; GITMAN, Mark Borisovich, kand.
tekhn. nauk; DUBROVSKIY, Aleksandr Ivanovich; KAMENTSEV,
Vladimir Petrovich; KAMINSKIY, Boris Aleksandrovich, kand.
tekhn. nauk; KOLOKOLOV, Nikolay Mikhaylovich; EPSHTEYN,
Anatoliy Mordukhovich, prof.; KIRILLOV, V.S., kand. tekhn.
nauk, red.; GOLUBKOVA, Ye.S., red.

[Road engineer's manual; the construction of bridges and
culverts] Spravochnik inzhenera-dorozhnika; stroitel'stvo
mostov i trub. Moskva, Transport, 1965. 735 p.
(MIRA 18:7)

VIDUYEV, Nikolay Grigor'yevich, prof., doktor tekhn.nauk; RAKITOV,
Danil Ivanovich; PODREZAN, Vladimir Viktorovich; MOISEYEV,
Vladimir Yulianovich; ~~AFANASIYEV, Mikhail Aleksandrovich;~~
LEVCHUK, G.P., dotsent, kand.tekhn.nauk, retsenzent; KUZIN, N.A.,
inzh.-geodezist, spetsred.; KHROMCHENKO, F.I., red.izd-va;
ROMANOVA, V.V., tekhn.red.

[Surveying in bridge construction] Geodezicheskie raboty
v mostostroenii. Pod red. N.G.Vidueva. Moskva, Izd-vo geodez.
lit-ry, 1961. 137 p. (MIRA 14:7)
(Surveying) (Bridge construction)

AFANAS'YEV, M.B., inzh.; IVANOV, V.N., kand.tekhn.nauk

Curvatures in the design of continuous transit curves.
Avt.dor. 28 no.10:17-18 0 '65.

(MIRA 18:11)

AFANAS'YEV, M.D.; RUBLEVA, K.I.; BANNIKOV, N.A., red.; GOR'KOVA, Z.D.,
tekh.red.

[Production norms and wages on state farms] Normy vyrabotki i
oplata truda v sovkhovakh. Moskva, Gos.izd-vo sel'khoz.lit-ry,
1959. 204 p. (MIRA 12:10)
(State farms--Production standards) (Wages)

Andreyev, Oleg Vladimirovich; Babkov, Valeriy Fedorovich; Gerburt-Geybovich, Andrey Vladimirovich; Krutetskiy, Yevgeniy Vladimirovich; Zamakhayev, Mitrofan Semenovich; Afanas'yev, Mikhail Borisovich; Bim-Bad, Maks Isaakovich; Ornatskiy, Nikolay Petrovich; Porozhnyakov, Vladimir Sergeyeovich; Pryakhin, Aleksey Ivanovich; Sebel'nikov, Petr Ivanovich

Highway designing (Examples) (Proyektirovaniye avtomobil'nykh dorog (primary), Moscow, Izd-vo "Transport", 66, 0395 p. illus., biblio., tables. 6,000 copies printed, 3d ed., rev.

TOPIC TAGS: highway network, highway engineering, highway structure, hydraulic engineering, hydrological calculation.

PURPOSE AND COVERAGE: The book gives technico-economic fundamentals for road network designing, and presents examples of transverse and longitudinal cross sections as well as methods of determining openings in small artificial structures. Calculations of earth bed stability and thickness of road pavements are given; planning and design of highways in complicated conditions is described. Hydrological and hydraulic calculations involved in the planning of crossings of

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UDC: 625.721.2(075.8)

large water expanses are examined. The book is intended primarily as a text-book for highway engineering students at institutions of higher learning and may likewise be useful for engineers and technicians. The authors express their gratitude to the reviewers: professors, doctors of technical sciences Ya. A. Kaluzhskiy and I. A. Romanenko; to docents, candidates of technical sciences V. A. Bogayeva, L. A. Barats, N. I. Baskevich, V. M. Kislyakov, and I. A. Nosich; to the chief engineer of the GPI Soyuzdorproyekt V. B. Zavadskiy, and to engineers A. A. Semenovskiy, M. L. Sokolov, and A. S. Fedner; also to instructors of MADI, doctor of technical sciences L. A. Bronshteyn, and candidate of technical sciences Ye. N. Garmanov.

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- Ch. 2. Designing a highway -- 28
- Ch. 3. Calculation of earth bed stability and thickness of road covers -- 206

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- Ch. 4. Highway designing in difficult terrain -- 295
- Ch. 5. Highway designing in urban conditions -- 328
- Ch. 6. Planning of highway reconstructions -- 354
- Ch. 7. Hydrological and hydraulic calculations of crossings over large water expanses -- 380

Literature -- 399

SUB CODE: 13/ SUBM DATE: 08Jul66/ ORIG REF: 003/

Card 3/3

26588

S/185/60/005/003/003/020
D274/D303

24,2300

AUTHORS: Afanas'yev, M.G., Gordiyenko, A.G., Kolisnychenko,
L.K., Vil'yams, A.P. and Sydorendko, L.I.

TITLE: Measurement and stabilization of the magnetic field
of a powerful electromagnet by the method of nuclear
magnetic resonance

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 5, no. 3, 1960,
319-325

TEXT: A device is described for measuring and stabilizing the
magnetic field of a d.c. electromagnet. The device has the advan-
tage (compared to earlier devices of this kind) of incorporating a
single pickup for measuring a wide range of values of the magnetic
field, and of stabilizing strong magnetic fields (up to 12.5 k oer-
sted). Magnetic fields of 2.5 to 12.5 k oerst. were investigated.
A basic diagram of the pickup is shown. Lithium (in a solution
of LiCl is used as the source of nuclear signals. The LiCl solution

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Measurement and stabilization...

has an admixture of paramagnetic FeCl_3 or of MnSO_4 ; this is necessary for reducing the relaxation time. A block diagram of the measuring device is given. It contains an oscillator, rectifier, low-frequency amplifier, voltmeter and RC-filter. It was experimentally shown that the design of the pickup and of the oscillator ensure a high stability of frequency; for 8 - 10 hours of operation, the frequency oscillations did not exceed $1.5 \cdot 10^{-5}$ for a $\pm 5\%$ change in voltage. The amplification factor was chosen so that the output signal should be sufficient for controlling the stabilizing circuit (over 5 v). The observation of the nuclear signal and the measurement of the magnetic field were carried out by the ordinary method of G.K. Yagola et al. (Ref. 5: Izmeritel'naya tekhnika, no. 6, 1955). The accuracy of magnetic-field measurements is determined by the accuracy of frequency measurements (equal to $6 \cdot 10^{-5}$) and by the accuracy of determining the position of the signal on the oscillograph screen. The results of measuring the amplitude of the proton and lithium signals as a function of magnetic field strength are plotted for a 10 kw electromagnet. Another plot shows the results

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Measurement and stabilization...

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of signal-to-noise ratio measurements as a function of field strength. For lithium, the highest ratio was 10. The stabilizer contains an electromagnet with a principal and an auxiliary winding. The relative error δ_r consists of a dynamic and a static error. The static error was reduced to a minimum of 10 - 25%. In order to ensure stability of the system, the ratio of the time constant of the principal winding to time constant of the stabilization circuit was taken as equal to 2 - 3. Experimental curves are given with the relative error of the stabilization system. The total relative error does not exceed $3 \cdot 10^{-5}$ over the entire range of stabilized field strength (2.5 - 12.5 k oerst). In conclusion, the device was put into operation for a long time; it was found reliable and handy, and, therefore, used for experiments with magnetic analyzers. There are 7 figures and 12 references: 8 Soviet-bloc and 4 non-Soviet-bloc. The references to English-language publications read as follows:
H.A. Thomas, Phys. Rev., 79, 339, 1950; N. Blombergen, E.M. Purcell, K.N. Pound, Phys. Rev. 73, 679, 1949.

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Measurement and stabilization...

S/185/60/005/003/003/020
D274/D303

ASSOCIATION: Fizyko-tekhnichnyy instytut AN USSR (Physico-technical Institute AS UkrSSR)

SUBMITTED: August 14, 1959

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28435

S/185/61/006/002/007/020
D210/D304

24, 2300 (1068, 1147, 1164)

AUTHORS: Afanas'yev, M.F., Vil'yams, A.P., Horbiyenko, A.H.,
and Syborenko, L.I. X

TITLE: A remote proton magnetometer

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 2, 1961,
191 - 195

TEXT: Normally for measurements of magnetic fields in the range 1.5 to 13 koe and higher it is necessary to use different detectors using protons, nuclei of lithium and denterium. In this paper the authors describe a proton magnetometer capable of measuring magnetic fields from 1.5 to 13 koe using a single proton detector operating at frequencies up to 60 Mc/s. The difficulty of measuring with a single proton detector lies in the need to use very high frequencies. This can be obviated by using lithium and denterium detectors which require lower frequencies because of their higher electromagnetic ratios; however, the disadvantage of these

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A remote proton magnetometer

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detectors is that they have a low signal to noise ratios compared to the proton detector. The magnetometer was constructed in three parts. The detector was connected to the principal part of the magnetometer by a cable 0.7 m long. The control section of the magnetometer was placed in a control chamber 20 m away from the magnet. In order to transmit through the cable a frequency of 60 Mc/s, necessary for measuring a field strength of 13 koe an additional coil of inductance L_k was utilized as first suggested by Popov, A. X

I. of the Institute of Technical Physics, AS UkrSSR. The inductance of this coil is considerably smaller than the total inductance of the detector coil and the high frequency cable. The operation of the magnetometer was carried out in two ranges. In the lower range (7.5 to 22 Mc/s) the impedance of the detecting system was made up of the detector coil, the capacity and inductance of the cable, the capacity of the variable condenser and the input capacity of the magnetometer. In the higher range (20 to 60 Mc/s) the additional coil L_k was included in the detector circuit. The ran-

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AFANAS'YEV, M.I.

The P-88-I2 spinning machine. Biul.tekh.-ekon.inform. no.9:46-47
'58.

(MIRA 11:10)

(Spinning machinery)

AFANAS'YEV, M.I., kapitan tekhnicheskoy sluzhby

They made it themselves. Vest.Vozd.Fl. no.7:76 JI '61.

(MIRA 14:8)

(Parachutes--Testing)

DOROSHENKO, G.G.; GLAGOLEV, V.I.; FILYUSHKIN, I.V.; AFANAS'YEV, M.I.

Calculating the counting efficiency of an organic crystal detector for
fast neutrons. Vop. doz. i zashch. ot izluch. no.1:90-99 '62.
(MIRA 16'3)

(Scintillation counters)

S/032/62/028/002/001/037
B101/B110

AUTHORS: Vigdergauz, M. S., Gol'bert, K. A., Savina, I. M., Afanasyev, M. I.,
Zimin, R. A., and Bakhareva, N. I.

TITLE: Chromatographic analysis of microimpurities consisting of
acetylene and diene compounds in complex hydrocarbon mixtures

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 2, 1962, 149 - 150

TEXT: A report is given on a method of chromatographic determination of acetylene, propane diene, methyl acetylene, divinyl, and ethyl acetylene for the purpose of controlling the purification process of pyrogas or the propane-propylene fraction. The analysis was conducted with an experimental model of the ХТП-2 (KhTP-2) chromatograph which was provided with a detector for heat of combustion. Air served as carrier gas. Among the known sorbents, none was found which permitted the determination of the peaks of the dienes and alkynes to be ascertained. A system consisting of two 3 m long columns, diameter 4 mm, was, therefore, chosen. The first column was filled with Inza brick powder (0.25 - 0.50 mm) soaked with 25% diisobutyl phthalate. This column permitted the separation of hydrogen
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Chromatographic analysis of...

S/032/62/028/002/001/037
B101/B110

ASSOCIATION: Novokuybyshevskiy filial instituta sinteticheskikh spirtov
i organicheskikh produktov (Novokuybyshevsk Branch of the
Institute of Synthetic Alcohols and Organic Products)

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15151
8/892/62/000/001/014/022
B102/B186

216000

AUTHORS: Doroshenko, G. G., Glagolev, V. I., Filyushkin, I. V.,
Afanas'yev, M. I.

TITLE: Calculation of the counting efficiency in fast-neutron
recording for a detector with an organic crystal.

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Voprosy dosimetrii
i zashchity ot izlucheniya, no. 1, 1962, 90-99

TEXT: The counting efficiency $\epsilon(E, B)$ is calculated for a fast-neutron detector with a 30 mm-thick stilbene crystal as scintillator; E is the neutron energy and B the recording threshold, i.e. the lowest neutron energy recorded. In stilbene the neutrons are recorded via the recoil protons or via nuclear reactions with carbon or hydrogen. The carbon nuclei play an important part since their density is higher ($C_{14}H_{12}$), and in the high-energy range the total (n, C) interaction cross-section is of the order of that of (n, p) scattering. Multiple scattering effects are negligible for medium-size crystals. In first approximation (single scattering) ϵ_1 is calculated from the collision probability

Card 1/3

S/892/62/000/001/01A/022
B102/B186

Calculation of the counting ...

$$P_1(E_0) = \int_0^1 e^{-\bar{\sigma}(E_0)(1-x)} n_0(E_0) dx = \frac{\sigma(E_0)}{\bar{\sigma}(E_0)} (1 - e^{-\bar{\sigma}(E_0)}) \quad (3)$$

for the distance $1-x$ from the left window. Since $\epsilon_1(E, B) = P_1(E_0) d\alpha = P_1(E_0) \alpha_B$ (where $\alpha = E/E_0$, the neutron energy fraction retained after the first collision, E being the energy of the scattered neutron) and $\alpha_B = (E_0 - B)/E_0$, one obtains

$$\epsilon_1(E, B) = \frac{\sigma(E_0)}{\bar{\sigma}(E_0)} (1 - e^{-\bar{\sigma}(E_0)}) \left(1 - \frac{B}{E_0}\right) \quad (5)$$

where

$$\left. \begin{aligned} \bar{\sigma}(E) &= n_0 \sigma(E) + n_C \sigma_C(E) \\ \sigma(E) &= \sigma(E) + \frac{n_C}{n} \sigma_C(E) \end{aligned} \right\} \quad (1)$$

(n and n_C being the nuclear concentrations of H and C; $\sigma(E)$ the (n,p) scattering cross-section; $\sigma_C(E)$ the total (n,C) scattering cross-section)

Card 2/3

VIGDERGAUZ, M.S.; AFANAS'YEV, M.I.

Chromatographic analysis of $C_9 - C_{12}$ hydrocarbons of pyrolysis resin. Khim. i tekhn. topl. i masel 8 no.12:28-35 D '63.

(MIRA 17:1)

1. Novokuybyshevskiy filial Nauchno-issledovatel'skogo instituta sinteticheskikh spirtov i organicheskikh produktov.

VIGDERGAUZ, M.S.; GOL'BERT, K.A.; AFANAS'YEV, M.I.; MASHUKOVA, G.A.

Analysis of straight-run gasoline by gas chromatography.
Neftekhimia 2 no.1:3-8 Ja-F '62. (MIRA 15:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i
organicheskikh produktov, Novokuybyshevskiy filial.
(Gasoline) (Gas chromatography)

VIGDERGAUZ, M.S.; GOL'BERT, K.A.; AFANAS 'YEV, M.I.; MASHUKOVA, G.A.;
ZIMIN, R.A.

Analysis of liquid products of pyrolysis and cracking by gas
chromatography. Neftekhimiia 2 no.3:405-409 My-Je '62.
(MIRA 15:8)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i
organicheskikh produktov, Novokuybyshevskiy filial.
(Petroleum products) (Gas chromatography)

VIDERGAUZ, H.S.; GOL'BERT, K.A. [deceased]; Iriminali ochastnye: AFANAS'YEV,
M.I.; LANTSOVA, L.T.; GORSHUNOV, O.L.

Rapid chromatographic analysis of hydrocarbon gases. Neftekhimika 2
no.6:825-830 II-D '62. (MIRA 17:10)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organ-
icheskikh produktov, Novokuybyshevskiy filial.

VIGDERGAUZ, M.S.; AFANAS'YEV, M.I.

Analysis of isomeric octenes by gas chromatography. *Neftekhimiya*
3 no.3:425-429 My-Je '63. (MIRA 16:9)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i
organicheskikh produktov, Novokuybyshevskiy filial.
(Octene). (Gas chromatography)

VIGDERGAUZ, M.S.; AFANAS'YEV, M.I.; GOL'BERT, K.A. [deceased]

Analysis of microimpurities by gas chromatography. Usp. khim.
32 no.6:754-771 Je '63. (MIRA 16:8)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i
organicheskikh produktov, Novokuybyshevskiy filial.
(Chemistry, Analytical)
(Gas chromatography)

VIGDERGAUZ, M.S.; AFANAS'YEV, M. I.

Chromatographic Separations of Substances in columns operating with peak load sample. Neftekhimiia 3 no.6:911-915 N-D '63. (MIRA 17:3)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov i organicheskikh produktov, Novokuybyshevskiy filial.

VEGDERGAUS, M.S.; APANIN, YEV. M.I.

Gas chromatography on sectional columns. Neftekhimika 4 no.1:
119-127 Ja-F'64 (ISSN 17:6)

1. Nauchno-issledovatel'skiy institut sinteticheskikh spirtov
i organicheskikh produktov, Novokuznetskiy filial.

VIGDERGAUZ, M.S.; AFANAS'YEV, M.I.

Determination of microimpurities of propadiene and methylacetylene
in a purified propane-propylene fraction by gas chromatography. Zhur.
anal.khim. 19 no.9:1122-1127 '64. (MIRA 17:10)

1. Novokuybyshevsk Branch of Scientific-Research Institute of
Synthetic Alcohols and Organic Products.

VIGDERGAUZ, M.S.; GOL'BERT, K.A. [deceased]; AFANAS'YEV, M.I.

New stationary phases for gas chromatography. Khim. i tekhn. topl.
i masel 9 no.12:61-63 D '64. (MIRA 18:2)

1. Kuybyshevskiy filial Nauchno-issledovatel'skogo instituta
sinteticheskikh spirtov i organicheskikh produktov.

CHABROVA, O.G.; AFANAS'YEV, M.I.; VIGDERGAUZ, M.S.

Analysis of heavy pyrolytic resin from petroleum hydrocarbons
by gas chromatography. Uzb.khim.zhur. 9 no.1:13-17 '65. (MIRA 18:6)

1. Novokuybyshevskiy filial Nauchno-issledovatel'skogo instituta
sinteticheskikh spirtov i organicheskikh produktov i Institut
khimii AN Uzbekskoy SSR.

ANDREYEV, L.V.; AFANAS'YEV, M.I.; CHABROVA, O.G.; VIGDERGAUZ, M.S.

Quantitative interpretation of gas chromatograms. Usp. khim.
34 no.5:920-948 My '65. (MIRA 18:7)

1. Novokuybyshevskiy filial Nauchno-issledovatel'skogo instituta
sinteticheskikh spirtov i organicheskikh produktov.

AFANASYEV, M.I., Inzh.

Investigating the effect of irregular feeding by the spinning curds
on the unevenness of viscose silk. Nauch.-issl. trudy VNIILTEKMASh
no. 10:74-80 '63. (MIRA 18:2)

AFANAS'YEV, M.K.

Planning, accounting, and calculation of the cost of oil-recovery products in the combined preparation of oil in the field. Neft. khoz. 42 no.7:9-13 J1 '64. (MIRA 17:8)

AFANAS'YEV, M.K.; YERSHOV, E.B.

Simple method for checking the proper mounting of the electro-
magnet in a mass spectrometer. Zav. lab. 31 no.1:86 '65.

(MIRA 18:3)

1. Leningradskiy nauchno-issledovatel'skiy institut radiatsionnoy
gigiyeny.

SOV-127-58-8-19/27

AUTHORS: Tronza, I.S. and Afanas'yev, M.M., Engineers

TITLE: Guide Pulleys for Shaft Elevators (Rolikovyye napravlyayushchiye dlya klet'yevogo pod"yema)

PERIODICAL: Gornyy zhurnal, 1958, Nr 8, pp 70-71 (USSR)

ABSTRACT: The authors advise the replacement of slide bars (skol'zyashchiye napravlyayushchiye) in mine shaft elevators by guide pulleys. This will prevent deterioration of different parts of the elevating mechanism and cage, which wear out very often when slide bars are used. A detailed description of the pulleys is given. There are 7 diagrams.

1. Mines--Equipment

Card 1/1

AFANAS'YEV, G.D.; AFANAS'YEV, L.M.; BELIKOV, B.P.; KOPEV-DVORNIKOV, V.S.; MIKHAYLOV, N.A.; MONICH, V.K.; FAVORSKAYA, M.A.; prinimali uchastiye: DISTANOVA, A.N.; YELISEYEVA, O.P.; MARFUNIN, A.S.; YUNAKOVSKAYA, Yu.V.; USTIYEV, Ye.K., doktor geol-min. nauk, otv. red.; NEMANOVA, G.F., red. izd-va; BYKOVA, V.V., tekhn. red.

[Principles of the geological mapping of intrusive and extrusive formations as exemplified by petrographic studies in Kazakhstan, Transbaikalia, the Northern Caucasus, and Maritime Province]

Printsipy geologicheskogo kartirovaniya intruzivnykh i effuzivnykh formatsii na primere petrograficheskikh issledovaniy Severnogo Kavkaza, Kazakhstana, Zabaikal'ia i Primor'ia. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po geol.i okhrane nedr, 1960. 341 p. (MIRA 14:5)

1. Akademiya nauk SSSR. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimi. 2. Sotrudnik Instituta geologicheskikh nauk AN Kaz. SSR (for Monich). 3. Sotrudnik Vsesoyuznogo geologicheskogo instituta (for Mikhaylov) 4. Sotrudniki Moskovskogo gosudarstvennogo universiteta (for Yunakovskaya, Distanova)

(Rocks, Igneous)

TRONZA, I.S., inzh.; ^AAFANS'YEV, M.M., inzh.

Roller and channel guides for skip hoists. Gor. zhur. no. 6,43-45
Je '61. (MIRA 14:6)

(Mine hoisting--Safety appliances)

AFANAS'YEV, M.M.

The separation of 1.3-butadiene from a mixture with other hydrocarbons through the formation of the cuprous chloride butadiene. M. A. Lur'e, M. N. Marushkin, M. M. Afanas'ev and A. I. Punenov. Sintet. Kauchuk 3, No. 6, 19-29 (1934); Chem. Zentr. 1935, II, 1977-8; cf. preceding abstr.- Conc. of the butadiene (I) from the gases of petroleum pyrolysis presents considerable difficulty. I forms a complex compd. with Cu_2Cl_2 which has the compn. $\text{Cu}_2\text{Cl}_2 \cdot \text{C}_4\text{H}_6 \cdot 4\text{H}_2\text{O}$ or $\text{Cu}_2\text{Cl}_2 \cdot \text{C}_4\text{H}_6$ according to the conditions of the reaction. The reaction is $2\text{NH}_4\text{CuCl}_2 + \text{C}_4\text{H}_6 \rightleftharpoons \text{Cu}_2\text{Cl}_2 \cdot \text{C}_4\text{H}_6 + 2\text{N H}_4\text{Cl}$. The reaction is reversible; the double compd. is decompd. by the action of $\text{N H}_4\text{Cl}$. For this reason the velocity of formation of the double compd. decreases as the free $\text{N H}_4\text{Cl}$ accumulates. The reaction, however, proceeds very well if excess solid Cu_2Cl_2 is added to the soln. of NH_4CuCl_2 so that through the soln. of the Cu_2Cl_2 the concn. of NH_4CuCl_2 is maintained at a const. level. The double compd. is a pale yellow powder smelling faintly of I. It burns with a slightly smoky flame and is not exploded by heating, detonation, etc. The compd. can be kept indefinitely in a closed vessel. It is decompd. by moist air. When treated with concd. NH_4Cl or alkali chloride solns., I is evolved. It can be kept under O-free water. It readily dissociates on heating. From a study of the dissocn. of the double compd. in relation to the temp. a value of +15,704 cal./mol. was obtained for the reaction for the formation of the double Cu compd. at temps. from 0° to 64.7° . The temp. of decompn. at 760 mm. Hg is 62.5° . The compd. is formed also from I and dry Cu_2Cl_2 . $\text{I} + \text{Cu}_2\text{Cl}_2 \rightleftharpoons \text{Cu}_2\text{Cl}_2 \cdot \text{C}_4\text{H}_6 + 15,704 \text{ cal.}$ The course of the reaction with solid Cu_2Cl_2 was examd. with the help of the Gibbs phase rule. It was shown that beginning, e. g., with a gas contg. 30% C_4H_6 the

(Continued on Page 2)

AFANÁS'YEV, M. M.

(Page 2)

absorption of the C_4H_6 at 27° amounted to 94.4%; this was completely given up again on decompn. Temps. above 27° are not suitable for the absorption process. The presence of vinylacetylene (II) in the gases of petroleum pyrolysis makes the isolation of I difficult because this compd. likewise combines with Cu_2Cl_2 . In NH_3 solns. of low Cu_2Cl_2 content II forms a difficultly sol. yellow ppt. which decomposes upon heating; in concd. solns. of Cu_2Cl_2 II does not form a ppt. but becomes concd. in the mother liquor while butadiene- Cu_2Cl_2 seps. out. In this way it is possible to sep. the 2 hydrocarbons. When liquid hydrocarbon mists. are allowed to act upon solid Cu_2Cl_2 , II is very well absorbed by the Cu_2Cl_2 . If a mist. of gaseous hydrocarbons, on the other hand, is allowed to act on the solid Cu_2Cl_2 , II is fixed only to a very slight degree. The purest I, therefore, is that which has been allowed to react with the solid Cu_2Cl_2 in the vapor form.

M. G. M.

"reaction of ... with ... of analysts."
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...

AFANAS'YEV, K.M.

Contact decomposition of hydrocarbons. Conversion of n -butane under the action of carbon dioxide over nickel-alumina catalysts. A. A. Balandin, M. N. Maruschkin, and M. M. Afanasiev (Acta Physicochim. U.R.S.S., 1942, 17, 82-92).- With rise in temp. (θ) from 4000 to 600°, [CO] and [H₂] of the product from C₄H₁₀ and CO₂ over a Ni-Al₂O₃ catalyst increase, and the vol. increases tenfold. The hydrocarbon content is all CH₄ at 600° (amount decreasing with θ). For low initial CO₂ content, CH₄ is > original C₄H₁₀, indicating decomp. of C₄H₁₀, and decrease in the C and H content of products indicates decomp. to C₂H₆, is found in some experiments but is not due to pyrolysis since no olefines are produced. The results are explained on the multiplet theory (cf. preceding abstract). With the catalyst the C₄H₁₀ first suffers rupture of a primary C-H linking followed by that of C-C to give H, CH₂, and Pr. Pr and H recombine to give C₃H₈ and CH₂, with CO₂ gives CO and H₂. The shortened chain repeats the process (calculation shows it to be more favourable). Alternatively CH₂ gives C and H₂ or is hydrogenated to CH₄. CO₂ and PrCHO under similar conditions give olefines (amount increases with θ) as well as paraffins, but θ must be higher than with C₄H₁₀. This indicates that PrCHO is not an intermediate in the C₄H₁₀-CO₂ reaction.

J. H. Ba.

AFANAS'YEV, M. M.

Metals - Fatigue

Theory of fatigue strength in a complex state of tension. Zbir. prats' Inst. bud. mekh., No. 8, 1948

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

5/664/60/000/001/004/010
8029/054

AUTHORS: MEZHYULO, A. T., KILAEV, K. Ya., TERNOVSKAYA, Z. M.,
and ZEMEL'YEV, N. N.

TITLE: Liquid-Phase Hydration of Olefins on Cation-exchange
Resins

PERIODICAL: Khislsheskiye progressivnoye, 1960, No. 7, pp. 16 - 18

TEXT: The authors investigated cation-exchange resins with different functional groups (-SO₃H, -COOH, etc.) as catalysts for the hydration of olefins on cation-exchange resins. Before the examination, the catalysts were extracted from the resin with HCl. After treatment with 10% HCl and distilled water, until the reaction with olefins disappeared, the catalysts were dried in air and stored. Swelled catalysts, and cationites with active groups, were tested for their activity in a high-pressure flow apparatus. The reaction products of the butylene fraction from the exhaust gases of the petroleum refining industry were taken as initial products; their compositions were

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determined by distillation in the apparatus of the FAIRM, and by the sulfuric-acid procedure in the apparatus of the W. The determination of isopropyl alcohol and triethylcarbinol is also described briefly. The authors examined samples of the cationites KJ-2 (K⁺), and KJ-2 (NH₄⁺) with -SO₃H as ionogenic group in grains 0.2-0.5 mm in diameter. The initial butylene fraction contained 95% of isobutylene. The results show that these cation exchangers are active, and highly selective. Table 2 shows the dependence of the activity of the SWS catalyst on the operating time; it was found that it can be used for a long time without noticeable drop in activity. The authors also investigated the effect in the liquid-phase hydration of propylene. The authors tested the anionocatalytic CWS-1 (SDI-1) the cationite MW (KNO₃) with a carboxyl group as functional group, the cationite P₂ (BM-1) with a phosphoric-acid group, and the bifunctional cationite CWS-2 (SM-1) with a carboxyl and a sulfonic group, besides the cationite mentioned. The cationites containing the sulfonic group were most active. The initial fraction contained

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70-80% of isobutylene. The results are given in Table 2. The experiments have shown that it is sufficient to increase the initial activity of cationites to 40-60%, in order to obtain the results shown in Figures 2 tables, the liquid-phase hydration of propylene. The authors tested 2 tables, and 16 references: 5 Soviet, 4 US, 6 British, and 1 German.

Card 3/3

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S/063/61/006/004/008/010
A057/A129

AUTHORS: Menyaylo, A. T., Klimenko, M. Ya., Verkhovskaya, Z. N., Afanas'yev,
M. M.

TITLE: Extraction of isobutylene from butane-butylene mixtures

PERIODICAL: Zhurnal vsesoyuznogo khimicheskogo obshchestva imeni D. I. Mendele-
yeva, v. 6, no. 4, 1961, 470 - 471

TEXT: Isobutylene is manufactured usually from C_4 fractions of pyrolytic gas or from products of dehydrogenation of butane and isobutane. In the present paper a patented method (USSR patent no. 16207 of September 30, 1955, and no. 122746 of November 5, 1958) for extraction of isobutylene is described. The method is based on a liquid-phase hydration of isobutylene in fraction C_4 to trimethylcarbinol and subsequent dehydration in presence of cation exchange resins with an active sulpho-group [KY-2 (KU-2), C5C (SBS), CDB-3 (SDV-3) types] as catalyst. During hydration isobutylene is in the gaseous phase, while the water flows down the granulated catalyst. Some experimental results presented in Table 1 were obtained on a laboratory circulation apparatus with tubular reactor (diameter 35 mm, height 800 mm) filled with the catalyst (200 ml charge). Experiments no. 1 and 2 demonstrate that

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Extraction of isobutylene from butane-butylene mixtures 28939⁴ S/063/61/006/004/008/010
A057/A129

ASSOCIATION: Nauchno-issledovatel'skiy institut sinteticheskikh spirtov (Scientific Research Institute of Synthetic Alcohols)

SUBMITTED: October 4, 1960

Table 1. Experimental results of the liquid-phase hydration of isobutylene (catalyst: SBS cation exchange resin, temperature 100°C)

Legend: (1) no. of the experiment; (2) pressure in atm; (3) concentration of isobutylene in the gas (vol. %); (4) molar ratio H₂O/C₄H₈; (5) volume rate l/l-hr; (6) contact time in sec; (7) concentration of the alcohol in the condensate (vol. %); (8) productivity of the catalyst g/l-hr; (9) conversion of isobutylene per run in %

(1) №№ опы- тов	(2) Давление в атм	(3) Концентрация изо-С ₄ H ₈ в газе % (объемн.)	(4) Молярное отношение H ₂ O/C ₄ H ₈	(5) Объемная скорость л/л-час	(6) Время контакта в сек.	(7) Концен- трация спирта в конде- сате % (вес)	(8) Производи- тельность катализатора г/л-час	(9) Конверсия изобути- лена за проход %
1	10	96,6	18,5	295	89	9,3	439	46,7
2	10	97,0	4,0	292	90	33,9	436	46,9
3	10	25,0	4,2	302	87	5,1	58	23,4
4	10	15,0	4,1	326	81	2,8	31,0	19,2
5	15	2,9	4,2	282	114	0,6	5,8	21,6

Card 3/3

MENYALO, A.T.; KLIMENKO, M.Ya.; VERKHOVSKAYA, Z.N.; AFANAS'YEV, M.M.

Recovery of isobutylene from butylene mixtures. Zhur.VKHO 6
no.4:470-471 '61. (MIRA 14:7)

1. Nauchno-issledovatel'nyy institut sinteticheskikh spirtov.
(Propene) (Butane) (Butene)

AFANAS'YEV, M.M., inzh.

Calculating mine fan shafts for the critical rotation speed
by the method of forces. Izv. vys. ucheb. zav.; gor. shur.
no.8:100-105 '64 (MIRA 18:1)

1. Leningradskiy ordena Lenina i ordena Trudovogo Krasnogo Zna-
meni gornyy institut imeni G.V. Plekhanova. Rekomendovana kafedroy
gornoy mekhaniki.

AFANAS'YEV, M.M., inzh.

Gyroscopic moment of a disk. Vest. mashinostr. 45 no.4:33-35
Ap '65. (MIRA 18:5)

L 8939-66 EWT(I)/EWT(m)/EWA(d)/EWP(t)/EWP(b) IJP(c) JD
ACC NR: AP5026855 SOURCE CODE: UR/0170/65/009/004/0527/0532

AUTHOR: Kessel'man, P. M.; Kitlyarevskiy, P. A.; Afnas'yev, M. M. 46
44, 55 44, 55 B

ORG: Industrial Institute im. M. V. Lomonosov, Odessa (Tekhnologicheskii institut)
44, 55

TITLE: The equation of state for carbon dioxide in the temperature interval from 273 to 4000 K and at pressures up to 1000×10^5 newtons/m²

SOURCE: Inzhenerno-fizicheskii zhurnal, v. 9, no. 4, 1965, 527-532

TOPIC TAGS: thermodynamic state equation, carbon dioxide, virial coefficient
21, 44, 55

ABSTRACT: The authors attempt to correlate all existing experimental material and to set up an equation of state which reflects the experimental thermal and calorific data on carbon dioxide with a high degree of accuracy. For temperatures from 273 to 800 K and pressures from 1 to 1000×10^5 newtons/m², the equation consists of elementary functions of the form:

$$\frac{Pv}{RT} = \alpha_0(\omega) + \alpha_1(\omega)\tau + \beta(\omega)\psi + \gamma(\omega)\psi^2 + \delta(\omega)\psi^3 + \lambda(\omega)\psi^4 \quad (1)$$

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UDC:536.71

L 8939-66

ACC NR: AP5026855

The elementary functions $\alpha_0, \alpha_2, \beta, \dots$ have the form

$$A(\omega) = \sum_1^8 a_i \omega^i, \quad \psi = \sum_1^7 b_i \frac{1}{\tau^i}.$$

Values of the coefficients in this equation are given in a table. Analysis shows that, starting with $T=770$ K, at $P=(1-600) \times 10^5$ newtons/m², two virial coefficients, $B(T)$ and $C(T)$ are sufficient to set up the equation of state. The virial coefficients are determined from existing experimental data. For the region of parameters $T=770$ to 4000 K and $P=(1-600) \times 10^5$ newtons/m², the equation of state was set up in the virial form:

$$\frac{Pv}{RT} = \tau + A_1(\tau)\omega + A_2(\tau)\omega^2, \quad (2)$$

where $A_1 = Bd_x \tau$; $A_2 = Cd_x^2 \tau$. The coefficients A_1 and A_2 were determined analytically. Results of computer calculations according to Equations 1 and 2 are shown to agree well with existing experimental data. Orig. art. has 2 formulas, 3 figures, and 1 table

SUB CODE: TD, GC/ SUBM DATA: 05Apr65/ ORIG REF: 008/ OTH REF: 012

CC
Card 2/2

S/169/63/000/002/066/127
D263/D307

AUTHOR: Afanas'yev, M. N.

TITLE: An attempt at applying the metallometric method and quantitative assessment of dispersion aureoles in Kuznetskiy Alatau

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 2, 1963, 9, abstract 2D55 (Byul. nauchno-tekhn. inform. M-vo geol. i okhrany neдр. SSSR, 1962, no. 1 (35), 36-41)

TEXT: Metallometric surveying on a scale of 1:50,000 is carried out in combination with geological and geophysical studies. Samples (40 - 50 g) are collected over a 500 x 120 m network, from a depth of 0.2 - 0.6 m, from the subsoil layer revealed in small holes, and consist of the 1 mm fraction. They are then analyzed spectroscopically for 15 - 20 ore elements. The discovered dispersion aureoles are studied in more detail with metallometric surveys on a scale of 1:10,000 (100 x 40 m network) or 1:2000 (20 x 20 m network). After discovering prospective dispersion aureoles, they are

Card 1/2

An attempt at applying ...

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D263/D307

assessed in an approximate, quantitative manner. Two methods may be used for this purpose: (1) Comparison of the productivity of the discovered dispersion aureole with the productivity of an aureole of the same element in a known deposit. (2) Partial dissection of the aureole by mining methods, with groove sampling of the mineralized zone. The reserves are then calculated, from the exposed portion, by multiplying the contents determined for 1 m pocket by the mean depth assumed for the given mineralization. The overall reserves may be determined from the aureole by comparing the productivity of the dissected part of the aureole with the undissected parts, and adding the two quantities. Comparison of reserves computed from metallometric surveys on a scale 1:10,000 with values obtained from surface exploration shows satisfactory agreement, and usefulness of the method for a quantitative estimation of recently discovered dispersion aureoles. [Abstracter's note: Complete translation.]

Card 2/2

AFANAS'YEV, M.M., gornyy inzh.

Lowering long materials into the mine. Gor. zhur. no.6:72-73
Je '64. (MIRA 17:11)

1. Leningradskiy gornyy institut.

AFANAS'YEV, M.M., inzh.

Angular vibrations of the shaft of a mine fan taking into account
the disalignment of the rotor. Izv.vys.ucheb.zav.;gor.zhur. 7
no.7:117-120 '64. (MIRA 17:10)

1. Leningradskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni
gornyy institut imeni Plekhanova. Rekomendovana kafedroy gornoy
mekhaniki.

AFANAS'YEV, M. N.

Use of Kapp line measurement in geological mapping. Razved.
i okh. nedr 28 no. 12:31-34 D '62. (MIRA 16:5)

1. Temir-Tuinskaya geofizicheskaya ekspeditsiya.

Афанас'ев, М.П.

AFANAS'YEV, M.P., inzhener

Organizing the maintenance of antenna frames. Vest.sviazi 15 no.9:
23-24 S '55. (MLRA 8:12)

(Radio--Antennas)

AFANAS'YEV, M.S.; GOREV, A.V.; TITOVA, V.A.; MIKAREVA, G.B.

Possibility of using gamma surveys in searching for ore deposits
associated with granitoids. Sbor. st. MGION no.1:39-46 '62.
(MIRA 16:3)

(Granite--Radioactive properties)

PRONIN, M.Ye., prof.; AFANAS'YEV, M.V., kand. sel'skokhozyaystvennykh
nauk

Fertilizing corn under semiarid conditions. Zemledelie 24 no.8:68-
70 Ag '62. (MIRA 15:9)

1. Voronezhskiy sel'skokhozyaystvennyy institut.
(Corn (Maize)--Fertilizers and manures)

AFANAS'YEV, M. V., Cond Agr Sci -- "Study of ^{various} ~~individual~~ elements of the system
of fertilization of corn on lixiviated chernozem." Kiev, 1960. Min of Agr UkSSR.
Ukrainian Acad Agr Sci). (KL, 1-61, 200)

AFANAS'YEV, M.V., student IV kursa

Using the "dihedral" and "tangential sphere" methods in measuring the curvature of nonspherical surfaces. Trudy MIIGAIK no.45:107-115 '61. (MIRA 14:7)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii, optiko-mekhanicheskiy fakul'tet.
(Surface measurement) (Lenses)

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CIA-RDP86-00513R000100410013-1"

... ..
Dissertation: "New Data on the Structure and Function of Quadrigeminal Bodies." Inst of Neurology, Acad Med Sci USSR, 27 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

AFANAS'YEV, N.

What is the trajectory of a missile? Voenn. znan. 37 no. 5:24
My '61. (MIRA 14:4)

(Trajectories)

AFANAS'YEV, N'

S/017/63/000/002/002/003

AUTHOR: Afanas'yev, N.

TITLE: Weapons of the motherland's defenders

PERIODICAL: Voyennyye Znaniya³⁹ no. 2, 1963, 16-17

TEXT: The article traces the development of Soviet weapons development from 1918 to the present. By the start of World War II, the Soviet armed forces had developed and put into service automatic weapons, antitank weapons, tanks, and artillery. Deficiencies in Soviet aviation were discovered at the start of the war, but these were eliminated, while new types of aircraft were developed. The Communist Party and the Soviet Government continue to strengthen the armed forces. Ground forces have been completely motorized with an adequate supply of vehicles and armored carriers, including amphibious carriers. The artillery consists of various types of mortars, antiaircraft weapons and cannon and rockets of various sizes. The basic combat strength of the Soviet Navy is the submarine fleet, including atomic submarines, armed with rocket/nuclear weapons. Soviet aviation, including fighters and bombers, is equipped with air-to-surface nuclear rockets. The primary firepower of the Soviet Armed Forces now is the nuclear rocket, from tactical rockets to the ICBM. The article is accompanied by nine photographs of Soviet weapons -- some in

Card 1 of 2

Weapons of the motherland's defenders

S/017/63/000/002/002/003

the Moscow parades and some on field exercises. The exploitation of a nuclear strike by a tank small-unit is shown. The following were mentioned as designers of artillery pieces: V. G. Grabin, I. I. Ivanov, and F. F. Petrov.

Card 2 of 2

AFANAS'YEV, N.

We are creating a model school experimental farm. Prof.-tekh. obr.
21 no.9:24 S '64. (MIRA 17:11)

1. Direktor khvalynskogo sel'skogo professional'no-tekhnicheskogo
uchilishcha No.17, Saratovskaya obl.

AFANAS'YEV, N.; SIL'NOV, V., glavnyy inzh.; BACHILOV, I.; CHERTKOV, A.,
glavnyy konstruktor; SOKOLOV, Ya.; TRUKHANOVA, A., tekhred.

[Trench silo with a capacity of 215 tons; (walls lined with clay reinforced with sticks)] Silosokhranilishche transheynogo tipa emkost'iu 215 tonn (s glinokhvorostianoi oblitsovkoj sten. Proekt no.003. Minsk, Gos.izd-vo BSSR, Red.nauchno-tekhn.lit-ry, 1955. 2 p. (MIRA 12:4)

1. White Russia. Ministerstvo gorodskogo i sel'skogo stroitel'stva.
 2. Direktor "Belsel'proyekt" (for Afanas'yev).
 3. Rukovoditel' masterskoy No.2 "Belsel'proyekt" (for Bachilov).
 4. Ispolnyayushchiy obyazannosti nachal'nika smetnogo sektora "Belsel'proyekt" (for Sokolov).
 5. "Belsel'proyekt" (for Sil'nov, Chertkov).
- (Silos)

AFANAS'YEV, N.; SIL'NOV, V., glavnyy inzh.; SHCHELKOV, O.; GORDON, A.;
GORELIK, S., glavnyy konstruktor; SOKOLOV, Ya.; TRUKHANOVA, A.,
tekhred.

[Pit silos of 50 ton capacity; brick, rubble, and stick-reinforced
clay walls. Plan No.008] Silosnye iamy na 50 tonn; steny kirpich-
nye, butovye i glinopletnevye. Proekt no.008. Minsk, Gos.izd-vo
BSSR, Red.nauchno-tekh.lit-ry, 1955. 3 p. (MIRA 12:4)

1. White Russia. Ministerstvo gorodskogo i sel'skogo stroitel'stva.
 2. Direktor "Belsel'proyekta" (for Afanas'yev).
 3. Nachal'nik
proyektnogo otdela "Belsel'proyekta" (for Shchelkov).
 4. Rukovoditel'
masterskoy No.1 "Belsel'proyekta" (for Gordon).
 5. Ispolnyayushchiy
obyazannosti nachal'nika smetnogo sektora "Belsel'proyekta" (for
Sokolov).
 6. "Belsel'proyekt" (for Sil'nov, Gorelik).
- (Silos)

AFANAS'YEV, N.; SIL'NOV, V., glavnyy inzh.; BACHILOV, I.; CHERTKOV, A.,
glavnyy konstruktor; SOKOLOV, Ya.; ONISKO, A.; TRUKHANOVA, A.,
tekhred.

[Trench-type silo with a capacity of 60, 90, and 150 tons (walls
lined with brick or rubble concrete)] Silosokhranilishche
transheynogo tipa emkost'iu 60, 90 i 150 tonn (steny oblitsovaniy
kirpichom ili butobetonom). Proekt no.004. Minsk, Gos.izd-vo
BSSR, Red.nauchno-tekhn.lit-ry, 1955. 3 p. (MIRA 12:4)

1. White Russia. Ministerstvo gorodskogo i sel'skogo stroitel'stva.
 2. Direktor "Belsel'proyekta" (for Afanas'yev).
 3. Rukovoditel' masterskoy "Belsel'proyekta" (for Bachilov).
 4. Ispolnyayushchiy obyazannosti nachal'nika smetnogo sektora "Belsel'proyekta" (for Sokolov).
 5. "Belsel'proyekt" (for Sil'nov, Chertkov, Onisko).
- (Silos)

AFANAS'YEV, N.; SIL'NOV, V.; glavnyy inzh.; SHCHELKOV, O.; GORDON, A.;
GORELIK, S., glavnyy konstruktor; SOKOLOV, Ya.; TRUKHANOVA, A.,
tekhred.

[Tower silos with 35 to 40 ton capacity made of precast reinforced
concrete rings. Plan No.006] Silosnaia polubashnia na 35-40 tonn
iz sbornykh zhelezobetonnykh kolets. Proekt no.006. Minsk, Gos.
izd-vo BSSR, Red.nauchno-tekhn.lit-ry, 1955. 3 p. (MIRA 12:4)

1. White Russia. Ministerstvo gorodskogo i sel'skogo stroitel'stva.
2. Direktor "Belsel'proyekta" (for Afanas'yev).
3. Nachal'nik proyektного otdela "Belsel'proyekta" (for Shchelkov).
4. Rukovoditel' masterskoy "Bel-sel'proyekta" (for Gordon).
5. Ispoln.obyazan. nachal'nika smetnogo sektora "Belsel'proyekta" (for Sokolov).
6. "Belsel'proyekt" (for Sil'nov, Gorelik). (Silos) (Precast concrete construction)