

AFANAS'YEV, S.M., inzhener.

The SA-2 universal vibrating unit. Nov.tekh.i pered.op.v stroi. 18
no.10:21-25 0 '56. (MLRA 9:11)
(Precast concrete) (Building machinery)

I. 09005-67 EWT(m)/EWP(w)/EWP(t)/ETI IJPC J DD/HW
ACC NR: AP6027782 SOURCE CODE: UR/0126/66/022/001/0027/0031

AUTHOR: Afanas'yev, S. V.; Barsukov, V. N.; Pliner, G. Ye.; Chercpkova, K. F.

ORG: Leningrad Steel Rolling Plant (Leningradskiy staleprokatnyy zavod)

TITLE: Recrystallization and magnetic properties of permalloy 65N

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 1, 1966, 27-31

TOPIC TAGS: permalloy, metal recrystallization, magnetic property, magnetic permeability /
/ permalloy 65N

ABSTRACT: Permalloy 65N (0.02% C, 0.44% Mn, 0.21% Si, 0.008% P, 0.007% S, 65.5% Ni,
remainder Fe) differs from the other binary Fe-Ni alloys in that it acquires high magnetic
properties only after its heat treatment in a magnetic field, due to the attendant directional
ordering of its atoms which results in the rise of magnetic anisotropy. In this connection, the
authors investigated the effect of the degree of deformation (from 17 to 98.6%) and temperature
of annealing (from 700 to 1200°C) on the structure of this alloy and on its magnetic properties
before and after thermomagnetic treatment. The thermomagnetic treatment itself was carried
out in a vacuum (residual pressure 10^{-2} mm Hg) at 650°C in a 10-oersted magnetic field. Grain

Card 1/3

UDC: 669.15'24.018.58

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ACC NR: AP6027782

size was examined metallographically and magnetic properties were measured by the ballistic d-c method. Findings: on the basis of the concomitantly plotted recrystallization diagram (Fig. 1) it is established that three basic types of recrystallization structures may be induced in permalloy 65N for the degrees of deformation and temperatures considered. Thus, for the

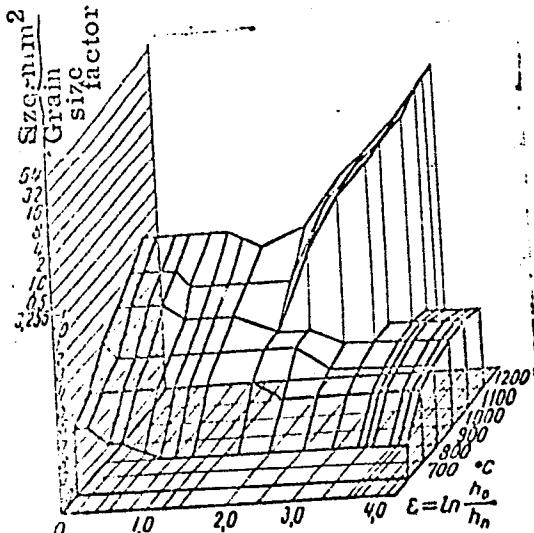


Fig. 1. Recrystallization diagram of the alloy 65N

I. 09005-67
ACC NR: AP6027782

deformation $\epsilon < 2.0$ (85%) grain size monotonically increases with temperature, the recrystallized grains display non-ordered orientation and the recrystallization is either primary or preliminary; For $\epsilon > 2.0$ annealing temperatures below 1000°C lead to the formation of a cubic texture of primary recrystallization; and for $\epsilon \sim 2.0-2.3$ (85-90%), following annealing at 1000°C, large extended grains of secondary recrystallization are observed. The specimens displaying the maximum magnetic permeability (450,000-500,000 gauss/oe), the most rectangular hysteresis loop and the lowest coercive force (~0.002 oe) were found to be those which, prior to their thermomagnetic treatment, had a secondary recrystallization structure with maximally large grains. "The authors are indebted to the late Professor V. S. McS'kin for a critical examination of the MS and for his interest in this project." Orig. art. has: 3 figures.

SUB CODE: 11, 20, 13/ SUBM DATE: 25Nov64/ ORIG REF: 008/ OTH REF: 002

Card 3/3 nst

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6

APPENDIX E

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6"

SAVARENISKIY, F.P.; AFANAS'YEV, T.P.

M: Vodnyye Resursy Srednego Povolzh'ya i ikh Ispol'zovaniye (Water Resources of the Middle Volga Region and their Utilization), Moscow - Leningrad 1946

Soviet Source:

Abstracted in USAF "Treasure Island", on file in Library of Congress, Air Information Division, Report No. 90488. UNCLASSIFIED

AFANAS'YEV, F.P.

CA

Ground waters of the middle Volga region and their
classification according to their mineral composition T. P.
Afanas'ev Doklady Akad. Nauk S.S.R. **58**, 1701-4
(1947); Chem. Zentral. 1949, 51; cf. C.A. **45**, 7730f. - Ex-
pression of analytical results in mg-equiv./l shows the
change in the character of the waters with increasing degree
of mineralization. M. G. Monte

AFANAS'YEV, T. P.

May 1947

USSR/Hydrology
Water, Underground

"The Chemical Zoning of Subterranean Waters in the
Central Volga Region," T. P. Afanas'yev, Lab Hydrogeol
Prob imeni F. P. Savarenkiy, Acad Sci USSR, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVI, No 6

Describes hydrogeological research and discusses ex-
periments designed to tabulate degree of mineraliza-
tion of subterranean waters in Central Volga Region.
Submitted by Academician D. S. Belyankin, 24 Dec 1946.

58T50

ca

14

The chemical composition and zonal distribution of the
ground water in the middle Volga region. T. P. Alanas'ev
Doklady Akad. Nauk. S.S.R. 56, 621-4 (1947); *Chem.
Zentr.* (Russian Zone Ed.) 1949, I, 25.—The horizontal and
vertical distributions of the ground-water types were detd.
on the basis of 338 analyses. The degree of mineralization
of the water increases with increasing depth. The type of
water also changes with increasing depth according to the
following series: $\text{HCO}_3^- \rightarrow \text{HCO}_3^-/\text{SO}_4^{2-} \rightarrow \text{SO}_4^{2-} \rightarrow$
 $\text{SO}_4^{2-}/\text{Cl}^- \rightarrow \text{Cl}^-$. M. G. Moore

1951

17

Principal features of the hydrogeology of the Middle Volga country. T. P. Afanas'ev. *Izv. Akad. Nauk SSSR, Ser. Geog.* 1958, No. 10 (1018).—Mineralization of water at 5 locations in the Middle Volga country is plotted against various depths showing an increase from 1-2 g. per l. at the surface to 15-17 g. per l. at 200 m. depth. The author uses S. A. Sheinarev's scheme for classifying subterranean waters into types obtained by representing 7 combinations of 3 cations (Mg^{++} , Ca^{++} , Na^+) as rows, and 7 combinations of 3 anions (HCO_3^- , Cl^- , SO_4^{2-}) as columns, the small squares so formed being numbered downwards from 1 to 49 starting at the top left.

V. H. Gottschalk

AFANAS'YEV, T.P.

The lower Kazan deposits of the Cheboksar sector along the Volga. Trudy
Lab. Gidrogeol. Problem im. F.P. Savarenskogo, Akad. Nauk S.S.R. 3, 361-
86 '48. (MIRA 3:2)
(CA 47 no.19:9870 '53)

AFANAS'YEV, T. P.

Sep 48

USSR/Agriculture
Soil Science
Literature

"Bibliography on Factors of Soil Formation, Genesis,
and Geography of Soils" 1 $\frac{1}{2}$ pp

"Pochvoved" No 9

Lists various books on the study of soils, among
them T. P. Afanas'yev's "Basic Hydrology of the
Middle Reaches of the Volga," S. S. Buts'ko's
"Geomorphology of Landslips," and B. F. Petrov's
"Altay Loess."

61/49T10

1. AFANAS'YEV, T.P.

2. USSR (600)

"The Main Hydrogeological Features of the
Middle Volga Region." Trudy Laboratori
gidrogeologicheskikh problem imeni Savarenskiy,
Volume 1, 1949 (88-96).

9. Meteorologiya i Gidrologiya, No. 3, 1949.
[redacted] Report U-2551, 30 Oct 52.

AFANAS'YEV, T.P.

Waters from the Upper Permian sediments of the N. Volga Basin. Trudy Lab.
Gidrogeol. Problem im. F.P.Savarenskogo, Akad. Nauk S.S.R. 2, 93-121 '49.
(MIRA 5:9)
(CA 47 no.22:12703 '53)

1. AFANAS'YEV, T.F.
2. USSR (600)
4. Volga Valley - Water, Underground
7. Geochemistry of underground waters of the central Volga region. Trudy Lab.gidrogeol.
probl. 16. 1951
9. Monthly List of Russian Acquisitions, Library of Congress, March, 1953. Unclassified.

1. AFANAS'YEV, T. P.
2. USSR (600)
4. Water, Underground - Kuybyshev Reservoir Region
7. Underground waters in the territory of the Kuybyshev Reservoir, and the trend of further research on them. Izv. AN SSSR. Ser. geol. No. 5, 1952.

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

1. AFANAS'YEV, T. P.
2. USSR (600)
4. Volga Valley - Geology, Stratigraphic
7. Geology of the middle Volga and Kama valleys. Dokl. AN SSSR 86 no. 5, 1952.

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

AFANAS'YEV, T.P.; SLAVYANOV, N.N.; redaktor; KAVELINA, N.A.; redaktor; CHEPIKOVA, I.M., redaktor; SHEVCHENKO, G.N., tekhnicheskiy redaktor.

[Underground waters in the middle Velga and middle and lower Kama Valleys and their hydrochemical zones] Podzemnye vody Srednege Povelzh'ia i Prikam'ia i ikh gidrokhimicheskaiia zonal'nost'. Moskva, Izd-vo Akademii nauk SSSR, 1956. 261 p. --[Diagrammatic hydrogeological profiles] --Schematichegicke profile. Sp. (MLRA 9:6)

1. Chlen-korrespondent AN SSSR (for Slavyanov).
(Water, Underground)

AFANAS'YEV, T.P.

KASHTANOV, S.G. (Kazan'); AFANAS'YEV, T.P. (Kazan'); NELIDOV, N.N. (Kazan')

Underground waters of the Volga-Kama region. Uch.zap.Kaz.un. 115
no.10:126-129 '55. (MLRA 10:5)
(Volga Valley--Water, Underground)

SCV/11-59-6-10/15

AUTHORS: Gordcyev, D.I., Afanas'yev, T.P., and Makarenko, F.A.

TITLE: In Memory of Nikolay Nikolayevich Slavyanov

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geologicheskaya, 1959, Nr 6, pp 112-113 (USSR)

ABSTRACT: This is an article to the memory of the oldest Soviet hydrogeologist N.M. Slavyanov, Corresponding Member of the AS USSR, who died on October 16, 1958. He received the degree of Doctor of Sciences without having to defend a thesis on the recommendation of Academicians V.I. Vernadskiy, V.A. Obruchev and P.I. Stepanov. He was one of the creators of hydrogeochemistry as a science.

Card 1/1

MAKARENKO, F.A.; AFANAS'YEV, T.P., doktor geol.-min.nauk, otd.red.;
TUGARINOV, D.N., red.izd-va; KOVAL'SKAYA, I.F., tekhn.red.

[Characteristics of subsurface flow in the basin of the Don River;
regime, balance, hydrochemistry, and geological activity] Kharakte-
ristika gruntu vogo stoka basseina Dona; rezhim, balans, gidrokhimiia
i geologicheskaja deiatel'nost'. Moskva, Izd-vo Akad.nauk SSSR,
1961 73 p. (Akademija nauk SSSR. Laboratoriia gidrogeologicheskikh
problem. Trudy, vol.34). (MIRA 14:6)

(Don Valley--Water, Underground)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6

GORDEYEV, Dem'yan Ignat'yevich; AFANAS'YEV, T.P., doktor geol.-mineral.-nauk, otv.red.; SPRYGINA, L.I., red.izd-va; SUSHKOVA, L.A., tekhn.red.

[Nikolai Nikolaevich Slavianov; his life and work] Nikolai Nikolaevich Slavianov; zhizn' i deiatel'nost'. Moskva, Izd-vo Akad.nauk SSSR, 1962. 135 p. (Akademija nauk SSSR. Laboratoriia gidrogeologicheskikh problem. Trudy, vol.43). (MIRA 15:3) (Slavianov, Nikolai Nikolaevich, 1878-1958)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6"

AFANAS'YEV, T.P.

General characteristics of the distribution of underground waters
in the Volga-Ural oil-bearing region. Trudy Lab.gidrogeol.probl.
42:94-100 '62. (MIRA 15:8)
(Ural-Volga region--Water, Underground)

GAVRYUKHINA, A.A.; AFANAS'YEV, T.P., doktor geol.-min. nauk, otd.
red.

[Formation of underground waters under the effect of artificial
discharge as revealed by a study made in Moscow] Formirovaniye
podzemnykh vod pod vliianiem iskusstvennoi razgruzki. (na pri-
mere Moskvy). Moskva, Izd-vo "Nauka," 1964. 130 p.
(MIRA 17:5)

KULAKOV, N.V.; LEMAS'YEV, T.P., doktor geol.-miner. nauk,
nauchn. red.

[Paleohydrogeological conditions governing the formation
of gas and oil fields as revealed by a study made in the
Volga Valley portion of Saratov and Volgograd Province]
Paleogidrogeologicheskie usloviia formirovaniia gazonef-
tiarykh mestorozhdenii (na primere Saratovsko-Volgograd-
skogo Povolzh'ia, Moscow, Nedra, 1964. 193 p.
(MIA. 1719)

AFANAS'YEV, T.P.; GASHICHEV, V.I.; YELIN, S.N.; KAPLYANSKIY, B.A.;
LAVROVA, G.I.

Automation of crushing and grinding processes at the No.1
Apatite-Nephelite Ore Dressing Plant. Obog. rud 9 no.4:
36-41 '64. (MIRA 18:5)

AFANAS'IEV, Tikhon Pavlovich, I.V., doktor geol.-min.
nauk, otd. red.

[Hydrogeology and hydrogeochemistry of the Volga Valley; a
brief outline] Gidrogeologija i hidrogeokhimiija Povolzh'ja;
kratkin ocherk. Moskva, Nauka, 1965. 170 p. (MIRA 18:12)

KOZLOVA, Nadezhda Dmitriyevna; AFANAS'YEV, T.P., doktor geol.-
miner. nauk, otv. red.

[Geochemistry and the formation of underground waters
as revealed by a study in the middle Don- Valley] Geo-
khimiia i formirovanie podzemnykh vod; na primere
Stednego Dona. Moskva, Nauka, 1965. 164 p.
(MIRA 18:12)

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S/081/61/000/024/007/086

B138/B102

AUTHORS: Trukhmanova, Ye. S., Afanas'yev, T. S. *

TITLE: The use of special ionization chambers to measure the activity and check the purity of radioactive preparations

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 61, abstract 24B418 (Tr. Tashkentsk. konferentsii po mirn. ispol'zovaniyu atomn. energii. Tashkent, AN UzSSR, v. 2, 1960, 382 - 389)

TEXT: The possibility is investigated, of using an ionization chamber with 4π geometry to measure γ activity in production conditions. This kind of chamber was found to have a number of advantages over those with external irradiation. It is only slightly dependent on the shape of the preparation, there is practically no external background and laboratory workers are exposed to only a low degree of irradiation. To test for impurities it is suggested that a differential ionization chamber with spectral sensitivity should be used. In this type of apparatus measurement is made on the principle of compensating the current from different

Card 1/2

* Ministry of Health USSR

S/137/62/000/006/028/163
A006/A101

AUTHORS: Reznichenko, V. A., Sidorenko, G. D., Solov'yev, V. I., Karyazin, I. A., Dmitrovskiy, Ye. B., Afanas'yev, T. V.

TITLE: Developing electric melting techniques for perovskite-titanium-magnetite sinter

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 6, 1962, 13, abstract 6694
(In collection: "Titan i yego splavy", no. 5, Moscow, AN SSSR, 1961, 54 - 59)

TEXT: As a result of experimental industrial investigations on the electric melting of perovskite titanium-magnetite sinter, the possibility was proved of extracting Nb into cast-iron and of obtaining titanous slag. Nb cast-iron can be used as an initial product to obtain Nb slag which is a raw material for producing Nb metal. Titanous slag can be employed for TiO_2 production. For melting, sinter was used containing 25% perovskite and 75% titanium-magnetite concentrates. The Fe content in the sinter was 39 - 45%, TiO_2 content was 12 - 15%. Melting was conducted in an ore-heating furnace with a cupola. Its capacity is

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Card 1/2

107-57-1-16/60

AUTHOR: Afanas'yev, V. (Pargolovo, Leningrad oblast)
TITLE: UAIC1. A New-Year Questionnaire (Novogodnyaya anketa)

PERIODICAL: Radio, 1957, Nr 1, p 14 (USSR)

ABSTRACT: The author reports on his radio contacts and communications in 1956. He worked amateur stations of all Soviet republics and 105 oblasts, all continents and 65 countries of the world. His transmitter capacity is 25 w; his 7-tube receiver is of the superheterodyne type. As an operator of radio club VHF station 063019 he established numerous long-distance communications in the 38-40 mc band.

AVAILABLE: Library of Congress

Card 1/1

POPOV, I.; AFANAS'YEV, V.; SUKHOVA, G.

Using synthetic washing agents in laundries. Zhil.-kom.khoz.
8 no.10:2-4 '58. (MIRA 11:11)
(Washing powders)

AFANAS'YEV, V.

Landscaping and protection of the banks of the Volga-Baltic Sea
Waterway through afforestation. Rech. transp. # no. 249-50 '65.
(MIRA 18:5)

1. Glavnnyy inzh. proyekta instituta "Soyuzgiproleskhoz".

L 45520-66 EWP(m), EWT(1)/T-2/FSS-2 IJP(c) TT/AT/GW

ACC NR: AP5027656 SOURCE CODE: UR/0309/65/000/011/0018/0021

AUTHOR: Afanas'ev, V.

76
B

ORG: none

TITLE: Earthly professions of a stellar substance

SOURCE: Nauchno-tekhnicheskiye obshchestva SSSR, no. 11, 1965, 18-21

TOPIC TAGS: plasma propulsion, plasma research, controlled thermonuclear reaction

ABSTRACT: The historical development of the plasma engine is discussed. Scientists are said to feel that techniques for developing a thermonuclear reaction in plasma are still in their infancy and that many problems have yet to be solved; however, sooner or later controlled thermonuclear reactions will provide man with an unlimited energy supply. The temperature of plasma can be changed; it has been proved theoretically that this temperature change can vary from one thousand to tens of thousands of degrees, and plasma power from one kw to millions of kw. The use of plasma in reaction engines was initiated in 1964 in the Soviet Zond-2 spacecraft. Terrestrial plasma has opened promising prospects in the conquest of outer space, and, according to Academician V. Kirillin, the Soviet Union will be able to start building industrial magnetohydrodynamic stations by 1970. [WH]

SUB CODE: 21/ SUBM DATE: none

Card 1/1 end

4 Chem

(3)

Structure of 1,6-dioxaspiro[4.4]nonanes. A. A. Ponomarev
 V. A. Afands'ev and V. V. Kurochkin. *Doklady Akad. Nauk S.S.R.* 87, 983-6 (1952); cf. Burdick and Adkins, *C.A.* 40, 4055¹; Farlow, et al., *C.A.* 29, 775¹.—Condensation of AcH with 5-methylfurfural gave 28% 3-(2-methyl-5-furyl)-2-propenal, b₄ 98-100°. This hydrogenated over Cu chromite catalyst at 120° and 120-35 atm. in EtOH gave 75% 3-(2-methyl-5-furyl)-1-propanol, b₄ 97-9°, n_D²⁰ 1.4775, d₄₀ 1.0322, which, hydrogenated over Ni-kieselguhr at 150 atm. and 120° in EtOH, gave 2 products: 3-(2-methyl-5-tetrahydrofuryl)-1-propanol, b₄ 111-13°, n_D²⁰ 1.4035, d₄₀ 0.9972, and 2-methyl-1,6-dioxaspiro[4.4]nonane, b₄ 162-4°, n_D²⁰ 1.4412, d₄₀ 0.9920, n_D²⁰ 1.4428 (15.6% yield) (cf. Alexander, et al., *C.A.* 46, 1535e). MeCO and 5-methylfurfural gave 4-(2-methyl-5-furyl)-3-butene-2-one, b₄ 105.5-7.0°, m. 36-6°. This hydrogenated over Cu chromite at 88-95 atm. and 120° in EtOH gave 80.5% 4-(2-methyl-5-furyl)-2-butanol, b₄ 130.5-8.0°, n_D²⁰ 1.4780, d₄₀ 1.000, which hydrogenated over Ni-kieselguhr at 130-40 atm. and 120° gave: 73.0% 4-(2-methyl-5-tetrahydrofuryl)-2-butanol, b₄ 134-6°, n_D²⁰ 1.4542, d₄₀ 0.9974, and 3.1% 2,7-dimethyl-1,6-dioxaspiro[4.4]nonane, b₄ 167-9°, n_D²⁰ 1.4389, d₄₀ 0.9994, which gives a positive Tollen test. These results indicate that the hydrogenation of furan aldehydes leads to tetrahydrofuran alcs. which on further hydrogenation either yield satd. furan alcs. or the spiro derivs. Thus, hydrogenation of furfurylideneacetone and 3-(2-methyl-5-furyl)-2-propenal should yield 2-methyl-1,6-dioxaspiro[4.4]nonane, along with the satd. furan alcs., confirming the identity of the 2 five-atom rings in such compds. which is possible only in spiro derivs.

O. M. Kosolapoff

MF
7-28-54

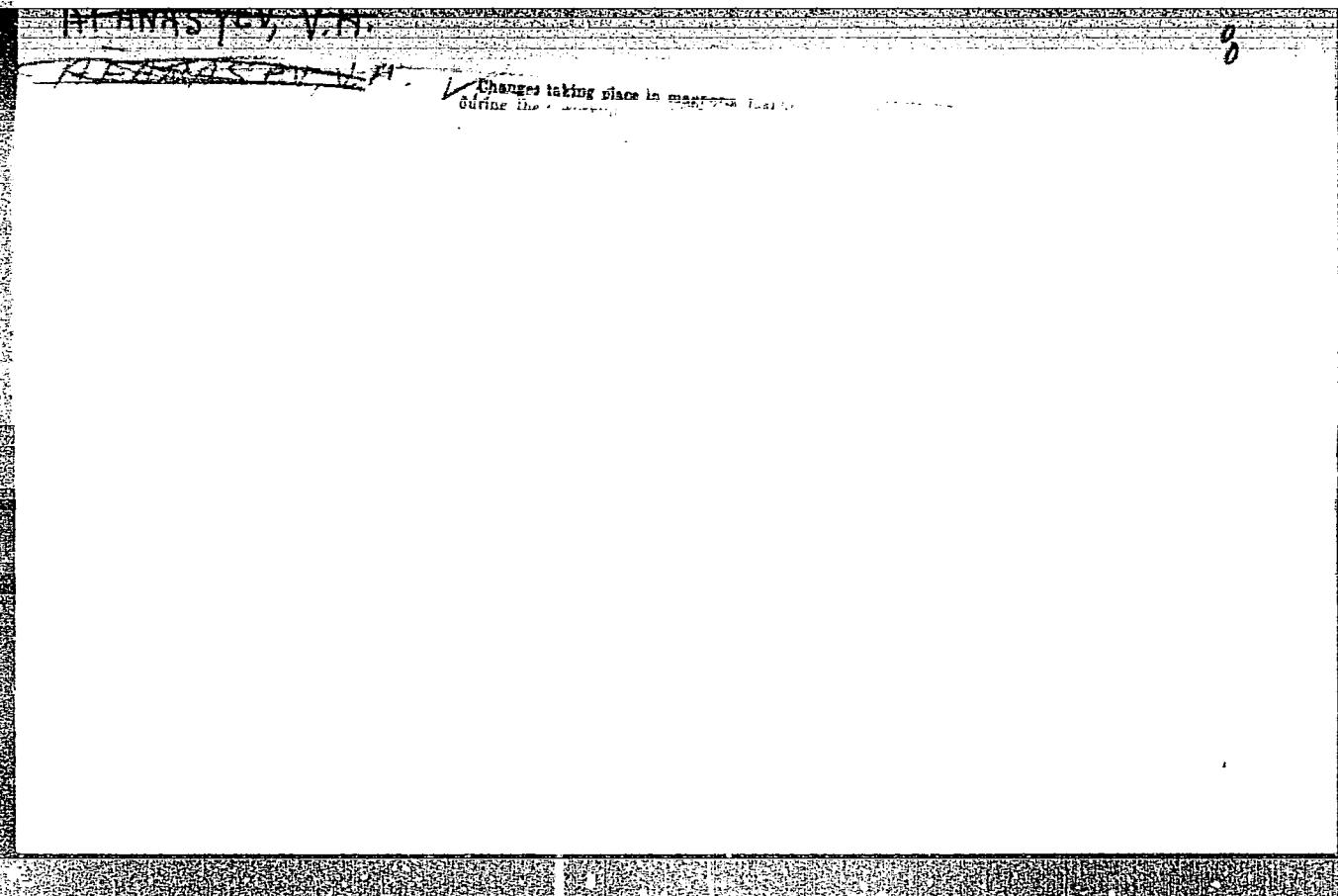
PONOMAREV, A.A.; AFANAS'YEV, V.A.; KUROCHKIN, N.I.

Study of furan compounds. Part 3. Structure of 1,6-dioxaspiro-(4,4)-nonanes and the mechanism of their formation. Zhur. ob. khim. 23 no.8:1426-1430 sg '53.
(MIRA 6 8)

1. Kafedra organicheskoy khimii Saratovskogo Gosudarstvennogo universiteta im. N.G.Chernyshevskogo.
(CA 47 no.22:12344 '53) (Oxaspirononanes)

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6



APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6"

Afanasyev, V. A.

USSR/ Chemistry - Organic chemistry

Card 1/1 Pub. 22 - 22/46

Authors : Rubinshteyn, A. M.; Zakharov, B. A.; Pribylkova, N. A.; and Afanasyev, V. A.

Title : About binary oxide catalysts on the MgO base

Periodical : Dok. AN SSSR 103/1, 83-86, Jul 1, 1955

Abstract : Investigation was conducted to determine the effect of equimolecular amounts of metal oxides, belonging to various groups of the periodical system, on the catalytic properties of MgO during the decomposition of alcohol. X-ray analysis data show that a part of the metal additives introduced into the solution activates the MgO catalyst and the second part either produces no effect (negative effect) or deactivates the catalyst. Results obtained with inert or deactivated CaO, SrO, BaO, PbO and CdO additions are listed. Five references: 1 Eng. and 4 USSR (1945-1954). Table; graph.

Institution : Acad. of Sc., USSR, Inst. of Organ. Chem.

Presented by : Academician A. A. Balandin, February 16, 1955

"APPROVED FOR RELEASE: 06/05/2000

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V
ispel resorce d'ingrediente g. v. v. v. v. v. v. v. v.
parov dlia opredeleniya veichiny poverkhnosti kataliza-
torov. A. M. Ilinichnem. iuri V. A. Alenasyev. Izvestija Akade-
mii Nauk SSSR. Otdelenie Khimicheskikh Nauk, no. 11, Nov.
1950, p. 1294-1302.

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6"

RUBINSHTYN, A.M.; APANAS'YEV, V.A.; PRIBYTKOVA, N.A.

Determining the surface magnitudes of the components of mixed MgO-
 Cr_2O_3 catalysts. Izv. AN SSSR Otd. khim. nauk no. 12: 1505-1507 D '56.
(MIRA 10:4)

1. Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk
SSSR.

(Catalysts)

11111-H2YC V, 1.H

AUTHORS: Rubinshteyn, A. N.; Slinkin, A. A.; Afanasyev, V. A. 62-1-4/21

TITLE: Determination of the Size of the Specific Surface of Catalysts in Dynamic Conditions According to One Adsorption Equilibrium (Opredeleniye velichiny udel'noy poverkhnosti katalizatorov v dinamicheskikh usloviyakh po odnomu adsorbsionnomu ravnovesiyu)

PERIODICAL: Izvestiya Akademii Nauk USSR, Otdeleniye Khimicheskikh Nauk, 1957, No. 1, pp. 32-36 (U.S.S.R.)

ABSTRACT: Experiments were conducted to determine the feasibility of the M. I. Temkin (4) method in determining the size of the specific surface of catalysts on the basis of one adsorption characteristic. The development of a new instrument for measuring surface dimensions of catalysts and its advantages over available instruments, are described. Results show that the calculation carried out in accordance with the Temkin method (equation 2) is perfectly satisfactory not only at standard low-temperature adsorption of nitrogen but also during the determination of equilibrium in conditions of benzene vapor adsorption in a gas carrier flow at ordinary pressures. The latter method opens greater possibilities

Card 1/2

✓ Malic acid-lactic acid fermentation. V. A. Afanas'ev.
Sovietvino. Vinogradarstvo i Vinozdrav. Meldom 12 No 1 1970
4% 9.1% Malic acid. 1.5% lactic acid.
a. CHP (Central Laboratory) of
wine. It follows usually the scheme of
first production of the wine
from 100% grape juice
extraction of juice from grapes
fermentation of juice

AUTHORS: Afanas'yev, V. A., Rubinshteyn, A. M. SOV/32-24-7-21/65

TITLE: The Determination of the Surface of Catalysts According to the Adsorption Isothermal Lines (Opredeleniye poverkhnosti katalizatorov po izotermam adsorbsii, snyatym v protchnoy sisteme)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 7,
pp. 830 - 832 (USSR)

ABSTRACT: In order to avoid the complicated vacuum apparatus, the range of application of this system, the accuracy of determination and the means of producing samples is investigated. From the scheme of the apparatus and from its description proceeds that nitrogen was used as carrier gas, benzene and carbon tetrachloride were used as adsorbate and MgO-catalysts were used as catalysts (in pure state or with admixtures of metal oxides and of magnesium salts, respectively). Data by Katzow (Ref 3), and Brunauer and Emmett (Ref 1) were used in the computations. The method is based upon a computation of the relative vapor pressure from a given equation by means of the results of the measurements. The adsorption isothermal line is drawn by plotting the adsorption, taken in millimoles or moles of ad-

Card 1/2

The Determination of the Surface of Catalysts According SOV/32-24-7-21/65
to the Adsorption Isothermal Lines

sorbed vapors per gram of weighed sample, versus the relative vapor pressure. The results were checked by other methods and were graphically compared. It may be seen, that the deviations do not exceed $\pm 10\%$ as the surface varies within the interval of from 20 to $25 \text{ m}^2/\text{g}$ and above. The time necessary for the determination of the surface can be considerably reduced, if the equation Brunauer-Emmett-Teller (Ref 2) is applied. There are 2 figures and 4 references, 1 of which is Soviet.

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D.Zelinskiy, AS USSR)

Card 2/2

5(2,3)

AUTHORS:

Rubinahteyn, A. M., Afanas'yev, V. A., SOV/20-124-5-32/62
Akimov, V. M., Pribytkova, N. A., Stovetskaya, K. I.

TITLE:

The Influence of the Composition and of the Conditions of the Thermal Treatment on the Structure and Catalytic Activity of $\text{Al}_2\text{O}_3\text{-ZrO}_2$ Catalysts (Vliyanie sostava i usloviy termicheskoy obrabotki na strukturu i kataliticheskuyu aktivnost' $\text{Al}_2\text{O}_3\text{-ZrO}_2$ -katalizatorov)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 5, pp 1076-1079
(USSR)

ABSTRACT:

The authors are not aware of publications on results of systematic changes of the ratio of components or of the conditions of the thermal treatment nor on the determination of the specific activity of the catalysts mentioned in the title. They have investigated the decomposition of absolute isopropyl alcohol on such catalysts which had been produced by precipitation with 10 % ammonia from 10 % solutions of Al- and Zr-nitrate at room temperature and pH 8.7-9.5. During the calcining of samples of the catalysts at 400, 600, and 750° it was found that the dehydration of the hydroxide is already

Card 1/4

The Influence of the Composition and of the Conditions of the Thermal Treatment on the Structure and Catalytic Activity of $\text{Al}_2\text{O}_3\text{-ZrO}_2$ Catalysts SOV/20-124-5-32/62

Al_2O_3 . It can be concluded that the addition of ZrO_2 does not result in an activation of Al_2O_3 under the conditions given.

Figure 3 shows a diagram - the variation of A_{sp} with the composition and the calcining temperature of the catalysts (1-750°, 2-600°, 3-400°) - for experiments carried out at 260°. The fact that A_{sp} is constant throughout a wide range of ZrO_2 concentrations seems to indicate that the reaction is taking place in this case only on Al_2O_3 , whereas ZrO_2 behaves only as an inert support. All this is in good agreement with the results of the X-ray analysis (made with the assistance of L. D. Kretalcva). It has been found that in co-precipitated catalysts ZrO_2 and Al_2O_3 are present as separate phases rather than solid solutions (in agreement with reference 4). Neither the increase of the temperature at which the experiment was carried out (up to 320°), nor of the volume velocity (up to

Card 3/4

The Influence of the Composition and of the Conditions of the Thermal Treatment on the Structure and Catalytic Activity of $\text{Al}_2\text{O}_3\text{-ZrO}_2$ Catalysts

SOV/20-124-5-32/62

12h⁻¹) have destroyed, on the whole, the picture of figure 3 nor affected the conclusions derived therefrom in table 1. This relates to the catalysts calcined at 600°. The total activity (Table 1) and A_{sp} increase with the calcining temperature between 400 and 600° (Fig 3) probably because the finest pores are destroyed, which are difficultly accessible to the alcohol molecules. There are 3 figures, 1 table, and 6 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo of the Academy of Sciences. USSR)

PRESENTED: October 17, 1958, by A. A. Balandin, Academician

SUBMITTED: April 19, 1958

Card 4/4

RUBINSHTEYN, A.M., PRIBYTKOVA, N.A., AFANAS'YEV, V.A., SLINKIN, A.A.

Structure and texture of alumina - chromic oxide - potassium monoxide catalysts, and their activity and selectivity of action in the decomposition of $i\text{-C}_3\text{H}_7\text{OH}$. Kin. i kat. 1 no.1:129-143 My-Je '60. (MIRA 13:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk SSSR. (Alumina) (Chromium oxide) (Potassium oxide) (Butanol)

20360

S/020/61/136/005/021/032
B004/B058

53700

2209, 1273, 1274

AUTHORS:

Afanas'yev, V. A., Ponomarenko, V. A., and Zadorozhnnyy, N. A.

TITLE:

Adsorbability and catalytic activity of platinized carbon with regard to the addition of some silanes to unsaturated compounds

PERIODICAL:

Doklady Akademii nauk SSSR, v. 136, no. 5, 1961, 1123-1126

TEXT: In previous publications (Refs. 1 to 3) on the addition of alkyl- and chloro-alkyl silanes on halogenated allyl ether it was found that the adsorption interaction of the reacting molecules with the catalyst surface has a great effect on the addition reaction. This effect was checked in the present study by investigating the capacity of platinized carbon (1% Pt) to adsorb $(C_2H_5)_3SiH$ (I), $CH_3(C_2H_5)_2SiH$ (II), $C_2H_5(C_3H_7)_2SiH$ (III), Cl_3SiH (IV), $C_2H_5SiHCl_2$ (V), and $CH_3(C_2H_5)SiHCl$ (VI). The experiments were conducted in a continuous apparatus at atmospheric pressure and 20°C. The relative partial pressure of the vapors was varied between 0 and 0.5. Nitrogen served as carrier gas. Before the experiment, the catalyst was

Card 1/4

20360

S/020/61/136/005/021/032
B004/B058

Adsorbability and catalytic ...

Adsorbability and catalytic ...
heated to 300°C in a vacuum (approximately 10^{-4} mm Hg). The pressure P_s of the saturated vapor of I - VI was determined in the same apparatus. P_s was determined from the equation $P_s/P = v/V$. P is the total pressure (atmospheric pressure) in the system, v the volume of the substance vaporized per unit time, and V is the rheometrically measured total volume of the mixture. A linear increase of adsorption with increasing length of experiment was found for all alkyl silanes. P_s was calculated at $v_1 = 1 \text{ ml/min}$ (velocity of silane vapor) and $v_2 = 20 \text{ ml/min}$ (velocity of the carrier gas). The experimental data for the compounds I - VI are compared in Table 1 with the values calculated according to Haas and Newton and Antoine. Fig. 2 shows the adsorption isotherms at 20°C for P/P_s from 0 to 0.5. A different adsorbability of the substances was found. Chloro-alkyl silanes are adsorbed more intensively than alkyl silanes. A quantitative estimate of adsorbability was made by a comparison of the various areas ω_0 occupied by the molecules. ω_0 was calculated from the BET equation by using ω_0 for benzene (40 \AA^2). These data were compared with the reactivity of the compounds in the case of simultaneous addition to 1,1,2-trifluoro-2-chloro-ethyl allyl ether (Table 2). With increasing

Card 2/7

20360

S/020/61/136/005/021/032
B004/B058

Adsorbability and catalytic ...

ω_0 (decreasing adsorbability) of the silane, and increasing yield of its addition products resulted. For substances with equal ω_0 , the yield of addition products is equal, too. The following interpretation is given for concurrent reactions: Owing to the increased adsorbability of chloro-alkyl silanes, highly active chloro-silyl radicals (Cl_3Si and Cl_2SiCH_2) form on the catalyst surface. They seize upon the hydrogen of the tri-alkyl silane under the formation of a less active trialkyl-silyl radical. Only the latter reacts with the unsaturated bond of the ether. Apart from this, however, also a direct addition of the chloro-silyl radical to the unsaturated compound takes place. With the concurrent addition reaction of $(\text{CH}_3)_2(\text{C}_2\text{H}_5)\text{ClSiH}$ with Cl_3SiH or $\text{C}_2\text{H}_5\text{SiHCl}_2$, the higher adsorbability of $(\text{CH}_3)_2(\text{C}_2\text{H}_5)\text{ClSiH}$ and its weak Si-H bond, as compared with the other two compounds, causes the predominant formation of the radicals $(\text{CH}_3)_2(\text{C}_2\text{H}_5)\text{ClSi}$ on the catalyst surface. These radicals are, however, unable to seize upon the more strongly bound hydrogen of Cl_3SiH or

Card 3/14

20360

S/020/61/136/005/021/032
B004/B058

Adsorbability and catalytic ...

$\text{C}_2\text{H}_5\text{SiHCl}_2$. Inspite of the stronger adsorbability of $\text{CH}_3\text{C}_2\text{H}_5\text{ClSiH}$, a predominant addition of this compound to the unsaturated ether sets in in this case. This interpretation may also be valid for the forming radicals $\text{X}_3\text{SiCH}_2-\text{OC}-\text{R}$ ($\text{X} = \text{Cl}$, $\text{R} = \text{CH}_2\text{OCF}_2\text{CFClH}$). There are 2 figures, 2 tables, and 5 Soviet-bloc references. ✓

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskogo, Academy of Sciences USSR)

PRESENTED: September 17, 1960, by A. A. Balandin, Academician

SUBMITTED: September 14, 1960

Card 4/6

AFANAS'YEV, V.A.; BYSTROV, V.F.; DEKABRUN, L.L.; KUL'YANOV, Yu.N.;
STEPANYANTS, A.U.

Multipurpose spectrometer of nuclear magnetic resonance.
Zav.lab. 28 no.1:102-103 '62. (MIRA 15:2)

1. Institut khimicheskoy fiziki AN SSSR.
(Spectrometer)

AFANAS'YEV, Vitaliy Arkad'yevich; KITAYGORODSKIY, A.I., doktor fiziko-matem. nauk, prof., otv. red.; VOZHEYKO, I.V., red. izd-va; POPOVA, M.G., tekhn. red.

[Physical methods for studying the molecular structure of organic compounds] Fizicheskie metody issledovaniia strukturny molekul organicheskikh soedinenii. Frunze, Izd-vo AN Kirgiz.SSR, 1963. 247 p. (MIRA 16:10)
(Organic compounds) (Molecular structure)

VOL'KENSHTEYN, L.V., doktor fiz.-matem. nauk, prof., red.;
SHEYNEKER, Yu.N., doktor khim. nauk, red.; SAMITOV,
Yu.Yu., kand. fiz.-mat n. nauk, red.; AFANAS'YEV, V.I.,
kand. khim. nauk, red.

[Transactions of the Conference on the Physical Methods of
Study of Organic Compounds and Chemical Processes] Trudy
Soveshchaniia po fizicheskim metodam issledovaniia organi-
cheskikh soedinenii i khimicheskikh protsessov. Frunze,
1964. 268 p. (MIRA 17:11)

1. Soveshchaniye po fizicheskim metodam issledovaniya
organicheskikh soyedineniy i khimicheskikh protsessov.
Frunze, 1962. 2. Institut vysokomolekulyarnykh soyedineniy
AN SSSR, Leningrad (for Vol'kenshteyn). 3. Institut khimi
prioronykh soyedineniy AN SSSR, Moskva (for Sheynker).
4. Kazanskii gosudarstvennyy universitet, Kazan' (for
Samitov). 5. Institut organicheskoy khimii AN Kirgizskoy
SSR, Frunze (for Afanas'yev).

AFANAS'YEV, V.A.; STREL'TSOVA, I.F. (Frunze)

Spectroscopy of aqueous solutions of carbohydrates. Part 1.
Zhur. fiz. khim. 39 no. 1:110-115 Ja '65 (MIRA 19:1)

1. Institut organicheskoy khimii AN Kirgizzkoy SSR. Submitted
March 12, 1964.

L 44260-66 EWT(m)/T/EWP(t)ETI IJP(c) DS/JD/JG

ACC NR: AP6013262

SOURCE CODE: UR/0413/66/000/008/0052/0052

36
B

INVENTOR: Afanas' yev, V. A.; Volodin, Yu. A.; Smirnov, V. A.; Druzhinin, A. V.

ORG: none

TITLE: Oxide-coated cathode Class 21, No. 180710

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 52

TOPIC TAGS: electron tube cathode, surface active coating, iridium ~~coating~~, osmium ~~coating~~, oxide ~~coating~~, ~~oxide-coated~~ cathode

ABSTRACT: An Author Certificate has been issued describing an oxide-coated cathode for electronic tubes containing a base on part of the surface of which is an emissive coating. To suppress the emission with an inactive surface coating and to obtain a clearly defined emitting surface, an iridium or osmium ^{or} coating is applied on the inactive surface of the emissive coating. [Translation] [NT]

SUB CODE: 09/ SUBM DATE: 20Apr65/

Card

111 *LL*

UDC: 621.385.032.213.6

AFANAS'YEV, V.A., assistant

From the history of the domestic leather production. Nauch. trudy
MTIIP no.27:3-26 '53. (MIRA 17:11)

1. Kafedra organizatsii proizvodstva i ekonomiki legkoy promyshlennosti Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

AFANAS'YEV, V.A., assistent

Leather industry in the ukases of Peter I. Mauch. trudy MTILP
no.28:3-31 '63. (MIRA 17:11)

1. Kafedra organizatsii proizvodstva i ekonomiki legkoy
promyshlennosti Moskovskogo tekhnologicheskogo instituta
legkoy promyshlennosti.

"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6

AFANAS'YEV, V. A.

"Parasitism and Symbiosis," in the book: Problemy obshchey parazitologii (Problems of General Parasitology), 15-21, Leningrad-Moscow, 1937

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6"

AFANAS'YEV, V. A.

Afanas'yev, V. A. "The production problems of eating silk-worm cocoons by fur-bearing animals," Karakulevodstvo i zverovodstvo, 1949, No. 2, p. 40-44.

SO: U-3736, 21 May 53, (Letopis 'Zhurnal 'nykh Statey, No. 17, 1949).

AFANAS'YEV, V. A.

~~AFANAS'YEV, V. A.~~ AFANAS'YEV, V. A.

24195 AFANAS'EV, V. A. Udeshevim soderzhaniye pushnykh zverey v sovkhozakh.
Karakulevodstvo i zverovodstvo, 1949, No. 4, S. 34-38.

SO: Letopis, No. 32, 1949.

AFANAS'YEV, V. A.

"Effect of Keeping Silver Fox in Smaller Pens with a Woven Wire Floor on Their Productivity and Viability," Kar. i Zver., 5, No.4, 1962

1. AFANAS'YEV, V.A.
2. USSR (600)
4. Fur Farming
7. Procurement of animal feeds is an important task of state fur farms, Kar.izver.
6 no. 2, 1953.

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

ABRAMOV, M.D., redaktor; AFANAS'YEV, V.A., redaktor; PEREL'DIK, N.Sh.,
redaktor; NECHAYEVA, Ye.G., redaktor; FEDOTOVA, A.P., tekhnicheskiy
redaktor

[Raising fur-bearing animals] Zvedrovodstvao. Izd. 2-oe, perer. i
dop. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 615 p. (MLRA 9:9)
(Fur-bearing animals)

Afanas'yev, V. A.

USSR/Farm Animals - Wild Animals.

Q-6

Abs Jour : Ref Zhur - Biol., No 1, 1958, 2621

Author : V.A. Afanas'yev

Inst :

Title : Notes on Scandinavian Husbandry of Wild Animals.

Orig Pub : Karakulevodstvo i zverevodstvo 1956, No 5, 47-53

Abstract : Describes breeding in Scandinavian animal husbandry. Describes the essential criterion in selecting and matching wild life animals, the quality of the fur, its color and size. Presents the registration forms used in the wild-life breeding ranches in Scandinavian countries.

Card 1/1

USSR / Farm Animals. Wild Animals.

Q-4

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 45247

Author : Afanas'yev, V. A.

Inst : Not given

Title : Seal Meat - a Good Protein Feed for Growing Fur-Bearing Animals.

Orig Pub : Karakulevodstvo i zverovodstvo, 1957, No. 4, 28-32

Abstract : Experiments in feeding raw and jerked seal meat to silver-black foxes, Arctic foxes and minks showed that seal meat possesses high nutritive qualities and is not inferior to

AFANAS'YEV, V. A., Cand. Agri. Sci. (diss) "Rationalization of Methods of Care and Feeding of Furbearing Animals on Animal Sov-khozes," Moscow, 1961, 22 pp. (Moscow Veter. Acad.) 200 copies (KL Supp 12-41, 278).

L00837-66

ACCESSION NR: AP5016081

UR/0302/65/000/002/0017/0019
681.142.642

AUTHOR: Afanas'yev, V. A.; Kazais, E. B.; Plotnikov, A. D.

TITLE: Specialized arithmetic unit

SOURCE: Avtomatika i priborostroyeniye, no. 2, 1965, 17-19

TOPIC TAGS: arithmetic unit

ABSTRACT: The development of a specialized few-digit arithmetic unit based on three-cycle ferrite-diode logical elements is briefly reported. The use of a table of binary logarithm-antilogarithms has simplified the logical circuit of the unit and has accelerated the multiplication, division, and evolution operations. The unit performs addition and subtraction of numbers, yields logarithms, and can add, subtract, and shift the logarithms. The number code has 17 binary digits; the mantissa significant part has 11 digits; order, 4 digits; order sign and mantissa sign, 1 digit each. Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: DP, EC

Card 1/1

NO REF SOV: 001

OTHER: 001

AFANAS'YEV, V.A., kand.tekhn.nauk, dotsent

Concrete compaction by surface vibration. Trudy NIIZHB no.21:146-
162 '61. (MIRA 14:12)

1. Leningradskaya Krasnoznamennaya voyenno-vozdushnaya inzhenernaya
akademiya im. A.F.Mozhayskogo.
(Vibrated concrete)

AFANAS'YEV, V.A.

Olivinites of the Khibiny region (southeastern part of the Kola Peninsula). V. A. Afanasyev. *Compt. rend. acad. sci. U.S.S.R.* 25, 313-16 (1960) (in English). The structure of the ultrabasic intrusion is zonal. The central zone is composed of olivine rocks: pegmatoid, titaniferous, magnetic, perovskitic; the intermediate zone is composed of pyroxetic and pyroxene-feldspar rocks; along the contact with the orthogneisses are fine-grained rocks with green pyroxene, melanite, feldspars, nepheline, apatite and pyrochlore. Eleven analyses of various phases are given. The ore fraction of the pegmatoid olivinite contains 12.49% Cr₂O₃. Many of the joints in the olivinites are filled with the monomineral white rock kolskite (see Efremov, C. Z., 33, 7088) of which an analysis shows: SiO₂ 40.32, Al₂O₃ 0.70, Fe₂O₃ 1.82, MgO 36.27, CaO 2.41, CO₂ 3.35 and S 15.30%. D. W. Pearce

Kirovsk Academy of Sciences.

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION										RIGHTS OWNER									
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"APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6

AFANAS'YEV, Vladimir Aleksandrovich; APENKO, M.I., red.;
KHROMCHENKO, F.I., red. izd-va; SUNGUROV, V.S., tekhn. red.

[Optical measurements] Opticheskie izmereniiia. Moskva, Izd-
vo geodez.lit-ry, 1961. 238 p. (MIRA 15:2)
(Optical measurements)

APPROVED FOR RELEASE: 06/05/2000

CIA-RDP86-00513R000100410018-6"

TITLE: Scientific-technical Conference of the MIGA 1 K in 1959 (6.)
PERIODICAL: Izvestiya vysokikh uchebnykh zavedenii. Geodesiya i aerofotos.

ABSTRACT:

The periodic scientific-technical conference of the Moscow Institute of Geodesy, aerofotov. Kartografii (MIGA) was held on April 22-24, 1959. Aerial survey and cartographic (photogrammetry) were delivered. The participants of the conference were 300 persons. 30 lectures were delivered. The introductory speech was held by Professor A. A. Isakov. Candidate of Philosophical Sciences A. F. KARAEV lectured on "The Outstanding Work of Materialistic Philosophy". Candidate of Technical Sciences A. V. Lomidzevsky on "Radiolocation and Geological Survey". Candidate of Technical Sciences G. P. Bagratashvili on "Importance of the Solution of the Inverse Position Computation with Coordinates of Different Geodetic Systems". Candidate of Technical Sciences P. P. Shokin reported on "Cartometry in Today's State of Development". Candidate of Technical Sciences V. D. Bakhnikov on "Investigation of the Rules Governing the Distribution of Errors when Generalizing the Stellar in Photogrammetry". Post-graduate Student I. T. Bobrov on "The Influence of the Counting Error on the Accuracy Solution on Linear Equations System". Post-graduate Student S. D. Drabidy reported on "The Solution of Linear Systems in the Compensation of Geodetic Nets". Doctor V. M. Korobkin spoke on "The Experience in the Application of Parallelactic Polyhomogeneity With Short Basis and Constant Vertical Basis". Doctor of Physical and Mathematical Sciences A. M. Pavasili Berz lectured on "Some Features from the Theory of Surfaces and Their Application to the Mechanics of Artificial Earth Satellites". Candidate of Technical Sciences A. S. Valuyev on "The Stereocorrelator With Correctors". Assistant M. V. Kurnev spoke on "Photoparametric Method of Determining the Distances of Landmarks Clouds". Candidate of Technical Sciences N. J. Feofanovskiy reported on "The Generalization of the Formulas for the Plane Aerial Survey and the Altitudinal Aerial Survey". Candidate of Technical Sciences R. E. Radionov and Candidate of Technical Sciences N. P. Zabudov.

Card 1/5

Card 2/5

Card 3/5

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Card 5/5

Card 6/5

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KULAGIN, S.V.; AFANAS'YEV, V.A., dots., retsenzent; KRAUSH, L.Ya.,
dots., retsenzent; PELL', V.G., dots., retsenzent;
YESHCHENKO, N.N., red.; TITOVA, V.A., red.

[Photography and photographic apparatus] Fotografija i fo-
toapparatura. Petrosavodsk, Rosvuzizdat, 1963. 282 p.
(MIRA 17:7)

В. Л. Кречер
Первые два изобретения телевизионных приборов по общему концепту схеме.

12 часов
(с 10 до 16 часов)

М. Н. Красногор
Изобретение флютографии новых в телевидении

В. Л. Харин
О применении фазового метода спирометрии в измерительных системах частотного тюнинга.

С. Д. Радченко
Приемник для применения фототранзистора для регистрации новых систем питания.

Н. Г. Денисов
Прибор для проверки износности телевизионного кинозадра.

12 часов
(с 18 до 22 часов)

В. В. Кругер
Технические изобретения труды суперприемника с лампами

10

Ч. Г. Писторек
Технические системы использования стеклянных трубок во избежание их взрывания и взрывающих опасности

Н. Н. Красильников
Углеродные для дыхательных трубок

В. З. Бонч-Бруевич,
Н. Г. Карасев
О гомогенности изоморфного раствора в твердом
или жидкостном виде

2. СЕВЕР ЭЛЕКТРОНИК
Руководитель: Н. А. Долгих

9 часов
(с 10 до 16 часов)

Г. М. Рудин,
Г. М. Каплан
Новые антирадиоактивные материалы в радиоэлектронике

В. А. Афоньев
Приемники сплошного заиффекта шума звуковых приборов СВЧ

51

Report submitted for the Centennial Meeting of the Scientific Technological Society of

Radio Engineering and Electrical Communications in A. S. Popov (TSGRIS), Moscow,

8-12 June, 1959

AT-AVANT-YEV-VF

PEMAY 1 BOOK REFERENCES 807/535
A.D. Popov

(100 let no chay radioelektronika Ad. Popova zhurnal'noye sotsial'noye (One hundred years of the birth of Ad. Popov: Radioelectronics and Social and Political Aspects). Sov. Akad. Nauk. 1960. 202 p. Series ally issued. 2,500 copies printed.

Submitting Agency: Akademicheskaya SSSR.

Chair Ed.: A.D. Mints. Author(s): Editorial Board: G.N. Burdin, A.M. Tikhonov, I.T. Gulyan, L.I. Gurevich, I.I. Grodskiy, E.D. Dzerzhinsk, G.M. Zaslavskiy, S.I. Kalyagin, R.L. Krymov, V.I. Slobodcov, and V.I. Chirkov. Ed. of Publishing House: L.V. Gulyan. Tech. Ed.: S.D. Shchegoleva.

Summary: This collection of papers is intended for scientists and technicians working in radio engineering and telecommunications.

Content: The papers included in this edition were submitted at the scientific meeting held in 1959 by the radioelectronics department of the scientific radioelectronics laboratory. Scientific and Technical Society of Radio Electronics.

Engineering and Telecommunications (ed. A.D. Popov) In commemoration of the 100th anniversary of Ad. Popov's birth. Only 50 of the more than 500 reports submitted at the meeting are included. The remaining are published in the periodicals of the Ad. U.S.S.R. State Committee on the Ministry of Communications, and the Society itself Ad. Popov. The book contains the reports read at Plenary sessions by A.D. Popov, A. A. Shchegoleva, A. A. Pervozvannyy, Corresponding Member Ad. USSR, and K.A. Andreevich and L.I. Gulyan. Other papers, as well as three specific chapters: "Theory of Information Systems," "Measuring Devices," "Radio Communications," "Reliability, Automatic Systems," "Measuring Devices," "Radio Engineering," "Telecommunications," "Radio Measurements," General Radio, Radio Broadcast, Electromechanics, Electronic Measurement, Electronic Computer, Radiowave, and other Periodical Devices. These chapters were on the editorial board which prepared the papers for publication. References accompany some of the papers.

On Radiotekhnika i Svyazi (Radio)

807/535

Ch. 1. Prospects of Developing New Electronic Amplifiers 171
Ch. 2. Surface Vector

Ch. 3. Considering the Theory of Parametric Frequency Amplification and Conversion in Ferroelectric Systems 179

Brodsky, A.I., A.H. Ablyazis, V.I. Magda, and A.P. Sotnik. Standard Capacitive Insulation for the Checking of Low-Power Motors 188

Bordun, O.D., Ye.B. Saltseman, and V.Ye. Popovskiy. Installation For Measuring Dielectric Permeability and Dielectric Loss-angle Tangent in the μ -Wave Band 194

Renold, B.I. Methods of Making the Peak and Average Power of a Single-End Transmitter 202

Quary, V.D., Yu.Y. Kukharenko, and S.P. Mirzorjan. Comparison of Results of Observation of Large and Small Nonconformities in the μ Layer 211

Table 4-T

S/123/61/000/022/016/024
A004/A101

AUTHOR: Afanasyev, V.A.

TITLE: Automatic tabling unit

PERIODICAL: Referativnyy zhurnal. Mashinostroyeniye, no. 22, 1961, 19, abstract 22D115 (V sb. "Avtomatiz. i puti primeneniya vychisl. tekhn. v khim. prom-sti, Lugansk, 1959 [1960], 48 - 52)

TEXT: The author describes a permanent storage unit developed by the L'vov Branch of the Automation Institute. The unit has been developed to be used in combination with a pH-meter and conductivity meter to measure the concentration of salts and bases in the juice vapors of the ammonium nitrate shop. The unit is a memory system of an automatic table in which the pH-value determines the number of the table column, while the conductivity value determines the line number. A prohibition cell on a ferrite core with the square shape of the magnetic characteristic serves as elementary memory cell. The memory system is a ferrite netting with a number of horizontal rows equal to 14, since 7 binary digits are necessary for the recording of the concentration of the salts and bases in per cent, with an accuracy of up to 1%. The number of vertical rows is

Card 1/2

Automatic tabling unit

S/123/61/000/022/016/02⁴
A004/A101

determined by the number of divisions of the electric conductivity range. The recording of the values of the salt and base concentrations is effected by the prohibition buses passing consecutively across the ferrite netting. The author points out the possibility of using the automatic tabling units in various technical fields owing to the universality of the discrete unit used in it.

F. G. M.

[Abstracter's note: Complete translation]

Card 2/2

L 51370-65

ACCESSION NR: AT5011627

18/0000/64/000/000/0542/0548

AUTHOR: Afanas'yev, V. A.; Pikalevskiy, L. V.

1

TITLE: Decoder circuits based on ferrite-transistor elements

SOURCE: Vsesovuznoye soveshchaniye po magneticheskoy mekhanike, izmeritel'noy i vychislitel'noy tekhnike, elementy avtomatiki, telemekhaniki i radioelektroniki. Magnetic elements of a formula one; engineering; radio engineering; radio science; radio electronics

ur avtomatiki, tele-
1962, Magnitnye
izmel'nye tekhniki
management and com-
munications, 542-548

TOPIC TAGS: decoder circuit, ferrite transistor decoder, matrix decoder

ABSTRACT: Matrix decoders following the pattern of selective switching given by

$$\begin{aligned} f_0 &= \bar{e}_{n-1} \wedge \bar{e}_{n-2} \wedge \dots \wedge e_1 \wedge e_0 \\ f_1 &= \bar{e}_{n-1} \wedge e_{n-2} \wedge \dots \wedge \bar{e}_1 \wedge e_0 \\ &\vdots \\ f_{n-2} &= e_{n-1} \wedge e_{n-2} \wedge \dots \wedge e_1 \wedge \bar{e}_0 \\ f_{n-1} &= e_{n-1} \wedge e_{n-2} \wedge \dots \wedge e_1 \wedge e_0 \end{aligned} \quad (1)$$

Card 1/3

L 51370-65

ACCESSION NR: AT5011627

(where $e_0, e_1, \dots, e_{n-2}, e_{n-1}$ are consecutive - from zero on - orders of the decoded binary code, and $\bar{e}_0, \bar{e}_1, \dots, \bar{e}_{n-2}, \bar{e}_{n-1}$ are their respective complements; the respective orders) usually require a large number of logic elements. In order to reduce the number of logic elements, it is necessary to use a computer and control circuits, Transistor Logic (TTL), 1954). Ferrite cores can be used to implement such decoders with two inputs only. Consider, for example, the case of one decoder described by (1) and covering more than two classes. However, if one transforms these equations somewhat and obtains

$$\begin{aligned} I_0 &= \bar{e}_{n-1} \wedge (\bar{e}_{n-2} \vee \dots \vee \bar{e}_1 \vee \bar{e}_0); \\ I_1 &= e_{n-1} \wedge (\bar{e}_{n-2} \vee \dots \vee \bar{e}_1 \vee \bar{e}_0); \\ &\dots \\ I_{n-2} &= \bar{e}_{n-1} \wedge (e_{n-2} \vee \dots \vee \bar{e}_1 \vee \bar{e}_0); \\ I_{n-1} &= e_{n-1} \wedge (e_{n-2} \vee \dots \vee \bar{e}_1 \vee \bar{e}_0). \end{aligned} \tag{2}$$

Card 2/3

L 51370-65

ACCESSION NR: AT5011627

one can then associate to each f_k an element which should trigger only in the presence of a pulse not entering into the bracket and in the absence of all the pulses contained within the bracket (the cell contains a single open and $(n-1)$ closed inputs). It is easy to materialize such elements using ferrite toroids. The article presents the theory, design and operation of such a decoder carrying out the switching function of a function of binary code containing rectangular hysteresis loops. The time characteristics of decoders are also discussed. Orig. art. has 1 figure and 1 table.

ASSOCIATION: none

SUBMITTED: 29Sep64

ENCL: 00

SUB CODE: DP

NO REF Sov: 004

OTHER: 002

Cord 3/3 ^{mb}

AFANAS'YEV, V.A.; KAZAIS, E.B.; PLOTNIKOV, A.D.

Special-purpose arithmetical device. Avtom. i prib. no. 2:17-19 Ap-Je
'65. (MIRA 18:7)

AFANAS'YEV, V.A.; ITENBFRG, I.I.; KAZAIS, E.B.; SMFLKOV, V.A.

Network for program interruption. Avtom. i prib. no.1:
40-43 Ja-Mr '65. (MIRA 18:8)

AFANAS'YEV, V.D., kand. tekhn. nauk

Selecting the forming angle in the production of spirally welded
pipe. Stal' 25 no.12:1111-1113 D '65. (MIRA 18:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy i proyektno-konstruktorskii
institut metallurgicheskogo mashinostroyeniya.

AFANAS'YEV, V.D., kand. tekhn. nauk.

Investigating a new system of electric drive for drum-type flying shears. [Trudy] TSNITMASH 73:77-126 '55. (MIRA 11:3)
(Shears (Machine tools)--Electric driving)

AFANAS'YEV, V.D., kandidat tekhnicheskikh nauk.

Investigating individual roll drives used on cold rolling mills.
[Trudy] TSNIITMASH no.80:58-83 '56. (MLRA 10:1)
(Rolls (Iron mills))--Electric driving)

GUREVICH, Arkadiy Yefimovich; ROKOTYAN, Yevgeniy Sengayevich; APANASIYEV,
V.D., redaktor; POREDIN, I.S., redaktor; GORDON, L.M., redaktor
Izdatel'stva BERLOV, A.P., tekhnicheskiy redaktor.

[Methods for investigating rolling mills] Metody issledovaniia
prokatnykh stanov. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po
chernoi i tsvetnoi metallurgii, 1957. 494 p. (MLRA 10:6)
(Rolling mills)

AFANAS'YEV, V.D., kandidat tekhnicheskikh nauk.

Automation of new rolling mills. Vest.mash. 37 no.6:3-8
Je '57. (MIRA 10:7)
(Rolling mills) (Automatic control)

AUTHORS: Afanas'yev, V. D., Candidate of Technical Sciences, Ivobotenko, V. A., Engineer 105-58-3-3/31

TITLE: Speed Control of a Direct Current Motor When Fed by a Magnetic Amplifier (Regulirovaniye skorosti dvigatelya postoyannogo toka pri pitanii yego ot magnitnogo usilitelya)

PERIODICAL: Elektrichestvo, 1958, Nr 3, pp. 14-19 (USSR)
Type: ~~Technical Report~~

ABSTRACT: An approximated, yet rather simple computation method is given here. It admits the determination of the mechanical characteristics of the amplifier motor system according to the work characteristic of the amplifier from the catalogue. For the computation of the static characteristics of direct current motors of low output which are fed from the power supply (industrial frequency) over a magnetic amplifier the inductive resistance of the armature can be neglected and substituted by an equivalent effective resistance R_e ... (equation (1)). Thus the task consists in finding artificial amplifier characteristics in various load resistances which differ from the nominal ones. For this purpose the conception of the universal characteristic (Ref. 1) is used. The amplifier

Card 1/3

Speed Control of a Direct Current Motor When Fed by a Magnetic Amplifier 105-58-3-3/31

characteristic consists of relative units, i.e. as function of the steering-control current, taking into account the positive feed-back of the amplifier. The experimental- and computed characteristics of the magnetic amplifier PMU-1 given here show that they differ by 10%. Therefore it can be assumed that the computation method given here guarantees sufficient accuracy for practice. The computations for other amplifiers have analogous results. The description of the checking of the possibility of a substitution of the motor load by an equivalent effective resistance by experimental way follows. It is shown that the introduction of only corresponding positive current feed-back is not sufficient in order to obtain fixed mechanical characteristics of the motors. Besides this also the negative voltage feed-back has to be carried out. The experiments showed that in schemes with magnetic amplifiers with internal feed-back it is necessary to use additionally a small winding for the external-positive current feed-back; i.e. in such a way that the current feed-back factor is increased by 3-5% and the carrying out of the negative voltage feed-back is thus facilitated. Comprisingly is said that the selection of the amplifier type is very important for securing the demanded

Card 2/3

Vesnogorskiy ob "predstavleniiye sverzhaniye po otvetsstviyu elektricheskoy proizvodstvennoy protsessii v elektronike i avtomatike"

protsessii." 36, Moscow, 1959

Elektronnye i avtomaticheskie predstavlyeniya nauchno-tekhnicheskoye issledovaniye
(Electric Drive and Automation in Industrial Systems). Transactions of the Conference Moscow, Gostorgpolz, 1959. 470 p., 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Sretenskiy, and M.O. Chislitskiy; Eds.: I.I. Sedi, and K.J. Sinyavskiy; Tech. Eds.: K.V. Voznesenskiy, and G.V. Lantsev.

PURPOSE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

CONTENTS: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the third Joint All-Union Conference on Automation of Industrial Processes in Machine Building and Automated Electric Drives in Industry held in Moscow on May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the Central Research Institute of Machine Building (State Committee on Automation and Computer Application), and the National Committee on Automatic Control, and prepared by the Scientific and Technical Committee on automated Electric Drives, the VNI (Voronezh Institute of Metallurgy), the VNIIT (Institute of Automation and Telemechanics) of the Academy of Sciences USSR, and the Committee for Technological Advancement of Machine Building and Materials of the Institute of Science of Machines of the Academy of Sciences USSR.

It was the purpose of the editorial board to arrange the reports in a way which would ensure a realistic presentation of theoretical and practical problems relating to electric drives and automatic control of industrial machines and in various branches of industry. Basic problems of automated electric drives and their solutions are outlined. The book also contains articles on electric machinery and means of automation. Considerable attention is paid to non-contact automatic control systems, including systems with semiconductor devices and magnetic amplifiers, and to computers intended both for the analysis and the synthesis of linear and nonlinear automatic regulation and control systems. Some papers already published in journals or official publications have been considerably abbreviated those which have appeared in volume 7 of MIU transactions are omitted. References occupying some of the papers (see, e.g., and PRACTICE OF ELECTRIC DRIVES AND AUTOMATION OF CONTROL

Patankar, M.R., and J.M. Balasubramanyam. Radiotekhnika Elektronika Excitation Systems of Rolling Mill. [In Russian] In: Radiotekhnika i Elektronika Chernopol'skogo i Charkovskogo, Chernopol'sk, Charkov, and Dillai (India)]	226
Bogolyubov, N.N. [et al.] Vozrozhdeniye Chernopol'skogo, Charkovskogo, and Dillai (India) Metalworking Plants	
Makarov, V.I. Report. Utilization of Gas-Tube Converters for Heating Electric Drives	232
Kondratenko, N.M., Dovmont, Candidate of Technical Sciences. Electronic Regulation of Heating Mill Drives	237
Dzhankulov, R.D., and G.P. Stepanov. Redesign. "Tough" Regulation System for Sheet Thickness on a Continuous High-Speed Cold-Rolling Mill	240
Shchegolev, V.I. Candidate of Technical Sciences. Automatic Stop Systems of the Cold-Rolling Heating Mill 1200	243
Gorodetskaya, N.Ya. Graduate of Technical Sciences. Electric Drives of Flying Shears	247
Bogomol'ev, S.M. Candidate of Technical Sciences. Problem of Designing an Optimum Control System for Flying Shears	254
Al'man-Luk'yanov, V.M. Engineer. Electric Drive of a Cold-Rolling Mill Reel With an Active Tension Regulator	259
Korshun, S.S. Candidate of Technical Sciences. Stabilizing Devices of Rolling Mill Electric Drives With Magnetic Amplifiers	264
Chernovikin, A.P. Candidate of Technical Sciences. Roughing Shop Automation With the Use of a Control Computer	267
Sokolov, I.A. Bachelor. Automatic Control of Rolling at Heating Mills With the Use of Computers	274
Chukatkin, V.V. Bachelor. Automation of MILL 900 at the Rail-Structural Shop of the Krasnoyarsk Metallurgical Combine (namely Rail Reversing-tilt Combiner)	280

SLEZHANOVSKIY, Ol'gert Vladislavovich; Prinimal uchastiye PISTRAK, M.Ya.
DRUZHININ, N.N., kand.tekhn.nauk, retsenzent; APANAS'YEV, V.D.,
kand.tekhn.nauk, red.; KISELEVVA, T.I., red.izd-va; MIKHAILOVA,
V.V., tekhn.red.

[Electric drives on reversing rolling mills] Elektroprivod
reversivnykh stanov gorachai prokatki. Moskva, Gos.nauchno-
tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961.
444 p. (MIRA 14:1)

(Rolling mills--Electric driving)

AFANAS'YEV, Vasiliy Danilovich; GUREVICH, A.Ye., red.; YEMZHEN, V.V.,
tekhn.red.

[Electric drives of automatically controlled flying shears]
Elektroprivod avtomaticheskikh letuchikh nozhnits. Moskva,
Gosenergoizdat, 1962. 143 p. (Biblioteka po avtomatike,
no.59) (MIRA 15:10)
(Shears (Machine tools)--Electric driving)

Afanas'yev, V. D.

37

PHASE I BOOK EXPLOITATION

SOV/5985

Rokotyan, Ye. S., Doctor of Technical Sciences, ed.

Prokatnoye proizvodstvo; spravochnik (Rolling Industry; Handbook) v. 1. Moscow,
Metallurgizdat, 1962. 743 p. Errata slip inserted. 9250 copies printed.

Authors of this volume: B. S. Azarenko, Candidate of Technical Sciences; V. D.
Afanas'yev, Candidate of Technical Sciences; H. Ya. Brovman, Engineer; M. P.
Vavilov, Engineer; A. B. Vernik, Engineer; K. A. Golubkov, Engineer; S. I.
Gubkin, Academician, Academy of Sciences USSR; A. Yo. Gurovich, Engineer; V. I.
Davydov, Candidate of Technical Sciences; V. G. Drozd, Engineer; N. F.
Yermolayev, Engineer; Ye. A. Zhukovich-Slosha, Engineer; N. N. Kirilin, Candidate
of Technical Sciences; M. V. Kovynov, Engineer; A. M. Kogon, Engineer; A. A.
Korolev, Professor; M. Ye. Kugayenko, Engineer; A. V. Leeskin, Engineer; B. A.
Levitanskiy, Engineer; V. M. Lugovskoy, Engineer; I. M. Meyerovich, Candidate of
Technical Sciences; M. S. Ovcharov, Engineer; V. I. Pasternak, Engineer; I. L.
Perlin, Doctor of Technical Sciences; I. S. Pobodin, Candidate of Technical
Sciences; Ye. S. Rokotyan, Doctor of Technical Sciences; M. M. Safryan, Candi-
date of Technical Sciences; V. V. Smirnov, Candidate of Technical Sciences;
V. S. Smirnov, Corresponding Member, Academy of Sciences USSR; O. P. Sokolovskiy,

Card 1/2

32

Rolling Industry; Handbook

SOV/5985

Engineer; O. P. Solov'yov, Engineer; M. A. Sidorkovich, Engineer; Ye. M. Trat'yakov, Engineer; I. S. Trishovskiy, Candidate of Technical Sciences; G. N. Khenkin, Engineer; and A. I. Tselikov, Corresponding Member, Academy of Sciences USSR. Introduction: A. I. Tselikov, Corresponding Member, Academy of Sciences USSR; Ye. S. Nekotyan, Doctor of Technical Sciences; and L. S. Al'shevskiy, Candidate of Technical Sciences.

Eds. of Publishing House: V. M. Gorobinchenko, R. M. Golubchik, and V. A. Rymov;
Tech. Ed.: L. V. Dobuzhinskaya.

PURPOSE: This handbook is intended for technical personnel of metallurgical and machine-building plants, scientific research institutes, and planning and design organizations. It may also be useful to students at schools of higher education.

COVERAGE: The fundamentals of plastic deformation of metals are discussed along with the theory of rolling and drawing. Methods of determining the power consumption and the forces in rolling with plane surface or grooved rolls are .

Card 2/10

Rolling Industry; Handbook

SOV/5985

6. Calculation of the drawing force and required power	644
7. Auxiliary equipment of drawing machines	646

PART IV. ELECTRIC DRIVE AND AUTOMATION OF ROLLING MILLS

Ch. 27. Electric Drive of Rolling Mills (B. A. Levitanskiy)

1. Selection of the motor and of the drive type	661
2. Power consumption and efficiency of the main drive	663
3. Characteristics of electric machinery of the main drive and of auxiliary mechanisms	664

Ch. 28. Electric Drive of Reversible Blooming and Slabbing Mills
(B. A. Levitanskiy)

1. Rolling condition and principal requirements of the electric drive	682
2. Calculation of power and selection of reversible drive	683
3. Control of the motor at the reversible rolling mill	691

Ch. 29. Electric Drive of Shape, Plate, Sheet, and Tube-Rolling Mills
(V. D. Afanas'yev)

Card 17/19

Rolling Industry; Handbook

SOV/5985

1. Electric drive of continuous billet mills	699
2. Electric drive of shape mills	700
3. Electric drive of plate and sheet hot-rolling mills	704
4. Electric drive of plate and sheet cold-rolling mills	708
5. Electric drive of tube-rolling mills	713

Ch. 30. Electric Drive of Auxiliary Mechanisms (V. D. Afanas'yev)
[Abridged]

1. Electric drive of flying shears	715
2. Electric drive of the screw-drawn mechanism on reversing mills	718
3. Electric drive of coilers of cold-rolling mills	719
4. Electric drive of transfer tables	721

Ch. 31. Automation of the Rolling Process (A. Ye. Gurevich)
[Abridged]

1. Definitions and general requirements	722
2. Organization of the rolling process	725

Card 18/19

AFANAS'YEV, Vasiliy Danilovich; BORISOV, Yury Matveyevich; GUREVICH, Azriyel' Yefimovich; LEVITANSKIY, Boris Aronovich; MAKEYEV, Ivan Fedorovich; STEFANOVICH, Nikolay Nikolayevich; KHALIZEV, Georgiy Petrovich, kand. tekhn. nauk; SINITSYN, O.A., kand. tekhn. nauk, retsenzent; NEMIROVSKIY, M.I., prepodavatel', retsenzent; YAKOVENKO, N.N., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Electrical equipment of ferrous metallurgy enterprises] Elektro-oborudovanie predpriatii chernoi metallurgii. [By] V.D.Afanas'yev i dr. Moskva, Metallurgizdat, 1963. 606 p. (MIRA 16:9)

1. Dnepropetrovskiy metallurgicheskiy tekhnikum (for Nemirovskiy).
(Iron and steel plants--Electric equipment)

VAL'TER, A.K.; ZALYUBOVSKIY, I.I. [Zaliubovs'kyi, I.T.];
KLYUCHAREV, V.A. [Kliuchar'ov, V.O.]; AFANAS'YEV, V.D.
[Afanas'ev, V.D.]

Measurement of the gyromagnetic ratios of nuclei in the
excited state. Ukr. fiz. zhur. 8 no.9:9-14. S '63.

(MIRA 17:8)

S/056/63/044/004/002/044
B102/B186

AUTHORS: Klyucharev, V. A., Val'ter, A. K., Zalyubovskiy, I. I.,
Afanas'yev, V. D.

TITLE: Measurement of the gyromagnetic ratio of the W^{182} nucleus in
the first excited state

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 4, 1963, 1136 - 1140

TEXT: The authors developed an apparatus suitable for measuring the gyro-
magnetic ratio of excited nuclei according to the method of Coulomb excita-
tion as well as to the method of $\gamma\gamma$ -correlation. Its main parts are a two-
channel goniometer, an electronic recorder, and an electromagnet generating
fields of up to 35000 gauss. The γ -detector consists of a NaI(Tl) crystal
with an $\Phi\Phi Y$ -42 (FEU-42) photomultiplier; its pulses are fed to a fast-slow
coincidence circuit. The gyromagnetic ratio of the first excited state
(100 kev) of the even-even W^{182} nucleus was measured by the $\gamma\gamma$ -correlation
method. Neutron-irradiated natural metallic tantalum was used as a gamma
source. The gyromagnetic ratio was determined from the perturbation of
the $\gamma\gamma$ -correlation of the 229 - 100 kev cascade caused by the magnetic
Card 1/2

Measurement of the gyromagnetic ratio...

S/056/63/044/004/002/044
B102/B186

field (35 kgauss). The shift of the correlation function $W(\theta)$ was $\Delta\theta = 4^{\circ}10'$ which corresponds to a gyromagnetic ratio $g = 0.247 \pm 0.037$. In the case of a liquid source, $\Delta\theta$ was $5^{\circ}35'$ corresponding to $g = 0.323 \pm 0.048$. The mean value for both measurements is $g = 0.285 \pm 0.042$. The anisotropy factors of the unperturbed correlation functions were $A_2 = 0.087 \pm 0.008$ and $A_2 = 0.108 \pm 0.008$ for a solid and liquid source, respectively. There are 2 figures.

ASSOCIATION: Fiziko-tehnicheskiy institut Akademii nauk Ukrainskoy SSR
(Physicotechnical Institute of the Academy of Sciences Ukrainian-
skaya SSR); Khar'kovskiy gosudarstvennyy universitet (Khar'kov
State University)

SUBMITTED: August 31, 1962

Card 2/2