

ROZENBERG, B.A.; DZHIGIREY, N.V.; DOROFYENKO, G.N.; BABIN, Ye.P.

Perchloric acid and its compounds as catalysts in organic synthesis. Part 8: Catalytic acylation of some aryl olefins. Zhur.ob.khim. 32 no.10:3417-3421. 0 '62. (MIRA 15:11)

1. Donetskoye otdeleniye Instituta organicheskoy khimii
AN Ukrainskoy SSR.

(Olefins)

(Perchloric acid)

(Acylation)

DCROFEYENKO, G.N.; DULENKO, V.I.

Synthesis of 1,3-disubstituted 5,6,7,8-tetrahydroisopyrylium
~~3445~~ Zhur.ob.khim. 32 no.10:3445-3446 (1962). (MIRA 15:11)

1. Donetskoye otdeleniye Instituta organicheskoy khimii
AB Ukrainskoy SSR.

(Pyrilium compounds)

ZHDANOV, Yu.A.; KOROL'CHENKO, G.A.; DOROFEYENKO, G.N.

Catalytic deacetylation by means of perchloric acid in the
carbohydrate series. Dokl. AN SSSR 143 no.4:852-854 Ap
'62. (MIRA 15:3)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavleno
akademikom A.I. Oparinym.
(Acetyl group) (Carbohydrates) (Perchloric acid)

ZHDANOV, Yu.A.; DOROFYENKO, G.N.; KOROL'CHENKO, G.A.

Catalyzed acetylation of polyoxy compounds in the presence of
magnesium perchlorate. Dokl. AN SSSR 144 no.5:1050-1052 Je
'62. (MIRA 15:6)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavleno
akademikom A.I.Oparinym.

(Acylation)

DOROFYENKO, G. N.; BABIN, Ye. P.; ROZENBERG, B. A.; OSIPOV, O. A.;
KASHIRENINOV, O. Ye.

Catalytic acetylation of some polymers. Izv. vys. ucheb. zav.:
khim. i khim. tekhn. 5 no.5:804-807 '62.

(MIRA 16:1)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN
UkrSSR i Rostovskiy-na-Donu gosudarstvennyy universitet.

(Polymers) (Acetylation)

ZHDANOV, Yu.A., doktor khim. nauk; DOROFYENKO, G.N.; KOROL'CHENKO, G.A.;
BOGDANOVA, G.V.; FEDOROVA, T.P., red.; SHVETSOV, S.V., tekhn. red.

[Laboratory work in carbohydrate chemistry] Praktikum po
khimii uglevodov. Pod obshchei red. IU.A. Zhdanova. [n.p.]
Rozvuzizdat, 1963. 119 p. (MIRA 16:6)
(Carbohydrates)

DOROFYENKO, G.; GERASIMENKO, A.

"Monosaccharides" by J. Stanek, M. Cerny, J. Kocurek, J. Pacak.
Reviewed by G. Dorofeyenko, A. Gerasimenko. Coll. Cz Chem 28 no.1:
276-277 Ja '63.

DOROFYENKO, G.N.; DULENKO, L.V.; DULENKO, V.I.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 8: Catalytic acylation of aromatic compounds by acid chlorides in
the presence of perchloric acid. Ukr.khim.zhur. 29 no.3:314-317 '63.
(MIRA 16:4)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.
(Aromatic compounds) (Acylation) (Perchloric acid)

DOROFYENKO, G.N.; DZHIGIREY, N.V.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 11. Catalytic addition of carboxylic acids to cyclohexene.
Ukr.khim.zhur. 29 no.6:616-617 '63. (MIRA 16:9)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.
(Perchloric acid) (Acids, Organic) (Cyclohexene)

DOROFEYENKO, G.N.; KRIVUN, S.V.

Perchloric acid and its compounds as catalysts in organic synthesis. Part 16: Synthesis of 2,4,6-substituted pyrylium salts by the acetylation of some aromatic compounds and ketones. Ukr. khim. zhur. 29 no.10:1058-1061 '63. (MIRA 17:1)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.

ZHDANOV, Yu.A.; DOROFYENKO, G.N.; NARKEVICH, A.N.

Condensation of pyrylium salts with some amino acids. Zhur.ob.khim.
33 no.7:2418-2419 J1 '63. (MIRA 16:8)

1. Rostovskiy gosudarstvennyy universitet.
(Pyrylium compounds) (Amino acids)

DOROFEJENKO, G.; HERASYMENKO, A.

"Monosaccharides" by J. Stanek, M. Cery, J. Kocourak and J. Pacak. Reviewed by G. Dorofejenko and A. Herasymenko. Chem listy 57 no.1:89-90 Ja '63.

DOROFYENKO, G.N.; KUCHERENKO, A.P.; PROKOF'EV., F.V.

Perchloric acid and its compounds as reagents in organic
synthesis. Part 9: Synthesis of ketones in the pyrrole series.
Zhur.ob.khim. 33 no.2:586-590 F '63. (MIRA 16:2)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN Ukrayiny
(Ketones) (Pyrrole) (Perchloric acid)

ROZENBERG, B.A.; BODNARCHUK, R.D.; DOBOFEYENKO, G.N.; BABIN, Ye.P.

Perchloric acid and its compounds as catalysts in organic synthesis. Part 10: Acylation in the acenaphthene series, Zhur. ob. khim. 33 no.5:1489-1492 My '63. (MIRA 16:6)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.

(Acenaphthene) (Acylation)
(Perchloric acid)

ZHDANOV, Yu.A.; DOROFEYLNKO, G.N.; UZLOVA, L.A.

New method of expanding the carbon chain of carbohydrates by
means of Wittig reaction. Zhur.ob.khim. 33 no.10:3444-3445
0 '63. (MIRA 16:11)

1. Rostovskiy gosudarstvennyy universitet.

ZHDANOV, Yu.A.; DOROFYENKO, G.N.; ZELENSKAYA, S.V.

Thin-layer chromatography of carbohydrates on gypsum. Dokl. AN SSSR
149 no.6:1332-1333 Ap '63. (MIRA 16:7)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavleno
akademikom M.M.Shemyakinym.
(Carbohydrates) (Chromatographic analysis)

ZHDANOV, Yu.A.; KOROL'CHENKO, G.A.; DOROFEYENKO, G.N.; BOGDANOVA, G.V.

Synthesis of new C-glycosides. Dokl. AN SSSR 152 no.1:102-105
S '63. (MIRA 16:9)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavleno
akademikom A.I.Oparinym.

(Glycosides)

DOROFYENKO, G.N.; KRIVIN, S.V.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 13: Preparation of some 2,4,6-triaryl pyrylium salts and aryl-
substituted pyridines. Zhr.ob.khim..34 no.1:105-109 Ja '64.

(MIRA 17:3)

1. Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.

KRIVUN, S.V.; SHIYAN, Zh.V.; DOROFEYENKO, G.N.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 17: Synthesis of pyrylium salts by the condensation of β -diketones with ketones. Zhur.ob.khim. 34 no.1:167-170 Ja '64.

(MIRA 17:3)

1. Donatskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.

DOROFYENKO, G.N.; DULENKO, V.I.; KOVALENKO, N.V.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 15: Preparation of alkyl pyridines from secondary alcohols, Zhur.
ob.khim. 34 no.1:332-334 Ja '64. (MIRA 17:3)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Donetskoye otde-
leniye Instituta organicheskoy khimii AN UkrSSR.

KRIVON, S. V.; DOROFYUKO, S. E.

Synthesis of 1,4-benzylpiperidinium salts. *Dok. Akad. Nauk.*
34 no.6:2091-2092 Je '64. (MIRA 17:7)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

DOROFEYENKO, G.N.; ZHUNGIYETU, G.I.

Synthesis of pyrylium salts from hydrocarbons with tertiary
carbon atoms. Zhur. ob. khim. 34 no.7:2469-2470 J1 '64
(MIRA 17:8)

1. Rostovkiy-na-Donu gosudarstvennyy universitet i Institut
khimii AMN SSSR.

ZHDANOV, Yu.A.; KOROL'CHENKO, G.A.; DOROFYENKO, G.N.; ZHUNGIYETU, G.I.

Some properties of the perchlorates of acetylated monosaccharides in the synthesis of O-glycosides. Dokl. AN SSSR 154 no.4:861-863 F '64. (MIRA 17:3)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Predstavleno akademikom B.A. Kazanskim.

ZHDANOV, Yu.A.; DOROFEYENKO, G.N.; PALCHKOV, V.A.; SAFARYAN, G.P.

Condensation of 1-methyl-3-phenyl-5,6,7,8-tetrahydroiso-
chromylum perchlorate with aromatic aldehydes. Dokl. AN
SSSR 155 no. 5:1115-1.18 Ap '64. (MIRA 17:5)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Pred-
stavleno akademikom M.N.Shemyakinym.

BARSHCHENKO, G.M.; DOLINA, V.I.

Synthesis of 1,3-diacetates of 5,6,7,8-tetrahydroacridonylium salts. Dokl. AN SSSR 197 no. 2062-603 JI 167. (MIRA 17:7)

I. Kostovskiy-st-Una gosudarstvennyy universitet. predstavlena akademikom K.I. Babichikov.

DOROFEYENKO, G.N.; DULENKO, V.I.; DULENKO, L.V.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 19: Synthesis of 5,6,7,8-tetrahydroisochromylum salts by acylation of Δ^1 -cyclohexenylacetophenone. Zhur. ob. khim. 34 no.9: 3116-3119 S '64. (MIRA 17:11)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.

DOROFEYENKO, G.N.; KARBAN, V.I.; DULENKO, L.V.; NOVIKOV, V.H.

Synthesis of some ketones in the furan and thiophene series.
Izv. vys. ucheb. zav.; khim. i khim. tekhn. 7 no.3:432-436 '64.
(MIRA 17:10)

1. Rostovskiy-na-Donu gosudarstvennyy universitet, kafedra
khimii prirodnykh i vysokomolekulyarnykh soyedineniy.

DULENKO, L.V.; DULENKO, V.I.; DOROFYENKO, G.N.

Perchloric acid and its compounds as catalysts in organic synthesis. Part 20: Synthesis of 5,6,7,8-tetrahydroisochromylium salts with heterocyclic substituents. Zhur. ob. khim. 34 no.11: 3588-3591 N '64 (MIRA 18:1)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Donetskoye otdeleniye Instituta organicheskoy khimii AN UkrSSR.

DOROFYENKO, G.N.; NAZAROVA, E.N.; NOVIKOV, V.N.

Reaction of benzylidene and furfurylidene diacetophenone with
acetyl perchlorate. Zhur. ob. khim. 34 no.12:3918-3921 D '64
(MIRA 18:1)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

PALCHKOV, V.A.; ZHDANOV, Yu.A.; DOROFEYENKO, G.N.

Synthesis of a stable radical from 2,4,6-triphenyl pyrylium salts.
Zhur. org. khim. 1 no.6:1171 Je '65. (MIRA 18:7)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

ZHDANOV, Yu.A.; DOBOFFYENKO, G.N.; SZLOVA, I.A.

Method of extending the carbon chain of carbohydrates and the synthesis of C-glycosides by means of Wittig reaction. Zhur. ob. khim. 35 no.1:181-183 Ja '65. (MIRA 18:2)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

BOGOMOLOV, G.N.; SHELEPIN, D.Ye.; NAZAROVA, Z.N.; NOVIKOV, V.N.;
TYKHONOVA, G.P.

Condensation of 1-methyl-3-phenyl-5,6,7,8-tetrahydroisochronylum
perchlorate aldehydes of the aromatic and heterocyclic series.
Zhur. ob. khim. 35 no.3:570-574. Mr '65. (MIRA 1894)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

DOROFYENKO, G.N.; ZHUNGIYETU, G.I.

Method of the synthesis of pyrylium salts by condensation of
oxymethylene ketones with ketones. Zhur. ob. khim. 35 no.3:
589-590 Mr '65. (MIRA 18:4)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut
khimii AN Moldavskoy SSR.

DOROFYENKO, G.N.; KRIVUN, S.V.; MEZHERITSKIY, V.V.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 21: Triphenyl pyrylium salts with functional substituents in
aromatic rings. Zhur. ob. khim. 35 no.4:632-635 Ap '65.

(MIRA 18:5)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

ZHDANOV, Yu.A.; DOROFEYENKO, G.N.; PALCHKOV, V.A.

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 23: Salts of 2-alkyl[3,4:5,6] bis(indeno)pyrylium. Zhur.
ob. khim. 35 no.5:827-831 My '65. (MIRA 18:6)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

DOROZHENKO, G.N.; ZHUNGIYETU, G.I. [Junghintu, G.I.]

Perchloric acid and its compounds as catalysts in organic synthesis.
Part 22: Synthesis of pyrylium salts from compounds with a tertiary
carbon atom. Zhur. ob. khim. 35 no.6:963-967 Ja '65.

(MIRA 18:6)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut
khimii AN Moldavskoy SSR.

ZHDANOV, Yu.A.; DOROFYENKO, G.N.; UZLOVA, L.A.

Synthesis of C-substituted unsaturated ketones by means of
Wittig reaction. Dokl. AN SSSR 160 no.2:339-340 Ja 1965.
(MIRA 18:2)

1. Rostovskiy-na-Donu gosudarstvennyy universitet. Submitted
July 4, 1964.

DOROFYENKO, G.N.; KRIVUN, S.V.; DULENKO, V.I.; ZHDANOV, Yu.A.

Perchloric acid and its compounds in organic synthesis. *Usp.khim.*
34 no.2:219-252 F '65. (MIFA 18:5)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

DOROFYENKO, G.N.; LAZUR'YEVSKIY, G.V., akademik; ZHUNGIYETI, G.S.:

Synthesis of pyrylium salts by the condensation of hydroxy-
methylenecyclohexanone with ketones. Dokl. AN SSSR 161 no.2:
355-357 Mr '65. (MIRA 18:4)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut
khimii AN Moldavskoy SSR. 2. AN Moldavskoy SSR (for Lazur'yevskiy).

ZHUNGIYLTU, G.I.; DOROFEYENKO, G.N.; LAZUR'YEVSKIY, G.V., akademik

Synthesis of 17-methyldihydrotestosterone derivatives condensed with
pyrylium and pyridinium cycles. Dokl. AN SSSR 163 no.2:372-374 J1 '65.
(MIRA 12 7)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Institut khimii
AN MSSR. 2. AN MSSR (for Lazur'yevskiy).

DOROFEYENKO, G.N.; DULENKO, L.V.; DULENKO, V.I.; KRIVUN, S.V.

New method of synthesizing 2-benzopyrylium salts. Zhur. org. khim.
1 no.6:1171-1172 Je '65. (MIRA 18:7)

1. Rostovskiy-na-Donu gosudarstvennyy universitet i Donetskii filial
Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov
i osobo chistykh khimicheskikh veshchestv.

ZHDANOV, Yu.A.; UZLOVA, L.A.; DOROFYENKO, G.N.

New synthesis of unsaturated C-glycosides of anthrone and fluorene. Zhur.VKHO 10 no.5:600 '65.

(MIRA 18:11)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.

ZHUNGIYETU, G.I.; VOLOVEL'SKIY, L.N.; DOROFYENKO, G.N.; LAZUR'YEVSKIY, G.V.

Pyrylinm derivatives on the basis of steroid hydroxymethylketones.
Khim. prirod. soed. no.5:318-321 '65. (MIRA 18:12)

1. Institut khimii AN Moldavskoy SSR, Rostovskiy-na-Donu gosudarstvennyy universitet i Ukrainskiy institut eksperimental'noy endokrinologii. Submitted March 19, 1965.

L 31806-66 EWT(m)/EWP(f) RM

ACC NR: AP6021682

SOURCE CODE: UR/0079/66/036/003/0492/0494

AUTHOR: Zhdanov, Yu. A.; Dorofeyenko, G. N.; Korol'chenko, G. A.; Ozolin, A. E.ORG: Rostov on the Don State University (Rostovskiy-na-Donu gosudarstvennyy universitet) 42

B

TITLE: Condensation of D-glyceraldehyde with phosphoranes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 3, 1966, 452-494

TOPIC TAGS: condensation reaction, aliphatic aldehyde, chemical synthesis, organic phosphorus compound, substituent, ester, nonmetallic organic derivative

ABSTRACT: A general method of synthesizing 1-C-aryl-substituted unsaturated pentulosos on the basis of the condensation of glyceraldehyde with benzoylmethyl-enotriphenylphosphorane and its derivatives is proposed. The preparation of four new unsaturated pentulosos is described. The ethyl ester of 4,5-D-dihydroxypentene-2-oic acid was obtained in the reaction of glyceraldehyde with carbethoxymethylene-triphenylphosphorane. Orig. art. has: 2 formulas. [JPRS]

SUB CODE: 07 / SUBM DATE: 05Feb65 / ORIG REF: 006 / OTH REF: 001

Card 1/1 LS

UDC: 547.451.1+547.341

ACC NR: AP7011826

SOURCE CODE: UR/0079/66/036/010/1742/1746

AUTHOR: Zhdanov, Yu. A.; Alekseyev, Yu. Ye.; Dorofeyenko, G. N.

ORG: Rostov on the Don State University (Rostovskiy-na-Donu gosudarstvennyy universitet)

TITLE: Condensation of phosphoranes with 1,2-O-cyclohexylidene-alpha-D-xylopentadialdose

SOURCE: Zhurnal obshchey khimii, v. 36, no. 10, 1966, 1742-1746

TOPIC TAGS: organic chemical synthesis, organic phosphorus compound

SUB CODE: 07

ABSTRACT: 1,2-O-Cyclohexylidene-alpha-D-xylopentadialdose (I), a cyclohexylidene analog of 1,2-O-isopropylidene-alpha-D-xylopentadialdose (a promising intermediate for the preparation of higher sugars with an aldehyde group at the first carbon atom by the Wittig reaction), was synthesized in the form of a crystalline, non-hygroscopic powder. Its infrared spectrum and structure-revealing chemical reactions were studied. The compound was found to react with phosphoranes of the second group, forming unsaturated derivatives of sugars with a furanose ring.

Orig. art. has: 3 formulas. [JPRS: 40,35]

Card 1/1

UDC: 547.454.661.718.1

L 03026-67 ENP(j)/EMP(m)/T/EMP(e)/EMP(t)/ETI ENP(c) RM/WI/JB

ACC NR: AP6025990

SOURCE CODE: UR/0079/66/036/007/1283/1285

AUTHOR: Gridina, V. F.; Klebanskiy, A. L.; Bartashev, V. A.; Dorofeyenko, L. P.;
Kozlova, N. V.; Krupnova, L. Ye.

ORG: none

TITLE: Synthesis and properties of bis(trimethylsilyl)borates 44
B

SOURCE: Zhurnal obshchey khimii, v. 36, no. 7, 1966, 1283-1285 7

TOPIC TAGS: organosilicon compound, organoboron compound, organic synthesis, hydrolysis

ABSTRACT: The synthesis of bis(trimethylsilyl)borates is of interest because they serve as the basis for the production of valuable polymers. In this investigation bis(trimethylsilyl)-propylborate, bis(trimethylsilyl)-3,3,3-trifluoropropylborate, bis(trimethylsilyl)-phenylborate and bis(trimethylsilyl)-m-trifluoromethylphenylborate were synthesized with different substituents at the boron atom, in order to determine the effects of the structure of radicals on various properties of the B-O-Si bond. The structure of the above compounds was determined by elemental analysis and infrared spectroscopy. All compounds absorbed in the 1340 cm^{-1} region, characteristic for the B-O bond, and in the 1410 cm^{-1} region, characteristic for the CH_3 group in the $\text{CH}_3\text{-Si}$ configuration. Arylborates displayed absorption band in the 1600 cm^{-1} region, charac-

UDC: 546.287+546.27

Card 1/2

L 03026-67

ACC NR: AP6025990

teristic for benzene ring. Fluorine containing compounds had absorption bands in the 1000-1200 cm^{-1} region, characteristic for the C-F bonds. The obtained data show that at large dilution in anhydrous nonpolar solvent Si-O-B and C-O-B bonds undergo hydrolysis by traces of water only in the case when one boron atom contains three Si-O or C-I bonds. If in addition to these bonds boron also has a covalent carbon bond, hydrolysis stability increases due to the screening effect of the radical, regardless of its structure. Orig. art. has: 1 figure, 1 table.

SUB CODE: 07/

SUBM DATE: 30Mar65/

ORIG REF: 005/

OTH REF: 009

nd
Card 2/2

GODYTSKIY, Mikhail Grigor'yevich; DOROFYENKO, Mikhail Petrovich;
GORYANINA, L.E., red.

[Collection of independent studies and test problems in
algebra and geometry for the eighth grade] Sbornik samo-
stoyatel'nykh i kontrol'nykh rabot po algebre i geometrii
dlia 8 klassa. Minsk, Narodnaia asveta, 1965. 165 p.
(MIRA 18:7)

KINEV, S.; NOVOY, M., tkachikha; BAZIKALOV, V., slesar' (g.Lugansk);
DOROFYEV, A.; SHEYANOV, A.; ALEKSANDROV, A. (Dnepropetrovsk);
KISELEV, V.

Editor's mail. Sov.profsoiuzy 7 no.18:40-45 8 '59.
(MIRA 13:2)

1. Predsedatel' komiteta profsoyuza ekskavatornogo tsekha Uralma-
shzavoda (for Kinev). 2. Profgruporg fabriki imeni 8 marta,
g.Ivanovo (for Novoy). 3. Predsedatel' rayonnogo komiteta prof-
soyuza sheleznodorozhnikov Velikolukskogo otdeleniya Kalininskoy
shelesnoy dorogi (for Dorofeyev). 4. Profgruporg otdeleniya litey-
nogo tsekha zavoda stroy mashin, g.Orsk, Orenburgskaya oblast'
(for Sheyanov). 5. Inspektor Tsentral'nogo komiteta profsoyuza
rabochikh i sluzhashchikh sel'skogo khozyaystva i zagotovok (for
Kiselev).

(Efficiency, Industrial)

KHARINA, N.; MCHEDLISHVILI, I. (Tbilisi); PETROV, M. (stantsiya Agryz, Kazanskoy zheleznoy dorogi); ZHENOV, N. (g.Sovetsk, Kaliningradskoy zheleznoy dorogi); DOROFEYEV, A.; TIMOFEYEV, Ye., gazoparatchik; ZHORZHOladZE, G.; TURUTIN, I. (Minsk)

Letters to the editors. Sov. profsoiuzy 17 no.1:39-42 Ja '61.
(MIRA 14:1)

1. Brigadir brigady kommunisticheskogo truda Novosibirskogo koshevenno-obuynogo kombinata (for Kharina).
2. Predsedatel' rayonnogo komiteta profsoyuza zheleznodorozhnikov, Velikiye Luki (for Dorofeyev).
3. Chlen bibliotchnogo soveta g.Stalino (for Timofeyev).
4. Predsedatel' Dorozhnogo komiteta profsoyuza rabotnikov zheleznodorozhnogo transporta Zakavkazskoy zheleznoy dorogi (for Zhorzholadze).
(Trade unions)

DOROSHIN, A.A. (Engn-Maj), Candidate of Technical Sciences

Author of article, "The Characteristics of an Atomic Explosion,"
Doblest', (21st Air Army), Jul 54; Sovetskaya Armiya, Group of Soviet
Forces, Germany, 8 Aug 54

SO: SUM 291, 2 Dec 1954

DOROFYEV, A. (Engr - Maj)

Author of article, "Atomic Weapon and Antiatomic Defense (Radiation Reconnaissance)," concerning the characteristics of various types of atomic explosions (Land, air, and sea), the pattern of radiation resulting from them, and the methods of conducting reconnaissance after atomic blasts. (KZ, 23 Oct 54) (KZ -- Krasnaya Zvezda)

SO: Sun 369, 2 Feb 55

POROFIEV, A., inzhener-mayor, kandidat tekhnicheskikh nauk.

The nature of an atomic explosion. Voen. znan. 30 no. 8:19-20
Ag. '54. (MIRA 8:1)

(Atomic bomb)

BOGOMOLOV, A., and NAUMENKO, I.

"Operation Under Conditions of Radioactive Fallout," a chapter from the book Problems in the Utilization of Atomic Energy, the second revised edition of a collection of articles, published in 1956, Moscow, USSR

~~Dorofeyev, A.~~

Subject : USSR/Aeronautics - Air defense AID P - 4703
Card 1/1 Pub. 58 - 15/17
Authors : Arkhipov, M., Candidate in Technology, and A. Dorofeyev
Title : Engineer defensive means against atomic weapons
Periodical : Kryl. rod., 5, 21, My 1956
Abstract : The author passes in review different possible ways of protecting the population of inhabited localities from the effects of atomic attacks, and indicates where and how shelters may be organized. One design.
Institution : None
Submitted : No date

DOROFEYEV, A.

AUTHORS: Arkhipov, M., Candidate of Technical Sciences, and
Dorofeyev, A. 85-58-3-24/26

TITLE: Conduct of Population During an Atomic Attack (Povedeniye
naseleniya pri atomnom napadenii)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 3, p 31 (USSR)

ABSTRACT: The authors state that losses in human lives and material resulting from an enemy atomic attack can be greatly reduced by adequate warnings and preventive measures, involving constant air observation and speed in issuing warning signals. Should the objective of the attack be within 100 km from the border, the enemy plane would cover the distance in 6 minutes, during which time much could be done by local anti-aircraft defense. Under an immediate threat of attack, the "Air Alarm" signal is sounded, consisting of prolonged blowing of whistles by factories, plants and steamboats, while sirens are blasted by radio for 2 to 3 minutes. The Air Alarm signal serves simultaneously as the signal of an enemy atomic attack. As soon as areas contaminated by chemical substances and radioactive

Card 1/3

Conduct of Population During an Atomic Attack 85-58-3-24/26

fall-out are discovered, the "Chemical Attack" signal is given over the radio by striking metal objects, such as pieces of rails, etc. Preventive indoor defense measures require the removal of inflammable articles from halls and attics and the maintenance of supplies of water for fire fighting and for drinking. Before leaving a building during an alarm, windows and shutters must be closed, fires in hearths and stoves extinguished, heating and gas appliances disconnected. Wooden fences and piles of trash in streets must be removed. Individuals should keep anti-chemical defense remedies against radio-active fall-out; these include antigas equipment and protective clothing. Bed and table linen, bandages and handkerchiefs may serve as protection from radioactive dust. In wartime, areas exposed to possible attack are placed under martial law. Local civil and military organizations issue special orders and instructions which all citizens must carefully study and strictly observe. At an Air Alarm signal, the population, whether at work or in other places, must immediately seek shelter. Those at home should dress quickly, gather their protective equipment, clothing

Card 2/3

Conduct of Population During an Atomic Attack 85-58-3-24/26

and food, disconnect utilities, extinguish stoves, close windows and shutters, and leave for the nearest shelter, following the directions posted in the streets. The first indication of an atomic explosion is a blinding flash visible at a distance of many kilometers. In this case, everything depends upon the distance from the epicenter of the explosion and on the speed and efficiency of action. As soon as an explosion occurs, one must immediately seek some protective shelter or lie face down, covering the exposed parts of the body and turning the head away from the explosion. The area may be contaminated by radioactive substances (Boyevye radioaktivnyye veshchestva - BRV), either fall-out from an atomic explosion, or scattered by planes, artillery, mines, etc. The effect of radioactive substances upon the internal organs is much greater than upon the external parts. The penetration of alpha and beta particles into the human organism is particularly dangerous. Precautionary measures in contaminated areas include - prohibition of smoking, drinking, or eating without authorization, care to avoid raising of dust or lying on the ground. A weapon is dangerous only so long as protective measures remain unknown. Defensive measures and methods against atomic weapons are now well known and need only be studied and applied.

AVAILABLE: Library of Congress

Card 3/3

DOROFEYEV, A., inzhener-podpolkovnik, dotsent, kand.tekhn.nauk

Proximity fuses. Vest. Vozd. Fl. no.11:87-89 W '61. (MIRA 15:2)
(Guided missiles) (Fuses (Ordnance))

DOROFEYEV, A.; TSVETKOV, V., vrach; BAKHTIN, A.

Readers relate, advise and criticize. Sov. profsoiuzy 18
no.8:36-37 '62. (MIRA 15:4)

1. Predsedatel' rayonnogo ko miteta professional'nogo soyuza zheleznodorozhnikov Velikolukskogo otdeleniya Oktyabr'skoy zheleznoy dorogi (for Dorofeyev).
2. Belokolodskaya uchastkovaya bol'nitsa, Orlovskaya oblast' (for TSvetkov).
3. Zaveduyushchiy klubom Suslongerskogo lesokombinata, Mariyskaya ASSR (for Bakhtin).

(Community centers)

(Orel Province--Agricultural workers--Diseases and hygiene)

DOROFYEV, A.

Closer-to-production education creates more stable habits. Avt.-
transp. 40 no.4:48-49 Ap '62. (MIRA 15:4)

1. Direktor Chelyabinskogo avtodorozhnogo tekhnikuma.
(Chelyabinsk--Technical education)

DOROFYEV, A.

Better organization of practical training. Avt.transp. 41
no.2:50 F '63. (MIRA 16:2)
(Automobile drivers--Education and training)

DOROFENEV, A.

Eddy currents prevent accidents. IUn.tekh. 7 no.11:26-31 N '62.
(MIRA 15:12)

(Metals--Testing)

(Electric currents, Eddy)

BYKOVSKIY, Vadim Nikolayevich, doktor tekhnicheskikh nauk; DOROFYEV,
A.A., redaktor; ROSTOVTSOVA, M.P., redaktor; ~~PERSON, W.B., tekhnicheskiiy redaktor~~

[Blue in construction work] Klei v stroitel'nykh konstrukttsiyakh.
Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1955.
65 p. (Adhesives) (MIRA 8:6)

DOROFEEV, A.F.

Volga-Baltic waterway. Transp. stroi. 9 no.11:23-26 N '59 (MIRA 13:3)

1. Zamestitel' nachal'nika proizvodstvennogo otdela Glavmorrehtroya.
(Volga--Baltic canal)

DOROFYEV, Aleksey Fedorovich; KUNASHKEVICH, Vladimir Il'ich;
TERESHCHENKO, V., red.

[Manufacturing large sand-lime blocks with unslaked lime;
practices of the Minsk Plant for Large Building Elements]
Proizvodstvo krupnykh silikatnykh blokov na negasher ! iz-
vesti; iz opyta raboty Minskogo kombinata krupnoblochnykh
stro. al'nykh konstruktzii. Minsk, Gos.izd-vo BSSR, 1961.
89 p (MIRA 17:6)

DOROFYEV, A.I.

Simplify the payment of workers. Torf.prom.33 no.2:23 '56.
(MLRA 9:6)

1.Glavnyy bukhgalter Sverdlovskogo torfotresta.
(Peat industry--Accounting)

16
42 c

The importance of electric conductivity of minerals in
magmatic separation. G. P. Kuz'min, A. I. Dondur, ex.
and P. Neber, *Sovetsk Nauch. Trudov Muzh.* Inst.
Tren. Nauch. i. Lelov. 1955, No. 115, 33-41; *Rferatnyy*
Zh. No. 1916, No. 9798. — A specially constructed elec-
tron device was used to measure the elec. cond. of a series
of minerals heated to 100-190° and then cooled. The
cond. of minerals is changed considerably by treatment with
reagents; e.g., the cond. of untreated quartz is 10^{-14} , of
dried quartz 10^{-13} , of quartz treated with HF 7.2×10^{-14} ,
of quartz treated with Na chloride 10^{-13} , and of quartz treated
with H₂SO₄ 1.4×10^{-13} . Author N. Petrov

18
M

LEVI, S.S., kand. tekhn.nauk; RATNER, N.A., inzh.; KOPLEVICH, L.Kh.,
inzh.; MADATYAN, S.A., inzh.; DOROFYEV, A.K., inzh.
D'YACHENKO, P.Ya., inzh.; KLIMOVA, G.D., red. izd-va;
MOCHALINA, Z.S., tekhn. red.

[Instructions N9-61 on reinforcing techniques in industrial
and public construction] Ukazania po tekhnologii proizvodstva
armaturnykh rabot v promyshlennom i grazhdanskom stroitel'stve
(N9-61). Moskva, Gostroiizdat, 1962. 319 p. (MIRA 15:7)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut orga-
nizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.
(Concrete reinforcement) (Precast concrete)

28 (5)
AUTHOR:

Porofeyev, A. L.

SOV/32-25-7-25/50

TITLE:

Non-destructive Tests According to the Method of Eddy Currents
by Means of an Attached Coil (Nerazrushayushchiye ispytaniya
metodom vikhrevykh tokov s pomoshch'yu nakladnoy katushki)

PERIODICAL:

Zavodskaya laboratoriya, 1959, Vol 25, Nr 7, pp 850 - 853
(USSR)

ABSTRACT:

Devices for the control of defects in material by means of eddy currents are explained where the test object is not destroyed. The working principle of these devices is based on the determination of the effect of an electromagnetic field of eddy currents in the exciter coil by determining phase and amplitude of the current. At present there exist devices of this kind which can be applied for the detection of defects in surface layers of nonmagnetic metals for contactless measuring of electric conductance, thickness of galvanic and varnish coatings and for measuring the thickness of thin sheet metal and tube walls. The apparatus used for this kind of measuring consists of a sand generator ZG-12, and inductometer 273, a Q-meter KV-1, lamp voltmeters (for example MVL-2m) and oscillographs EO-7, as well as a coil transmitter (or two, a measuring coil

Card 1/2

Non-destructive Tests According to the Method of
Eddy Currents by Means of an Attached Coil

SOV/32-25-7-25/50

and a compensation coil). Two block schemes of this kind are discussed which can be applied in laboratories. The thickness of electric, non-conducting coats was measured by means of one of the described devices and it was found that the eddy current method can be used for measuring thicker layers, if the diameter of the coil is enlarged. The second of the described block schemes which is equipped with a bridge circuit (Fig 4) served for testing cracks on and under the surface of alloy samples D16 and V95. There are 5 figures.

Card 2/2

S/032/60/026/011/017/035
B004/B067

AUTHOR: Dorofeyev, A. L.

TITLE: Suppression of the Effect Caused by Changing the Distance
Between Coil and Metal Surface in Apparatus Using the Eddy
Current Effect

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 11,
pp. 1252 - 1256

TEXT: The disadvantage of instruments for material testing by means of eddy currents is that their data are influenced by the distance between measuring coil and metal surface. The author describes an apparatus with a compound coil whose primary winding is parallel to the primary winding of the search coil, whose secondary winding, however, is in opposite direction to that of the search coil. The author discusses the conditions for designing such a circuit on the basis of a change in the impedance of the search coil due to a different distance between coil and metal surface, of the conductivity and permeability of the metal to be tested, and the effect caused by the defects contained therein. With the circuit suggested the

Card 1/2

Suppression of the Effect Caused by Changing
the Distance Between Coil and Metal Surface
in Apparatus Using the Eddy Current Effect

S/032/60/026/011/017/035
B004/B067

effect of the varying distance between search coil and metal is compensated
insofar that only the voltage amplitude is varied, whereas the phase
remains unchanged. S. N. Sadovnikov took part in the experimental work.
There are 6 figures and 3 references: 2 Soviet and 2 German.



Card 2/2

DOROFEYEV, A.L.; SVENCHANSKIY, .D., doktor tekhn. nauk, prof., retsenzent;
MAKOVSKIY, G.M., inzh., red.; AGEYCHEVA, N.S., red. izd-va; ORESH-
KINA, V.I., tekhn. red.

[Nondestructive testing by the eddy current method] Nerazrushaiu-
shchie ispytaniya metodom vikhrevykh tokov. Moskva, Gos.nauchno-
tekh.n.izd-vo Oborongiz, 1961. 156 p. (MIRA 14:12)
(Nondestructive testing) (Electric currents, Eddy)

S/032/62/028/002/036/037
B116/B104

AUTHOR: Dorofeyev, A. I.

TITLE: New devices for nondestructive testing of materials

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 2, 1962, 252 - 253

TEXT: A brief description is given of three devices for the nondestructive testing of materials: (1) induction device ИЭ-11 (IE-11) is based on the use of eddy currents and serves for the rapid measurement of the electrical conductivity at the surface of parts, semifinished products, products made of heat-resistant alloys, magnesium alloys, and other alloys of magnesium and other nonmagnetic metals. The electrical conductivity is determined at the limb of the device (calibrated in absolute units of electrical conductivity) when the feeler is placed on the surface of the test sample. Relative measurements can be made with the scale of the pointer instrument. Each measurement takes 3 sec. Measurements can be made up to a layer of paint or dirt of 0.2 to 0.25 mm on the surface. Properties affected by the heat treatment, chemical composition, purity, segregation, and surface cracks can be checked. Structural changes,
Card 1/3

New devices for ...

S/032/62/028/002/036/037
B116/B104

corrosion processes, etc. can be examined. Data of the device:

measurement range 0.5 to 5 m/ohm·mm²; maximum error ± 3% for a thickness of the material ≥ 1.2 mm and a diameter of 12 to 17 mm of the spot where the feeler is applied; frequency of current input 500 kc/sec; input voltage 220 v; power consumption 36 w; size 280·222·220 mm; weight 4.5 kg. (2) Induction device ИЭ-1 (IE-1) of the zavod Elektrotechpribor (Elektrotechpribor Plant) in Kishinev, ul. Khazdeu, d. 74. This is a device similar to IE-11, but with a different measurement range. Data:

measurement range 15 to 60 m/ohm·mm²; maximum error ± 2.5% for a thickness of the material ≥ 0.8 mm and a diameter of 10 to 15 mm of the spot where the feeler is applied; frequency of current input 40 kc/sec; input voltage 220; power consumption 36; size 280·222·220 mm; weight 4.5 kg. (3) Inductive thickness gage ТПН-1 (TPN-1) of the zavod Kontrol'pribor (Kontrol'pribor Plant) in Moscow, Vorontsovskaya ul., d. 18. The instrument is used to measure the thickness of nonconducting coatings (paint, anodic oxidation). The thickness is indicated on a scale graduated in microns when the feeler is placed on the surface of the sample. Each measurement


Card 2/3

New devices for ...

S/032/62/028/002/036/037
B116/B104

takes ~2 sec. Data: total measurement range 1 to 200 μ ; frequency of
current input 2 Mc/sec; input voltage 220 v; power consumption up to 40 w;
size 276·222·196 mm; weight 4.5 kg.

Card 3/3



1,8000

S/032/62/028/009/001/009
B104/B102

AUTHOR: Dorofeyev, A. L.

TITLE: Testing of rods and tubes of non-magnetic metals by the eddy current method

PERIODICAL: Zavol'skaya laboratoriya, v. 28, no. 9, 1962, 1099 - 1100

ABSTRACT: The ellipse method used for detecting flaws as here described is an eddy current method in which a measuring coil and a compensating coil emit signals which partly compensate one another so that in the case of a flawless test piece an ellipse is formed on the oscilloscope screen. In the absence of a test piece a straight line is seen. The phase of the reference voltage can be so chosen that the inclination of the ellipse changes with the rod diameter. Flaws and changes in the structure of the material, causing variations of the electric conductivity, are shown on the screen by distorted ellipses. A standard piece or a designated part of the specimen is used for compensation. The shape and inclination of the ellipse allow the kind of defect to be estimated. The ellipse method makes it possible to eliminate by suitable adjustment one of the following factors

√B

Card 1/2

Testing of rods and tubes ...

S/032/62/028/009/001/019
B104/B102

which make the detection of defects difficult: (1) Variations in wall thicknesses of tubes; (2) variations of the inner and outer diameter; (3) non-uniformity of structure. Detailed investigations show, that in thin-walled tubes it is possible to detect flaws affecting 15-20% of the wall thickness and that flaws in thick-walled tubes are revealed if they are not smaller than 0.15 mm. The presence of an α -phase makes flaw detection more difficult. J.B

Card 2/2

CHERKUN, V.Yu., kand.tekhn.nauk; DOROFEEYEV, A.L. [Dorofiev, A.L.], inzh.-mekhanik

For reliable operation of hydraulic systems. Mekh. sil'. hosp. 4,
no.6:17-19 Je '63. (MIRA 17:3)

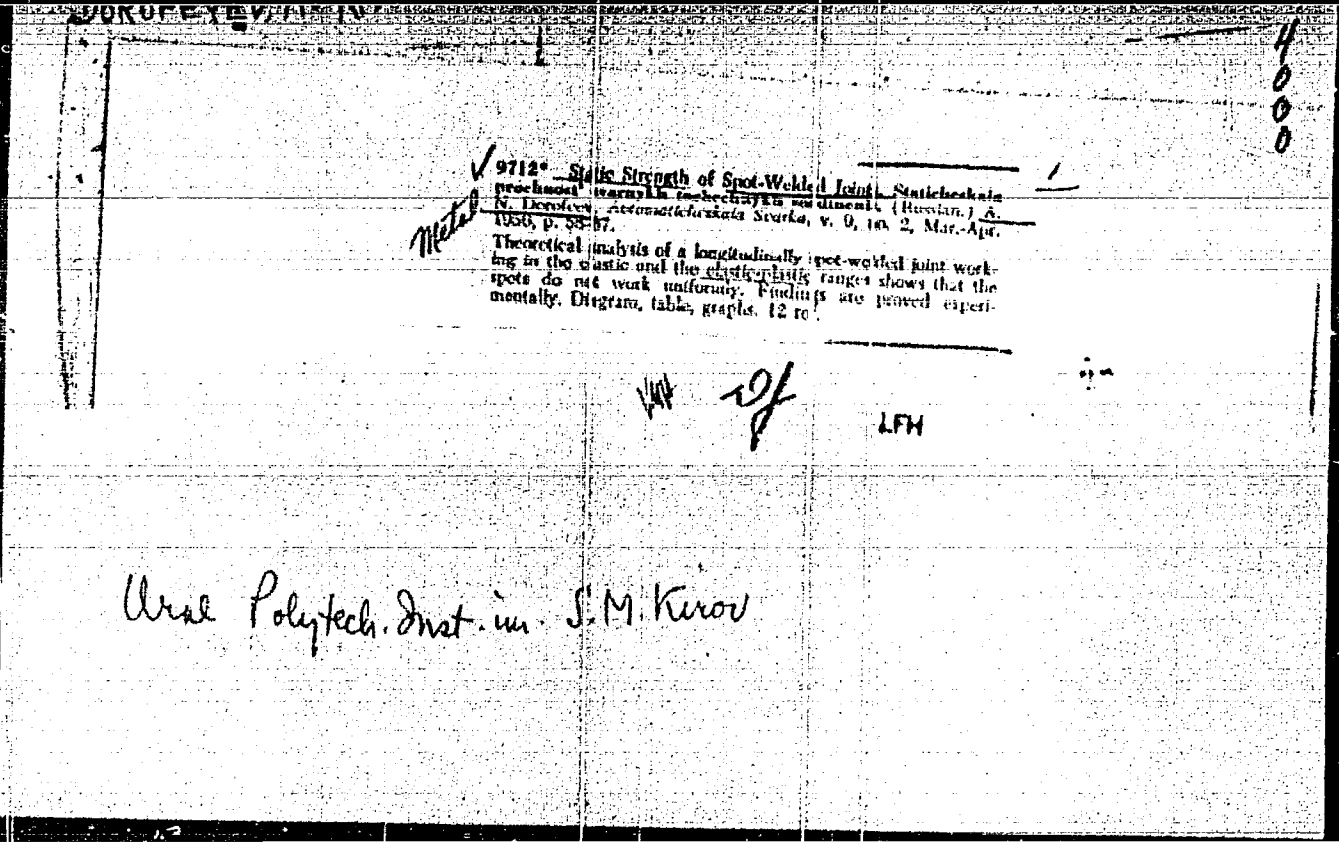
DOROFYEV, A.N., kandidat tekhnicheskikh nauk.

Standard of shear for welded electrically riveted joints. Trudy
Ural.politekh.inst. no.42:71-77 '55. (MLRA 9:8)
(Welding--Testing)

DOROFYEV, A.N., kandidat tekhnicheskikh nauk.

~~Experimental investigation of relative shear in spot welded joints~~
under shearing stress. Trudy Ural.politekh.inst. no.42:78-86 '55.
(MLRA 9:8)

(Welding--Testing)



Notes

9712* *Static Strength of Spot-Welded Joint* *Staticheskaja*
prochnost' svarnykh tochechnykh soedinenij (Russian) *S.*
N. Derobov, Avtomaticheskaja Svarka, v. 9, no. 2, Mar-Apr.
1956, p. 58-67.

Theoretical analysis of a longitudinally spot-welded joint work-
 ing in the elastic and the elastic-plastic ranges shows that the
 spots do not work uniformly. Findings are proved experi-
 mentally. Diagram, table, graphs. 12 ro.

WAF of

LFH

Ural Polytech. Inst. in S.M. Kirov

DOROFYEV, A.N., kandidat tekhnicheskikh nauk.

Distribution factors as a basis for calculating shear stresses in joints with discontinuous displacement bonds. Trudy Ural. politekh. inst. no.62:73-84 '56. (MLRA 10:2)

(Welding--Testing) (Strains and stresses)

DOROFEYEV, A.N., dotsent, kand. tekhn. nauk; NIKONOV, I.P., dotsent,
kand. tekhn. nauk; MALYANOV, V.D., assistant

Vibration strength of electric rivet welds as related to the
number of electric rivets in a longitudinal row. Sbor. nauch.
trud. Ural. politekh. inst. no.122:254-267 '61.

(MIRA 17:12)

AM4008936

BOOK EXPLOITATION

S/

Dorofeyev, Anatoliy Nikolayevich

Rocket detonators (Vzryvateli raket) Moscow, Voenizdat M-va obor. SSSR, 1963. 84 p. illus., biblio. Errata printed on inside of book cover. 15,000 copies printed.

Series note: Za voyenno-tekhnicheskiye znaniya. Raketnaya tekhnika.

TOPIC TAGS: detonator classification, impact mechanism, mechanical detonator, electrical detonator, solid fuel detonator, noncontact detonator, radio detonator, optical detonator, artillery shell, missile, Doppler effect, emission impulse, reflection impulse, target area

PURPOSE AND COVERAGE: The book is intended for military personnel and students at military schools and for general readers. The construction and operating principles of percussion, time, and noncontact-action detonators are described. Concise information on their development and classification is given. Existing time-detonator characteristics are illustrated by detonators used during

Card 1/1

AM4008936

the World War II. The book utilized unclassified Soviet and non-Soviet publications and belongs to the series "Rocket Techniques", published by the Defense Ministry of the USSR.

TABLE OF CONTENTS:

Introduction -- 3

1. General information on detonators -- 3
2. Classification of detonators -- 5
3. Concise historical information -- 7
4. Basic requirements for detonators -- 11

Ch. 1. Percussion detonators -- 12

1. Mechanical detonators -- 12
2. Electrical detonators -- 24
3. Diagram of electrical detonators -- 27

Ch. 2. Time detonators -- 33

1. Solid-fuel detonators -- 33
2. Mechanical (clockwork) detonators -- 35
3. Electrical detonators -- 37

Card 2/4

L 16759-63

EMP(k)/EMP(q)/EMT(u)/BDS AFPTC/ASD P:.., JD/RM

S/.24/63/000/004/057/064 62

AUTHOR: Dorofeyev, A. N.; Nikonov, I. P.; Malyanov, V. D.

TITLE: Vibration strength of electroriveted joints as a function of the number of electrorivets in a longitudinal row

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 4, 1963, 57, abstract 4V482
(Sb. nauchn. tr. Ural'skiy politekhn. in-t, vyp. 122, 1961, 254-267)

TEXT: The authors adduce data on the distribution of forces in joints consisting of arc spot weldings, or points disposed in a single line. They reach a conclusion with use of equations in finite differences. The conclusion is to the effect that an increase in the number of points in a longitudinal row above 5 or 6 does not load the extreme points, and that therefore increasing this number is useless if intended to increase the strength of the joints. They present data from an experimental study of samples; these show that with repeated loadings at cycle r equals 0.4 with number of points greater than seven, the bearing capacity of the joint is lowered in comparison with the optimal number of points (about 5). With a small number of points, the bearing capacity of a joint is increased linearly as they increase; but with n greater than 4, this increase drops off sharply, being followed by an actual decrease. G. A. Nikolayev.

[Abstracter's note: Complete translation.]

Card 1/1

DOROFYEV, A.P.

Quick method of determining the mineral composition of clays. Razved. i okh. nedr 27 no.1:57-58 Ja '61. (MIRA 17:2)

1. Podmoskovnyy nauchno-issledovatel'skiy ugol'nyy institut.

DOROFYEV, A. P.

Formation of sulfur pyrite in coal-bearing layers of the Moscow Basin.
Bul.MOIP.Otd.geol.38 no.2:126-132. M.-A. '63.

(MIRA 16:5)

(Moscow Basin--Pyrites)

PROF. V. A. ... report

write questions in ...
Basic ...
No. 4. (18:3)

1. Moskovskiy teologicheskoye institut im. S. Videnikidze.

DOROFEYEV, A.P., aspirant

Effect of some geological factors on the pyrite potential of
coals in the Moscow region. Izv. vys. ucheb. zav.; geol i razv.
8 no. 12:43-47 D '65 (MIRA 19:1)

1. Moskovskiy geologorazvedochnyy institut imeni S. Ordzhonikidze.

LOGGINOV, G.I.; DOROFYEV, A.Ye.

Radioactive method of determining the homogeneity of mixtures
of sand and cement. Sbor. trud. MISI no. 50:5-10 '65.
(MIRA 18:12).

L 10349-67 EWT(m)

ACC NR: AT6016514 (A)

SOURCE CODE: UR/3065/65/000/050/0005/0010

AUTHORS: Logzinev, G. I.; Dorofeyev, A. Ye. 15

ORG: none

TITLE: A radioactive method for determining homogeneity in a sand-cement mix 19

SOURCE: Moscow, Inzhenerno-stroitel'nyy institut. Sbornik trudov, no. 50, 1965. Fizicheskiye metody issledovaniya svoystv stroitel'nykh materialov mineral'nogo proiskhozdeniya (Physical methods of investigating the properties of building materials of mineral origin), 5-10

TOPIC TAGS: concrete, tracer study, radioactive agent

ABSTRACT: Previously used techniques of employing radioactive isotopes for determining homogeneity in aggregates are reviewed, and their defects are pointed out. These defects are: 1) clogging up the operation of the mixer, especially when cobalt is used; 2) necessity of using large quantities of activated material; and 3) operation with short-lived indicators (half-life of hours rather than days). The authors propose a method based on the selective adsorption of Sr⁸⁹ on sand because of different degrees of contamination in the aggregate. In testing the material, crystalline sands of various grain sizes and different degrees of contamination with clay were used. Sr⁸⁹ was added in an aqueous solution of strontium nitrate (beta-ray

Card 1/2

L 10349-67

ACC NR: AT6016514

energy of 1.463 Mev and half-life of 50.5 days). Samples were tested for radioactivity with a B-2 end-window counter or with a BFL-2 or MSF-17 counter. Background was below 40 counts per minute. Graphs were plotted for counts per minute of tested samples against time from beginning of mixing. It was found possible to determine the degree of homogeneity of a two-component mix by means of standard deviation within six hours, and when a hydration inhibitor was used the time was considerably shortened. With this method the efficiency of the mixing operation may be determined without impeding or harming its activity or its production. Determinations are made from observation of the initial rate of decreasing standard deviation or the time its asymptotic value is reached. It is possible in this way to determine the amount of clay admixture in sand by the amount of adsorbed strontium on the clay particles. Orig. art. has: 3 figures and 1 formula.

SUB CODE: 11, 18/

SUBM DATE: none/

ORIG REF: 008

18.2000

78051
SOV/130-60-3-20/23

AUTHORS: Dorofeyev, B. A. (Director), Lipovskiy, I. Ye. (Chief
of the Experimental and Research Laboratory)

TITLE: Stone Casting for the Industry

PERIODICAL: Metallurg, 1960, Nr 3, pp 35-36 (USSR)

ABSTRACT: In 1958 the first stone casting plant in the Ukraine
was put into operation in Stalino. The charge of the
Stalino plant is made up of (%): rock--70; dolomite
dust--20; quartz sand--5-10; chromium-magnesite powder--
max 5. Chemical composition (%):

Composition of Charge Materials (%)

Components	SiO ₂	Al ₂ O ₃	FeO + Fe ₂ O ₃	CaO	MgO	Others
Rock	50--54	20--25	9--11	2--4	3--5	5--6
Dolomite	9.8	3.8	2.3	50.2	31.5	2.4
Sand	97.40	0.13	0.39	1.44	0.40	0.24

Card 1/4

Stone Casting for the Industry

73051
SOV/130-60-3-20/23

The new charge and the technological process were developed by engineers A. I. Sibilev and N. A. Bukhvtsev in cooperation with the authors. All raw materials except rock are precrushed before delivery to the plant. Rock is crushed before charging. The melting period in 1-1.2 ton coke-fired furnaces varies between 2 and 2.5 hr at 1,450° C. The plant specializes in the production of 185 x 115 x 20 mm plates used for the lining of various bins and conveyers of ore, coke, sand, etc. The plant also produces 1,200 mm long pipes (150 and 190 mm diam) and 250 x 250 x 40 mm plates. At present the plant is trying to introduce ball mill linings and balls as well as insulators and intricately shaped plates. The plates are cast in heat-resistant steel chill molds and crystallized in a muffle furnace at 950-1,000° C. Final annealing in a Lehr furnace takes 14 hr. Temperature of the finished plates as they leave the furnace is 50-60° C. Technical characteristics of stone casting at the Stalino plant are:

Card 2/4

Stone Casting for the Industry

78051
SOV/130-60-3-20/23

Specific weight (g/cm ³)	3.08
Volumetric weight (g/cm ³)	2.8-2.9
Oxidation resistance (according to State Standards GOST 475-53) (%):	
in sulfuric acid	99.75
in hydrochloric acid	99.44
Abrasion resistance (g/cm ²)	0.03-0.04
Mohs' Scale hardness	8-8.5
Mechanical strength (kg/cm ²):	
compression	to 2,500
bending	600
tensile	150
Water absorption (%)	0.01

Heat resistance is determined by heating specimens to 100° C and water-cooling at 18° C, and equals 7 to 10 temperature changes.

Card 3/4

Stone Casting for the Industry

78051
SOV/130-60-3-20/23

Chemical Composition of Casting (%)					
SiO ₂	Al ₂ O ₃	CaO	MgO	FeO + Fe ₂ O ₃	Na ₂ O + K ₂ O
45-49	18-20	10-13	8-10	8-9	2-2.5

Structure of the stone castings is dense and uniform. Hardness and abrasion and oxidation resistance indicate the applicability of these castings in numerous fields. The authors recommend their use in roller-type screening machines, working wheels, and bodies of sand pumps, etc. The troughs and bins at the new Krivoy Rog Beneficiation Combine (Novokrivorozhskiy obogatitel'nyy kombinat) are lined with cast stone plates. Cast stone pipes are used at Chumakov Central Beneficiation Plant (Chumakovskiy TsOF), Mironovo State Electric Power Plant (Mironovskaya GES), etc. The economic advantages as a result of the application of cast stone parts are tremendous: The life of the equipment increases from 5 to 10 times and thousands of tons of metal are saved. Stalino Stone Casting Plant (Stalinskiy kamneliteyny zavod)

ASSOCIATION:
Card 4/4

BOGOFIL'EV, B.F., Cand Tech Sci -- (diss) "Stability of
pp with
dump cars in unloading." Khar'kov, 1959, 21/graphs

(Min of Railways USSR. Khar'kov Inst of Engineers of
Railroad Transport im S.M. Kirov) 150 copies (KL, 26-59, 126)

- 56 -