

15(6)

AUTHOR:

Gol'tsin Ya. A.

SC7/30.59-2.1/2

TITLE:

Glass Industry in Soviet Belorussia (Steklo i keramika promyshlennost' Sovetskoy Belorussii)

PERIODICAL:

Steklo i keramika, 1959, No. 2, pp. 1-3 (USSR)

ABSTRACT:

In the present paper the author described the primitive working methods and the small production volume of Belorussia's glass industry in the time before World War I. This and World War II brought an almost complete destruction of this industry. In the years from 1946 to 1950 Belorussia's glass works were equipped with modern furnaces and machines that increased their production considerably. The construction of two large glass-works began in 1956. The glass works "Oktyabr" were modernized. The plant in Movo-Borisov (imeni Dzerzhinskiy) introduced the automatic machine VS-2A for the production of thin-walled drinking glasses, thus achieving a considerable increase in production. In the years from 1959 to 1963 the Republic's glass works are to be extensively mechanized and automatized, and the assembly line procedure is to be introduced for the production of beerware. Also the variety of products is to be enriched (from glass, glass tubes, glass

Card 1/2

Glass Industry in Soviet Poland, etc.

2/1/1957

fiber). The Soviet Union produces the products of polished reinforced heavy glass as well as elliptical glass tubes. The Polish glass industry's production is to be doubled by 1965 as compared to 1957.

Card 2/2

GOL'BIN, Yakov Abramovich. Prinsipali uchastiye: PASHKEVICH, O.K., kand. ekonom.nauk; REMEZKOVA, A.Z., nauchnyy sotrudnik. VEDUTA, M.I., kand.ekonom.nauk, red.; INTYAKOV, N.G., kand.tekhn.nauk, red.; STRIZHONOK, M., red.izd-va; VOLOKHANOVICH, I., tekhn.red.

[Economic aspects of founding] Voprosy ekonomiki liteinogo proizvodstva. Minsk, Izd-vo Akad.nauk BSSR, 1960. 261 p.

(MIRA 13:10)

(Founding)

VEDUTA, Nikolay Ivanovich; GOL'BIN, Ya.A., kand.ekonom.nauk, red.;  
STRIZHONOK, M., red.izd-va; VOLOKHANOVICH, I., tekhn.red.

[Economic efficiency of capital investments in industry]  
Ob ekonomicheskoi effektivnosti kapital'nykh vlozhenii  
v promyshlennosti. Minsk, izd-vo Akad.nauk BSSR, 1960.  
345 p. (MIRA 14:3)  
(Capital investments)

SITNIKOV, Oleg Stepanovich. Prinsipal uchastiye MOISEYENKO, I.G., inzh.;  
GOL'BIN, Ya.A., kand. ekono.nauk, red.; STRIZHONCH, H., red.izd-  
va; SIDERKO, H., tekhn. red.

[Economic efficiency of the mechanization and automation of auxiliary  
operations in the machinery industry] Ekonomicheskaja effektivnost'  
mekhanizatsii i avtomatizatsii vspomogatel'nykh protsessov v mashino-  
stroenii. Minsk, Izd-vo Akad.nauk BSSR, 1961. 146 p. (MIRA 14:11)  
(Machinery industry) (Automation)

GOLBIN, Yakov Abramovich; INTYAKOV, N.G., kand. tekhn. nauk, red.;

[Economic efficiency of precision casting in machinery  
manufacturing] Ekonomicheskaya effektivnost' tochnogo lit'ia  
v mashinostroenii. Minsk, Nauka i tekhnika, 1964. 160 p.  
(MIRA 17:11)

GOI'BLIN, Ya.A., Kord. ekonom. nauk; PAMBAUCHOV, M.S., Inzh. nauch. dokl.,  
Inzh.

Improving the technology of precision casting. Lit. review, no. 17,  
37-38. E. Soc. (Leningrad) 1962.





GOL'BINDER, A. I.

PA 43/43T89

USSR/Mining  
Charges, Explosive  
Explosives

11 Jan 1948

"Function of Inert Salts in the Composition of Safety  
Explosives," A. I. Gol'binder, Moscow Sci Res Inst  
Safety in Mining Operations, 2 $\frac{1}{2}$  pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 2

Results of experiments show that hypotheses relating  
the role of inert salts in composition of safety ex-  
plosives only to the absorption of heat erroneous, and  
that in processes of ignition the chemical nature of  
the inert salts also shows influence. Makes some re-  
marks on character of influence. Submitted by Aca-  
demician N. N. Semanov, 6 Nov 1947.

43T89

professor, retsenzent; DANILOVA, S.N., professor, retsenzent;  
professor, retsenzent; GOL'BINDER, A.I., kandidat  
PEREVERZEVA, A.Ye., professor, retsenzent; GOL'BINDER, A.I., kandidat  
tekhnikeskikh nauk, redaktor; BOGOMOLOVA, N.F., izdatel'skiy redaktor;  
ROZHIN, V.P., tekhnicheskiiy redaktor.

[Gunpowder and explosives] Porokha i vzryvchatye veshchestva. Izd.  
2-oe, perer. Moskva, Gos.izd-vo obr.promyshl., 1957. 186 p.  
(Explosives, Military) (Gunpowder) (MIRA 10:11)

GOL'BINDER, A.I.

Using large charges in oil-well shooting. Dokl.AN Arm.SSR 24 no.2:31-33 '57.  
(MIRA 10:4)

1. Nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki.

(Oil wells--Equipment and supplies)



11. Well Penetration by Means of Explosives

37/91-12-14/27

depth of the well  $m$  - the number of explosions,  $A$  - the coefficient depending on the properties of the explosive and the rock, and the shape of the explosive, and  $C$  - the weight of the explosive. The diameter of the penetrated oil well depends on the weight of the explosive charge and this relationship is expressed as  $D = B \cdot C^m$ , where  $B = \frac{H}{A}$ ,  $m$  - exponent slightly less than 1, and  $B$  - value ranging from  $9 \cdot 10^{-3}$  -  $14.5 \cdot 10^{-3}$ . Application of explosives in an experimental oil well has disclosed that it is possible to penetrate up to 20 meters at the rate of 0.6 meters per hour, while a turbodrill penetrates about 5 meters of hole at the rate of 0.15 meters per hour. There is 1 Figure, and there are 5 references, of which 4 are Soviet, and 1 is English.

Card 2/2 1. Introduction--Formation 2. Explosives--Applications

CONFIDENTIAL

CONFIDENTIAL

GOL'BINDER, A.I.; KAGAN, Ye.B.; OSTROVSKIY, A.P.

Sinking wells by blasting. Neft. khoz. 36 no.7:13-16 JI '58.

(Oil well drilling)

(MIRA 11:12)

BANDURIN, Mikhail Kuz'mich; RUKIN, Lev Grigor'yevich; GORST, A.G.,  
prof., doktor khim.nauk, retsenzent; GOL'BINDER, A.I., kand.  
tekhn.nauk, retsenzent; SHEKHTMAN, E.A., izd.red.; ROZHIN,  
V.P., tekhn.red.

[Collected problems on explosives] Sbornik zadach po teorii  
vzryvchatykh veshchestv. Moskva, Gos.izd-vo obor.promyshl.,  
1959. 187 p. (MIRA 12:8)

(Explosives)



14(5)

SOV/132-59-6-5/16

AUTHORS: Gol'binder, A.I. and Ostrovskiy, A.I.  
TITLE: Experimental Research on the Blast Drilling of Bore-  
Holes  
PERIODICAL: Razvedka i okhrana nedr, 1959, Nr 6, pp 27 - 33  
(USSR)

ABSTRACT: The authors describe experimental research on blast drilling of bore-holes drilled in concrete and granite models, to establish certain rules of the efficient blast drilling in deep bore-holes. In the experimental blast drilling of a prospecting bore-hole for Devonian deposits of oil (Kuybyshevskaya Oblast') in very hard silicified limestones at a depth of over 2500 m, a speed of 0.6 m/hour was achieved. Normal drilling, with a milling cutter, gives only 0.15 m/hour. First, a series of experiments was made to establish the influence of the height of a water column in the bore-hole on the effectiveness of the explosion. It was found (Table 1) that the average

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Experimental Research on the Blast Drilling of Bore-Holes SCV/121-59-3-5/16

deepening of the bore-hole with one explosion reaches its maximum in dry bore-holes, and the volume of destruction increases when the bore-hole is filled with water, the height of the water column being equal 5 - 10 diameters of the bore-hole. A further increase in the height does not increase the volume of destruction. The next series of experiments was made with a constant G m height of the water column, but with a variable weight of explosive charges. The results can be expressed in the following equations:

1)  $\Delta h = K_1 (G - g)^{1/3}$ ;

2)  $h = K_2 G^{1/3} - h_0$  (so-called Tolken equation and

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3)  $\frac{\pi d^2}{4} \Delta h = \Delta V_{sr} = K_3 G,$

SOV/132-59-6-5/16

## Experimental Research on the Blast Drilling of Bore-Holes

where  $\Delta h$  - average deepening with 1 explosion in mm,  $G$  - the explosive charge weight in gr,  $a$  - the constant;  $h_g$  - the distance between the lower part of the charge and its gravity center in mm;  $d$  - the diameter of the bore-hole;  $\Delta V_{sr}$  - average volume of the concrete

crumbled by 1 explosion in milliliters (Table 2). These results show that for the small charges, the correlation between the deepening of the bore-hole and the weight of the blasting charge are positively reflected in equations 1 and 3. Equation 1 can be reduced to  $\Delta h = K_1 G^{1/3}$ . A further series of experi-

ments showed (Table 3) that explosive charges of elongated form give better results than other forms of charges. Another series of experiments was conducted in quarries of different rocks: granite rocks of the Sokolovskiy quarry in the Zhitomirskaya Oblast'; lime-stones - in the Testovo and Podol'sk quarries, Moskovskaya Oblast' and of the clay pits of brick making

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Experimental Research on the Blast Drilling of Bore-Holes 007/152-59-8-5/16

plants of the Moscow region (Table 6). The after-explosion deformation is of three typical types: granites crumble; clays become more compressed; limestones occupy a middle position between the two. In the sub-aqueous explosions, a large part of the rocks is detached from the walls of the bore hole by the action of the produced waves. The comparison (Table 7) of the explosion in a "dry" bore-hole, shows that the volume of destruction in the first bore-hole is 10 times larger than in the dry one. There are 7 tables, 1 photograph, 2 diagrams and 5 Soviet references.

ASSOCIATION: VNIIBurovoy tekhniki (The VNI of Drilling Technology)

Card 4/4

ANDREYEV, Konstantin Konstantinovich; BELYAYEV, Aleksandr Fedorovich;  
SNITKO, K.K., prof., doktor tekhn.nauk, retsenzent; AVANISOV,  
D.S., dotsent, kand.khim.nauk, retsenzent; GOL'BINDER, A.I.,  
doktor tekhn.nauk, red.; LOSEVA, G.F., izdat.red.; GARNUKHINA,  
L.A., tekhn.red.

[Theory of explosives] Teoriia vzryvchatykh veshchestv. Moskva,  
Gos.nauchno-tekhn.izd-vo Oberengiz, 1960. 595 p.

(MIRA 14:1)

(Explosives)

11.2121  
11.7200

26547  
S/076/61/C35/000/011/016  
B110/3101

AUTHORS: Gol'binder, A. I., and Goryachev, V. V. (Moscow)

TITLE: Pulsating combustion of liquid explosives thickened with polymer solutions

PERIODICAL: Zhurnal fizicheskoy khimii, v. 35, no. 8, 1961, 1808 - 1812

TEXT: The authors have considered the modification of the burning character of explosives when thickened by means of solutions of high-molecular compounds. Liquid methyl nitrate (MN) uniformly burns at room temperature and at atmospheric pressure at a rate of  $\approx 0.12$  cm/sec in glass tubes (diameter 3.8 - 5.3 mm). The combustion pulsates at a viscosity rise obtained by dissolving some polymethyl methacrylate (PMMA). Periods of steady propagation alternate with flame splashing accompanied by whistling sounds; frequency and intensity of pulsation grow with the polymer content. This causes an increase of the average rate of combustion. A moving picture (32 - 100 frames/sec) showed the whole period to consist of a series of equal cycles. The surface first drops slowly, but remains smooth in the process; the rate of combustion is lower than

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26547  
 3/076/31/035/000/011/016  
 B110/B101

Pulsating combustion of...

that of normal MN (0.08 cm/sec at 0.1% polymer content; 0.05 cm/sec at 0.25%, average rate 0.13 and 0.18 cm/sec). Vapor bubbles are then formed under the surface along with a growing foam layer, a sudden ejection of the surface layer into the flame zone, where a quick combustion takes place as a combustion of suspended individual drops. After combustion of this suspension (a flashing in case of a large polymer content) the cycle is repeated. Poorly thickened MN products pulsate with relatively constant frequency and amplitude. With a 0.25% polymer solution the average rate (cm/sec) grows linearly with pressure (kg/cm<sup>2</sup>) between 1 - 2.5 kg/cm<sup>2</sup> (first combustion type):  $w = -0.049 + 0.169p$  (1). With  $p > 2.6$  kg/cm<sup>2</sup> in  $w = f(p)$  (2), (1) is overlapped by a pulsation of another kind (second combustion type). This causes an abrupt rise of the mean combustion rate. With pure MN the 2nd type begins at  $\sim 1.7$  kg/cm<sup>2</sup>. In addition, the 1st type is suppressed with a rise of the initial pressure. A rise of viscosity raises the minimum pressure at which the second type begins. Thus, an MN solution containing 3% of the polymer burns nonuniformly at 1 - 3 kg/cm<sup>2</sup> (1st type, while burning uniformly without pulsating at 3 to 9 - 10 kg/cm<sup>2</sup>, and with pulsation at  $> 10$  kg/cm<sup>2</sup> (2nd type). Ethyl nitrate (EN) is 16 times slower in burning ( $\sim 0.07$  cm/sec in a 15-mm

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S/C76/81/C35/008/C11/016  
B110/B101

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glass tube). Small vapor bubbles rarely break through the smooth surface. With 0.05% PMMA it undergoes a pulsating combustion with a weak amplitude. The surface of the boiling liquid is not smooth, and bubbles distort it continuously as they break through. The rate of combustion drops as a function of the degree of burning out. In case of a polymer content over 0.5%, combustion becomes more uniform, while its mean rate drops. At a polymer content  $\gg 2\%$ , combustion is interrupted. Similar conditions prevail in the binary explosive, 60 wt% diglycol dihydrate in tetranitromethane, at a combustion rate of 0.09 cm/sec. In case of a 0.25 - 0.5% PMMA content a pulsating combustion takes place. With the mean rate is lower. With a rise of the PMMA content pulsation turns weaker, and stops altogether at  $\sim 1.5\%$ . Then, a uniform combustion with gradually decreasing rate takes place. Methyl methacrylate monomer effects a rise of the rate, but no pulsation. K. K. Andreyev et al. (Ref. 2: Termicheskoye razlozheniye i goreniye varyvchivnykh veshchestv. Gosenergoizdat, M.-L. 1957, str. 130) showed that thickened liquid nitro-ester (nitrocellulose) stabilizes combustion, and that gelatinized explosives burn uniformly, just like binary mixtures of nitric acid with liquid fuels, that have been gelatinized by means of PMMA. The pulsation

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26547

S/076/61/033/001/011/016  
B110/2101

Pulsating combustion of...

described here is, however, brought about by evaporation of the liquid explosive in the heated layer of the condensed phase. PEMA is less volatile, and, under the conditions of combustion, is not capable of gas formation. Fractional evaporation and impoverishment of the heated zone at the explosive take place. It becomes more viscous, forms a film, and prevents the vapor from escaping. The higher viscosity renders the diffusion balancing with the residual liquid more difficult. The rate drops as the layer thickness grows. If the vapor pressure of the foam bubbles becomes high enough, vapor is expelled along with liquid particles dragged along, and the cycle is repeated. On a rise of pressure the 1st type is probably suppressed by 1) drop of viscosity; 2) drop of amplitude and rise of frequency due to an increase of burning rate; 3) decrease of layer thickness. On a rise of pressure, a surface disturbance causing a pulsation may arise according to L. E. Landau's mechanism (Zh. eksperim. i teor. fiz., 14, 280, 1944). The lower pressure limit of the transition to the 2nd type rises with viscosity. At a relatively high burning rate (MN), the 1st type prevails. In case of a very slow combustion, a change of the composition of a thick layer may gradually take place with an amplitude drop due to convection, diffusion, and

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26547  
S/076/61/035/004/C11/C16  
B110/B101

Pulsating combustion of...

gravitational flows. Thus, a gradual polymer concentration of a growing layer and a dropping burning rate are observed in EM until extinction due to heat losses in a tube with small diameter. The uniformity of combustion of nitroesters thickened by means of polymers is probably disturbed. There are 1 figure, 2 tables, and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Ref. 3: A. J. Wittaker et al., J. Phys. Chem., 62, 908, 1958.

ASSOCIATION: Khimiko-tekhnologicheskii institut im. D. I. Mendeleeva  
(Institute of Chemical Technology imeni D. I. Mendeleev)

SUBMITTED: December 29, 1959

X

Card 5/5

11.2122 11.8300

11.1370  
S102/01/102/002/021/022  
P101/011

AUTHORS: Gol'tviner, A. I. and Dvornik, L. M.

TITLE: Some peculiarities of the initiation of a detonation in low-density charges.

PERIODICAL: Akademiya Nauk SSSR. Doklady, 1962, vol. 2, 1962, 359-391

TEXT: I. F. Blinov's and one of the present author's observation that aromatic dinitro compounds of low density (0.4-0.5 of the specific gravity) do not detonate any more in wire tubes has been investigated more closely. Experiments were made with collodion (12.0-16.0%) in tubes

10-10.5 and 21-30 mm in diameter. Lead azide, density  $2 \text{ g/cm}^3$ , in glass tubes of different diameters was used as initiator. By changing this diameter, the range of initial pulses, defined as explosion center, was varied. Further experiments were made with tetryl and with a mixture of 4% nitroglycerin and 96% ammonium nitrate (NA mixture). In all experiments, a minimum density was found (collodion -  $0.6 \text{ g/cm}^3$ , tetryl  $0.30-0.35 \text{ g/cm}^3$ , NA  $0.27 \text{ g/cm}^3$ ), at which the initiation with lead azide

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32943  
S/200/20/22/01/122/013  
2101/2114

Some peculiarities of the initiation of

(4 mm diameter) in wide tubes are not read any more to a detonation. This is attributed to the fact that in wide tubes the explosive is so quickly hurled from the center of initiation that ignition does not occur any more. In narrow tubes the pressure of the shock wave, owing to reflection from the tube walls, remains high enough to cause detonation. Ya. I. Leytman, Yu. B. Kravtsov, and A. T. Galperin are mentioned. Yu. B. Zel'dovich is thanked for assistance. There are 2 tables and 5 Soviet references.

ASSOCIATION: Moscow State University, Institute of Chemical Technology named D. I. Mendeleev (M. I. Khimicheskii Institut im. D. I. Mendeleeva)

PRESENTED: August 19, 1961, Ya. B. Kravtsov, A. Galperin

SUBMITTED: July 28, 1961

L 17943-63.

EPR/EPF(c)/EWT(m)/BDB AFFTC/RPL Ps-4/Ph-4 EM/WW/JW/JWD/E

ACCESSION NR: AT3006095

S/2938/63/000/000/0468/0474

AUTHOR: Gol' binder, A. I.

TITLE: 31. Combustion of self-igniting explosive mixture and its transition into detonation

SOURCE: Teoriya vzry\*vchaty\*kh veshchestv, sbornik statey, 1963, 468-474

TOPIC TAGS: explosive , detonation, self-igniting explosive , tetra-nitromethane

ABSTRACT: The conditions necessary for the detonation of tetranitro-methane-amine mixtures were studied. Numerous runs with tetranitro-methane 80.5-aniline 19.5 wt.% indicated the height of the liquid column and not its volume to be the critical condition of the transition from combustion to detonation of the self-igniting explosive mixture. There was no regularity to the time between ignition and detonation - sometimes detonation was practically instantaneous, at other times there was a several second lag. Sensitivity was increased

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L:17943-63

ACCESSION NR: AT3006095

with pressure increase, burning time was shortened and transition to detonation was facilitated. Mixtures of tetranitromethane and triethylamine were studied; with o-toluidene critical conditions were quite similar to aniline. With 11.5-37wt.% xylenes there was only combustion when liquid column height was less than 3 cm; with higher columns there was regular transition to detonation. Orig. art. has: 2 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 14 Jun 63

ENCL: 00

SUB CODE: AR

NO REF SOV: 007

OTHER: 001

L 17944-63.

EPR/EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD/HPL P3-4/Pc-4/Pr-4

BT/WW/JW/JWD/H

ACCESSION NR: AT3006094

S/2938/63/000/000/0457/0468

AUTHOR: Gol'binder, A. I.

TITLE: Some rules of combustion of volatile multicomponent explosives

SOURCE: Teoriya vzry\*vchaty\*kh veshchestv, sbornik statey, 1963, 457-468

TOPIC TAGS: explosive, multicomponent explosive, nitric acid, nitrobenzene, nitrogen tetroxide, polymethylmethacrylate, ethyl nitrate, methyl nitrate, tetranitromethane

ABSTRACT: A study was made of the combustibility, rates and character of combustion of explosive mixtures containing tetranitromethane and benzene, ethyl nitrate, octanol, nitrobenzene, diglycoldinitrate, nitrotoluene, or dinitrotoluene; nitrobenzene and nitric acid or nitrogen tetroxide; polymethylmethacrylate and ethyl nitrate or methyl nitrate. In mixtures containing components with different vapor pressures, the vapor has a different composition from the

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L 17944-63

ACCESSION NR: AT3006094

2

original liquid. Fractional combustion will change the vapor composition leading to periodic change in the character of the combustion in pulsations of different frequency and amplitude. The extensive study of combustion rates of tetranitromethane-ethyl nitrate mixtures is graphically presented. A ternary diagram shows the combustibility of the dichlorethane-nitric acid-water (and water-sulfuric acid) system. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 14Jun63

ENCL: 00

SUB CODE: AR

NO REF SOV: 006

OTHER: 003

Card 2/2



GOL'BINDER, A.I., SVETIKOVA, L.M., YISHKOVICH, V.F.

Some reasons for detonation damping in boreholes. Vozv. delo  
no. 52/9:155-168 '63. (MIRA 17:12)

1. Moskovskiy ordena Lenina khimiko-tekhnologicheskiy institut  
imeni D.I. Mendeleeva.

L 17940-63

EPR/EPF(c)/EWT(1)/EWT(m)/BDS AFFTC/RPT Ps-1/Pr-1 EM/Wd/JM/

ACCESSION NR: AT3006098

S/2938/63/000/000/0499/0515

AUTHOR: Gol'binder, A. I.

TITLE: Self-ignition liquid explosive mixtures

SOURCE: Teoriya vzry\*vchaty\*kh veshchesty, sbornik statey, 1963, 499-515

TOPIC TAGS: explosive, self-ignition, liquid explosive mixture, tetranitromethane, explosive mechanism, nitric acid

ABSTRACT: The spontaneous ignition of compact liquid charges (tetra-  
nitromethane with organic amines or other organic fuels; liquid mix-  
tures based on concentrated nitric acid) was studied to work out  
application problems and to broaden knowledge of explosive mecha-  
nisms. Two methods were observed. In one, conversion of the con-  
densed phase to reactive gases proceeds without significant tempera-  
ture increase. When concentration of gases exceeds a limit, they  
react and detonate, but vapors of the original material do not play  
a significant role in the detonation. In the other type of spontan-

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L 17940-63

ACCESSION NR: AT3006098

4  
ous ignition, an exothermic reaction occurs in the condensed phase resulting in chemical and thermal self-acceleration of the reactions. Maximum temperature is limited by boiling point of original explosive material or of its first-stage conversion products. Heat explosion and ignition occur as in previous method, only vapors of the original explosive material take part in the detonation. "Substantial part of the experiments were carried out in the All-Union scientific research institute for drilling by S. A. Lovlya, N. I. Kozlov, G. V. Dimza, to whom the author expresses sincere thanks." Orig. art. has: 5 figures and 4 tables.

ASSOCIATION: None

SUBMITTED: 00

DATE ACQ: 14Jun63

ENCL: 00

SUB CODE: AR, CH

NO REF SOV: 012

OTHER: 005

ACCESSION NR: AP4041158

S/0020/64/156/004/0905/0908

AUTHOR: Gol'binder, A. I.; Ty\*shevich, V. F.

TITLE: Channel effect in the detonation of explosives

SOURCE: AN SSSR. Doklady\*, v. 156, no. 4, 1965, 905-908

TOPIC TAGS: detonation, explosive, channel effect, shock wave, luminosity, shock wave propagation, trotyl, hexogen, lead nitrate

ABSTRACT: High-speed photography (500,000—1,000,000 frames per sec) and x-rays were used to study the channel effect in the detonation of explosives. The experiments were carried out in organic glass shells using fine ground trotyl and hexogen charges with densities of 0.5 g/cc and fine ground mixtures of trotyl and lead nitrate (10—20%) with densities of 0.6—0.7 g/cc. Analysis of the experimental data and published data showed that in all cases the boundary of the expanding detonation products is sharply delineated and never overtakes the detonation front. The luminosity observed in the channel is not connected with the motion of the detonation products. Special experiments showed that the luminosity depends on the type of gas in the channel. Maximum luminosity

Card 1/2

КЛИМОВ А. И.

25(5)

PHASE I BOOK EXPLOITATION 304/1592

Leningrad. Institute of Economics

Organizatsiya i planirovaniye raznoyarmoy raboty mashinostroitel'nykh predpriyatiy; *Mechinovskoye sovet'skoye obshchestvo*. *Doklady* (Organization and Planning of Uniform Work in Machine-building Enterprises); Conference of Vuzes. *Preprints* Moscow, MASHIN, 1956. 72 p. Series: *Izv. Trudy*, v. 22. 4,000 copies printed.

Eds.: S.A. Volkov, and L.G. Datskovskiy. Trans. Eds.: L.V. Sobolova; Managing Ed. for Literature on Machine-building Technology (Mashgiz); Ye.P. Kuznetsov, Engineer.

PURPOSE: This collection of articles is intended for engineering and technical personnel in machine-building establishments, and for scientific workers and students of institutes and departments of engineering and economics.

CONTENTS: This collection of articles contains reports by workers from vuzes, scientific research institutes, and industrial establishments presented at the conference of vuzes on the subject: "Organization and Planning of Uniform Operations in Machine-building Establishments." These reports discuss general problems encountered in organization, analysis, and theory of uniform production, as well as problems in schedule planning, technical preparation, and production specialization.

Card 1/8

Gol'ts, Ya.K.; K.I. Kavel'skiy and B.V. Pashkevich, Candidates of Economic Sciences (Institut ekonomiki Akademiya Nauk SSSR [Institute of Economics of the Academy of Sciences of the USSR]). *Mythic Operation as the Most Important Condition for Transition to New Operating Conditions*

GOL'BORT, G. V.

Irradiation

New data on the irradiation process. Zhur. vys. nerv. deiat. 1 no. 6, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953<sup>2</sup> Unclassified.

GOL'BRAYKH, I.G.; ZABALUYEV, V.V.; MIRKIN, G.R.; SHAPOSHNIKOV, V.M.

Methods for studying the tectonics of closed areas. Geol.nefti  
i gaza 7 no.2:44-49 F '63. (MIRA 16:2)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologoraz-  
vedochnyy institut i Stavropol'skiy filial Groznenskogo nauchno-  
issledovatel'skogo neftyanogo instituta.  
(Geology, Structural)

GOL'BRAYKH, I.G., ZABALINOV, V.V., MIRKIN, G.R.

Tectonic analyses of mega joints as prospective methods for studying closed areas. Sov. geol. 8, no. 1-61 '73. Pp. 165 (MIRA 18:7)

I. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy institut.



GOL'BRAYKH, K.G., inzhener.

Replacing pickling of chrome pigskin leather by salt treatment.  
Leg. prom. 15 no.11:23-24 N 155. (MLRA 9:2)  
(Tanning)

GOL'BEAYKH, K., inzhener; LARSHIN, P.

Leather staining or drum dyeing. Leg. prqm. 16 no. 12:29-30 D '56.  
(Dyes and dyeing--Leather) (MLRA 10:2)

GOL'BRAYKH, K.G., inzh.

Ways of improving the quality of chrome pigskin leather.  
Kozh.-obuv.prom.2 no.3:20-22 Mr '60. (MIRA 14:5)  
(Leather)

GOL'BRAYKH, S. Ya.

NON-FERROUS METALLURGY

301/4072

Pervushin, Sergey Alekseyevich, Solomon Yakovlevich Rachkovskiy, Samuil Yakovlevich Gol'braykh, Revekka Davydovna Malinova, and Tat'yana Dmitriyevna Bykova.

Ekonomika tsvetnoy metallurgii SSSR (Economic Aspects of Nonferrous Metallurgy of the USSR). Moscow, Metallurgizdat, 1960. 346 p. Errata slip inserted. 3,500 copies printed.

Eds.: S. A. Pervushin and S. Ya. Rachkovskiy; Ed. of Publishing House: R. F. Avrutskaya; Tech. Ed.: Ye. B. Vaynshteyn.

PURPOSE: This textbook is for students of the special course "Economics and Organization of the Metal Industry" at Institutes of Higher Education. In addition, it may be useful to workers in scientific research and planning institutes, and also to personnel working in the nonferrous metal industry.

COVERAGE: The book discusses the role of the nonferrous metal industry as one of the most important branches of Soviet national economy, its interrelations with other branches of industry, the basic laws of its development, its patterns of consumption, and the fields of application of various nonferrous metals. Also discussed are the basic tendencies of development of nonferrous metallurgy in capitalistic countries and in peoples' democracies. The book

Card 1/4

GOL'BRAYKH, V.R.

Organization of oral hygiene measures for workers of the Stalingrad  
Tractor Factory. Stomatologiya 40 no.1:90-91 Ja-P '61.

(MIRA 14:5)

1. Iz stomatologicheskogo otdeleniya mediko-sanitarnoy chasti  
Stalingradskogo traktornogo zavoda (nachal'nik Ye.M. Kanavskiy).  
(STALINGRAD---MOUTH---CARE AND HYGIENE)

5(2)

AUTHORS: Ryabchikov, D. I., Gol'braykh, Ye. K. SOV/74-26-4-3/6  
(Moscow)

TITLE: Thorium and Its Compounds (Teriy i yego soyedineniya)

PERIODICAL: Uspekhi khimii, 1959, Vol 26, Nr 4, pp 408-435 (USSR)

ABSTRACT: In this paper the authors report on the discovery of thorium and characterize the element and its compounds. Until recently thorium was considered as belonging to the IV sub-group of the periodic system but at present it is placed to the actinide. So far there are no definite proofs as to the electron configuration of the thorium atom. In principle, the electron distribution of thorium may be considered as being within the limits of the Radon configuration:  $6d^2 7s^2$  or  $5f 6d 7s^2$  (Refs 14 to 16). Still, it has not been found out so far with which element of the actinide series the first 5f electron appears (Refs 10, 12, 17, 18). This fact and some others at the moment do not prove the presumption that the second series of the transition elements exactly begins with thorium (Refs 3, 19, 20). In spite of the fact that metallic thorium was for the first time obtained as long as 100 years ago

Card 1/4

## Thorium and Its Compounds

SOV/74-28-4-3/6

industrial production of the pure metal was not feasible until 1959. In principle, the technology of thorium production consists of several stages - decomposition of monazite and dissolution of thorium, preparation of pure thorium compounds and their reduction up to metal. Thorium is a silver-colored metal gradually becoming darker in air. Metallic thorium is pyrophorous and is therefore kept under a petroleum layer. The specific weight depends on the  $\text{ThO}_2$ -content. The highest specific weight of the pure metal ranges within the limits between 11.65 - 11.7  $\text{g/cm}^3$ . Different values are given for its melting point, probably because of a varying  $\text{ThO}_2$ -content. It is most probable that the melting point of the pure metal is in the range between 1650-1800° (Ref 55). For the boiling point values between 3000 and 5200° were found. Its evaporation heat is 145 and 177 large caloric/mol. The heat conductivity is 0.32 watt. $\text{cm}^{-1}.\text{degree}^{-1}$  at 100° and 0.35 watt. $\text{cm}^{-1}.\text{degree}^{-1}$  at 300°. In heating in air the chip of metallic thorium burns up and

Card 2/4

## Thorium and Its Compounds

SOV/74-28-4-3/6

forms thorium dioxide  $\text{ThO}_2$ . Metallic thorium reacts energetically with hydrogen, nitrogen, halides, sulphur, silicon, aluminum, and other elements at considerably high temperatures. It dissolves quickly in 6-12 N hydrochloric acid and forms thorium chloride. A part of the substance, however, remains undissolved. The investigation of the structure of this residue has shown that it has a cubic structure similar to the structure of oxides and mononitrides. A complete dissolution of the metal is obtained if it is treated with hydrochloric acid containing traces of fluoride or fluosilicate. Thorium forms a great number of hydrates because it has a high charge (4+) and a comparatively small length of the ionic radius (0.99 Å). It also has a strong trend towards the formation of complex compounds with the anions of various salts: nitrates, sulphates, sulphites, carbonates, fluorides, iodates, bromates, chlorides and chlorates, oxalates, tartrates, citrates, etc. Moreover, it forms complexes with diketones of the type of acetyl acetone. Numerous complex compounds were extracted by various solvents. The maximum value of the coordination

Card 3/4



## Thorium and Its Compounds

SCV/74-28-4-3/6

number of thorium in aqueous solution obviously equals 8. Thorium is of great importance in the production of refractory alloys. It easily forms alloys with aluminum, iron, copper, cobalt, nickel, gold, silver, boron, platinum, molybdenum, tungsten, tantalum, zinc, bismuth, lead, mercury, sodium, beryllium, silicon, and selenium. Thorium does not form amalgam with mercury because its solubility in mercury is very low and amounts to only 0.0154 %. Thorium was used very much in the industry in the years 1880 to 1890 when it was used in the production of incandescent gas lamps. After electricity had been introduced in economy it was scarcely noticed for a considerable amount of time and did not gain its practical importance until 1940, above all in the field of investigations of nuclear energy. In conclusion, this paper gives the synthesis methods of thorium compounds and their characteristics. Table 1 - radioactive series of thorium, table 2 - radioactive properties of the thorium isotopes, table 3 - interaction of thorium with organic acids. There are 3 tables and 311 references, 28 of which are Soviet.

Card 4/4

GOL'BRAIKH

PHASE I BOOK EXPLOITATION SOV/4934

Ryabchikov, Dmitriy Ivanovich, and Yevgeniya Kas'yanovna Gol'braykh

Analiticheskaya khimiya toriya (Analytical Chemistry of Thorium) Moscow, Izd-vo AN SSSR, 1960. 295 p. Errata slip inserted. 2,300 copies printed. (Series: Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii. Seriya: Analiticheskaya khimiya elementov)

Sponsoring Agency: Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo.

Chief Ed.: A. P. Vinogradov, Academician; Editorial Board I. P. Alimarin, A. K. Babko, A. I. Busev, E. Ye. Vaynshteyn, A. P. Vinogradov, A. N. Yermakov, V. I. Kuznetsov, P. N. Paley, D. I. Ryabchikov, I. V. Tananayev and Yu. A. Chemikhov. Eds. of v. "Analiticheskaya khimiya toriya"; I. P. Alimarin and P. N. Paley; Ed. of Publishing House: D. N. Trifonov; Tech. Ed.: T. P. Polenova.

PURPOSE: This book is intended for analytical chemists in research institutes and plant laboratories, and for chemistry instructors and students in

Card 1/6

196

PLATE I BOOK EXPOSITION 20/1/44

Ambergris and Siam. Exhibition for multi-ethnic effect.  
Method: chronological process, a collage of articles, reports, documents, letters,  
photos, etc. (see also Plate II, p. 100). (See also Plate III, p. 100).  
Notes printed.

Page: 100. Art: Illustration, Architecture, and Old Photographs. Source of material:  
documents, etc. (see also Plate II, p. 100). (See also Plate III, p. 100).  
Notes: This collection of articles is intended for scientific specialists and  
engineers.

CONTENTS: The articles describe methods for detecting and identifying various  
types of explosives, their properties, and their uses. The articles are arranged  
in chronological order, from the earliest to the latest. The articles are  
written in a clear and concise style, and are suitable for use as a reference  
work. The articles are written by experts in the field, and are of high  
quality. The articles are written in a clear and concise style, and are  
suitable for use as a reference work. The articles are written by experts  
in the field, and are of high quality.

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SINYAKOVA, S.I.; GOL'BRAYKH, Ye.K.

Determining small quantities of lead in metallic bismuth. Trudy  
Kon. anal. khim. 12:187-190 '60. (MIRA 13:8)  
(Bismuth--Analysis) (Lead--Analysis)

KATSMAN, A.; GOL'BRAYKH, Yu.

Brief news. Zdrav.Bel. 7 no.11:79 N '61. (MIPA 15:11)  
(WHITE RUSSIA--INDUSTRIAL HYGIENE)  
(WHITE RUSSIA--HOSPITALS)

SECRET

1. The following information was obtained from a source who has provided reliable information in the past.

ca

10

**Azobenzene.** E. V. Alekseevskii and Z. E. Golbrakht.  
Russ. 32,409, Oct. 31, 1933. A mixt. of aniline and acti-  
vated  $MnO_2$  is exposed to the action of atm.  $O_2$ . The azo-  
benzene is sepd. from the unchanged aniline in the usual  
manner.

ASB-SLA METALLOGICAL LITERATURE CLASSIFICATION

2

investigation of the sorptive and catalytic properties of active manganese dioxide with respect to vapors and gases. E. V. Ahkseevskii and Z. E. Gol'dbraikh. *Zh. fiz. khim.* U.S.S.R. 4, No. 12 (1931). According to the nature of the adsorbent there can take place adsorptive, chemisorptive and contact-catalytic processes during sorption in the case of the active  $MnO_2$ . The static adsorptive activity of  $MnO_2$  with the vapors of some org. compounds was det'd, and the increase of adsorption with the increase of mol. wt. of the homologs was shown. The isotherms of adsorption of  $C_2H_6$  and  $C_2H_4$  were investigated. These were characterized by sharp curves showing the beginning capillary condensation. The chemisorptive character of the behavior of aniline toward  $MnO_2$ , accompanied by the oxidation of aniline to azobenzene was ascertained. The dynamic activity of granulated  $MnO_2$  to the vapors of aniline was det'd, and the chemisorptive character of benzotrile vapors was shown with respect to active  $MnO_2$ , which at the same time effected a hydration of the benzotrile to benzamide. The adsorption of  $NH_3$  by the active  $MnO_2$  at 0°, 50°, 100° and 200° was also investigated. V. D. Karwanko.

АВТ. СЛ. А. МЕТАЛЛУРГИКАЛ. ЛИТЕРАТУРА. КЛАССИФИКАЦИЯ

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





ca

The analytical chemistry of nitrogen-containing organic compounds II. New method for the detection of nitrogen. Z. F. Golbraikh. *J. Applied Chem. U.S.S.R.* 10, 1135-9 in French 1130 (1937). cf. Alekseyevskii and G., *C. A.* 29, 3587. - Mix well 10-50 mg. of the sample with 0.1-0.5 g. of MnO<sub>2</sub>, place in a test tube provided with a rubber stopper carrying two glass tubes, one for the admission of air and the other leading to an absorption flask contg. dist. water. Heat for 0.5-1.0 min. Test the water for NO<sub>2</sub> ion by the Griess-Hosvay reagent. The method is applicable to all classes of org. substances (liquid and solid), inorg. NH<sub>3</sub> salts, hydrazine, and complex salts. For the combustion of difficultly oxidizable albuminous and alkaloid substances, salts contg. no C, and complex salts, add some sugar or other C-rich compd. The sensitivity of the method approximates that of the Mulliken and Gabriel method (*C. A.* 6, 394). Seventeen references. A. A. Pilsorn

ASAC 50.0 METALLURGICAL LITERATURE CLASSIFICATION

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

2

The properties of copper glycolate. A. A. Grinberg and Z. E. Golbraikh. *J. Gen. Chem. (U.S.S.R.)* 11, 1039-45 (1941).— $(NH_2CH_2CO)_2Cu$  exists as needles (I) and blue platelets (II). Both are monohydrates, but II loses  $H_2O$  at  $105^\circ$  whereas I must be heated to  $130^\circ$  and then partly decomps. The  $H_2O$  cont. of I at  $30^\circ$  is 0.383 g. per 100 g. and at  $0^\circ$  0.302 g. The corresponding solubilities of II are 0.521 and 0.181. When mixts. of I or mixts. of I and II are allowed to stand, the soly. falls to that of II. Rise in temp., stirring, and the presence of II hasten this change. No differences between I and II are found in cond. or chem. reactions. The compds. are probably geometrical isomers, and by analogy with the Pt and Pd analogs, the more stable II should be the trans form.  
H. M. Leicester

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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



M

11

**\*The Determination of Small Quantities of Palladium in the Presence of Large Quantities of Nickel.** Z. E. Golbraikh *Zh. Obshch. Khim.*, 1944, 14, 2783, 810-811. In Russian. It is shown that dimethylglyoxime may be used for the quantitative determination of very small amounts of Pd (up to 0.001%) in the presence of much greater amounts of Ni (1-5%).

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

DATE 08-11-2001 BY 60322 UCBAW/STP/STP

1. YULYAN, Gergor Aleksandrovich, prof.; in the USSR, born at  
Yakovlevka, prof.; (USSR), Tatyana Ivanovna, (1917);  
(USSR) YULYAN, Anna Yakovlevna, prof.; in the USSR, born at  
Ladovaya, date.

(Examples of non-Soviet citizenship in the USSR, who  
became Soviet citizens after 1945, (USSR),  
Moscow, Matulinskaya, 1944. (USSR), (USSR)

GOL'BRAYKH, Z.Ye.

The simultaneous precipitation of copper in the determination of platinum and palladium. Z. B. Gol'braykh (Leningrad Inst. of Tech.). *J. Appl. Chem. U.S.S.R.* 25, 1311-13 (1952) (Engl. translation); *Zhur. Priklad. Khim.* 25, 1249-55.—In the pptn. of Pt by  $\text{HCO}_2\text{H}$ , in the presence of  $\text{Cu}^{2+}$ , the quantity of copptd. Cu is independent of the  $\text{Cu}^{2+}$  concn. in the soln. This quantity constitutes 27-9% of the Pt wt. in the case of reduction of  $[\text{PtCl}_6]^{2-}$  and 20-2% of the Pt wt. with reduction of  $[\text{PtCl}_4]^{2-}$ . If the  $\text{Cu}^{2+}$  content of the soln. is decreased considerably below that in the stoichiometric ratio Pt:Cu = 1:1, practically all of the Cu is tied up by the Pt. In the detn. of Pd by reduction of  $[\text{PdCl}_4]^{2-}$  in the presence of  $\text{Cu}^{2+}$ , there is practically no copptn. of Cu by the Pd. The extent of simultaneous pptn. of Cu under conditions of joint pptn. of Pt and Pd depends upon the ratio between pptg. metals. With a ratio Pd:Pt = 4:1 the tie-up of Cu does not exceed 1% of the total wt. of metals. In the analysis of sludge which is relatively rich in Pd, the total metals (Pt + Pd) can be detd. with acceptable accuracy by  $\text{HCO}_2\text{H}$ .  
Herbert Lieberkind

RES  
ZBK

AID F - 2295

Subject : USSR/Chemistry

Card 1/1 Pub. 152 - 21/21

Author : Gol'braykh, Z. Ye.

Title : Kudryavtseva, A. A. Sostavleniye khimicheskikh uravneniy (Formulation of Chemical Equations). Moscow, 1953. (Book review)

Periodical: Zhur. prikl. khim., 28, no.3, 338-344, 1955

Abstract : According to the reviewer, methods of formulating equations are well presented and the material for exercises well selected. A good list of principal oxidizing and reducing agents is given, but the theoretical principles are poorly presented.

Institution: None

Submitted : No date



GOL'BRAYKH, Z.Ye.

Certain properties of copper  $\alpha$ -alaninate. Zhur.neorg.khim.  
1 no.8:1739-1744 Ag '56. (MLRA 9:11)

1. Leningradskiy zaochnyy industrial'nyy institut, Leningrad-  
skiy tekhnologicheskyy institut imeni Lensoveta,  
(Copper organic compounds) (Alanine)

GOL'BRAYKH, Z. Ye.

[Classes of inorganic compounds] Klassy neorganicheskikh soedinenii; uchebnoe posobie. Leningrad, Leningr. tekhnologicheskii in-t im. Lensoвета, 1961. 43 p. (MIRA 16:6)  
(Chemistry, Inorganic) (Chemistry--Classification)

GOL'BRAYKHT, Yuriy Abramovich; AFONINA, G., vedushchiy redaktor; YAKOBYUK, N.  
tekhnicheskiy redaktor

[Safety engineering in the coal-tar chemical industry] Tekhnika  
bezopasnosti v koksokhimicheskom proizvodstve. Kiev, Gos. izd-vo  
tekhn. lit-ry USSR, 1956. 221 p. (MLHA 10:1)  
(Coal-tar industry--Safety measures)

GOL'BRAYKHT, Yu.A., inzhener.

Safety appliances for coke oven service space. Bezop.truda v  
prom. 1 no.5:29-30 '57. (MLRA 10:7)  
(Coke-ovens--Safety appliances)

SOV/58-59-c-11/32

**AUTHOR:** Gol'braykht, Yu.A.

**TITLE:** Blocking of the Path of a Coke Ejector with Changing  
Position of the Detachable Door Bar (Blokirovka khoda  
koksovytalkivatelya s polozeniyem dveres"yemnoy shtangi)

**PERIODICAL:** Koks i Khimiya, 1959, Nr 6, pp 25-26 (USSR)

**ABSTRACT:** The danger to workmen involved by the operation of a  
coke ejector can be avoided by adopting the system  
suggested by the author, the scheme of which is shown  
in the figure, p 26. The terminal contact breaker  
4KN-2, which enables movement of the coke ejector to  
its original position, is disconnected from the by-pass  
button KO and the terminal contact breaker TB becomes  
connected in parallel but its contacts short-circuit as  
the bar goes into the furnace. When the door is removed,  
the path of the coke ejector through the contacts of the  
terminal contact breaker 4KN-2 will be possible only when  
the bar returns to its initial position. Further  
precautions are mentioned. There is 1 figure.

**ASSOCIATION:** Zhdanovskiy koksokhimicheskiy zavod (Zhdanov Chemical  
Coke Works)

Card 1/1

GOL'BRAYKHT, Yuriy Abramovich; AFONINA, G., red.; LAGUTIN, I.,  
tekh. red.

[Safety measures in the coke chemicals industry] Tekhnika  
bezopasnosti v koksokhimicheskom proizvodstve. Izd.3., dop.  
i ispr. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1960. 310 p.  
(MIRA 15:4)

(Coke industry--Safety measures)

GOL'BRAYKHT, Yu.A.

New forms of the work in safety engineering. Koks i khim. no.3:54-56  
1963. (MIRA 16:3)

1. Zhdanovskiy koksokhimicheskiy zavod.  
(Zhdanov--Coke industry--Safety measures)

TOKAREV, A.A.;GOL'BREYKH, A.A.]

Hydraulic torque converter for motorbuses. Avt. i trakt. prom. no.9:  
7-12 S '56. (MLRA 9:11)

1. Moskovskiy avtozavod imeni I. A. Likhacheva.  
(Motorbuses--Transmission devices)



AUTHORS: Iol. Greyn, A. A. Tokarev, A. A. 17-111-58-10-7/16

TITLE: The Influence of Viscosity of the Selection of the Working Fluid of Hydraulic Transmissions (Vliyaniye v'язkosti na vy-bor ratchey zhidkosti gidroprededa)

PERIODICAL: Avtomobilnaya promyshlennost', 1978, Nr 11, p. 20-25 USSR.

ABSTRACT: The Moscow automobile plant iment Likhachev is working on the development of a hydraulic transmission for the town bus "El-129". One of the design peculiarities is that the oil serves as a lubricant besides serving as a working fluid in the torque converter. The design requires a special oil with low viscosity and a maximum specific weight. A suitable design of the torque converter may change the requirements for the working fluid. Detailed investigations were conducted to select a working fluid for the torque converter "El29". This working fluid considerably improved the work characteristic of the torque converter. Figure 1 shows the characteristics of the "El29" torque converter. The research was divided into test stand operations and actual road tests. The latter were performed over a distance of 25,000 km with a "El-129" bus with a load corresponding to 75 passengers. For these tests cars of types "Lada" and "Gaz-24" were used.

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117-111-86-10-7/16

The Influence of Viscosity of the Selection of the Working Fluid of Hydraulic Transmissions

No excessive wear was detected. The characteristics of the oils "VTM" and "VTM-1" are shown graphically. It was established that a three-stage torque converter is sensitive to the viscosity of the working fluid. Its sensitivity increases with decreasing viscosity. For the future, synthetic working fluids which possess the required properties of a working fluid and are lubricants at the same time may become important. There are 6 graphs.

ASSOCIATION: Moskovskiy avtomobil'nyi zakhod imeni Likhacheva (Moscow Automobile Plant imeni Likhachev)

1. Fluids--Viscosity
2. Hydraulic systems--Effectiveness
3. Automatic transmissions--Test methods
4. Oils--Test results

GOI'BRZYH, A.A.

Performance of an automobile hydraulic transmission. Automobiles  
1960-61 '61. (AIR: 1961)  
(Automobiles--Transmission Devices)

GOL'CHIK, Yu.

Systematic position of European bitterling (*Rhodeus sericeus amarus*  
Bloch., 1783). Vop. ikht. no.13:39-50 '59. (MIRA 13:3)

1. Kafedra sistematicheskoy zoologii Karlova universiteta v Prage,  
kafedra zoologii Bratislavskogo universiteta im. Komenskogo.  
(Bitterling)

"Elimination of Manganese Addition from the Charge and the Production of Low Manganese Cast Iron,"

Achievements of Blast Furnace Operators of the Magnitogorsk Metallurgical Combine, Moscow, Metallurgizdat, 1957, 279 pp.

GOLCHIN, V.I.

Work of efficiency promoters and inventors at the Magnitogorsk  
combine. Stal' 17 no.1:93-94 Ja '57. (MLRA 10:3)

1. Magnitogorskiy metallurgicheskiy kombinat.  
(Magnitogorsk Metallurgical plants)

SCV/175-58-6-31/41

AUTHOR: Golchin, Yu.

TITLE: Ejection

PERIODICAL: Tankist, 1958, Nr 6, pp 48-50 (USSR)

ABSTRACT: The author draws attention to a device mounted on the tank barrel. It is not a muzzle brake, nor a flame extinguisher but an ejection device. The principle of this device is based upon the utilization of the kinetic energy of a fluid medium for the purpose of pressing out another fluid medium. It may be gas, a liquid, vapors, etc. The principle of the ejector is shown in a sectional drawing (Figure 1). The high-pressure gas enters the sphere of a low pressure gas. The velocity of the first increases, pressure drops and rarefaction follows. This causes suction of the low-pressure gas into the flush chamber. The stream of the high pressure gas seizes the low pressure gas and enters a diffuser. The velocity of the gas mixture decreases,

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00V/155-58-6-31/41

## Ejection

the pressure rises and causes the final exhaustion. The ejection principle is widely applied in the cooling of engines. The ejection system is utilized in cooling the type DDT-250 Diesel electric tractor ("Tankist" Nr 8, 1957). Ejecting mufflers are installed on small tonnage vessels provided with Diesel engines. (V.A. Beloborodov, "Contemporary Diesels on Small Tonnage Vessels" 1941). A sectional drawing shows the flow of the gases (Figure 2). Powder gases saturated with carbon monoxide, entering the fighting compartment of the tank are harmful to the human organism. For blowing through the gun bore, the ejection device is employed. On the barrel of the gun, near the muzzle, a special jacket is mounted. A sectional drawing shows the arrangement (Figure 3). In the barrel walls, several holes are bored at an angle of  $20 - 30^\circ$  with the bore axis. These holes are provided with nozzles. On firing,

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SOV/175-58-6-31/41

Ejection

prior to the projectile leaving the gun, the powder gases enter the jacket. The pressure in the jacket attains 20 to 30 atmospheres. After the shell has left the gun bore, the gases escape from the jacket towards the muzzle with great velocity, creating behind them a sphere of low pressure. The gases remaining in the bore and in the cartridge case follow the gases flowing from the jacket and escape through the muzzle. This arrangement reduces the concentration of carbon monoxide in the fighting compartment of the tank by 8 to 10 times. This means the creation of normal working conditions for the tank crew. There are 3 sectional diagrams.

Card 3/3

GOLCOV, Valentin

Moscow Central Airport. Letecky obzor 7 no.12:360-362 D'63.

~~(SECRET, CRUCIAL)~~  
POLAND / Chemical Technology. Processing of Solid Fuels H-11

Abs Jour : RZhKhim., No 12, 1956, No 40931

Author : Gol'ch

Inst : Not given

Title : Preparation of Synthetic gas according to the Coppers-Totzek Method.

Orig Pub : Gaz. woda, techn. sanit., 1956, 50, No 6, 227-229.

Abstract : A brief description is given for the methods of preparing synthetic gas from the degassing of a sudt-like solid fuel. A description is given of the Coppers-Totzek Method, which is based on the degasification of coal dust with oxygen. Data is supplied on the plants which are manufacturing synthetic gas by this method.

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POLAND / Chemical Technology. Chemical Products and H-23  
Their application. Chemical Processing of  
Natural Gases and Petroleum. Motor and  
Rocket Fuels. Lubricants.

Abs Jour: Ref Zhur-khimiya, No 1, 1959, 2557.

Author : ~~Golez, J.~~  
Inst : Not given.  
Title : The Manufacture of City Gas From Hydrocarbons and  
Also From Liquefied Gases.

Orig Pub: Gaz, woda i techn. sanit., 1958, 32, No 2, 65-68.

Abstract: The review of the modern methods which are based  
on thermal and thermo-catalytic conversion of hydrocarbon  
gases, and a conclusion concerning their applicability in the  
development of Polish gas industry which is based on natural  
and petroleum gases and on those obtained as waste products  
from chemical industry. Nine references are given.

Card 1/1

GOLCZ, Janina

Work of the Central Laboratory of the Gas Industry on the purification of gas carried on during the last ten years. Koks 7 no.2: 59-63 Mr-Ap '62.

1. Centralne Laboratorium Gazownictwa, Warszawa.

CZABAJSKI, T.; GOLCZ, L.

Result of cultivation of castor bean during 1951-53. Acta Poloniae  
pharm. 11 Suppl.:91-94 1955.

1. Panstwowy Instytut Naukowy Leczniczych Surowcow Roslinnych,  
Poznan.  
(CASTOR BEANS,  
prod. in Poland)

GOLCZ, Leszek, dr inz.; KOWALEWSKI, Zdzislaw

Content of glycosides of *Erysium perofskianum* Fisch. et Mey. seeds  
in various stages of maturity. Inst przem ziel Biul 8 no.1/2:35-  
38 Mr-Je '62.

1. Zaklad Agrotechniki Roslin Leczniczych, Instytut Przemyslu  
Zielarskiego, Poznan. Kierownik Zakladu: dr inz. L.Golcz.

GOLCZ, L., dr inz.; JARUZELSKI, M.

A visit in Bulgaria. Inst przem ziel Biul 8 no.1/2:72-74 Mr.-Je  
'62.



CZABAJSKI, Tadeusz; GOLCZ, Leszek, dr inż.

Influence of mineral fertilizing upon the yield of morphine in  
Papaver somniferum L. Inst przem ziel Biul 8 no.3:134-140 S '62.

1. Zakład Agrotechniki Roslin Leczniczych, Instytut Przemysłu  
Zielarskiego, Poznań. Kierownik: dr. inż. L.Golcz.

GOLCZ, L., dr inż.

International Symposium in Leipzig on Breeding and Cultivating  
Medicinal Plants. Inst przem ział Biul 8 no.4:207-210 D '62.

24

GOLCZ, Leszek, dr inż.; HOFFMANN, Marian, doc. dr; ZALECKI, Ryszard

Effect of chemical fertilizing and increased doses of nitrogen on the crop and Helveticoside content in the seeds of *Erysimum Perovskianum* grown on soil of different moisture. Inst przem ziel Biol 8 no.4:166-180 D '62.

1. Katedra Uprawy i Nawożenia Rolnictwa Wyższej Szkoły Rolniczej, Poznań, kierownik: doc. dr M. Hoffmann, i Zakład Agrotechniki Roslin Leczniczych TPZ Instytut Przemysłu Zielarskiego, Poznań, kierownik: dr inż. L. Golcz.

Country : POLAND  
Category: Analytical Chemistry. General

E

Abs Jour: RZhKhim., No 17, 1959, No 60430

Author : Golczewski, J.

Instit : -

Title : Chemiluminescent Indicators For Neutralization  
Reactions

Orig Pub: Chemic, 1953, 11, No 12, 402

Abstract: Described is the application of 2, 4, 5-triphenylimidazol (luphin) (I) as chemiluminescent acid-base indicator. For every 100 ml of the titrated solution, 5 ml of a 3% H<sub>2</sub>O<sub>2</sub> solution, 1 ml of a 5% K<sub>3</sub>Fe(CN)<sub>6</sub> solution, 1 ml of 0.45% ethanol solution of I, 30 ml of 90% ethanol are added in the dark and titrated with

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Country : POLAND  
Category: Analytical Chemistry. General.

E

Abs Jour: RZhKhim., No 17, 1959, No 60430

NaOH solution. At the titration end point (pH of 8.9-9.4) the whole solution becomes luminescent that lasts > 1 minute. Accuracy of the titration with I corresponds to that attained in titrations with phenolphthalein. I is particularly useful in the titration of colored solutions. -- A. Nemodruk

Card : 2/2

ALPHABETICALLY BY LAST NAME  
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Golczewski, S. STANDARDIZATION OF THE QUALITY OF  
-metal. *Habak*, 10, 171-80, 1958. New steel  
and iron suggested which omit density and composition  
but introduce linear thermal expansion, volume expansion  
at high temperatures, and resistance to temperature  
change.

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

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Choice of the coke-oven type. Stanislaw Golezewski.  
*Hutnik* 18, 481-4(1951).—G. gives a short characteristic  
of various coke ovens. The following items are discussed:  
type of charge, width, length, and height of coking cham-  
bers, efficiency of the oven, and type of fuel. Vertical and  
horizontal cross sections of the ovens, the convergence of the  
sidewalls, refractory materials used in construction of the  
oven and heat regenerators, and methods of collection of  
gaseous products are described. Adam J. Piroc

GOLCZEWSKI, S.

POL.

008.741.11

3104

Golczowski S. Classification of Coke Ovens.

"Klasyfikacja pieców koksowniczych". *Hutnik*. No. 5, 1953, pp. 165-170, 3 figs., 4 tabs.

Definition of a coke oven. Fundamental classification of coke ovens:  
1) directly heated ovens differentiated as to open ovens and basket ovens; 2) indirectly heated (by-product) ovens, differentiated as to muffle ovens and chamber ovens. Chamber ovens are subdivided into vertical chamber and horizontal chamber ovens with a further difference.

OVER



tion between ovens with horizontal heating flues and ovens with vertical heating flues. Next, the author characterizes and classifies exclusively horizontal chamber ovens with vertical flues and distinguishes: 1) ground based ovens and floor ovens — differentiated according to the type of the oven bed; 2) waste heat, recuperative and regenerative ovens — differentiated according to the method of utilizing waste heat; 3) ovens of down draft, up draft and reversible flow direction — differentiated according to the direction of combustion in heating walls; 4) ovens with the total wall surface heated, ovens with half wall surface heated and ovens with centre heated walls — differentiated according to the system of heating the coking chambers; and 5) ovens of vertical and hairpin system of flues. Types of regenerators: double-divided ovens and individual regenerators. Methods of oven firing: by means of one kind of fuel gas — simple fuel oven, by means of two kinds of fuel gas — dual fuel oven. Detailed classification table of horizontal chamber ovens with vertical heating flues including trade names and description of outstanding features of design and construction of elements.

GOLCZEWSKI, S

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S

Specifications for coke oven refractories. S. GOLCZEWSKI.  
*Hutnik*, 22 (11) 393-401 (1955); abstracted in *J. Iron Steel Inst. (London)*, 145 (3) 271 (1957).—The suitability of constituc-  
tional materials (cements, lime, brick and refractories) for  
different parts of coke ovens is discussed in the light of Polish  
specifications. N. E. B.

GOLCZYK, Alina

Common bile duct calculus in 6 week old infant. Polski tygod. lek.  
14 no. 12:528-529 23 Mar 59.

- 1. Z II Kliniki Chorob Dzieciacych A. M. w Warszawie; kierownik: prof.  
dr med. M. Michalowicz. Adres: Warszawa, II Klin. Choro. Dziec A.M.  
(CHOLELITHIASIS, in inf. & child  
common bile duct in newborn, case report (Pol))  
(INFANT, NEWBORN, dis.  
common bile duct calculus, case report (Pol))

GOLCZYK, Alina

A case of male pseudohermaphroditism in a 6-month-old infant.  
Polski tygod.lek.15 no.21:801-803 23 My '60.

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prof. dr med. H.Michalowicz  
(HERMAPHRODITISM case reports)