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L 08077-67

ACC NR: AP6034215

centers. The following conclusions were made: 1) Glass darkening increases with an increase of the irradiation dose. 2) Irradiation with neutrons produces an uneven darkening. 3) When a photomultiplier receives a dose higher than 10^5 r, the total multiplier gain should be corrected by a value specified by the change in optical density of the photocathode glass. 4) Heating to a temperature of 350—400C results in partial restoration of the glass's transparency while ultraviolet irradiation produces no such effect. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 27Feb65/ ORIG REF: 001/ ATD PRESS: 5102

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, G.I.

SHCHELOCHKOVA, S.P.; MAKARTSEVA, T.V.; GARSHIN, Ye.A.; MOISEYEVA, Ye.I.; BLAGODAROVA, T.N.; MAKAROVA, L.I.; MEL'NIKOVA, R.M.; REVIZOVA, V.Ye.; YUSHKEVICH, G.I.; YEVPRYNTSEVA, Z.A.; GALYAMOVA, M.F.; DROZDOVA, L.M.; SALIKOVA, V.N.; KONNOV, F.Ya., red.; ANTONOV, V.P., tekhn.red.

[Economy of the province and city of Kuybyshev; a statistical manual] Narodnoe khozyaistvo Kuibyshevskoi oblasti i goroda Kuibysheva; statisticheskii sbornik. Kuibyshev, Kuibyshevskoe otd-nie Gosstatizdata, 1957. 197 p. (MIRA 11:3)

1. Kuybyshevskaya oblast'. Statisticheskoye upravleniye. 2. Statisticheskoye upravleniye Kuybyshevskoy oblasti (for all, except Konnov, Antonov)
(Kuybyshev Province--Statistics)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

SEREDAVIN, D.G.; KONNOV, F.Ya.; YUSHKEVICH, G.I.; SILINA, L.D.; MOISEYEVA, Ye.I.; BLAGODAROVA, T.N.; BIRYUKOVA, M.S.; SOLOVEY, I.I.; REVIZOVA, V.Ye.; YEVPRYNTSEVA, Z.A.; DAVYDOVA, I.V.; SAVICHEVA, Z.N.; KHAUSTOVA, A.K., tekhn.red.

[Economy of Kuybyshev Province for 1958-1959; statistical collection] Narodnoe khoziaistvo Kuibyshevskoi oblasti za 1958-1959 gody; statisticheskii sbornik. Kuibyshev, 1960. 174 p. (MIRA 14:1)

1. Kuybyshevskaya oblast'. Statisticheskoye upravleniye. 2. Nachal'nik Statisticheskogo upravleniya Kuybyshevskoy oblasti (for Seredavin). 3. Statisticheskoye upravleniye Kuybyshevskoy oblasti (for all, except Khaustova).
(Kuybyshev Province--Statistics)

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YUSHKEVICH, O.

CA

2

A micromethod for measuring diffusion coefficients. K. V. Chmutov and O. Yushkevich (Voroshilov Acad. Chem. Defense). *Doklady Akad. Nauk S.S.S.R.* 60, 865-6 (1948).—Diffusion begins as 2 glass chambers, coatg. dye, coln. and solvent, resp., are fitted together, placing the liquids in contact over an area 0.8 × 3 mm. At subsequent intervals, the transmittance of any preselected layer 0.25 mm. thick can be compared with that of a soln. of known concn. by means of a split-field optical arrangement.

Cyrus Feldman

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

April 1947

USSR/Chemistry - Gelatinous Materials
Chemistry - Colloids

"Special Cases of Coloring of Gelatin Layers," K. Chmutov, G. Yushkevich, Military Academy of Chemical Defense SA imeni K. E. Voroshilov, 4 pp

"Kolloidnyy Zhurnal" Vol IX, No 4

Experimental data, with graphs and a diagram of apparatus. Concludes that in case of small concentrations on the edges of a colored zone there is a change of effect; a decrease in density of coloring in the strip, which may be explained by partial washing off of the coloring agent as it begins to collect on the surface of the gelatine but is weakly joined to it. Submitted 23 Jan. 1947.

PA 17T85

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, G. N.

AUTHORS: Zhuze, T. P. and Yushkevich, G. N. (Moscow) 24-11-8/31

TITLE: Compressed hydrocarbon gases as solvents of oil and oil residues. (Szhatyye uglevodorodnyye gazy kak rastvoriteli nefti i neftyanykh ostatkov I.)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.11, pp.63-68 (USSR)

ABSTRACT: The authors describe the results of experimental study of the solubility of a number of crudes in carbonic acid and hydrocarbon gases, the aim of which was to clarify the properties of various gases as solvents of crude oil. All the equations derived by other authors apply to simple binary systems. So far, the solubility in gases of more complex systems cannot be calculated and has to be studied experimentally. The system oil-gas is a multi-component system and there are few papers devoted to this system. However, the solubility of oil in compressed gases, particularly in hydrocarbons, is of interest for solving scientific and technical problems of oil geology, oil refining etc., since they permit evaluating the physical state in which oil and gas may exist underground. The data are also useful for evaluating the possibilities of transfer of oil in the gaseous phase during its migration

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24-11-8/31

Compressed hydrocarbon gases as solvents of oil and oil residues.

inside the Earth's crust and this is the reason why the authors studied the solubility of a number of oils in hydrocarbon gases and in carbonic acid. The solubility of the oil was tested by the static method, whereby the main part of the test set-up consisted of a container of 1.3 litre volume in which an equilibrium was established of the system oil-gas, a sketch of this vessel is shown in Fig.1, p.64. The results of the solubility of oil of various origins are entered in Tables 1-3. Within the investigated range of pressures (100 to 800 atm) the solubility of oil in the gas increases with increasing pressure and temperature, whereby an increase in the pressure has a greater influence on the solubility than an increase in the temperature. With increasing gas/oil volume ratios, the solubility of the oil in the gas decreases and vice versa, approaching a constant maximum value. The solubility of oil in the gas depends on its composition; oils which are rich in light fractions and have a low content of asphalt-tar components dissolve in gas, under otherwise equal conditions considerably better than heavy tar containing oils. During dissolution the

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Compressed hydrocarbon gases as solvents of oil and oil residues. 24-11-8/31

lighter components of the oil become transformed into the gaseous phase and the high boiling point components of the oil will remain in the residues, including asphalt-tar components. Presence in the oil of a large number of light fractions brings about higher solubility in the gas of its high molecular components. The nature of the gaseous solvent depends to a large extent on the solubility of the oil in the gas and, in certain cases, it is stronger than the change in the pressure in the system. Methane is a weak solvent of oil, whilst carbonic acid is a stronger solvent. The solubility of oil in hydrocarbon gases increases in the following order: methane, ethane, ethylene and propane. Addition of these gases to methane improves appreciably the solubility of oil in the gases. The solubility of oil in mixtures of hydrocarbon gases containing larger quantities of propane and propylene reaches high values even at relatively low pressures. There are 3 tables, 1 figure and 9 references, two of which are Slavic.

Card 3/3

SUBMITTED: February 11, 1957.

AVAILABLE: Library of Congress.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, G. N.

AUTHORS: Zhuze, T.P. and Yushkevich, G. N. (Moscow). 24-12-19/24

TITLE: Compressed hydrocarbon gases as solvents of oil and oil residues. Part II. (Szhatyye uglevodorodnye gazy kak rastvoriteli nefti i neftyanykh ostatkov.II)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.12, pp. 83-86 (USSR)

ABSTRACT: In Part I of this paper (same journal, No.9, 1957) it was stated that ethylene, propane, propylene and mixtures of propane and propylene are the most intensive solvents for petroleum. In this paper the solving ability of these gases was investigated at temperatures exceeding the critical temperatures of the gases and pressures of 40 to 500 atm; in all the experiments the solving ability was determined for volume ratios of the gas to the oil products varying between 900 and 1000. For this ratio the solubility of petroleum products for heavy petroleum residues approaches a constant maximum value. The characteristics of the products, the solubility of which was studied, are given in Table 1, p.83 (for 40% Tuymazin mazout, cracking residue and tar). The results are entered in Figs.1-3 and in Tables 2-4, giving the solubility of these residues in propane, propylene and their mixtures in

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24-12-19/24

Compressed hydrocarbon gases as solvents of oil and oil residues. Part II.

ethylene at 105°C. The ability of these gases to dissolve petroleum products increases in the following sequence: ethylene, propane, propylene, mixture of propane with propylene; only products with a higher quantity of paraffin-naphthene hydrocarbons are dissolved more easily by propane than by propylene.
There are 3 figures, 5 tables and 1 Slavic reference.

SUBMITTED: May 3, 1957.

AVAILABLE: Library of Congress.

Card 2/2

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, G. N., Cand Chem Sci -- (diss) "Study of the solubility of petroleum and heavy petroleum ~~deposits~~ residues in compressed gases." Mos, 1958. 13 pp (Acad Sci USSR, Inst of Petroleum), 110 copies (KL, 15-58, 113)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

SOV/65-58-7-8/12

AUTHORS: Yushkevich, G. N. and Zhuze, T. P.

TITLE: The Solubility of Petroleums in Compressed Gases (Rastvorimost' neftey v szhatykh gazakh).

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr.7. pp. 45 - 53. (USSR).

ABSTRACT: Different gases, when compressed at a few hundred atms, are good diluents for mineral and organic matter, and for petroleum. Investigations were carried out when using a new method of "cold" distillation of petroleum (Proceedings of the Institute of Petroleum of the Academy of Sciences of the USSR (Trudy instituta nefti AN SSSR). These experiments make it possible to define the physical composition of petroleum and gas at various depths of the earth core. Mathematical derivations published by various authors are quoted (Refs. 1 - 13). The solubility of petroleum was determined by a statical method. The plant used in these experiments - Fig.1, and the properties of the investigated petroleums listed in Table 1. Methane, ethylene, CO_2, and methane with admixtures of its homologues were used as diluents. The temperatures during the experiments were above the critical temperatures of the gases, at pressures between 100 - 800 atms. Results of tests on petroleums from Khadyzhenski and from Dossor

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SOV/
The Solubility of Petroleums in Compressed Gases. 65-58-7-8/12

are quoted in Table 2 and Fig.2. All high-molecular fractions of petroleum were found to dissolve on increasing the gas pressure, but the specific weights of the petroleum fractions dissolved in the gas were always lower than the specific weights of the undissolved fractions. Changes in the temperature affect the solubility of petroleum in gas less than changes in pressure. The type of gas diluent influences the solubility considerably e. g. petroleum is more soluble in CO_2 than in methane. Petroleums containing considerable quantities of light benzene fractions are more easily soluble in gases than heavy petroleums. Table 3: the solubility of Tuymazy and Romashkin petroleum in a number of hydrocarbon gases and their mixtures. The addition of a large quantity of gaseous homologues to methane increases the solubility of petroleum (experiments 9 and 10). Mixtures of ethylene and methane and pure ethylene dissolve petroleum better than methane (experiments 11 - 13). The ratio of the volumes of gas and petroleum was found to be in an inverse proportion to the solubility of petroleum in the gas. Propane and propylene are better diluents than ethylene, and high degrees of solubility are

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

The Solubility of Petroleums in Compressed Gases. SOV/65-58-7-8/12

achieved at comparatively low pressures. There are 3 Tables, 2 Figures and 17 References: 3 French, 11 English, 1 German and 2 Soviet.

ASSOCIATION: Institut nefti AN SSSR (Institute of Petroleum of the Academy of Sciences of the USSR).

1. Petroleum--Solubility 2. Petroleum--Properties 3. Petroleum --Test methods 4. Gases--Applications

Card 3/3

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

SOV/24-58-11-33/42

AUTHORS: Zhuze, T. P., Safronova, T. P. and Yushkevich, G. N. (Moscow)

TITLE: Extraction of Ozokerite from Ozokerite Ores by Means of Compressed Gases (Ekstraktsiya ozokerita iz ozokeritovykh rud szhatymi gazami)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, Nr 11, pp 123-125 (USSR)

ABSTRACT: The here described method, developed at the Oil Institute, Ac.Sc. USSR, is based on the ability of a number of hydrocarbon gases to dissolve satisfactorily hydrocarbons if these gases are compressed to some pressure at a temperature exceeding their critical temperature. It is also known that the dissolving ability of gas increases at a constant temperature with increasing pressure; at higher pressures the gases begin to dissolve not only hydrocarbons but also asphalt-resin compounds. The test-rig on which the extraction experiments were carried out consisted of a column, a separator, a receiver and a compressor. The column consisted of a 1500 mm long, 45 mm inner dia. tube scheduled to withstand 150 atm. The column was fitted with external electric heating and

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SOV/24-58-11-33/42

Extraction of Ozokerite from Ozokerite Ores by Means of Compressed Gases

inside it the temperature was measured by means of a 3-point thermocouple and the pressure by means of a pressure gauge. The column was joined by means of a throttling valve with a separator, a 0.5 litre vessel, rated for a pressure of 70 atm and fitted with external electric heating. The separator was joined by means of a valve to the receiver. The operation was as follows: at the bottom of the column a few layers of the substance was placed to serve as a filter and ore was loaded into the column. Following that, the column was heated to 100°C, then gas was passed through it which was preliminarily compressed to the selected extraction pressure. After passing through the ore, the gas dissolved the hydrocarbons contained in the ore and passing through the filter, which retained the ore dust, it flowed through a throttling valve into the separator where the pressure was reduced to 40-50 atm. The temperature in the separator was maintained at the same level as in the column, i.e. at 100°C. Since at these pressures the gas no longer acts as a solving agent, the products dissolved in it separate out (i.e. ozokerite raw material),

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SOV/24-58-11-33/42

Extraction of Ozokerite from Ozokerite Ores by Means of Compressed Gases

the regenerated gas is drawn off by the compressor and is additionally compressed to the initial pressure and is then again directed into the column for further ore extraction. Thus, the extraction process was effected with a continuous circulation of the gaseous solvent. On accumulation of the raw ozokerite in the separator it was transferred into the receiver where it was maintained at atmospheric pressure by means of a throttling valve. Thereby, gas separated out from the raw ozokerite which became dissolved in it in the separator in a quantity corresponding to the respective temperature and pressure; this gas was removed into a gas container. The characteristic of the ores which were subjected to such extraction are entered in Table 1. The ore was charged in the column in the as-delivered state without additional breaking up or drying, it consisted of a mixture of pulverised particles with bits of various dimensions between 2 and 10 mm. The extraction of the ozokerite from the ores was effected by means of propane-propylene fractions, the composition of which is entered in Table 2, which also contains information on the conditions of the

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SOV/24-58-11-33/42

Extraction of Ozokerite from Ozokerite Ores by Means of Compressed Gases

experiments and the obtained results. The raw ozokerite extracted by means of compressed gases is characterised by a light brown colour and contains considerably less resin than those extracted by means of gasoline. There are 3 tables and 1 Soviet reference.

SUBMITTED: May 28, 1958

Card 4/4

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P., doktor khim. nauk; YUSHKEVICH, G.N., inzh.; GEKKER, I.Ye., inzh.

Removing lanolin from wool oil with compressed gases. Mas.-zhir. prom. 24 no. 6:34-37 '58. (MIRA 11:7)

1. Institut nefti AN SSSR(for Zhuze, Yushkevich). 2. Institut biokhimii AN SSSR(for Gekker).
(Wool oil)
(Lanolin)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P.; YUSHKEVICH, G.H.; SAFRONOVA, T.P.

Method of the extraction of raw ozocerite from ozocerite ores by means of compressed gases. Trudy Inst.nefti 13:275-279 '59. (MIRA 13:12)

(Ozocerite) (Gases, Compressed)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P., YUSHKEVICH, G.N.

Solubility of petroleum and its heavy fractions in compressed gases. Trudy Inst.nefti 13:262-274 '59. (MIRA 13:12)
(Petroleum products) (Gases, Compressed)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P., doktor khim.nauk; YUSHKEVICH, G.N., kand.khim.nauk; GEKKER, I.Ye., inzh.

Steam deodorization of lanolin in vacuum at a lowered temperature. Masl.-zhir.prom. 25 no.3:36-37 '59. (MIRA 12:4)

1. Institut nefti AN SSSR (for Zhuze, Yushkevich). 2. Institut biokhimii AN USSR (for Gekker).
(Wool fat) (Deodorization)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P., doktor khim.nauk; YUSHKEVICH, G.N., kand.khim.nauk; GEKKER, I.Ye. inzh.; VAYNSHTOK, V.V., inzh.; BONDAREVSKIY, G.D., inzh.

Complex processing of wool fat. Masl.-zhir.prom. 25 no.11:25-27 '59. (MIRA 13:3)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR (for Zhuze, Yushkevich). 2. Institut biokhimii AN SSSR (for Gekker). 3. MINKh i GP (for Vaynshtok, Bondarevskiy).
(Wool fat) (Lanolin)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P.; YUSHKEVICH, G.N.; GEKKER, I.Ye.

New method for obtaining lanolin. Tekst. prom. 20 no. 12:87 D '60. (MIRA 13:12)

(Lanolin)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P.; YUSHKEVICH, G.N.

Evaluating the relationships between the volumes of the gas and liquid phases of condensate oil pools according to data from laboratory modeling. Geol. nefti i gaza 5 no.7:48-50 Jl '61. (MIRA 14:9)

1. Institut geologii i razrabotki goryuchikh iskopayemykh Ministerstva geologii i okhrany nedr SSSR.
(Oil reservoir engineering)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P.; YUSHKEVICH, G.N.

Characteristics of the gas and liquid phases of oil and gas condensate systems at great depths. Neft. khoz. 39 no.7:30-34 Jl '61. (MIRA 14:6)

(Condensate oil wells)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P.; USHAKOVA, G.S.; YUSHKEVICH, G.N.

Effect of high pressures and temperatures on the content and properties of a condensate in the gaseous phase of gas and oil fields. Geokhimiia no.8:689-697 '62. (MIRA 15:9)

1. Institute of Geology and Exploitation of Fuel Minerals, Academy of Sciences, U.S.S.R., Moscow.
(Condensate oil wells)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T. P.; YUSHKEVICH, G. N.; USHAKOVA, G. S.; TUMAREV, K. K.

Utilization of data on phase composition in the petroleum-gas system having high pressures for determining the origin of certain pools. Geol. nefti i gaza 7 no.4:12-17 Ap '63. (MIRA 16:4)

1. Institut geologii i razrabotki goryuchikh iskopayemykh AN SSSR.

(Petroleum geology)
(Gas, Natural--Geology)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P.; YUSHKEVICH, G.N.; USHAKOVA, G.S.; YESAKOV, Ye.A.

Critical parameters for oil and oil-gas systems. Neft. khoz. 41 no.6:25-31 Je '63. (MIRA 17:6)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P.; YUSHKEVICH, G.N.; USHAKOVA, G.S.

General regularities in the behavior of gas and oil systems at great depths. Dokl. AN SSSR 152 no.3:713-716 S '63. (MIRA 16:12)

1. Institut geologii i razrabotki goryuchikh iskopayemykh. Predstavleno akademikom N.M.Strakhovym.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

GULYAYEVA, L.A.; ZHUYE, T.P.; YUSHKEVICH, G.N.; KOVALEVA, T.A.

Solubility of the metal-organic compounds of oil and bitumens in compressed gases. Lit. i pol. iskop. no.4:185-188 Jl-Ag '65. (MIRA 18:9)

1. Institut geologii i razrabotki goryuchikh iskopayemykh, Moskva.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZHUZE, T.P., doktor khimicheskikh nauk; YUSHKEVICH, G.P., kand. khimicheskikh nauk; GEKKER, I.Ye. (Moskva)

Lanolin. Priroda 49 no.7:69 Jl '60. (MIRA 13:7)
(Lanolin)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, I.A.

Changes in the transpiration of pine cultures due to green manuring. Vestsi AN BSSR.Ser.biial.nav. no.2:30-35 '59. (MIRA 12:9)

(PINE) (GREEN MANURING) (PLANTS--TRANSPIRATION)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, I.A.

Effect of green manure on the photosynthesis and productivity of pine plantations. Sbor. bot. rab. Bel. otd. VBO no.2:132-144 '60. (MIRA 15:1)

(Pine—Fertilizers and manures) (Photosynthesis)
(Green manuring)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, I.A.

Characteristics of the development of pine root systems in fluvioglacial sand soils. Bot.; issl. Bel. otd. VBO no.5; 135-145 '63. (MIRA 17:5)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, I.E.

USSR/Crystals. B-5

Abs Jour : Referat Zhur - Khimiya, No 6, 1957, 18299

Author : O.I. Nikitina, M.G. Sklyar, I.E. Yushkevich.
Inst : Ukrainian Scientific Research Institute of Metals.
Title : Study of Diffusion of Carbon and Arsenic in Technically Pure Iron and Steel by Spectral Method.

Orig Pub : Tr. Ukr. n.-i. in-ta metallov, 1956, vyp. 2, 318-332.

Abstract : No abstract.

Card 1/1 - 66 -

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

L 63[illegible]-65 EWP(c)/EWP(k)/EWA(c)/EWT(d)/EWT(m)/ETC(m)/EWP(b)/T/EWP(1)/EWP(v)/EWP(t) [illegible]

ACCESSION NR: AP5015101 UR/0381/65/000/002/0056/0065

[illegible] Kuntsev, G. V. [illegible]

[illegible] parameters of hardened meta[illegible]

[illegible]

[illegible] ultrasonic equipment, meta[illegible] analysis, flaw detection

[illegible] methods of inspection of [illegible] reverberation and metal grain scatter- [illegible] vibrations may be used for in- [illegible] its compactness. The method of sending supersonic waves through the metal may be used only for inspection of [illegible] thickness of the part being ex- [illegible] measurements, therefore the method is [illegible] structures. Structural reverbera[illegible] scattering of vibrations by metal [illegible] the metal structure. Reverbera- [illegible] prove are evaluated quantitatively

Card 1/2

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

[illegible]

ACCESSION NR: [illegible]

[illegible] ...thode-ray tube and qualitatively by [illegible] distance between the transmitting and [illegible] layer to a depth of [illegible] more than [illegible] amplitude of the signal to the [illegible] greater this ratio the more dispersed [illegible]

Structural [illegible] Orig. art. has: 8 figures.

[illegible] Institut zhelezn dorozhnogo [illegible] of Railway Transportation [illegible]

SUB CODE: MM, [illegible]

OTHER: 000

NO REF SOV: 001

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ZAROCHENTSEV, G.V.; YUSHKEVICH, I.N.

Reverberation method of controlling metal structure. Zav. lab. 31 no.2: 198-201 '65. (MIRA 18:")

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

L 33525-65 EWT(m) [illegible] EWA(c) Feb IJP(c) JD
S/0032/65/031/002/0198/0201

ACCESSION NR: AP5005476

AUTHORS: Zarochentsev, O. V.; Yushkevich, I. N.

25
24
B

TITLE: Reverberation method for inspecting metallic structures

SOURCE: Zavodskaya Laboratoriya, v. 31, no. 2, 1965, 198-201

TOPIC TAGS: ultrasound, metal structure, hardened structure, steel, aluminum zinc alloy, metal grain structure, perlite, martensite

ABSTRACT: A reverberation method is proposed for inspecting the structure of hardened metal 5-20 mm in thickness. It is based on the condition that $d/x > 4$, where d is the depth of the detail and x is the depth at which structural reflection occurs (see Fig. 1 on the Enclosure). Under this condition the bottom signal is not registered by the receiving crystal, which records only the ultrasound energy arising from vibrations reflected and scattered by metallic grains. Signals obtained in hardened steel, in unhardened steel, in aluminum, and in zinc alloy were studied and are presented graphically. The influence exerted by the magnitude of crystals, distances between feelers, and feeler inclinations were studied on 11 specimens subjected to various heat treatments and differing in material

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ACCESSION NR: AP5009476

composition. The results are shown in Fig. 2 on the Enclosure. Orig. art. has: 4 drawings and 8 equations.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (All-Union Scientific Research Institute of Railroad Transportation)

SUBMITTED: 00 ENCL: 01 SUB CODE: MM

NO REF SOV: 000 OTHER: 001

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ENCLOSURE: 01

ACCESSION NR: AP5005476

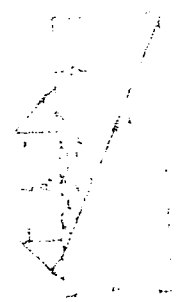

Fig. 1. A [illegible] heme of the reverberation [illegible] inspecting the structure of [illegible]

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L 33521-65
ACCESSION NR: AP5005476

ENCLOSURE: 02

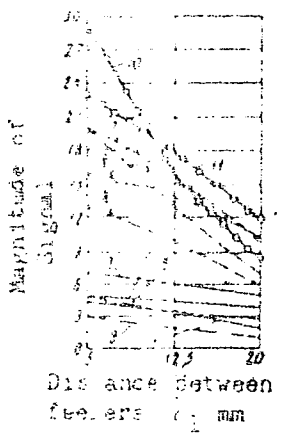

Fig. . Results of investigating . specimens of railroad rails by the reverberation method with frequency of ultrasound vibrations of 5 Mhz. 1 to 3- volume hardened specimens; 4 to 7- normalized; 8, 9 tempered; 10, 11 without thermal treatment. The structure of the specimens: to 3- sorbitol-like platy perlite; 2- martensite; 4, 5 coarsely platy perlite; 6, 9 granular tempered perlite; 1 coarsely platy, coarsely granular perlite.

Card 2

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L. B.

"Dynamics of the Accumulation of Methemoglobin During Inspiration of Nitric Oxides in Small Concentrations and of the Regeneration of Hemoglobin Oxide in the Blood of Animals and Human Beings." Sub 29 Oct 51, First Moscow Order of Lenin Medical Inst.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.

Formation of methemoglobinemia in nitrogen oxide poisoning. Gig. sanit., Moskva no.3:37-40 Mar 1953. (CLML 24:3)

1. Of the Department of General Hygiene, First Moscow Order of Lenin Medical Institute.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.; BRUSALEVSKAYA, L.M.

[Plates on human anatomy] Uchebnye tablitsy "anatomiya cheloveka." Moskva, 1955. 40 plates (MLRA 9:7)
(ANATOMY, HUMAN-ATLASES)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.

Blood changes in workers exposed to the chronic action of mercaptophos. Probl.gemat.i perel.krovi no.7:35-36 '61. (MIRA 14:9)

1. Iz klinicheskogo otdela Moskovskogo nauchno-issledovatel'skogo instituta sanitarii i gigiyeny imeni F.F. Erismana.
(SYSTOX) (BLOOD)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.

Hemoglobinopathies. Probl.gematol. i perel.krovi no.8:35-44 '61. (MIRA 14:9)

1. Iz klinicheskogo otdela Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny imeni F.F. Erismana Ministerstva zdravookhraneniya RSFSR.

(HEMOGLOBIN)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

VYALOV, A.M.; BAGNOVA, M.D.; VASIL'YEV, A.S.; PUSHKINA, N.N.; YUSHKEVICH, L.B.; BULYCHEV, G.V.; BYLOV, I.S.; GENKIN, A.G.; ZHIDKOVA, L.V.; ZHIGULINA, L.A.

Early changes in the state of health of workers in the cumene process of phenol and acetone production. Uch. zap. Mosk.nauch.-issl. inst.san. i gig. no.9:13-16 '61 (MIRA 16:11)

*

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.

Morphological changes in the blood in early reactions to radiation effects. Med. rad. 6 no.1:82-83 '61. (MIRA 14:3)
(BLOOD CELLS) (RADIATION SICKNESS)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

VYALOV, A.M.; BAGNOVA, M.D.; BULYCHEV, G.V.; BYLOV, I.S.; GENKIN, A.G.; KUBLANOVA, P.S.; PUSHKINA, N.N.; YUSHKEVICH, L.B.

Comparative evaluation of health conditions in workers employed in producing synthetic fatty acids and higher fatty alcohols. Gig. i san. 26 no.4:15-21 Ap '61. (MIRA 15:5)

1. Iz klinicheskogo otdela Moskovskogo nauchno-issledovatel'skogo instituta gigiyeny imeni F.F.Erismana Ministerstva zdravookhraneniya RSFSR.

(CHEMICAL INDUSTRIES--HYGIENIC ASPECTS)
(ACIDS, FATTY--PHYSIOLOGICAL EFFECT) (ALCOHOLS--PHYSIOLOGICAL EFFECT)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YEFIMOV, N.A.; VASIL'YEV, A.S.; YUSHKO, Ya.K.; KOMAROVA, A.A.; KUBLANOVA, P.S.; ZHIGULINA, L.A.; YUSHKEVICH, L.B.; BULYCHEV, G.V.

Effect of wastes of a metallurgical plant on the health of the population. Uch.zap. Mosk. nauch.-issl.inst. san. i gig. no.9:73-76 '61 (MIRA 16:11)

*

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.

Anemia in workers engaged in production of fatty acids and alcohols. Probl.gemat.i perel.krovi no.7:32-34 '62. (MIRA 15:9)

1. Iz klinicheskogo otdela Nauchno-issledovatel'skogo instituta gigiyeny i sanitarii imeni F.F. Erismana (dir. A.P. Shitskova) Ministerstva zdravookhraneniya RSFSR.
(ANEMIA) (CHEMICAL WORKERS--DISEASES AND HYGIENE)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.; SKLYANSKAYA, V.S.

Morphological and biochemical changes in the blood during the action of ultrasound. Uch. zap. Mosk. nauch.-issl. inst. san. i gig. no.11:73-78 '63. (MIRA 17:1)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.

Congenital leukemia. Probl.gemat.i perel.krovi no.11:14-18 '62. (MIRA 15:11)

1. Iz klinicheskogo otdela Nauchno-issledovatel'skogo instituta imeni F.F. Erismana (dir. A.P. Shitskova).
(LEUKEMIA) (INFANTS (NEWBORN)--DISEASES)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, L.B.; TSIRKINA, A.S.

Significance of genetic factors in thalassemia. Probl. gemat. i perel. krovi 8 no.11:30-33 N '63. (MIRA 17:12)

1. Iz klinicheskogo otdela (zav. V.S. Luk'yanov) Moskovskogo nauchno-issledovatel'skogo instituta imeni F.F. Erismana i kafedry laboratornoy diagnostiki (zav.- prof. Ye.A. Kost) Tsentral'nogo instituta usovershenstvovaniya vrachey.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

VLADIMIRSKAYA Ye.B.; XUSHKEVICH, L.B.

So-called promyelocytic leukemia. Probl. gemat. i perel. krovi 9 no.1:17-19 Ja '64. (MIRA 18:1)

1. Iz 3-y kafedry terapii (zav. - deystvitel'nyy chlen AMN SSSR prof. I.A. Kassirskiy) TSentral'nogo instituta usovershenstvovaniya vrachey.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

KASSIRSKIY, I.A., prof.; YUSHKEVICH, L.B.

Genetic factors and heredity in leukemias. Probl. gemat. i perel. krovi 8 no.11:11-18 N '63. (MIRA 17:12)

1. Iz 3-y kafedry terapii (zav.- chlen-korrespondent AMN SSSR prof. I.A. Kassirskiy) TSentral'nogo instituta usovershenstovaniya vrachey.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

BOLDYREV, B.G.; YUSHKEVICH, L.N.

Thiosulfonic acids. Part 8: Alkyl esters of thiosulfonic acids, derivatives of naphthalene and phenanthrene. Zhur.ob.khim. 33 no.3:969-973 Mr '63. (MIRA 16:3)

1. L'vovskiy politekhnicheskiy institut.
(Naphthalenesulfonic acid) (Phenanthrenesulfonic acid)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

NIKITIN, N.; FEDOROV, I.; KUMKES, S.N., redaktor; YUSHKEVICH, M.L., redaktor; RIVINA, I.N., tekhnicheskiy redaktor; KAL'CHEVSKIY, G.N., redaktor kart.

[Tientsin] Tian'tszin'. Moskva, Gos. izd-vo geogr. lit-ry, 1953. (MIRA 7:8)
43 p.
(Tientsin, China--Description)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

KLIMCHEVSKIY, Cheslav; YUSHKEVICH, M.L.[translator]; GOROKHOVSKIY, A.V., red.; MARKOCH, K.G., tekhn. red.

[The A B C's of a radio amateur]Azbuka radioliubitelia. Moskva, Sviaz'izdat, 1962. 355 p. Translated from polish. (MIRA 15:8)
(Radio)

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, M. O.

"All-Union Conference for the Improvement of Drying Processes in the Ceramics Industry," Ogneupory, No. 4, 1949.

RYSS, M.B.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, M O

N/5
668.652
.Y9

Tekhnologiya Keramiki (Technology of Ceramics) Pod. Red. R. L. Pevznera. Moskva, Promstroyizdat, 1951.
406 p. Illus., Diagrs., Tables.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

LUNDINA, M.G.; YUSHKEVICH, M.O.; SUKHOV, P.V.

Brick Houses

House from prefabricated ceramic elements. Trudy Niistroitekramika, No. 5, 1951.

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

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

NAUMOV, M.M.; YUSHKEVICH, M.O., redaktor; GURVICH, R.M., nauchnyy redaktor; KONVISSER, L.I., redaktor.

[Tunnel ovens for brickmaking] Tunnel'nye pechi kirpichnoi promyshlennosti. Moskva, Gos. izd-vo lit-ry po stroit. materialam, 1953. 150 p. (MIRA 7:7)
(Kilns)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

Chem

YUSHKEVICH, M. O.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
General and Physical Chemistry

Dmitrii Stepanovich Belyankin, P. Budnikov, A. S. Berezhnoi, O. K. Botvinkin, S. S. Davydov, Kh. O. Gevorkyan, K. E. Goryalnov, V. P. Kuprianov, I. I. Kitaigorodskii, V. G. Kukolev, V. V. Lapin, A. A. Litvakovskii, V. M. Moskvin, S. A. Mironov, O. P. Mchedlov-Petrosyan, R. L. Peyznel, B. G. Skramtaev, V. N. Yung, and M. O. Yushkevich. Zhur. Priklad. Khim. 27, 3-4(1954).—Obituary with portrait and summary of scientific work in phys. chemistry and the silicates. G. M. Kosolapoff

9-2-54

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

Distr: [illegible]

Proceedings of the symposium on the chemistry of cement (Trudy Soveshchaniya Khim. Tsementa), Sci.-Technol. Soc. of Industry of Bldg. Materials, 1956, Moscow. P. P. Budnikov, Yu. M. Butt, S. M. Royak, and M. O. Yushkevich, editors, 484 pp. Progress of Soviet science in the field of cement chemistry, and future problems. P. P. Budnikov. Pages [illegible]. Physicochemical processes of cement-clinker formation. V. N. Yung. 14-19. —A survey. Composition and crystallization conditions of celite in portland cement clinker. [illegible] Tempov and A. I. Bolkova. 20-6. —The refractive indexes n_γ and n_α for the modifications [illegible] and of $4CaO.Al_2O_3$ and of $4CaO.Al_2O_3$-Fe_2O_3 are plotted in straight lines as functions of the compn. of their solid solns. The expt. data of synthetic solid solns. of this series correspond [illegible] better to the presence of the [illegible] modification than to [illegible] $CaO.3Al_2O_3$ in the structure of $4CaO.Al_2O_3.Fe_2O_3$. The limit compns. of the solid solns. highest [illegible] the hypothetical $2CaO.Al_2O_3$ contain 17.5% Fe_2O_3, with n_γ = 1.914, [illegible] and are much less intensely [illegible] than [illegible] $CaO.Al_2O_3.Fe_2O_3$. The compn. of the limit phase [illegible] Fe_2O_3. Celites from the [illegible] isolated by centrifugation [illegible] refractive indexes [illegible] An optical dern. of [illegible] phase is [illegible] Importance of the inner structure of [illegible] crystal. in portland cements for rapid winter building construction [illegible] 27-41. —[illegible] and crystallo- [illegible] the more elon- [illegible] strength. In cases to [illegible] finish marl. [illegible]

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1

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

[illegible]

Al_2O_3 was burned with [illegible] $CaO \cdot Al_2O_3$ and β — γ-$2CaO \cdot SiO_2$. The finely [illegible] gration product was [illegible] the residual Ca_2SiO_4 was an excellent raw material for the desired alite cements. About [illegible] of the [illegible] energy of the alite can be made useful in the new type of early-high-strength portland cements. Because of their heat of hydration the concrete may attain temps up to [illegible] as is desirable for [illegible] methods for the examination of the [illegible] composition of cement clinkers [illegible] portland cement clinkers is selectively sol. in [illegible] in 73 soln. under shaking $3CaO \cdot Al_2O_3$ is completely dissolved, only about 10% of the $CaO \cdot Al_2O_3 \cdot Fe_2O_3$ and $5CaO \cdot 3Al_2O_3$ are dissolved, and $2CaO \cdot SiO_2$ and $3CaO \cdot SiO_2$ are decompd. completely. The [illegible] Ca silicates can be detd. separately by extn. with H_3BO_3 soln. In [illegible] portland cements with alumina moduli between 0.86 and 2.71 the soly. of calcite in AcOH is increased. The higher the $5CaO \cdot 3Al_2O_3$ content in the solid solns. of the series $3CaO \cdot Fe_2O_3 \cdot 5CaO \cdot 3Al_2O_3$, the higher the soly. The soly. of quenched samples is generally higher than that of [illegible] samples. H_3BO_3 does not leach Ca [illegible] from the silicates dissolved in the quenched glasses. The [illegible] $CaO \cdot Al_2O_3 + Fe_2O_3$) in the portion insol. in AcOH is practically const. (= 2) independently of the cooling rates. The resistance of clinkers to sulfate-contg. water depends on the amts. of noncrystd. aluminate ferrite and $3CaO \cdot Al_2O_3$ detd. by the AcOH test. In Al_2O_3-enriched last-furnace slag cements the observed gehlenite and $5CaO \cdot 3Al_2O_3$ contents are as a rule higher than those calcd. from the normal compn. and the $CaO \cdot Al_2O_3$

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

[illegible]

and [illegible] contents [illegible] with a high mech strength [illegible] with gelidinite above [illegible] and even [illegible]. The process of clinkering in the rotary kiln. O. M. Astrec [illegible] The progress of chem. [illegible] in the grain [illegible] and cement mixes in the different thermal zones [illegible] kiln is affected by the furnace shape and [illegible] CaO formed by dissocn. of the limestone [illegible] $2CaO \cdot SiO_2$, by a [illegible] characteristic [illegible] residual quartz [illegible] structure. Alite [illegible] reactions at relative [illegible] by the presence of liquid phases [illegible] aluminate-ferrites [illegible] conditions and on the cooling rates [illegible] slower in $3CaO \cdot Al_2O_3$ because more [illegible] in the aluminate-ferrite [illegible] are also important [illegible] and [illegible] in slowly [illegible] materials [illegible] 49 [illegible] of serpentinite [illegible]

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[illegible]

and [illegible] for KF, and 1400° for NaF [illegible] is observed, and the $3CaO \cdot Al_2O_3$ diagram reappears evidently after a complete volatilization of the fluorides. [illegible] reacts in the same way, decomposing $3CaO \cdot Al_2O_3$ [illegible] but at 1400°, $3CaO \cdot Al_2O_3$ reappears. No polymorphic phenomena are observed in $3CaO \cdot Al_2O_3$, only the common thermal expansion effects. **Investigation of reaction accelerators in solid mixes.** [illegible] P. Budnikov and A. M. Ginstling, 93-1-5. Mineralizers are defined as substances that accelerate characteristic reactions in the solid state. The distinction of accelerators from catalysts is based on the theories of heterogeneous catalysis of Roginskii (C.A. 42, 2501i). The question of how much may be the critical amount of accelerator or "flux" additions sufficient for a distinct effect cannot be answered in general from hypotheses on the mechanism of their action. The sensitivity of heating curves is usually not sufficient [illegible] of this kind. **Application of a rapid ionization x-ray analysis for the investigation of cements.** P. F. Konovalov [illegible] 106-13. A [illegible] powder diffraction diagram [illegible] photographic registration [illegible] with amplifier. [illegible] furnace. The [illegible] versions of quartz [illegible] and the new formation [illegible] studies. **Theoretical aspects of hydraulic minerals based on the periodic system of Mendeleev and the knowledge of metastable states.** [illegible] Zhuravlev's [illegible] compds. is modi- [illegible]

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[illegible] investigation [illegible] the process of structure development [illegible] and the action of hydrolable plasticizers [illegible] these processes [illegible] [illegible] of plasticizing [illegible] added are [illegible] products [illegible] short time [illegible] in the hydration [illegible] thixotropic, i.e. [illegible] of a rigid coagulate [illegible] after destroying the thixotropic past [illegible] subsequently cement particles are suspended [illegible] waste liquor stabilizes [illegible] reduction of the requirement [illegible] practically [illegible] facilitates the [illegible] mpds. For [illegible] again [illegible] application of plas[illegible] [illegible] H_2O [illegible] the slurry more [illegible] cements with [illegible] in place of the aluminate hydrates.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

BUDNIKOV, P.P.; ALEKPEROV, M.S.; BAKLANOV, G.M.; BOLDYREV, A.S.; BOS'KO, K.D.; VOLZHENSKIY, A.V.; GROKHOTOV, N.V.; ZHUKOV, A.V.; ZABAR, L.B.; KITAYEV, Ye.N.; KOSHKIN, V.G.; KRUPIN, A.A.; MURCMSKIY, P.G.; POPOV, A.N.; SUKHOTSKIY, S.F.; USPENSKIY, V.V.; KHINT, I.A.; SHVAGIREV, M.P.; YUSHKEVICH, M.O.

Conference on increasing the durability of corrugated roofing sheets. Stroi.mat. 8 no.1:p.3 of cover Ja '62. (MIRA 15:5)
(Roofing)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

BLOKH, G.S., kand. tekhn. nauk; CHERNYAK, Ya.N., kand. tekhn. nauk; BALKEVICH, V.L., kand. tekhn. nauk; GAK, B.N., kand. tekhn. nauk; KORDONSKAYA, R.K., kand. tekhn. nauk; REMPEL', A.M., kand. tekhn. nauk; ZHUKOV, D.V., nauchnyy red.; YUSHKEVICH, M.O., red. toma; SKRAMTAYEV, B.G., glav. red.; BALAT'YEV, P.K., red.; KITAYEV, Ye.N., red.; KITAYGORODSKIY, I.I., red.; KRZHEMINSKIY, S.A., red.; ROKHVARGER, Ye.L., red.; KHOLIN, I.I., red.; GURVICH, E.A., red. izd-va; SHERSTNEVA, N.V., tekhn. red.

[Handbook on the manufacture of structural ceramics] Spravochnik po proizvodstvu stroitel'noi keramiki. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam. Vol.1. [General information and production control] Obshchie svedeniia i kontrol' proizvodstva. Pod red. M.O.IUshkevicha. 1961. 464 p. (MIRA 15:2)
(Ceramics) (Building materials)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

MAK, I.L.; RATINOV, V.B.; SILENOK, S.G.; YUSHKEVICH, M.O., nauchnyy red.; CHERKINSKAYA, R.L., red. izd-va; SHERSTNEVA, N.V., tekhn. red.

[Manufacture of gypsum and gypsum products] Proizvodstvo gipsa i gipsovykh izdelii. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 199 p. (MIRA 15:2)
(Gypsum)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ALEKSANDROVSKIY, B.P.; VOLODINA, N.G.; YEMCHENKO, A.A.; IZABOLINSKAYA, R.M.; KOCOBOVA, L.S.; LOSEV, V.A.; MAYTULINA, S.P.; NIKOLAYETS, V.P.; OMEL'YANENKO, N.N.; RIOHENKO, S.G.; CHERKASSKIY, L.P.; YUSHKEVICH, M.S.; YASHCHENKO, T.T.

Basic pathophysiological peculiarity of the vital activity of person with one lung and the functional disorders attendant on it. Pat.,klin.i terap.tub. no.8:4-11 '58. (MIRA 13:7)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza im. akad. F.G. Yanovskogo.
(LUNGS--SURGERY) (METABOLISM)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

ALEKSANDROVSKIY, B.P.; VOLODINA, N.G.; GOREV, V.P.; YEMCHENKO, A.A.; IZABOLINSKAYA, R.M.; KOGOSOVA, L.S.; LOSEV, V.A.; MAYTULINA, S.P.; NIKOLAYETS, V.P.; OMEL'YANENKO, N.N.; RICHENKO, S.G.; CHERKASSKIY, L.P.; YUSHKEVICH, M.S.; YASHCHENKO, T.T.

Compensation of the principal functions of the organism within 3-4 years after pneumonectomy. Probl. tub. 38 no.2:47-53 '60. (MIRA 13:11)

1. Iz Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. - kandidat meditsinskikh nauk A.S.Mamolat).
(LUNGS—SURGERY)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

Catalytic decomposition of furfural azine. N. I. Shuikin, M. Y. Yushkevich, and O. S. Belikova (Moscow State [illegible] Khim. 7, [illegible]). — To 24.2 g. NaH_2HCl in 150 ml. H_2O was added 96 g. furfural and after 1 hr. stirring, the ppt. of HCl salt of the product was sepd. and treated with NaOH, yielding furfural azine, m. [illegible] 5° from BtOH. This (20 g.) in 75 ml. pyridine was passed through a tube with broken glass in N at 350–70°, yielding 38 [illegible]% furfurasiazine, $(\alpha\text{-}C_4H_3OCH:)_2$ (I), m. [illegible]. A similar reaction with C_6H_6 instead of pyridine gave [illegible] yield; the remainder was unchanged starting material. The reaction at [illegible] in C_6H_6) gave [illegible] gave [illegible]. With activated C [illegible] in 24 [illegible] in an empty tube the [illegible] M. Kosolapoff

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

TSEDRIK, Mikhail Semenovich, kand. fiz.-matem. nauk; KITUNOVICH, Fedor Grigor'yevich; MIKULICH, Aleksey Stepanovich; KACHINSKIY, Anatoliy Mikhaylovich. Prinimal uchastiye YUSHKEVICH, N.A.; MOLCHANOVA, A.K., red.

[Textbook on physics for persons entering schools of higher education] Posobie po fizike dlia postupaiushchikh v vuzy. Minsk, Vysshaia shkola, 1965. 278 p. (MIRA 18:6)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, N. I.

Afforestation

We're trying to have our plantings take root. Les i step' 4, No. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, May 1952 ~~1953~~, Uncl.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, N. I

"To Accomplish a Complete and Successful Planting of Trees,"
(Gorsko Stopanstvo, Vol.8, No.3, Mar. 1952, Sofiya.)

SO: Monthly List of ~~Russian~~ East European Accessions, Vol.2, No.9 Library of Congress, September 1953, Uncl.

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

Yashkevich, A.L., and Kadrovskii, B.V.

keratin (in which the tryptophan reaction is sharply weakened) or to the increase in its structural density. In the rodent a satisfactory correlation was found between the chem. and histochem. results. Some minor exceptions were observed, e.g., lung tissue. Heart and skeletal muscles (myofibrils) yielded intense histochem. reactions despite the fact that according to results of chem. analyses their tryptophan content is no greater than that of other tissues, the histochemical reactions of which are usually weak. There appeared a clear-cut discrepancy between the tryptophan content of human and rodent tissues. The results obtained by Zharskii (Voprosy Med. Khim. 1, 176 [illegible]) in connection with the tryptophan content of collagen are regarded as too high. Wide variations appeared in the tryptophan content of proteins of different organs, different cells of the same organ and even in different parts of the same cell. A very high tryptophan content was indicated histochemically in the smooth and striated muscles, and the lowest tryptophan content in the connective and elastic tissues, lymphoid accumulations of the lungs, intestines and of the spleen, filaments of nerve tissues [illegible] tryptophan [illegible] the brain [illegible] of the epithelial [illegible] of different tissues [illegible] organs or parts of organs [illegible] are the greatest. Ova with their [illegible] growth and development are a good [illegible] tryptophan content of [illegible] regarded as [illegible] of the gastric juice and HCl. The pancreatic cells of the [illegible] of the spinal ganglia [illegible] This appears [illegible] confirming the correlation between tryptophan content and functional potential [illegible] of the organ tissue or cell.

[illegible] Levine

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

USSR/Morphology of Man and Animals - Histochemistry. S-2

Abs Jour : Ref Zhur - Biol., No 6, 1958, 26399

Author : Yushkevich, N.L., Kedrovskiy, B.V.

Inst : -

Title : Histochemical Studies on Protein Tryptophan in the Normal Tissues of Some Mammals.

Orig Pub : Dokl. AN SSSR, 1956, 110, No 2, 297-300.

Abstract : A study was made of the distribution of tryptophan (T) in the proteins of the organs of guinea pigs, rats, dogs and rabbits by using the method of Kedrovskiy and Trukhacheva. No species differences were revealed. Protoplasm and intercellular substance were predominantly stained. A high T content was detected in all types of muscle tissue. The lowest level of T was found in connective and elastic tissues, cartilage, lymphoid clusters in the lungs and intestines and in the spleen. Nervous tissue contained little T and the motor

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

USSR/Morphology of Man and Animals - Histochemistry. S-2

Abs Jour : Ref Zhur - Biol., No 6, 1958, 26399

neurons of the spinal column contained more T than the pyramidal cells of the cerebral cortex. There were great variations in the T levels in various organs: the renal tubules contained almost as much T as the muscles, the adrenal medulla and the endocrine islands of the pancreas were almost completely devoid of T whereas the mucosal epithelium of the stomach and small intestines reacted with moderate intensity. An intense reaction took place in the protein lumps of the liver cells, and the staining of remaining plasma was pale and diffuse. There was a moderate T content in the epithelium of the bile ducts. Terminal portions of the exocrine portion of the pancreas were intensely stained; the staining of the intercalary portions and ducts was of moderate intensity. The adrenal cortex was moderately stained.

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, N.L.

KNDROVSKIY, B.V.; YUSHKEVICH, N.L.

Distribution of protein-bound tryptophan in certain organs in amphibians [with summary in English]. Biokhimiia 22 no.6:1023-1027 '57. (MIRA 11:2)

1. Institut morfologii zhivotnykh im. A.N.Severtsova Akademii nauk SSSR, Moskva.

(TRYPTOPHAN, metabolism,
protein-bound in various organs in amphibians (Rus))
(PROTEINS, metabolism,
tryptophan-binding, distribution in various organs in amphibians (Rus))

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, M.L.

Distribution of protein tryptophan in the tissues of chick embryos and in some organs of mature birds. TSitologiia 1 no.3:322-326 My-Je '59. (MIRA 12:10)

1. Laboratoriya tsitologii Instituta morfologii zhivotnykh AN SSSR, Moskva.

(TRYPTOPHAN)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, N.L.

Histochemical investigation of tryptophan in tissue proteins of insects (the mealworm Tenebrio molitor). Dokl.AN SSSR 134 no.4:945-946 O '60. (MIRA 13:9)

1. Institut morfologii zhivotnykh im. A.N.Severtsova. Akademii nauk SSSR. Predstavleno akademikom A.N.Bakulevym.
(Tryptophan) (Insects--Physiology)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, N.L.; KEDROVSKIY, B.V.

Distribution and accumulation of protein tryptophan in the embryonic tissues of amphibians and mammals. Izv. AN SSSR. Ser. biol. 27 no.1:96-101 Ja-F '62. (MIRA 15:3)

1. Institute of Animal Morphology, Academy of Sciences of the U.S.S.R., Moscow.

(TRYPTOPHAN)
(EMBRYOLOGY--AMPHIBIA) (EMBRYOLOGY--MAMMALS)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, N.L.

Characteristics of mast cells in the histogenesis of wounds under general treatment with leucocytal factors. Dokl.AN SSSR 145 no.3:673-676 Jl '62. (MIRA 15:7)

1. Institut morfologii zhivotnykh imeni A.N.Severtsova AN SSSR. Predstavleno akademikom Yu.A.Orlovym.
(REGENERATION (BIOLOGY)) (SERUM) (CONNECTIVE TISSUES)

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L 18050-66 EWT(m)/EWP(t)/ETC(m)-6 IJP(c) JD/WW/JW/GS/RM

ACC NR: AT6006169 SOURCE CODE: UR/0000/65/000/000/0122/0124

AUTHOR: Sirota, N. N. (Academician AN BSSR); Yushkevich, N. N.

ORG: none

70

BH

TITLE: Thermodynamic properties of indium antimonide, gallium antimonide, and gallium arsenide

SOURCE: Khimicheskaya svyaz' v poluprovodnikakh i tverdykh telakh (Chemical bond in semiconductors and solids). Minsk, Nauka i tekhnika, 1965, 122-124

TOPIC TAGS: entropy, free energy, thermal emf, thermodynamic function, indium compound, gallium arsenide, gallium compound, antimony compound, arsenic compound, enthalpy

ABSTRACT: Enthalpy, free energy, and entropy of formation of indium and gallium antimonides and gallium arsenide were determined by the emf method. The work was part of a systematic investigation of the thermodynamic properties of semiconductor compounds. An electrolytic cell consisting of:

$$-A^{III}_{liquid} \,|\, (KCl - LiCl) + \text{chloride } A \,|\, (ASb \text{ or } AAs)^{+}_{solid}$$

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

L 18050-66

ACC NR: AT6006169

where A liquid is molten indium or gallium and A is either indium or gallium, was used in the investigation. Dependence of the emf on absolute temperature is graphed for InSb, GaSb, and GaAs. The thermodynamic data calculated from the temperature dependence of the emf for InSb at 653-753°K, GaSb at 623-733°K, and GaAs at 673-823°K are also shown. The standard values of enthalpies ($-\Delta H^{\circ}$), entropies ($-\Delta S^{\circ}$), and free energies ($-\Delta G^{\circ}$) of formation and atomization for the compounds are given in table 1. Orig. art. has: 1 figure, 3 tables, 3 formulas.

TABLE 1

Compound	$-\Delta H^{\circ}_{298}$, kcal/mol	$-\Delta S^{\circ}_{298}$, kcal/degree × gmol	$-\Delta G^{\circ}_{298}$, kcal/mol	$-\Delta H^{at}_{298}$, kcal/mol	$-\Delta S^{at}_{298}$, kcal/degree × gmol	$-\Delta G^{at}_{298}$, kcal/mol
InSb	7.84	4.68	6.44	127.54	64.5	108.3
GaSb	9.79	1.34	9.39	137.5	64.1	118.4
GaAs	20.96	9.32	18.18	145.96	42.9	133.17

SUB CODE: 20/ SUBM DATE: 31May65/ ORIG REF: 004/ OTH REF: 004

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"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, P. M.

USSR/Metals - Tempering of high-speed steel FD-443

Card 1/1 : Pub. 153 - 13/18

Author : Yushkevich, P. M.

Title : The tempering nature of high-speed steel

Periodical : Zhur. tekh. fiz. 24, 715-721, Apr 1954

Abstract : Notes that the mechanism and kinetics governing the tempering process in fast-cutting steel involves polymorphous conversion, which is an important part of the tempering cycle and which is limited by diffusion. Investigates the conditions for single tempering and repeated tempering cycles. Finds the energy of activation for the polymorphous conversion from gamma to alpha iron to be 61,000 cal/mol.

Institution : —

Submitted : June 20, 1953

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, P.M.

2

Microstructure of cast high-speed steel. P. M. Yushkevich and S. A. Fedorova (All-Union Sci. Research Tube Inst., Dnepropetrovsk). *Metalloved. i Obrabotka Metallov* 1955, No. 3, 21-5.—The microstructures of forged steel R18 [C, 0.1%, Mn 0.4, Si 0.4, Cr 4, W 18, V 1%] were observed after 10 × 10 × 40 mm. specimens were heated by induction to various temps. in 16 sec., held for 5 min., and then H_2O quenched. No change in microstructure occurred at 1270° or lower. Coalescence of the carbides increased with increasing temp. above 1280°. At 1295° the carbides formed networks in the grain boundaries, but at 1300° the network disappeared. The 1st trace of coarse ledeburite (I) appeared at 1295°, indicating the beginning of melting. The first "dark constituent" appeared at 1300°. It occurred near the I, but not in the centers of the grains, and consisted of individual, small globules, probably tungstides, like spheroidite in C steels. Rapid cooling did not prevent the dark constituent from appearing. If the C content was increased to 1.5% the dark constituent was virtually eliminated, presumably because the W then formed a carbide rather than an Fe tungstide. At temps. above 1300° the dark constituent, which was at the grain boundaries, increased in amt., while the I remained as isolated particles in the centers of the grains. At temps. ranging from 1380° to the liquidus a new distribution of microconstituents was observed, similar to that found in cast high-speed steels. I formed a continuous network in the boundaries of the primary grains and the dark constituent was within this network. The exptl. behavior was not consistent with the pseudo-binary constitution diagram. Isolated I was also found in sand-cast 12-mm. rod after a quench from the "pasty" condition, 1320-80°. Thus, the undesirable I network can be avoided by rapid passage through the range 1320-80°.

A. G. Guy

Metal

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, P.M.

Effect of phase hardening on the position of martensite points in rapid steel. Fiz.met. i metalloved. 2 no.1:54-56 '56. (MIRA 9:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy trubnyy institut.
(Martensite) (Tool steel--Heat treatment)

APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0"

"APPROVED FOR RELEASE: 09/19/2001 CIA-RDP86-00513R001963230007-0

YUSHKEVICH, P.M.

137-58-3-6205

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 252 (USSR)

AUTHORS: Zheldak, M.P., Yushkevich, P.M.

TITLE: Sensitivity of a Method Employing Gamma Rays From Radioactive Cobalt for X-raying of Products Made of Thin Steel (Chuvstvitel'nost' gamma-metoda pri prosvechivanii radioaktivnym kobal'tom tonkikh izdeliy)

PERIODICAL: Byul. nauchno-tekhn. inform. Vses. n.-i. trubnyy in-t, 1957, Nr 3, pp 101-107

ABSTRACT: Investigations were performed in order to establish how the shape and size of artificially induced defects affects their detection under γ-rays, as well as to determine their effect on the sensitivity to focal length in x-raying of steel of various thickness, h. Special flaw-containing specimens of the wire type, with cylindrical openings, and with grooves, were manufactured for the purpose of determining the relationship existing between the sensitivity of the method and the geometric dimensions and shape of the defects. The x-raying process involved the employment of amplifying screens with a photosensitive coating of 120 mg/cm^2, and x-ray films of the "R-Kh" type. Co^{60} compounds, with a radioactivity

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137-58-3-6205

Sensitivity of a Method Employing Gamma Rays From Radioactive Cobalt (cont.)

of 0.5 and 48 g-equiv. served as the sources of the γ-rays. Experimental data corroborated the assumption that the detection of defects is influenced not only by their geometric size but by their shape as well. The authors conclude that the results of tests of the sensitivity of the gamma-method, as obtained from flaw-containing specimens accepted in the field and recommended in the literature, are higher than the actual values. Therefore, in order to obtain the correct sensitivity characteristics of the γ-method employed in the detection of natural defects, it is essential to employ specimens containing artificially induced defects which closely approximate the shape and size of the natural defects. Such artificial flaws may have the shape of cylindrical openings 1 - 1.5 mm in diameter or of channels 1.5 mm wide and 1.5 mm long. The radioactive intensity of the source does not affect the percentile or the absolute sensitivity of the method, providing the components being examined are made of thin steel. The ease of detection of defects by means of the γ-method is determined by the size of the defects. The percentile sensitivity is reduced by one-half if the distance between the γ-ray source and the component being examined is decreased from 800 to 200 mm. Regardless of the value of h, the minimum focal length which produces optimum percentile sensitivity lies in the range between 400 and 600 mm.

S. S.

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AUTHORS: Zheldak, M. P., Yushkevich, P. M.

TITLE: Intensifying Effect of Lead Foil in Gamma-ray Examination (Usilivayushcheye deystviye svintsovoy fol'gi pri prosvechivanii gamma-luchami)

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ABSTRACT: Investigations were carried out on the exposure time in the examination of sheet steel with γ-rays using Pb foil. The relationship between the amplification factor of the foil and its thickness was also investigated.

A. F.

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YUSHKEVICH, P.M. [IUshkevych, P.M.]

Ageing of residual austenite in the tempering of high-speed steel. Ukr.fiz.zhur. 4 no.6:760-768 N-D '59. (MIRA 14:10)

1. Ukrainskiy nauchno-issledovatel'skiy trubnyy institut.
(Austenite) (Tempering)

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