"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ACCESSION NR: AP4044964

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 11Apr64 ENCL: 01

SUB CODE: OP, SS NO REF SOV: 001 OTHER: 009

Card 3/4

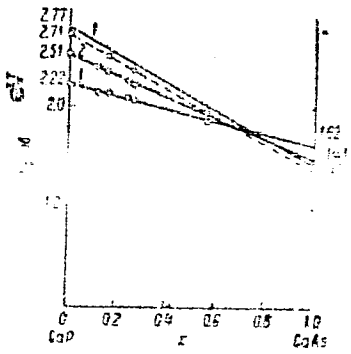
APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 14045-65

ACCESSION NR: AP4044964

ENCLOSURE: 01



Energy position of minima of conduction band in the $GaAs_xP_{1-x}$ system as a function of the molar composition.

T = 290°K, 1 - (000), 2 -(111), 3 - (100)

Card 4/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 11080-65 EWT(m)/EWP(t)/EWP(b) IJP(c) ASD(a)-5/AFWD(t)/ESD(ga)/ESD(t) JD

ACCESSION NR: AP4046664 S/0181/64/006/010/3168/3170

AUTHORS: Abagyan, S. A.; Subashiyev, V. K.

TITLE: Direct transitions and spin orbit coupling of the valence band in GaP (6)

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 3168-3170

TOPIC TAGS: gallium phosphide, valence band, spin orbit coupling, absorption coefficient, absorption band

ABSTRACT: In order to determine the width of the forbidden band for direct transitions in GaP, and to determine the spin-orbit splitting of the valence band in k = 0, the authors investigated the spectral variation of the absorption coefficient in the direct transition region. In view of the large absorption coefficient for [illegible] transitions [illegible] point, the measurements were made with only thin samples ([illegible]-5 microns thick), consisting single-crystal

Card 1/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 11080-65
ACCESSION NR: AP4046644

plane-parallel plates of GaP freely suspended in special mounts. The measurement procedure was described by the authors earlier (DAN SSSR v. 156, 753, 1964). The dependence of the absorption co- [illegible] in the transition region is shown in [illegible] At approximately [illegible] the absorption [illegible] The edge of a [illegible] assumed to be due to [illegible] assuming that the sharp rise in absorption at the edge of the direct transitions is connected with the appearance of an exciton. Estimates based on [illegible] transitions [illegible] data obtained by [illegible] There are grounds

Card 2/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 11080-65
ACCESSION NR: AP4046644

3

for assuming that the gaps will not vary much with temperature. "The authors thank A. V. Lishina for supplying the crystals and I. A. Chalikyan for help with the measurements." Orig. art. has: 1 figure.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AN SSSR)

SUBMITTED: 19May64 ENCL: 01

SUB CODE: SS NR REF SOV: 003 OTHER: 008

Card 3/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 11080-65

ACCESSION NR: AP4046644

ENCLOSURE: 01

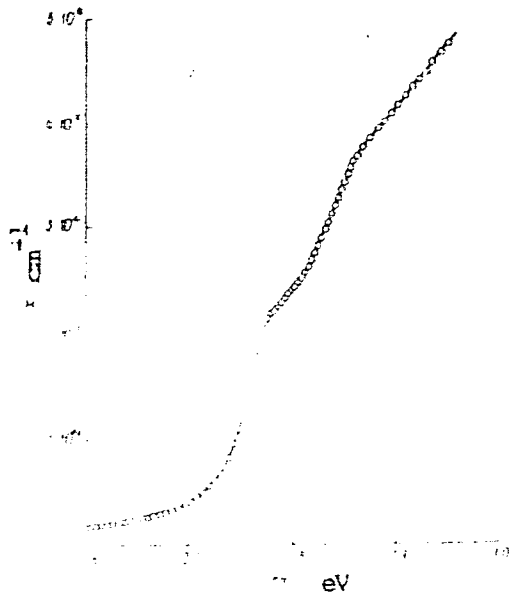


Fig. 1. Dependence of the absorption coefficient on the photon energy in the region of direct transitions for GaP (T = 290K)

Card 4/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 11077-65 EWT(m)/EWP(t)/EWP(b) IJP(c)/RAEM(a)/AFWL/SSD/ESD(c)/ESD(gs)/
ESD(t) JD
ACCESSION NR: AP4046652 S/0181/64/006/010/3186/3188

A[illegible] S[illegible]bashiyev, V. K.; Singkhal, S. P.

TITLE: On the nature of the maxima of ultra[illegible] in GaP and $GaAs_xP_{1-x}$

SOURCE: Fizika tverdogo tela, v. 6, no. 10, 1964, 3186-3188

[illegible] gallium arsenide phosphide, gallium phosphide, gallium [illegible] coefficient

ABSTRACT: To [illegible] the variations of the position of the maximum [illegible] in GaP and $GaAs_xP_{1-x}$ with variation of the [illegible] spectrum in [illegible] square of [illegible] the reflection coefficient was measured by a "samples in and out" [illegible] intensity of the light reflected from two

Card 1/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 11077-65
ACCESSION NR: AP4046652

[illegible] was compared with the intensity of

[illegible] was

parameter. The results for [illegible] and [illegible] agree with the published [illegible] 1964). Comparison [illegible]

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute

Card 2/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 11077-65
ACCESSION NR: AP4046652

of Semiconductors AN SSSR)

SUBMITTED: 01Jun64

ENCL: 00

OTHER: 003

Card 3/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

[illegible] SSD/AFWL/ASD(a)-5/AFETR/IJP(c) JD

ACCESSION NR: AP5000683 S/0181/64/006/012/3732/3734

[illegible] A. A.; Zadanovich, N. S.; Subashiyev, V. K.

TITLE: Quantum yield of internal photoeffect in p-silicon doped with boron

SOURCE: Fizika tverdogo tela, v. 6, no. 12, 1964, 3732-3734

TOPIC TAGS: silicon, boron, doping, quantum yield, internal photo- [illegible]

[illegible] 1964) was used [illegible] and [illegible] measurements [illegible] absorption. [illegible] results are compared with those calculated by a

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 15124-65

ACCESSION NR: AP5000689

[illegible] in another paper (with G. B. Dubrovskiy, FTT v. 6, 512, 1964) and with other published data. The good [illegible] that the method is suitable for an experimental [illegible] of the quantum yield, and also that the main mechanism of non-photoactive absorption in the investigated samples is absorption by free carriers, and that the degree of alloying does not affect noticeably the coefficient of photoactive absorption in the investigated concentration range if the wavelength is lower than 1.1 μ. Orig. art. has: 2 figures and 3 formulas.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 15Jul64 ENCL: 00

SUB CODE: SS, OP NR REF SOV: 004 OTHER: 002

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBASHIYEV, V.K.

Determining the quantum yield of the intrinsic photoeffect from the spectral dependence of photoconductivity and the photomagnetic effect. Fiz. tver. tela 6 no.7:1956-1961 Jl '64. (MIRA 17:10)

1. Institut poluprovodnikov AN SSSR, Leningrad.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ABAGYAN, G.A.; [illegible], A.V.; [illegible], V.K.

Minima of conduction bands in crystals of the system GaAs--GaP.
Fiz. tver. tela 6 no.9:2852-2853 S '64.
(MIRA 17:11)

1. Institut poluprovodnikov AN SSSR, Leningrad.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ABAGYAN, [illegible], BASHIYEV, V.K.

Direct transitions and the spin-orbital splitting of the valence band in GaP. Fiz. tver. tela 6 no.10:3168-3170 O '64. (MIRA 17:12)

1. Institut poluprovodnikov AN SSSR, Leningrad.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ABAGYAN, S.A.; SUBASHIYEV, V.K.; SINGKHAL, S.P.

Ultraviolet reflection maxima in GaP and $GaAs_xP_{1-x}$. Fiz. tver. tela 6 no.10:3196-3188 O '64. (MIRA 17:12)

1. Institut poluprovodnikov AN SSSR, Leningrad.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ACCESSION NR: AP4041138 S/0020/64/156/004/0763/0765

AUTHOR: Abagyan, S. A.; Subashiyev, V. K.; Konstantinov, B. P.

TITLE: Structure of the conduction band in gallium phosphide

SOURCE: AN SSSR. Doklady*, v. 156, no. 4, 1964, 763-765

TOPIC TAGS: gallium phosphide conduction band, semiconductor, forbidden band, absorption edge, conductivity band structure

ABSTRACT: Since the structure of gallium phosphide bands is not yet well known, the authors undertook detailed measurements and analysis of the absorption edge in the region from 2 to 2.75 ev. The transmission measurements were made on specimens of 5 to 200 μ thick, obtained either by natural growth, or by cutting and polishing. The absorption was measured with the IR-10 spectrophotometer. In calculating the absorption coefficient α, the multiple reflection was taken into consideration. The frequency dependence of α agrees with the theoretically calculated for indirect permitted transitions. The width of the forbidden band was found (at room temperature) to be 2.21 ± 0.01 ev. The absorption edge can be explained by two indirect and one direct transition. The authors are grateful to

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ACCESSION NR: AP4041138

A. V. Lishina for supplying the crystals and to P. Singkhall for help with the measurements. Orig. art. has: 2 figures.

ASSOCIATION: Institut poluprovodnikov, Akademii nauk SSSR (Institute for Semiconductors, Academy of Sciences, SSSR)

SUBMITTED: 30Dec63 ENCL: 00

SUB CODE: SS NO REF SOV: 000 OTHER: 007

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ACCESSION NR: AP50034[illegible] S/0[illegible]/65/007/001/0075/0080

AUTHOR: [illegible] A. A.; Gorodetskiy, S. M.; Subashiyev, V. K.

[illegible] doped [illegible]

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 75-80

TOPIC TAGS: silicon, photoconductivity, diffusion length, carrier lifetime, forbidden band

ABSTRACT: The diffusion length L_m of the minority carriers was determined from the photoconductivity spectrum of boron-doped p-

Card 1/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ACCESSION NR: AP5003415

were used for the measurement. New methods for the determination of the diffusion length from the experimental data are described. The [illegible] found to differ [illegible] centration range [illegible] cm^{-3}, it is concluded that the impurity atoms do not produce effective recombination centers [illegible]

[illegible] obtained from the spectral distribution of the photocon- [illegible] that the [illegible] by the intensity

Card 2/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ACCESSION NR: AP5003415

[illegible] adhesion centers. The procedure employed to determine the diffusion length [illegible] also in the [illegible] the concentration of the adhesion centers

[illegible]

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 24Jun64 ENCL: 01 SUB CODE: SS, OP

NO REF SOV: 006 OTHER: 004 ATD PRESS: 3182

Card 3/4

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

1c

L 23082-65 EWA(k)/EWT(1)/EWT(m)/EEC(t)/T/EWP(t)/EEC(b)-2/EWP(b) IJP(c) JD

ACCESSION NR: AP5003436 S/0181/65/007/001/0200/0206

AUTHOR: Abagyan, S. A.; Gorodetskiy, S. M.; Zhukova, T. B.; Zaslavskiy, A. I.; Lishina, A. V.; Subashiyev, V. K.

TITLE: X-ray and optical properties of gallium arsenide-gallium phosphide crystals mixed in various concentrations

SOURCE: Fizika tverdogo tela, v. 7, no. 1, 1965, 200-206

TOPIC TAGS: gallium arsenide, gallium phosphide, solid solution, lattice constant, refraction index, phonon, absorption spectrum, laser material, band structure, p n junction

ABSTRACT: In x-ray and optical studies of $GaAs_xP_{1-x}$ monocrystals it is shown that solid solutions of GaAs-GaP are sufficiently perfect monocrystals. The lattice constant and index of refraction were shown to vary linearly with the molar composition of mixed $GaAs_xP_{1-x}$ crystals. Absorption bands observed in the 12—25 mμ region were attributed to lattice vibration. Since the coefficient of absorption at the peaks was of the order of 100 cm^{-1}, the absorption bands can probably be attributed to two phonon processes. Orig. art. has: 7 figures. [CS]

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 23082-65

ACCESSION NR: AP5003436 S/0181/65/007/001/0200/0206

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR)

SUBMITTED: 12Jul64 ENCL: 00 SUB CODE: SS

NO REF SOV: 002 OTHER: 008 ATD PRESS: 3173

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

Pe-4/Pi-4 IJP(c) JD
[illegible]/1239

ACCESSION NR: [illegible]

[illegible] Subashiyev, V. K.; Chalikyan, G. A.

[illegible] with exciton [illegible]

[illegible]

ABSTRACT: The authors measured the optical absorption in GaP at low temperatures [illegible] the exciton peak, to determine the posi- [illegible] determine the temper- [illegible]

[illegible] procedure [illegible] were made [illegible] temperature range

absorption peak. [illegible]

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 52783-65

ACCESSION NR: AP5010743

153--295K. The results at 290K practically coincided with those reported earlier.

ASSOCIATION: Institut poluprovodnikov AN SSSR Leningrad (Institute of Semicon-

SUBMITTED: 16Oct64 ENCL: 00 SUB CODE: SS,IC

NR REF SOV: 002 OTHER: 008

BAB

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 23030-66 EWT(1)/ETC(f)/EPF(n)-2/EWG(m)/T/EWA(h) IJP(c) AT

ACC NR: AP6009656 SOURCE CODE: UR/0181/66/008/003/0753/0757

76
75
B

AUTHORS: Kukharskiy, A. A.; Subashiyev, V. K.

ORG: Institute of Semiconductors AN SSSR, Leningrad (Institut poluprovodnikov AN SSSR)

TITLE: Determination of certain parameters of strongly doped semiconductors from the spectral variation of the reflection coefficient

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 753-757

TOPIC TAGS: semiconductor impurity, light transmission, light reflection, dielectric constant, spectral distribution, crystal lattice defect, ir spectrum, absorption edge, relaxation process, plasma resonance, carrier density

ABSTRACT: With an aim at eliminating some of the difficulties encountered in the interpretation of the results of measurements of the reflection and transmission coefficients of semiconductor materials and epitaxial films by optical methods, the authors show that the semiclassical expressions for the real and imaginary parts of the

2

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 23030-66

ACC NR: AP6009656

dielectric constants can be used successfully to calculate the spectral variation of the reflection coefficient of light from the surface of a semiconductor in the infrared region, beyond the edge of intrinsic absorption. It is shown in particular that the spectral variation does not depend in first approximation on the thermal motion and on the lattice defect, so that its neglect introduces no excessive error. The dependence of the reflection coefficient on a single parameter connected with the relaxation time and on the dimensionless frequency is obtained. A method is proposed for determining the frequency of the plasma resonance and of the dimensionless parameter from experimental reflection curves, and formulas are given for the calculation of carrier mobility, the conductivity, the relaxation time, and the carrier density. The experimental data were obtained with a Zeiss infrared spectrometer (UR-10) provided with an attachment for automatically recording the reflection spectra in the 2 -- 25 μ range. The results of the spectral measurements are in good agreement with the control experiments made with dc. Orig. art. has: 4 figures, 12 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 19Jul65/ ORIG REF: 001/ OTH REF: 007

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

KUZNETSOV, V.P.; RAGIMOV, Sh.S.; DZHAFAROV, R.D.; ALIYEV, A.M.; BAGIROVA, Z.A.; AGA-ZADE, S.S.; MAMEDOV, I.F.; ALIYEVA, S.M.; KULIYEV, A.S.; DEMIKHOVSKAYA, E.M.; SUBASHIYEVA, O.S.; AGALAROVA, A.B.; SHAKHMALIYEVA, Sh.A.; MIRZOYEVA, G.I.; KASPAROV, V.A.

Caspian earthquake of January 27, 1963. Izv. AN SSSR. Ser. geofiz. no.9:1392-1393 S '63. (MIRA 16:10)

1. Institut geologii AN AzerbSSR.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 01147-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5021998 UR/0286/65/000/014/0075/0076
678.762.2-134.584.028.044.8

AUTHOR: Fomicheva, M. M.; Orlenko, G. P.; Subayev, F. S.

TITLE: A method for vulcanizing butadiene nitrile rubber. Class 39, No. 172981

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 75-76

TOPIC TAGS: vulcanization, butadiene, nitrile rubber, synthetic rubber

ABSTRACT: This Author's Certificate introduces a method for vulcanizing butadiene nitrile rubber by using organic peroxides in the presence of an accelerator. The dosage of vulcanizing agent is reduced and the thermal stability of the vulcanized product is improved by using a compound of metals with variable valence as the accelerator.

ASSOCIATION: none

SUBMITTED: 10Jun63 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000

Card 1/1 DP

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBEV M. A. A rare case of ventricular liquorrhoea with two separate fistula channels Problems of Neurosurgery, Moscow 1949, 13/3 (60-62)

Following an industrial accident accident a 21-year-old man was unconscious, the right pupil was dilated and reacted poorly, muscle tone was less on the right side, all the deep reflexes were hypo-active and both plantar responses were extensor. At operation (bone fragments had to be removed) the brain was soft under a 7x6 cm. right frontal area. The wound was closed and he was given sulphonamides. On the third day he regained consciousness but appeared to be unaware of his critical condition. On the fifth day fever of 38.2 degrees C. appeared with meningeal signs and foul drainage from the wound (CSF: polymorphs with intra- and extracellular diplococci resembling meningococci). Operation in the second week for necrotic otitis and mastoiditis was followed by another wave of meningitis and the necrotic core of the wound sloughed. CSF filtering from the depths of the wound suggested communication with the ventricle. On penicillin therapy he gradually improved and two weeks later the wound closed. However, a week later after he blew his nose, CSF began dripping from his right nostri. By the eight week this had stopped but bulging over the skull defect necessitated daily lumbar punctures and a third episode of meningitis responded to penicillin. Three months after injury X-rays showed a fracture line extending from the defect temporally to the sphenopalatine fossa and another near the mid-line frontally. A pneumoencephalogram revealed a large cavity in the right frontal lobe communicating with the ventricle. His relatives reported that he was better but that his character was still changed, he was inclined to joke and his memory was impaired.

Timberlake-Cambridge

SO: Neurology & Psychiatry Section VIII Vol 3 No 7-12

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 40382-66 EWT(m)

ACC NR: AP6026980 SOURCE CODE: UR/0051/66/021/002/0245/0246

62
B

AUTHOR: Shtyrkov, Ye. I.; Subbes, E. V.

ORG: none

TITLE: The characteristics of pulsed generation in He:Ne and He:Ar mixtures

SOURCE: Optika i spektroskopiya, v. 21, no. 2, 1966, 245-246

TOPIC TAGS: gas laser, helium, neon, laser, ~~helium~~ argon, ~~laser, infrared laser, plasma laser~~ plasma discharge

ABSTRACT: The characteristics of pulsed generation in He-Ne and He-Ar mixtures were investigated at pressures in excess of 200 mm Hg. The resonator consisted of a confocal Fabry-Perot interferometer with external mirrors whose multilayer dielectric coatings had a reflection maximum at 1.14 μ. A quartz discharge tube 11 mm in diameter and 800 mm long and equipped with internal tungsten electrodes was used. The h-f pulse was generated by a discharge of a 3300-pf condenser through a TGI-1-130/10 thyratron and the primary of a step-up transformer. The pump pulse amplitude was regulated between 3 and 35 kv and the repetition frequency between 500 and 15,000 Hz. The radiation was recorded by means of an IKS-12 spectrograph with an FEU-22 photo-

Card 1/2 UDC: 621.375.9:535

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 40582-65

ACC NR: AP6026980

multiplier at the output. Generation was obtained under various conditions in the He-Ne mixture due to the following transitions: $2s_2 \rightarrow 2p_3$ (1.16 μ), $2s_2 \rightarrow 2p_4$ (1.15 μ), $2s_2 \rightarrow 2p_7$ (1.06 μ), $2s_5 \rightarrow 2p_6$ (1.207 μ), $2s_5 \rightarrow 2p_9$ (1.118 μ), and in the He-Ar mixture due to: $3d_1' \rightarrow 2p_9$ (1.21 μ) and $3d_1'' \rightarrow 2p_8$ (1.28 μ) transitions. In all cases generation was observed during the discharge current pulse and afterglow. Under experimental conditions, the population of levels was attributed to atomic recombination in the case of triple collisions of an ion with two electrons and to the following possible dissociation recombination:

$$(HeNe)^+ + e \rightarrow He' + Ne'$$
$$(HeAr)^+ + e \rightarrow He' + Ar'.$$

The metastable He atoms 2^3S_1 play a decisive role in the formation of molecular ions $(HeNe)^+$ and $(HeAr)^+$. This was confirmed by the interruption of generation in the He-Ne mixture when small amounts of Ar were added, causing quenching of 2^3S_1 levels. The dependence of peak generation power on the mixture (He-Ne) pressure was shown graphically. Generation at high pressures was due to the $2s_5 \rightarrow 2p_9$ transition only. The highest currents were observed at pressures reduced to 20 mm Hg. The competition of the $2s_2 \rightarrow 2p_4$ and $2s_2 \rightarrow 2p_7$ transitions was shown graphically for the He-Ne mixture pressure of 20 mm Hg. Orig. art. has: 2 figures. [YK]

SUB CODE: 20/ SUBM DATE: 30Nov65/ ORIG REF: 004/ ATD PRESS: 5053

Card 2/2 MLP

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOCHEV, I.M., inzh.

Comparative testing of globoid reducing gears. Vest. mashinostr. 45 no.6:16-18 Je '65. (MIRA 18:6)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

[illegible], [illegible].

[illegible]

[illegible]

9. Monthly List of Russian Accessions, Library of Congress, October 1952, Uncl.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOCHEV, N.M., inzhener; GLANTS, I.Ye., inzhener.

Mechanization of labor-consuming processes. Leg.prom. 14 no.6: 50-52 Je '54. (MLRA 7:8)
(Leather industry)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, A.G.

Effect of an impulse ultrahigh frequency electromagnetic field on the higher nervous activity [with summary in English]. Biul. eksp. biol. i med. 46 no.10:55-61 O '58 (MIRA 11:11)

1. Iz laboratorii prof. A.V. Triumfova (Leningrad). Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.

(CENTRAL NERVOUS SYSTEM, physiol.
higher nervous activity, eff. of impulse ultrahigh frequency electromagnetic field (Rus))
(ELECTRICITY, effects,
ultrahigh frequency electromagnetic current on higher nervous activity (Rus))

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, A.G.

Physiological role of the rate of increase in intensity of conditioned stimuli. Zhur. vys. nerv. deiat. 11 no.6:1059-1064 N-D '61. (MIRA 15:3)

1. Kirov Military Medical Academy, Leningrad.
(CONDITIONED RESPONSE)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, A.G.

Catheterization of the heart in rabbits and cats. Biul.eksp. biol. i med. 51 no.1:106-107 Ja '61. (MIRA 14:5)

1. Iz Leningradskoy Voyenno-meditsinskoy ordena Lenina akademii imeni S.M.Kirova. Predstavlena deystvitel'nym chlenom AMN SSSR V.V.Parinym.

(CARDIAC CATHETERIZATION)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, A.G.

Physiological significance of the intensity increase of conditioned stimuli. Trudy Len. ob-va est. 72 no.1:121-122 '61. (MIRA 15:3)
(CONDITIONED RESPONSE)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 3624-66 EWT(1)/FS(v)-3 DD

ACCESSION NR: AP5023674 UR/0219/65/060/009/0055/0059
616.33-002.44-02 : 617.551 -001.22]-092.9

AUTHOR: Pitenin, I. V.; Subbota, A. G.

42
41
B

TITLE: The formation of ulcers in rabbits exposed to UHF irradiation of the epigastral region

SOURCE: Byulleten' eksperimental'noy biologii i meditsiny, v. 60, no. 9, 1965, 55-59

TOPIC TAGS: animal physiology, microwave, UHF, biological effect, gastric ulcer, histology, rabbit

ABSTRACT: The purpose of this study was to establish whether microwaves (UHF) of nonthermal intensity can produce pathological changes in the GI tract. Rabbits weighing 1.8—2.5 kg were fixed stomach-up on a stand at a distance of 10 cm from the cylindrical irradiator of a Luch-58 generator. The duration of exposure was 10 min, wavelength — 12.6 cm, and field flux density — 70, 110, and 160 mw/cm^2. The absence of a thermal effect was established by introducing a pouch filled with 20 mℓ of water with a temperature of 35C in the stomach of unfed rabbits and measuring the temperature after 20 min of irradiation. It was found that 40.5C was the maximum heat produced by microwaves. Rectal and epigastral (3—4 mm

Card 1/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 3624-66

ACCESSION NR: AP5023674

deep) temperatures were also taken before and after irradiation. All irradiated rabbits were killed after 2, 10, 20, and 24 days for pathoanatomical examination. In all, 91 rabbits were studied. Anatomical investigations revealed ulcers in the mucosal membrane of the stomach. The muscular, serous layers, and abdominal wall through which microwaves passed were frequently undamaged. The ulcers were located in the irradiated portion of the stomach and were round or oval (0.3—3 cm), with dark red edges. Microscopic investigations revealed limited necrosis of the mucosa and mild leukocytic reactions. The vasculature of the stomach was distended and filled with blood. In general, the histological structures of microwave-induced ulcers were similar to chronic human ulcers. A table of the dependence of the incidence of ulcers on generator power and other conditions shows that at a generator power of 60 w, ulcers developed in unfed rabbits and those repeatedly irradiated once per day. At 80 w, injury to mucosa occurred more frequently and did not depend upon feeding conditions. A power of 100 w was critical, and some animals died. The fact that ulcers did not develop consistently was attributed to a total screening effect by the liver in some animals. It was concluded that the mechanism of microwave injury to stomach mucosa was unclear. The following hypotheses were offered: first, injuries may have taken place due to the highly convoluted configuration of the mucosa and the presence of gastric juices. Secondly, the mucosa histologically differs from serous and muscular layers, and

Card 2/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 3624-66

ACCESSION NR: AP5023674

it is known that young cells, which are more numerous in this layer than in the others, are more sensitive to UHF than mature cells. Thus, the mechanism of UHF induction of ulcers might be the physiological inhibition of normal regenerative processes in the mucosa. Finally, it is possible that the resistance of the stomach to self-digestion is directly or indirectly disrupted by UHF due to more intensive heating. Orig. art. has: 1 table and 3 figures. [CD]

ASSOCIATION: Voyenno-meditsinskaya ordena Lenina akademiya im. S. M. Kirova, Leningrad (Military Medical Academy)

SUBMITTED: 12Mar64 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 001 ATD PRESS: 4114

Card 3/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

PETROV, I.R., prof., general-mayor meditsinskoy sluzhby; SUBBOTA, A.G., podpolkovnik meditsinskoy sluzhby, kand. med. nauk

Mechanism of action of ultrahigh-frequency electromagnetic irradiations; a review of literature. Voen.-med.zhur. no.9:26-31 '64. (MIRA 18:5)

1. Deystvitel'nyy chlen AMN (for Petrov).

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

YEVSIOVICH, S.G.; ZHURAVLEV, S.I.; LYUBARETS, I.M. KOSOY, G.M.; IGUMNOVA, I.P. SUBBOTA, L.F.; GOLGER, Yu.S.

Industrial use of several methods of dressing Krivoy Rog iron ore in heavy suspensions. Gor.zhur. no.5:54-60 My '60. (MIRA 14:3)

1. Mekhanobr, Leningrad (for Yevsimovich and Zhuravlev). 2.Mekhanobrchermet, Krivoy Rog (for Lyubarets, Kosoy, Igumnova and Subbota). 3. Rudoupravleniye imeni Dzerzhinskogo (for Golger).
(Krivoy Rog Basin--Ore dressing)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

KOSOY, G.M., inzh.; SUBBOTA, L.F., inzh.

Concentrating manganese ore in a magnetite suspension in a hydrocyclone. Met. i gornorud. prom. no.4:60-63 Jl-Ag '62. (MIRA 15:9)

1. Institut "Mekhanobrchermet".
(Manganese ores)
(Ore dressing) (Separators (Machines))

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

Field method for mapping bacteria in oil prospecting

M. I. Subbota. *Razvedka Nedr* 13, No. 3, 20-4(1947)

Bacterial prospecting for oil relies on a detn. of the abundance of bacteria in the soil which are capable of oxidizing hydrocarbons. There are various species of hydrocarbon bacteria, some of which oxidize CH_4, others C_2H_6, and still others utilize heavier hydrocarbons. At the present only the species oxidizing CH_4 and C_2H_6 are used in petroleum prospecting. A study of the fluctuation in the bacterial population with season was carried out on the Apsheron Peninsula having a subtropical arid climate. Samples were taken monthly at a depth of 1.5 m. Along with the CH_4 and C_2H_6 bacteria was also detd. the presence of anaerobic cellulose bacteria. These organisms decomp. plant remains in the absence of O and produce CH_4. The bacterial population dropped sharply between August and October. This period is very dry and the soil moisture drops to 2%. The bacterial population did not rise until April, i.e., during winter. Apparently, the drought and the cold greatly inhibit bacterial growth. Thus, the results of bacteria analysis in arid climate are subject to seasonal variations and may therefore be inconclusive for oil prospecting.

M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

CA

A complex study of the causes of seasonal variation of data in soil gas prospecting. M. I. Subbota. *Neftyanoe Khoz.* 33, No. 7, 13-17(1947). The av. concns. of the heavy fraction of soil gases reach a max. in June-Aug., are lower in May and Sept., and lowest during the other months at which time they are about the order of the exptl. error. The seasonal variations are confined almost exclusively to the noncombustible portion of the heavy fraction. This portion constitutes in summer over 70-80% of the total heavy fraction. In winter the heavy fraction consists chiefly of combustible constituents and its concn. in the total gas is only 1/8 to 1/16 of that in the summer. The noncombustible components are apparently formed in the upper layers of soil by bacterial action which of course is inhibited during the cold season. This conclusion does not seem to have been sufficiently proved. 16 references.

Bruno C. Metzner

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M. I.

Subbota, M. I. and Boravskiy, S. P. "Improvement in the method of gas sampling," Razvedka nedr, 1948, No. 6, p. 18-22 - Bibliog: 6 items

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, no. 3, 1949)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

[illegible], [illegible].

Su[illegible]ota, [illegible]. T. "On [illegible] [illegible]ssolved in water [illegible] for [illegible]",
Azerbay[illegible] [illegible] [illegible], [illegible], [illegible].

S[illegible]: [illegible], [illegible] A[illegible], (L[illegible] 'Zhurnal 'nykh Statey, No. 12, 19[illegible]).

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M. I.

USSR/Geophysics - Caspian Sea Nov 51

"Floating Sands on the Caspian Sea," M.I. Subbota

"Priroda" No 11, p 54

Subject observations have been made by Subbota rather often. This phenomenon of floating sands contributes to the transfer of sandy material to considerable distances, which is deposited under rather diverse conditions. Petrographic investigations of maritime sediments must take into consideration the possibility of such an unusual transfer. Sand may float if its surface remains dry as when coated with petroleum, which fact must be given study.

207T47

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

1. SUBECTA, M. I.

2. USSR (600)

4. Erosion

7. Cup-shaped forms of eroded limestone. Izv. Vses. geog. ob-va 85 No. 2, 1953.

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

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

GRIGOR'YEV, G.G.; SUBBOTA, M.I.; TURKEL'TAUB, N.M.; YASENEV, B.P.; ALEKSEYEV, F.A., redaktor; TITSKAYA, B.F., redaktor; POLOSINA, A.S., tekhnicheskiy redaktor.

[Gas and gas-core surveys and the analysis of gas; handbook of methods] Gazovaia i gazokernovaia s"emki i analiz gaza; metodicheskoe posobie. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1954. 225 p. (MLRA 7:8)
(Gas, Natural)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA M.I.

KARTSEV, A.A.; TABASARANSKIY, Z.A.; SUBBOTA, M.I.; MOGILEVSKIY, G.A.; ABRAMOVICH, M.V., professor, retsenzent; GRISHIN, G.L., retsenzent; KOVALEVA, A.A., redaktor; POLOSINA, A.S., tekhnicheskiy redaktor.

[Geochemical methods of prospecting for oil and gas pools] Geokhimicheskie metody poiskov i razvedki neftianykh i gazovykh mestorozhdenii. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1954. 430 p. (MLRA 7:11)

(Prospecting) (Petroleum--Geology)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Conducting gas analysis of cores and luminescence study of bituminosity in swampy areas. Geokhim.met.poisk.nefti i gaza no.2:79-88 '54. (MLRA 9:10)

(Geochemical prospecting)

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M. I.

AID P - 204

Subject : USSR/Engineering

Card : 1/1

Authors : Yasenev, B. P., Turkel'taub, N. M., and Subbota, M. I.

Title : Perfection of Geochemical Methods of Oil Prospecting

Periodical : Neft. khoz., v. 32, #3, 23-28, Mr 1954

Abstract : Various geochemical methods of analysis of gas traces are reviewed. Their significance is evaluated for different conditions and compared with absorbtion and microanalysis methods. The values of mass-spectrometry and radioactive indicators are also mentioned. In conclusion, the authors call for the coordinated work of different research institutions and for perfection in precision of geochemical methods. 11 Russian references (1939-53).

Institution : Scientific Research Inst. of State Geochemical Prospecting

Submitted : No date

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

G.A.Mogilevskii's book "Microbiological method of prospecting for gas and oil deposits." Reviewed by M.I.Subbota. Neft.khoz. 32 no.10: 94-96 O '54. (MLRA 7:11)

(Mogilevskii, G.A.) (Petroleum geology)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBOTTA, M.I.

USSR/Chemistry - Carbon dioxide gas accumulation

Card 1/1 Pub. 86-21/33

Authors : Subotta, M. I., Cand. Geo. Min. Sci.

Title : Reasons for the accumulation of a layer of carbon dioxide in wells.

Periodical : Priroda 43/11, 113-115, Nov 1954

Abstract : Researches to determine the source of CO_2 in wells reveal that the water itself contains bicarbonates in solution along with much free CO_2, which is forced out of the water upon contact with warmer air and these substances in turn were taken up by the water when in contact with limestone. Figures are given for CO_2 precentages at different levels in a well. Table; diagram.

Institution : ...

Submitted : ...

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

USSR/ Cosmochemistry. Geochemistry. Hydrochemistry D.

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11547

Author : Borisov N.V., Subbota M.I., Morozova S.N., Kovtunenko M.V.
Inst : All-Union Scientific Research Institute of Geological Prospecting for Petroleum

Title : Hydrogen in Marsh- and Other Gases

Orig Pub : Tr. Vses. n.-i. geol.-razved. neft. in-ta, 1955, 6, 165-175

Abstract : An instrument for determination of H_2 (accuracy 0.02%), is proposed, and a detailed description is given of its use for the analysis of natural gases. Data are presented on the analysis of 11 samples of marsh gas wherein H_2 was detected by means of the described instrument. Concentration of H_2 reached only 0.3% with a content of heavy hydrocarbons $\leq$ 0.03 - 0.01%. In gases of mud volcanoes the H_2 content was $\leq$ 0.06%

Card 1/1

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M. I.

USSR/Mineralogy - Natural gas

Card 1/1 Pub. 86 - 15/37

Authors : Subbota, M. I., Cand. Geol.-Min. Sc.

Title : Origin of natural hydrocarbon gases

Periodical : Priroda 44/4, 94 - 97, Apr 1955

Abstract : An analysis is made of the processes of the formation of combustible natural gas, which is found to consist mainly of methane. Its origin is traced to the decomposition of vegetable matter in the earth. Where petroleum and gas are jointly present it is found that the proportion of the gas is always greater where there is bacterial action. Experiments were conducted which simulated the natural conditions under which gas is formed. Six Soviet references (1932 - 1954). Drawings.

Institution : .....

Submitted : .....

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

15-57-7-9766

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 151 (USSR)

AUTHORS: Subbota, M. I., Botneva, T. A.

TITLE: Gas-Bitumen Formation in Swampy Sectors of Western Georgia (O protsessakh sovremennogo gazobitumoobrazovaniya na zabolochennykh uchastkakh Zapadnoy Gruzii)

PERIODICAL: Tr. Vses. n.-i. geol.-razved. neft. in-t, 1956, Nr 7, pp 223-233

ABSTRACT: Swamp gas of a certain composition forms in swampy sectors and in fresh-water reservoirs with a sandy clay bottom. The composition of this gas is as follows: methane--10.59 to 89.15 percent; nitrogen--8.0 to 81.45 percent; carbonic acid gas--o.89 to 7.96 percent. Oxygen in an amount up to 1.08 percent was found in individual specimens, and hydrogen up to 0.05 percent in three specimens. Traces of heavy

Card 1/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

15-57-7-9766

Gas-Bitumen Formation in Swampy Sectors (Cont.)

hydrocarbons were established in an amount of 0.01 to 0.02 percent (which is within the limits of the sensitivity of the determination) only in four specimens. The accumulation of methane in the sediment is very low, since most of the methane enters the atmosphere. A greater methane content in the desorbed gases is observed only in the upper layer, which is closely connected with the soil and is transitional to the Quaternary deposits. Heavy hydrocarbons are absent from the desorbed gases. The bitumen content in rock of swampy areas is 0.000156 to 0.02 percent; the greatest amount of bitumen is found in rock taken from a depth up to 0.1 m, while the smallest amount is found in rock taken from a depth of 3 m. In rock of the upper layer, represented by highly arenaceous brown clays, the bitumen consists of asphalt acids in an amount of 49.38 percent; oils--12.83 percent, and resins--33.99 percent. The amount of asphalt acids in the lower layer is little more than half that in the upper layer, while the amount of oil is twice that of the upper layer. An increase is also observed in the amount of resins and asphaltenes. The qualitative composition of the bituminous substance

Card 2/3

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Potholes in the Belaya River in the Caucasus. Izv.Vses.geog.ob-va 88 no.3:295-302 My-Je '56. (MLRA 9:9)
(Belaya River--Potholes)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Mud knolls and their relationship to mud volcanoes and oil-bearing potentials. Geol. nefti 1 no.2:43-46 F '57. (MLRA 10:8)
(Petroleum geology)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I., kandidat geologo-mineralogicheskikh nauk.

Ice cover in Moscow Province. Priroda 46 no.3:113-114 Mr '57. (MIRA 10:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut (Moskva)
(Moscow Province--Ice on rivers, lakes, etc.)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

26-58-4-37/45

AUTHOR: Subbota, M.I., Candidate of Geological-Mineralogical Sciences

TITLE: Insects and the Weathering of Sandstone (Nasekomyye i vyvetrivaniye peschanikov)

PERIODICAL: Priroda, 1958, Nr 4, p 115 (USSR)

ABSTRACT: Cavernous forms of weathering in sandstone are found on vertical cliffs and steep slopes in regions with dry climate and strong winds. The author mentions various forms of existing cavities in sandstone he noted on the southern shore of Lake Issyk-Kul' in Kirghizia in 1955. Such cavities are caused by digging insects, such as bees and wasps. Sandstone with lace-like patterns was found by the author in places where fresh layers of sandstone had been exposed by landslides. The cavities originated from bees and wasps which had made them 10 - 40 mm deep and 6 - 7 wide to build their nests in. Some cavities that had been exposed to winds for some time showed already distinct traces of weathering. There are 2 photos.

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

26-58-4-37/45

Insects and the Weathering of Sandstone

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologo-razvedochnyy neftyanoy institut (Moskva) (All-Union Scientific Research Institute for Geological Prospecting of Petroleum, Moscow)

AVAILABLE: Library of Congress

Card 2/2 1. Insects-USSR 2. Sandstone-Wind erosion

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ANTONOV, P.L.; BOCNEVA, T.A.; YEREMENKO, N.A.; ZHABREV, D.V.; SUBBOTA, M.I.; TURKEL'TAUB, N.M.; YASENEV, B.P.

Present status of oil and gas geochemical prospecting methods. Trudy VNIGNI no. 10:227-240 '58. (MIRA 14:5)
(Geochemical prospecting)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Recent formation of gases in saline and brackish waters of the Taman' Peninsula and Primorsko-Akhtarsk District. Trudy VNIGNI no.11:7-23 '58. (MIRA 13:1)
(Taman' Peninsula--Gas, Natural--Geology)
(Primorsko-Akhtarsk District--Gas, Natural--Geology)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.; GOLDIN, A.S.; POPYTALOV, D.I.

Upward migration of hydrocarbons and salts from deeper strata under conditions of slanting platform structures. Trudy VNIGNI no.11:24-52 '58. (MIRA 13:1)
(Tuymazy District--Petroleum geology)
(Geochemical prospecting)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Underground waters in the Chuya Valley as oil and gas indicators. Geol.nefti i gaza 3 no.5:34-38 My '59. (MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(Chuya Valley—Water, Underground)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.

Interesting book about mud volcanoes ("Mud volcanoes of the Kenir-Chikishlyar region in southwestern Turkmenistan" by N.O. Nazarov. Reviewed by M. Subbota). Geol. nefti i gaza 3 no.9:61-63 S '59. (MIRA 13:1)

(Turkmenistan--Mud volcanoes)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Gas formation in continental bodies of fresh waters in connection with the genesis of solid gaseous hydrocarbons. Trudy VNIGNI no.17: 227-249 '59. (MIRA 13:1)

(Gas, Natural)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Gaseous geyser in wester Turkmenistan and the mechanism of its action. Sov. geol. 3 no.4:120-123 Ap '60. (MIRA 13:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut.
(Boydag Mountain--Geysers)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M., kand.geol.-mineral nauk

Findings from the Bronze Age. Vest.AN Kazakh.SSR 16 no.8: 102-104 Ag '60. (MIRA 13:9)
(Sary-Su Valley--Bronze age)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M., kand.geologo-mineralogicheskikh nauk

Mud volcanoes power. Tekh.mol. 30 no.1:5-6 '62. (MIRA 15:2)
(Mud vulcanoes)(Power resources)

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Stability of the composition of gas escapes from mud volcanoes and their origin. Trudy VNIGNI no.27:137-143 '60. (MIRA 17:3)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.; ZHUKOV, S.G.

Gas zones of the northeastern part of Central Asia. Neftegaz. geol. i geofiz. no. 12:26-32 '63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut, Moskva.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

More about the classification of mud volcanoes. Sov.geol. 6 no.8: 98-100 Ag '63. (MIRA 16:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut yaderney geofiziki i geokhimii.

(Mud volcanoes--Classification)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.

"Direct geochemical methods of oil and gas prospecting; methodological instructions for sampling, sealing, and degassing of rocks" by B.P.IAsenev. Reviewed by M.Subbota. Geol.nefti i gaza 7 no.2:63-64 F '63. (MIRA 16:2)
(Core drilling) (IAsenev, B.P.)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

TELEGINA, Z.P.; SUBBOTA, M.I.; NIKITINA, Ye.A.

Characteristics of the distribution of hydrocarbon-oxidizing bacteria in the waters of the cross section of the Isbaskent oil and gas field. Mikrobiologiia 32 no.1:33-38 '63 (MIRA 17:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimii.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

[illegible], M. .

Age of the sediments which are the sources of gases from mud volcanoes. Sov. geol. 7 no.6:121-123 Je '64 (MIRA 18:1)

1. Vsesoyuznyy neftyano-issledovatel'skiy institut yadernoy geofiziki i geokhimii.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, M.I.

Urgent problems in petroleum microbiology. Sov. geol. 8 no.5:18-23 My '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut yadernoy geofiziki i geokhimii.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

YAKOBSON, G.P.; SUBBOTA, M.I.; PRADED, M.G.; KOVALEVSKIY, V.S.

Hydrogeological study of deep aquifers and the creation of a regional net of observation wells. Razved. i okh. nedr. 30 no.10:42-46 O '64. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut, Moskva (for Yakobson, Subbota, Praded).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii, Moskva (for Kovalevskiy).

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 13906-66 [illegible]

ACC NR: AP6015620(A) SOURCE CODE: UR/0413/66/000/009/0014/0014

59
B

INVENTOR: Subbota, M. P.

ORG: none

TITLE: Method of burning fuel. Class 12, No. 181047

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 9, 1966, 14

TOPIC TAGS: fuel, combustion, fuel mixing, fuel additive

ABSTRACT: An Author Certificate has been issued for a method of burning fuel in which the fuel mixes with the air. To improve the combustion process, such metal particles as iron, cast iron, aluminum, copper, etc. are added to the fuel. [NT]
[Translation]

SUB CODE: 21/ SUBM DATE: 04Jan65/

Card 1/1 LJM UDC: 662.75:541.124-13

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

KLOCHAN, Dmitriy Fedoseyevich; SUBBOTA, Nikolay Nikolayevich; SUZDAL'TSEV, Vladimir Vladimirovich; MARKOVA, M.M., red.

[Balakleya; a regional study] Balakliia; kraieznavchyi narys. Kharkiv, Prapor, 1965. 118 p. (MIRA 18:8)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, P.; KORYAGIN, I.; SHUFCHUK, B.

Improve and simplify accounting in the construction industry.
Bukhg.uchet 16 no.3:10-15 Mr '57. (MLRA 10:5)
(Construction industry--Accounting)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, V.Ya., inzh.

Mechanization of assembling and welding operations. Mashinostroenie no.1:75-79 Ja-F '64. (MIRA 17:7)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTA, V. Ya., inzh.

Mechanization and automation of forging operations. Mashinostroenie no.6:62-64 N-D '64 (MIRA 18:2)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 10014-63 EDS/EWT(1)--AFFTC/ASD

ACCESSION NR: AP3002731 S/0120/63/000/003/0106/0107

AUTHOR: Subbota-Mel'nik, P. A. 51 50

TITLE: Taumeter

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1963, 106-107

TOPIC TAGS: taumeter, phosphor, luminous decay, photomultiplier

ABSTRACT: A taumeter with 0.1-microsec resolution is described. It is designed for observing luminous decay processes in pulse-excited crystal phosphors. The device contains a master pulse generator, a delay network, a hydrogen diode light source, a sensing photomultiplier, and a recorder. Master pulses generated at 0.2--10 kc and durations of 1.3--26 microsec fire the hydrogen diode through a variable delay network. The resulting light pulse has rise and decay times of 0.1 microsec or less and illuminates the phosphor sample via a monochromator or selected filtering. Synchronizing pulses from the master generator simultaneously gate the final two dynodes of the photomultiplier tube for variable durtions and intervals, thus allowing selective observation of the luminous decay of the sample. The gating method allows use of a high resistance

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

L 10014-63
ACCESSION NR: AP3002731

anode load on the photomultiplier, which simplifies the design of the photocurrent amplifier and gives a high sensitivity; e.g., at maximum phototube voltage a flux of 10 sup -11 lumens is detectable with 5% accuracy. Luminescent decay times (Tau) of 2--5 microsec for some alkaline-haloid phosphors have been recorded. Orig. art. has: 1 figure.

ASSOCIATION: Kiyevskiy gosudarstvenny*y universitet (Kiyev State University)

SUBMITTED: 26Jun62 DATE ACQ: 12Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 010 OTHER: 001

Card 2/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

ASSOCIATION: None

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTIN, A.

SVP pigment paste. Prom.koop. 14 no.7:9 Jl '60.
(MIRA 13:8)

1. Zaveduyushchiy laboratoriyey lakov i krasok Nauchno-issledovatel'skogo tekhnokhimicheskogo instituta, Moskva.
(Dyes and dyeing)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTIN, A.; GERASIMOV, A.

High precision. Mest.prom.i khud. promys. 3 no.1:22 Ja '63. (MIRA 16:2)

1. Sotrudniki Nauchno-issledovatel'skogo tekhnokhimicheskogo instituta.
(Hardness) (Measuring instruments)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTIN, A.

Technical progress in channel maintenance equipment. Rech. transp. 22 no.7:32-35 Jl '63. (MIRA 16:9)

1. Glavnyy inzh. Glavnogo upravleniya vodnykh puteY i gidrotekhnicheskikh sooruzheniy Ministerstva rechnogo flota RSFSR.
(Dredging machinery)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

6(1) SOV/178-58-7-13/24

AUTHOR: Subbotin, A., Colonel in the Technical Service

TITLE: The Automation of Telegraph Communication (Avtomatizatsiya telegrafnoy svyazi)

PERIODICAL: Voyennyy svyazist, 1958, Nr 7, pp 31 - 33 (USSR)

ABSTRACT: The author explains some details of the automatic telegraph equipment STA, which is more and more frequently used at military communication centers. It consists of one ST-35 telegraph apparatus, one transmitter and one tapeperforator. The transmitter and the tape perforator are attachments to the ST-35 apparatus. The advantage of this equipment is that telegrams may be translated to the perforated tape and then transmitted by the transmitter at a high speed. Incoming telegrams to be relayed to another station are automatically recorded on the perforated tape

Card 1/2

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTIN, A., starshiy serzhant sverkhsrochnoy sluzhby, komandir vzvoda.

Combat assistant commanding officers. Komm. Vooruzh. Sil. 46 no. 21:65-66 N '65 (MIRA 19:1)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTIN, A.

For continuous operation of hydraulic structures. Rech. transp. 24 no. 10:44-45 '65. (MIRA 18:12)

1. Glavnyy inzhener Glavnogo upravleniya vodnykh putey i gidrosooruzheniy Ministerstva rechnogo flota SSSR.

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

SUBBOTIN, A.A.

Soviet miners are preparing to celebrate the Miner's Day by new achievements in mining. Ugol' 30 no.8:6-22 Ag'55.
(MLRA 8:10)

1. Nachal'nik kombinata Moskvougol'
(Coal mines and mining)

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"

"APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0

APPROVED FOR RELEASE: 08/26/2000 CIA-RDP86-00513R001653710017-0"