

L 52258-65

ACCESSION NR: AP5010427

cycle. The Coriolis force in the solar convection zone depends upon the helio-graphic latitude, which condition increases the magnetic field and the formation of cells. The cell belt is formed inside the convection zone, and cells emerge because of their magnetic state. The horizontal state of a separated cell is unstable and during the active cycle creates a magnetic field with a definite direction in spot groups. Orig. art. has: 7 figures and 33 formulas. [EG].

ASSOCIATION: Gos. Astronomicheskii in-t im. P. K. Shternberga (State Astronomical Institute); Fizicheskii in-t im. P. N. Lebedeva AN SSSR (Institute of Physics AN SSSR)

SUBMITTED: 12Jun64

ENCL: 00

SUB CODE: AA

NO REF SOV: 007

OTHER: 003

ATD PRESS: 4010

Card 2/2 mb

L 45719-65 EWA(k)/FBD/EWG(r)/EWT(l)/EEC(k)-2/EEC(t)/T/EEC(b)-2/EWP(k)/
EPA(m)-2/EWA(h) Pm-4/Pn-4/Po-4/Pf-4/Ph/Pi-4/Pl-4 IJP(c) WG/GG

ACCESSION NR: AP5010508

UR/0056/65/048/004/1132/1138

AUTHCR: Gudzenko, L. I.; Guro, G. M.

TITLE: Coherent division of quanta

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 4, 1965, 1132-1138

TOPIC TAGS: laser, laser action, quantum mechanical system, frequency divider

ABSTRACT: The problem considered applies essentially to the case when the same frequency corresponds to transitions between a large number of energy levels in a quantum mechanical system. This may concern, for example, the operating principle of an effective frequency divider (a physical instrument which greatly reduces the frequency yet conserves a large fraction of the incoming radiation power). The decisive element of such a converter is a quantum-mechanical system that includes a band bounded from above, consisting of a large number of practically equidistant levels. It is shown that a frequency divider can be produced by placing such a medium in a resonator of sufficiently large Q, and that

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Card 1/2

L 45719-65

ACCESSION NR: AP5010508

3

the energy transformation can have sufficiently high efficiency if the contribution of the nonradiative transitions is sufficiently small. The conditions for steady state amplification are considered for the limiting cases of low and high intensity of the amplified emission. Examples of physical media that may serve for this purpose are a gas consisting of nonequilibrium excited diatomic molecules, whose equidistant-level band is made up of vibrational levels, a semiconductor in a magnetic field, or a solid with conduction electrons in a strong electric field. "The authors thank A. M. Prokhorov and I. I. Sobel'man for a discussion." Orig. art. has: 2 figures and 9 formulas. [02]

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR
(Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 15Oct64

ENCL: 00

SUB CODE: EC

NO REF SOV: 003

OTHER: 001

ADD PRESS: 4001

Card

W
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L 36336-65 EWG(j)/EWA(k)/FBD/EWT(l)/EWT(m)/EPA(sp)-2/EPF(c)/EEG(k)-2/EPA(w)-2/
 EEG(t)/T/EWT(t)/EEG(b)-2/EWP(k)/EWP(b)/EWA(m)-2/EWA(h) Pr-l/Pz-c/Po-l/Pab-1/
 ACCESSION NR: AP5007657 Pf-l/Pr-l/Pi-l/Peb/Pl-l S/0020/65/160/006/1296/1299

AUTHOR: Gudzenko, L. I.; Shelepin, L. A.
 IJP(c) WQ/JD/AT

TITLE: Amplification in a plasma as a result of recombination

SOURCE: AN SSSR. Doklady, v. 160, no. 6, 1965, 1296-1299

TOPIC TAGS: laser, plasma laser, plasma, population inversion, hydrogen laser

ABSTRACT: A qualitative analysis is made of processes occurring during the decay of highly ionized optically thin hydrogen plasma with an inverted population. The following three stages in plasma are considered: 1) strongly ionized plasma with instantaneously cooled free electrons, when the lower levels are practically unpopulated; 2) considerably ionized plasma, in which an equilibrium relaxation rate from overpopulated upper levels is established; and 3) weakly ionized plasma. On the basis of an equation for the rate of population change, a general relaxation scheme is discussed for plasma with an electron concentration between 10^{13} and 10^{16} cm^{-3} and free electron temperatures $kT_e \approx 0.1-0.5 \text{ ev}$. The relaxation time τ for the first stage was estimated to be $10^{-8}-10^{-7} \text{ sec}$. The average number of electrons populating levels with the principal quantum number $n = 2, 3, 4, 5, 6$ during the second stage was calculated for $kT_e = 0.1, 0.2, 0.3, \text{ and } 0.4 \text{ ev}$ and for

Card 1/2

96
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L 36336-5

ACCESSION NR: AP5007657

free electron densities of 10^{12} , 10^{13} , 10^{14} , and 10^{15} cm^{-3} . The coefficients of absorption corresponding to transitions $n \rightarrow m$ ($n = 2, m = 5$) were calculated for the first and second stages, and it was shown that population inversion sufficient for laser action is maintained throughout the whole second stage ($\tau_2 \approx 10^{-5} \text{ sec}$). It is pointed out that various effects not taken into account may become dominant during the third stage. These effects, such as the increased importance of metastable states, complicate the analysis of relaxation processes during the third stage. However, in contrast to the first two stages, it is relatively easy to maintain a stationary population inversion during the third stage. Because of the linear Stark effect, hydrogen is not considered to be the best medium for a plasma laser. The heating and cooling of free electrons in a gaseous discharge is also discussed. Orig. art. has: 3 formulas and 1 table. [CS]

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences, SSSR)

SUBMITTED: 03Sep64

ENCL: 00

SUB CODE: E.C./M.E

NO REF SOV: 003

OTHER: 004

ATD PRESS: 3219

Card 2/2 *bb*

L 2091-66 : EWA(k)/FBD/EWT(l)/EEC(k)-2/ETC/EPF(n)-2/EMG(m)/EPA(w)-2/T/EWP(k)/ENA(h)/
EWA(m)-2, SCTB/IJP(c) WG/AT

ACCESSION NR: AP5024901

UR/0382/65/000/003/0054/0056
533.9.01:621.378:1

AUTHOR: ^{44,55}Gudzenko, L. I.; ^{44,55}Kolesnikov, V. N.; ^{44,55}Sobolev, N. N.; ^{44,55}Shelepin, L. A.

TITLE: Use of ^{21,44,55}highly ionized plasma for fabrication of a ^{25,44,55}laser

SOURCE: Magnitnaya gidrodinamika, no. 3, 1965, 54-56

101
B

TOPIC TAGS: plasma, laser, plasma laser, magnetohydrodynamics, energy conversion

ABSTRACT: The sudden cooling of the free electrons of a highly ionized low-temperature plasma (a condition necessary for the attainment of laser action in such a medium) is discussed. Two methods are proposed: cooling the walls of the container, and the use of heavy particles (ions and neutral atoms of the plasma) to cool the free electrons. The second method is discussed in detail. In utilizing heavy particles for cooling, two conditions must be satisfied: 1) The electronic temperature must be significantly greater than the temperature of the heavy particles ($T_e \gg T$). The temperature T_e must be close to the temperature of the almost totally singly ionized gas, and the temperatures T , to the final cooling temperature of free electrons; and 2) the specific heat of the electrons must be significantly smaller than that of the heavy particles ($C_e \ll C$). The first condition can be realized by heating.

Card 1/2

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ACCESSION NR: AP5024901

the gas by means of an electric field. The second condition can be fulfilled only when the electronic density is small in comparison with the total density of the gas. This occurs at a practically total ionization of an easy-to-ionize compound of plasma which forms only a small percentage of the total density of a mixture of gases, or, in the case of gas consisting of one component, when the plasma is not ionized completely. In a plasma consisting of a mixture of gases, the hard-to-ionize components form the cooling system, the specific heat of which is high. In addition, the total density cannot be too high lest nonradiative transitions control the population of the discrete lower levels. It is shown that the various cooling methods used in magnetohydrodynamics could probably be used in developing a low-temperature highly ionized plasma laser. [CS]

ASSOCIATION: none

SUBMITTED: 10Aug64

ENCL: 00

SUB CODE: ME, EC

NO REF SOV: 001

OTHER: 000

ATD PRESS: 4117

Card 2/2

L 14226-66 EWT(1)/EPF(n)-2/ETC(F)/EWG(m) LJP(c) AT

ACC NR: AP024902

UR/0382/65/000/003/0057/0060

AUTHOR: Gudzenko, L.I.; Shelepin, L.A.

ORG: None

TITLE: On the amplification of a collapsing plasma

SOURCE: Magnitnaya gidrodinamika, no.3, 1965, 57-60

TOPIC TAGS: unstable plasma, plasma radiation emission, plasma negative absorption plasma laser activity

ABSTRACT: The properties of non-equilibrium plasma as a medium amplifying electromagnetic radiation at frequencies of its discrete spectrum are discussed. Plasma collapse radiation phenomena are evaluated for the case of optically thin hydrogen plasma described by the equations (1):

$$N = N_e + \sum_n N_n, \quad \frac{dN_n}{dt} = -N_e N_n \sum_{m \neq n} V(n, m) - N_e N_n B_e(n) - N_n \sum_{m < n} A(n, m) +$$

$$+ N_e \sum_{m \neq n} N_m V(m, n) + N_e^2 B'_e(n) + N_e^2 A_e(n) + \sum_{m > n} N_m A(m, n), \quad (1)$$

where N - complete number of (free, and bound) electrons per cm³, N_e - density of free electrons, N_n - density of electrons with principal quantum number n. A(n,m)dt and A(n)dt are the spontaneous transition probabilities, radiative and recombinative, to

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Card 1/2

UDC 533.901:621.378.1

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L 11:226-66

ACC NR: AP5024902

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level n , during time dt ; $V(n,m)$ corresponds to non-radiative transitions $n \rightarrow m$, and $B(n)$ - to collision ionization and recombination. Three stages of plasma collapse or relaxation are discussed: 1) highly ionized plasma with "instantaneously" cooled electrons 2) substantially ionized plasma with a "stationary downflow" from overpopulated levels and 3) weakly ionized plasma. The second stage is investigated quantitatively, using the results of computer-calculated population parameters governed by equations (1); and upper-half-levels electron distribution N_n - (2); and the negative absorption coefficient (3). An evaluation of $\gamma_{m,n}$ shows sufficient amplification to expect feasibility of laser activity (lasing) for stages one and two. It is also proposed that plasma lasing may occur in stellar atmospheres where large distances enhance the amplification effect. Authors thank A.T. Matachun for assistance in numerical computations and A.M. Prochorov, I.I. Sobelman and N.N. Sobolev for numerous discussions. Orig. art. has 1 table, 3 formulas.

$$\dot{N}_n = n^2 N_e^2 \left(\frac{2\pi\hbar}{mkT_e} \right)^{3/2} \exp\left(\frac{E_n}{kT_e}\right) \quad (2)$$

$$\gamma_{m,n} \approx \frac{\lambda_{n,m}^2}{4\Gamma_{m,n}} A(n,m) (N_n - N_m) \quad (3)$$

SUB CODE: 20

SUBM DATE: 10Aug64/

ORIG REF: 003

OTH REF: 006

JS
Card 2/2

GUDZENKO, I. I.; CHEKHOVSKY, V. Ye.

Some characteristics of the phase of solar activity. Astron.
zhur. 43 no. 1:113-123 Ja-F '66 (MIRA 19:2)

1. Fizicheskiy institut imeni P.N. Lebedeva AN SSSR i Gosu-
darstvennyy astronomicheskiy institut imeni P.K. Shternberga.
Submitted May 8, 1965.

L 44678-66 EWT(1) GW
ACC NR: AR6017241

SOURCE CODE: UR/0058/65/000/012/D038/D038

AUTHOR: Gudzenko, L. I.; Shelepin, L. A.

ORG: none

64
B

TITLE: Possible role of induced radiation in the solar atmosphere

SOURCE: Ref. zh. Fizika, Abs. 12D317

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 295-300

TOPIC TAGS: ionized plasma, radiation, solar atmosphere

ABSTRACT: Induced radiation in a highly ionized plasma has been investigated when the short collision times permit the plasma to cool rapidly by kinetic temperatures so that a strong inversion population arises. Conditions at low densities and the possible connection of induced radiation in free space with phenomena in the solar atmosphere are considered. [Translation of abstract] [NT]

SUB CODE: 20/

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I, 44800-66 EWT(1)/EEC(k)-2/T/EWP(k) IJP(c) WG/WW/AT
ACC NR: AP6031264 SOURCE CODE: UR/0057/66/036/009/1622/1625

AUTHOR: Gordiyets, B. F.; Gudzenko, L. I.; Shelepin, L. A.

ORG: Physics Institute im. P. N. Lebedev, AN SSSR, Moscow (Fizicheskiy institut AN SSSR)

TITLE: The ^{2/}cooling of the free ^{2/}electrons of a plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 9, 1966, 1622-1625

TOPIC TAGS: plasma laser, ^{IR}infrared laser, ^{UV}ultraviolet laser, population inversion, *ionized plasma, free electron*

ABSTRACT: The present paper is a continuation of four earlier papers by two of the authors (Gudzenko and Shelepin), who showed that laser action was possible at optical, infrared, and ultraviolet frequencies when electrons of a highly ionized plasma with densities of 10^{14} — 10^{16} cm⁻³ were rapidly cooled from 20,000 to 1000K. They now theoretically consider the cooling rates as a function of elastic collisions of free electrons with ions and neutral atoms and as a recombination of electrons at the cylinder walls. Their considerations are based on an electron model repeatedly heated and cooled by a pulsed electric field. The rapidly heated electrons generate a highly ionized, low-temperature plasma when the field is suddenly removed or the free electrons are cooled by collision of hot electrons with heavy cold atoms or ambipolar diffusion for 10^{-8} — 10^{-7} sec. Population inversion results which is sufficient to achieve laser action. The study indicates the feasibility of developing a pulsed

UDC: 533.9

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ACC NR: AP6031264

plasma laser in which simultaneous modulation of the heating electric field and the longitudinal magnetic field cause a highly ionized plasma during the heating cycle. [YK]
Orig. art. has: 6 formulas.

SUB CODE: 20/ SUBM DATE: 28May65/ ORIG REF: 008/ OTH REF: 007/ ATD PRESS: 5080

Card 2/2 blg

ACC NR: AP6036054

SOURCE CODE: UR/0056/66/051/004/1115/1119

AUTHOR: Gudzenko, L. I.; Filippov, S. S.; Shelepin, L. A.

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskii institut Akademii nauk SSSR)

TITLE: Rapidly recombining plasma jets

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 4, 1966, 1115-1119

TOPIC TAGS: plasmoid, ionized plasma, plasma decay, plasma jet, adiabatic process, ~~plasma-laser~~

ABSTRACT: The authors consider a plasma jet containing atoms or ions with several discrete levels, the populations of which are much smaller than those given by the Saha formula for a given free-electron density and temperature. They show that a plasma jet of this kind can be used to obtain a relatively dense gas stream with unpopulated lower levels. This is done by making use of the rapid recombination that takes place when the plasma is initially highly ionized and the temperature of the free electrons is abruptly reduced. In this case the populations in the lower levels cannot follow the transitions of the electrons to the upper discrete levels and the resultant nonequilibrium situation (if the free electrons are cooled rapidly enough) can lead to population inversion, thus making it possible to use this gas in a laser

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ACC NR: AP6036054

configuration. This calls for cooling the plasma within a time 10^{-7} -- 10^{-8} sec from 5×10^3 to 10^3 K at a free-electron density 10^{14} -- 3×10^{15} cm^{-3} . In the case of an unmagnetized plasma, analysis shows that, in view of the difficulty of three-dimensional expansion into vacuum under laboratory conditions, any practical utilization of adiabatic cooling for the purpose of producing a large amount of hydrogen with a nonequilibrium population inversion in the atomic levels is hardly realizable. In the case of a magnetized plasma, it is shown that by freezing-in a strong magnetic field in the plasma it is possible to increase greatly the initial plasma pressure and thus intensify the cooling accompanying the expansion into vacuum. However, the required rapid displacement of a strong magnetic field still makes such a procedure difficult. A proposed means of overcoming the difficulty is to produce a device in which a high-velocity magnetized jet of fully ionized hydrogen is introduced into a vacuum with a magnetic field that falls off with distance. Theoretical estimates of the initial-plasma density required for this purpose and possible means of accomplishing a sufficiently rapid decrease of the magnetic field are discussed. The authors thank V. S. Komel'kov, M. I. Pergament, S. B. Pikel'ner, S. I. Syrovatskiy, and S. S. Serevitinov for a discussion. Orig. art. has: 5 formulas.

SUB CODE: 20/ SUBM DATE: 05Mar66/ ORIG REF: 005/ OTH REF: 001/ ATD PRESS: 5106

Card 2/2

ACC NR: AP7000056

SOURCE CODE: UR/0207/66/000/005/0115/0117

AUTHOR: Gordiyets, B. F. (Moscow); Gudzenko, L. I. (Moscow); Shelepin, L. A. (Moscow)

ORG: Physics Institute im. P. N. Lebedev, AN SSSR (Fizicheskiy institut AN SSSR)

TITLE: Amplification of radiation during the decay of extremely ionized plasma

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1966, 115-117

TOPIC TAGS: plasma decay, ionized plasma, plasma electromagnetic wave, plasma radiation

ABSTRACT: An investigation was made of the possibility of amplifying electromagnetic radiation at frequencies of the atomic spectrum in plasma undergoing pulse recombination. Since the rapid decay of plasma causes an inversion in level population, it is simpler to analyze the population distribution over discrete levels in ions of decaying plasma in which the majority of heavy particles are bare atomic nuclei of one of the elements (H^+ , He^{++} , Li^{++} , etc.). In addition to investigating the relaxation of hydrogen-like ions, an analysis is also made of the population in atoms of alkali metals or alkali-like ions during the decay of their plasma. Numerical data are used in an evaluation of the amplifying properties of the decaying plasma of a chemical element with the atomic number Z . It is shown that at comparatively high densities of free electrons N_e there is a region of optimum temperatures at which the absolute inversion acquires the maximum value. Rapidly decaying plasma, which results in in-

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ACC NR: AP7000056

version of the level population, can also be obtained by other methods. e.g., by isothermal compression. Orig. art. has: 1 formula and 1 figure. [WA-71]

SUB CODE: 20/ SUBM DATE: 10Jun66/ ORIG REF: 003/ OTH REF: 003/

Card 2/2

ACC NR: AR6028773

SOURCE CODE: UR/0269/66/000/006/0065/0065

AUTHOR: Gudzenko, L. I.; Medvedeva, N. A.; Chertoprud, V. Ye.

TITLE: Latitudinal distribution of the solar cyclic activity

SOURCE: Ref. zh. *Astronomiya*, Abs. 6.51.497

REF SOURCE: *Astron. tsirkulyar*, no. 342, okt. 16, 1965, 1-4

TOPIC TAGS: sun, sunspot, sunspot cycle

ABSTRACT: Tables of the distribution of sunspots with respect to latitude and phase are computed from Greenwich sunspot catalogs for seven 11-year cycles of the solar activity. An analysis of the tables has shown that insignificant differences exist in distributions for the northern and southern hemispheres. Summary tables of the distributions of relative frequency of occurrence of sunspot groups are given. [Translation of abstract] Bibliography of 10 titles. V. Ch.

SUB CODE: 03

UDC: 523.745

GUDZENKO, L.V.

Control of the boiling process of massecuite. Izv. AN Kir. SSR.
Ser. est. i tekhn. nauk 4 no.8:125-128 '62. (MIRA 16:6)
(Sugar manufacture)

GUDZENKO, P. N.

"Value of Rectoromanoscopy for Bacillary Dysentery in Children," *Pediatrics*,
No.3, 1948.

Clinic of Children's Diseases and Chair of Microbiology

GUDZENKO, P.N.

Practical aspects of provocation methods in chronic dysentery.
Pediatria, Moskva no.2:39-44 Mr-Apr '50. (CLML 19:2)

1. Of the Clinic for Children's Diseases (Head -- Prof. A.N.Fedorovich), Chernovitsy Medical Institute.

GUDZENKO, P.N., dotsent

Errors in diagnosing tuberculous meningitis in children. *Pediatrics*
no. 3:47-51 My-Je '55. (MLRA 8:10)

1. Iz kliniki detskikh bolezney (zav.prof. A.N.Fedorovich)
Chernovitskogo meditsinskogo instituta (dir.dotsent M.B.
Man'kovskiy) na baze Oblastnoy detskoy bol'nitsy (glavnyy
vrach M.V.Popova)

(TUBERCULOSIS, MENINGEAL, in infant and child
diag.errors)

GUDZENKO, P.N. [Hudzenko, P.N.], dots.

Relapse and exacerbations of tuberculous meningitis in children
treated with streptomycin. Ped., akush. i gin. 19 no.2:10-12 '57.
(MIRA 13:1)

1. Klinika detskikh bolezney (zav. - dots. P.N. Gudzenko) Chernovetskogo meditsinskogo instituta (dir. - dots. M.M. Kovalev) na baze Oblastnoy detskoy bol'nitsy (glavnyy vrach - M.V. Popova).
(MENINGES--TUBERCULOSIS) (STREPTOMYCIN)

GUDZENKO, P.N., dotsent

Involvement of the central nervous system by tuberculous processes following infection of experimental animals through the pharyngeal ring. (MIRA 11:8)
Probl.tub. 36 no.5:101-108 '58

1. Iz Instituta pediatrii AMN SSSR (dir. - chlen-korrespondent AMN SSSR prof. O.D. Sokolova-Ponomareva, nauchny rukovoditel' prof. I.V. TSibler i kafedry pediatrii (sav. - dots. P.N. Gudzenko) Chernovitskogo meditsinskogo instituta (dir. - dots. M.M. Kovalev).

(BRAIN, pathology,

exper. tuberc. induced by intrapharyngeal admin. of organism (Rus))

(TUBERCULOSIS, experimental,

brain pathol. in tuberc. induced by intrapharyngeal admin. of pathogens (Rus))

GUDZENKO, P. N., Doc Med Sci -- (diss) "Problems of pathogenesis and clinical aspect of tubercular meningitis in children." Chernovtsy, 1960. 27 pp; (Kiev Order of Labor Red Banner Medical Institute Academician A. A. Bogomol'ts); 300 copies; price not given; list of works of author at end of text (11 entries); (KL, 19-60, 137)

GUDZENKO, P.N.; KAS'KO, Yu.S.

Experimental tuberculosis of the cervical lymph nodes in guinea
pigs. Probl.tub. 38 no.1:89-95 '60. (MIRA 13 :10)
(LYMPHATICS—TUBERCULOSIS)

GUDZENKO, P.N., prof.; LOZOVY, A.A.

Supplementary electrocardiographic indices characterizing the functional state of the myocardium in children. Sov.med. 28 no.7:16-20 JI '65. (MIRA 18:8)

1. Klinika detskikh bolezney (zav. - prof. P.N.Gudzenko) Chernovitskogo meditsinskogo instituta na baze Oblastnoy klinicheskoy detskoj bol'nitsy (glavnyy vrach M.V.Popova).

GUDZENKO, Panteleymon Petrovich [Hudzenko, P.P.]; ZAGORSKIY, P.S.
[Zahors'kyi, P.S.] kand.ist.nauk, otv.red. NOVIKOVA, G.O. [Novikova,
H.O.], red.izd-va; AKSENOV, G.G. [Aksenov H.H.] tekhn.red.

[Working class of the Ukraine in the struggle for the socialist
nationalization of industry] Robitnychi klas Ukrainy v borot'bi
za sotsialistychnu natsionalizatsiiu promyslovosti. Kyiv, Vyd-vo
Akad. nauk URSS, 1957. 46 p. (MIRA 11:5)

(Ukraine—Revolution, 1917-1921)

(Ukraine—Industries)

PALLADIN, O.V., red.; SEMENENKO, M.P., akademik, red.; SHCHERBAN', O.N.,
akademik, red.; GNEDENKO, B.V. [Hniedenko, B.V.], akademik, red.;
DELIMARSKIY, Yu.K. [Delimars'kyi, IU.K.], akademik, red.; KAVETSKIY,
R.Ye. [Kavets'kyi, R.IE.], akademik, red.; KHRENOV, K.K. [Khrienov,
K.K.], akademik, red.; KOROID, O.S., kand.ekon.nauk, red.; HUDZENKO,
P.P. [Hudzenko, P.P.], kand.ist.nauk, red.; SHIKAN, V.L., red.
izd-va; RAKHLINA, N.P., tekhn.red.

[Development of science in the Ukraine during the past 40 years]
Rozvytok nauky v Ukraini'kii RSR za 40 rokiv. Kyiv, 1957. 529 p.
(MIRA 11:3)

1. Akademiya nauk URSR, Kiyev (for Semenenko, Shcherban', Gnedenko,
Delimarskiy, Kavetskiy, Khrenov)
(Ukraine---Science)

GUDZENKO, V.I.

Chemistry of 1,4-dihydroanthraquinone. Part 1: Nitration
of 1,4-dihydroanthraquinone. Zhur.ob.khim. 32 no.2:618-621
F '62. (MIRA 15:2)

1. Rubezhanskiy filial Nauchno-issledovatel'skogo instituta
organicheskikh poluproduktov i krasiteley.
(Anthraquinone)
(Nitration)

GUDZENKO, V.I.

Chemistry of 1,4-dihydroxyanthraquinone. Part 2: Reaction
of 1,4-dihydroxy-1-methylantraquinone with nitric acid.
Zhur.ob.khim. 33 no.3:940-943 Mr '63. (MIRA 16:3)

1. Rubezhanskiy filial Nauchno-issledovatel'skogo
instituta organicheskikh poluproduktov i krasiteley.
(Quinizarin)
(Nitric acid)

GUDZENKO, V.I.

Chemistry of 1,4-dihydroxyanthraquinone. Part 3: Chlorination of
1,4-dihydroxyanthraquinone. Zhur.ob.khim. 33 no.4:1314-1319 Ap '63.
(MIRA 16;5)

1. Rubeshanskiy filial Nauchno-issledovatel'skogo instituta organiche-
skikh poluproduktov i krasiteley.
(Quinizarin) (Chlorination)

GUDZENKO, V.I.

Chemistry of 1,4-dihydroanthraquinone. Part 4: Chlorination
of 1,4-dihydro-1-methylantraquinone. Zhur. org. khim. 1
no.9:1653-1658 S '65. (MIRA 18:12)

1. Rubezhanskiy filial Nauchno-issledovatel'skogo instituta
organicheskikh poluproduktov i krasiteley. Submitted July
30, 1964.

FILIMONOVA, M.M.; LEVINSKIY, M.I.; GUDZENKO, Zh.D.

Polarographic determination of carbon tetrachloride, chloroform,
and methylene chloride in hydrochloric acid. Zav.lab. 28
no. 4: 424-426 '62. (MIRA 15:5)
(Chloroform) (Carbon tetrachloride)
(Methane) (Polarography)

ACC NR: AP6036171

(A)

SOURCE CODE: UR/0209/66/000/011/0036/0042

AUTHOR: Gudzev, N. (Colonel; Candidate of technical sciences); Lavrik, G. (Colonel; Doctor of military sciences); Perepelitskiy, S. (Engineer; Colonel; Candidate of technical sciences); Sokolkin, N. (Engineer; Major; Candidate of technical sciences)

ORG: none

TITLE: Planning operations in aviation headquarters

SOURCE: Aviatsiya i kosmonavtika, no. 11, 1966, 36-42

TOPIC TAGS: job analysis, ~~organization coordination, planning~~, operations research, PERT, economic planning, industrial management, air force organization

ABSTRACT: A method of preparing a functional plan of operations is described in detail. It is said that the flow diagrams and outlines currently being prepared by commanders and officers at aviation headquarters have certain shortcomings, such as poor estimation of the time required for each operation, lack of coordination between sections, and no visual means for timely detection and elimination of potential difficulties. Many of these problems can be eliminated by adapting methods of network planning and management (SPU), which are widely used in the national economy. In this case the planned process is broken down into individual tasks. Each task is performed in phases which are called events and are designated by the resultant term, such as "aircraft fueled," "decision made." Consequently, each event expresses some important moment in the realization of the planned action.

Card 1/2

ACC NR: AP6036171

Events are logically related to each other by means of tasks which actually transform one event into another. The task or operation means a working process which utilizes time and materials; "fictional work" means either a rest period or an enforced waiting period, which takes time but does not produce. On the basis of this terminology, flow charts of such planning are presented and methods of computation for determining the time allotment for each task are given. It is said that such graphic plans can be prepared well ahead of time not only for such stationary processes as actions during alert, preparation for second flight mission, retraining of a flight crew, etc, but also for such highly dynamic processes as the organization of activities during training under various circumstances. Experience with this type of planning should result in the preparation of standard plans which are periodically revised, and in the capability for estimating work capacity and anticipating difficulties in certain cases.

SUB CODE: 05, 12, 01/ SUBM DATE: none

SOV/86-58-7-19/38

AUTHOR: Gudzev, N. T., Lt Col, Candidate of Technical Sciences

TITLE: On the Lateral Bombing Error Caused by Incorrect Adjustment of Radar Bombsight (O bokovoy oshibke bombometaniya iz-za nepravil'noy yustirovki radiolokatsionnogo pritsela)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 7, pp 39-41 (USSR)

ABSTRACT: This article contains an answer to a request submitted by an officer who wanted a theoretical evaluation of the amount of lateral bombing error under wind and windless conditions when the radar bombsight is not properly adjusted.

Card 1/1

LEVINSKIY, M.I.; FILIMONOVA, M.M.; GUDZENKO, Zh.D.

Polarographic determination of chloroform and methylene chloride
present simultaneously in hydrochloric acid. Zav.lab. 27 no.5:546-
548 '61. (MIRA 14:5)

(Chloroform)
(Methane)

GUDZEV, T.A., dorozhnyy master.

Introduce factory marking of tie beams. Put' i put.khos.
no.6:44 Je '57. (MLRA 10:7)
(Railroads--Ties)

BOBROVSKAYA, G.D., kand.med.nauk (Kiyev); GUDZEVATAYA, G.A. (Kiyev)

Fundus oculi in hypertension. Vrach.delo no.1:17-21 '60.
(MIRA 13:6)

1. Kafedra nervnykh bolezney (sav. - deystvitel'nyy chlen
AMN SSSR, B.N. Man'kovskiy) Kiyevskogo meditsinskogo instituta.
(EYE) (HYPERTENSION)

GUDZHABIDZE, G.K.

Upper Cretaceous sediments of the central Mergreliya syncline.
Trudy GPI [Gruz.] no.2:13-25 '63. (MIRA 17:9)

GULZHABIDZE, G.K.

Characteristics of dialectical materialism in certain geological phenomena. Trudy GPI [Gruz.] no.2:127-139 '63. (MIRA 17:9)

GUZHZHABIDZE, G.Sh.

Examining preliminary filters designed for the detection of helminth eggs. Med. paraz. i paraz. bol. no.2:172-174 Ap-Je '54. (MLRA 7:8)

1. Iz sektora epidemiologii Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta prof. P.G.Sergiyev)

(HELMINTHS,

*filters for detection of eggs)

GUDZHABIDZE, G. Sh.

LEVENSON, Ye.D.; GUDZHABIDZE, G.Sh.

Annual meeting of the All-Union Society of Helminthologists;
activities of the medical section. Med. paras. i paras. bol. no.2:
188-190 Ap-Je '54. (MLRA 7:8)
(HELMINTHOLOGY--SOCIETIES)

GUDZHABIDZE, G. SH

HELMINTHS

"On the Question of Testing Dust in the Air for the Ova of Helminths",
by G.Sh. Gudzhabidze, Meditsinskaya Parazitologiya i Parazitarnyye
Bolezni, No 2, March-April, 1957, pp 195-196.

Helminths' ova may be carried into the air with the dust from the contaminated ground by wind or traffic, etc. The appearance of such ova in the air may lead to an epidemic. The author, therefore, demands preventive measures and a great deal of attention for the protection of the surroundings from contamination by ova of helminths.

A new method of testing dust in the air for ova of helminths is suggested by the author: The dust is drawn by suction into the hydrojet pump of the vacuum cleaner "Dniepr" through a piece of moistened material or a provisional plankton filter, placed on the table of Goldman's funnel. The ova of *Ascaris* from the contaminated ground then settle on the filters which are placed at a distance of 15-100 cm from the ground.

Card 1/1

- 29 -

ARSHVADZE, G. I., MEDITSINSKIY, G. I., BELYKH, G. I., KALININ, G. I.,
AS. I. I. I. I.

"Hygienic evaluation of the experience of rendering harmless the drainage waters on agricultural lands."

report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists, 1950.

GUDZHABIDZE, G.Sh.; PREOBRAZHENSKAYA, T.P.

Effect of actinomycetes, fungi, and bacteria, isolated from soils irrigated with sewage, on *Ascaris suum* eggs. Med.paraz. i paraz.bol. 28 no.4:400-405 J1-Ag '59. (MIRA 12:12)

1. Iz Instituta malyarii, meditsinskoy parazitologii i gel'mintologii Ministerstva zdravookhraneniya SSSR (dir. instituta - prof. P.G. Sergiyev) i Instituta antibiotikov Akademii meditsinskikh nauk SSSR (dir. instituta - prof. S.D. Yudinsev).

(ASCARIS)

(SEWAGE microbiology)

(ACTINOMYCES)

GUDZHABIDZE, G.Sh.

Experimental observations on the development and survival of *Ascaris lumbricoides* eggs in soil irrigated by sewage. Med.paraz.i paraz. bol. 37 no.5:578-583 S-0 '59. (MIRA 13:4)

1. Iz gel'mintologicheskogo otdela Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (direktor instituta - prof. P.G. Sergiyev, zaveduyushchiy otdelom - prof. V.P. Pod'yapol'skaya).

(ASCARIS)

(SOIL microbiol.)

(SEWAGE)

GUDZABIDZE, G.Sh.

Dehelminthization of precipitates in sewage during thermophil fermentation. Med.paraz.i paraz.bol. 37 no.5:617-618 S-0 '59.

(MIRA 13:4)

1. Iz gel'mintologicheskogo otdela Instituta meditsinskoy parazitologii i tropicheskoy meditsiny imeni Ye.I. Martsinovskogo Ministerstva zdravookhraneniya SSSR (direktor instituta - prof. P.G. Sergiyev, zaveduyushchiy otdelom - prof. V.P. Pod'yapol'skaya).

(SEWAGE microbiol.)

(ASCARIS)

GUDZHABIDZE, G. Sh., Cand Med Sci -- (diss) "Effect of agricultural fields under irrigation on the propagation of ascaridosis in the Moscow oblast and the development of sanitary and hygienic measures." Moscow, 1960. 15 pp; (All-Union Inst of Helminthology im Academician K. I. Skryabin); number of copies not given; price not given; (KL, 27-60, 159)

L 22117-66 EWT(l)/EWT(m)/EEG(k)-2/T/EWP(t)/EWP(k) IJP(c) WG/JD

ACC NR: AP6004917

SOURCE CODE: UR/0056/66/050/001/0051/0054

AUTHORS: Andronikashvili, E. L.; Gudzhavidze, G. V.; Tsakadze, Dzh.S.

ORG: Institute of Physics, Academy of Sciences Georgian SSSR
(Institut fiziki Akademii nauk Gruzinskoy SSR); Tbilisi State
University (Tbilisskiy gosudarstvennyy universitet)

²¹
TITLE: Relaxation of the Onsager-Feynman vortices when rotating
helium II is heated above the phase-transition temperature

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50,
no. 1, 1966, 51-54

TOPIC TAGS: liquid helium, quantum liquid, vortex, rotation, criti-
cal point, relaxation process, temperature dependence

ABSTRACT: The decay of vortex lines in the superfluid component of
rotating helium II, which occurs upon transition to helium I, was
investigated by the oscillating disc method. Although it was ex-
pected from theoretical considerations that the vortex damping would
appear at the phase transition temperature, the experiments have

Card 1/2

L 22117-66
ACC NR: AP6004917

shown that the damping of the disc remains unchanged in character for a prolonged time interval even above this temperature, provided the phase transition takes place in a rotational state. It is deduced therefore that the decay of the vortex filaments takes place in the form of a three-component relaxation process. In the first, the damping of the disc oscillations remains unchanged meaning that the vortex pattern characteristic of helium II remains the same in helium I. The vortices then become detached from the disc surface and the damping becomes even lower than expected for helium I under the given conditions. Finally, during the third stage of relaxation, the expected damping stable value is gradually attained. Principal attention was paid to the duration of the first stage (18 minutes), whose dependence on the velocity of rotation, temperature and degree of roughness of the disc is discussed. It is suggested that the prolonged existence of the vortices in helium I and their subsequent decay may be due to some decrease in the rate of motion of the liquid inside the vortex, too small to be measured. The authors thank Yu. G. Mamaladze for interesting discussions of the results. Orig. art. has: 2 figures and 5 formulas.

SUB CODE: 20/ SUBM DATE: 06Aug65/ ORIG REF: 006/ OTH REF: 002

Card 2/2 BK

L 22118-66 EWT(1)/EWT(m)/EEC(k)-2/T/EWP(t)/EWP(k) IJP(c) WG/JD

ACC NR: AP6004918

SOURCE CODE: UR/0056/66/050/001/0055/0057

AUTHORS: Gudzhabidze, G. V.; Tsakadze, Dzh. S.

ORG: Tbilisi State University (Tbilisskiy gosudarstvennyy universitet); Institute of Physics, Academy of Sciences, Georgian SSR (Institut fiziki Akademii nauk Gruzinskoy SSR)

TITLE: ²¹ Relaxation process related to temperature changes in rotating helium II ²¹

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 1, 1966, 55-57

TOPIC TAGS: liquid helium, quantum liquid, temperature dependence, vortex, rotation, liquid property, relaxation process

ABSTRACT: This is a companion to the preceding paper in the same source (ZhETF v. 50, 51, 1966; Accession AP6004917), and is devoted to the processes connected with the change in the elastic-plastic properties of rotating helium II, occurring when the temperature of the liquid changes. In particular, the paper is devoted to the results of the measurement (for both cooling and heating) of the

Card 1/2

L 22118-66

ACC NR: AP6004918

damping of axial oscillations of a rough disc which take place about the disc axis and are concentric with the rotation of the liquid. The apparatus and the measurement procedure were described in detail earlier (ZhETF v. 46, 1, 1964). Unlike the results of similar measurements under conditions of phase transformation in rotating liquid, no stage during which the initial damping is completely conserved has been observed, and the change in damping begins simultaneously with the instant of the temperature change. The results are compared with those of the companion paper and it is suggested that the possible reason for the discrepancy is that the vortices oscillate much more intensely when their slipping against the disc is minimal, as is the case in the present experiments. The authors thank E. L. Andronikashvili for suggesting the topic and a discussion of the results, and Yu. G. Mamaladze for fruitful discussions. Orig. art. has: 2 figures

SUB CODE: 20/ SUBM DATE: 06Aug65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 BK

GUDZHABIDZE, G.Ye.

Neocomian facies sediments in Megreliya and Racha and some problems
of their stratigraphy. Izv.Geol.ob-va Gruz. 2 no.1:5-14 '62.
(MIRA 17:3)

GUGENHART, G. Ye.

Upper Cretaceous sediments of the complex of Askani Mountain.
Soob. AN Gruz. SSR 29 no.2:165-171 Ag '62.

(MIRA 18:3)

1. Geologicheskoye upravleniye pri Sovete Ministrov Gruzinskoy
SSR. Submitted June 29, 1961.

ANDRONIKASHVILI, E. L.; GUDZHABIDZE, G. V.; TSAKADZE, D. S.

"Relaxation of Onsager-Feynman's Vortices at Heating of Rotating Helium II above T_λ ."

report submitted for 9th Intl Conf on Low Temperature Physics, Columbus, Ohio,
31 Aug-4 Sep 64.

Inst of Physics, AS GSSR, Tbilisi.

ANDRONIKASHVILI, E.L.; BABLIDZE, R.A.; GUDZHABIDZE, G.V.; TSAKADZE, D.S.
(Tbilisi)

"Experimental study of generation and disappearance of vortices at a phase transition from a quantum liquid into a classical one and vice versa".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964

GUDZHAIDZE, M.G.

Materials on inventoring the fauna of Sarcophaginae (Diptera,
Sarcophagidae) in Georgia. Soob. AN Gruz. SSR 37 no. 2:631-634
Mr '65. (MIRA 18:5)

GUDZHABIDZE, M.G.

New species of *Heteronychia kobachidzei* Gudjabidze, sp. nov.
(Diptera, Sarcophagidae) from Georgia. Soob. AN Gruz. SSR 38
no.1:183-185 Ap '65. (MIRA 18:12)

1. Institut zoologii AN GruzSSR. Submitted Dec. 14, 1964.

GUDZHABIDZE, M.G.

Little-known species of flesh flies (Diptera, Sarcophagidae)
in the fauna of the U.S.S.R. from Georgia. Socb. AN Gruz. SSR
39 no.1:179-182 J1 '65. (MIRA 18:10)

1. Institut zoologii AN GruzSSR. Submitted February 1, 1965.

CATEGORY : Weeds and Weed Control.
 ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11247
 AUTHOR : Birkaya, A. F., Gudzhibidze, N. I.
 INST. : Georgian Scientific Research Institute of Hydraulic*)
 TITLE : The Use of Herbicides in the Control of the Growth
 of Canals in Kolkhida.
 ORIG. PUB. : Byul. Vses. n.-i. in-ta chaya i subtrop. kul'tur, 1957,
 No. 2, 131-139.
 ABSTRACT : According to the results of the Georgian Scientific Re-
 search Institute of Hydraulic Engineering and Improvement
 the chemical clearing of the irrigation canals in Kolkhi-
 da from the overgrowth of water-loving weeds by means
 of spraying with the herbicides 2,4-D at the rate of 3
 kilograms/ha and with the butyl ether of 2,4-D at the
 rate of 1.5 kilograms/ha effected the destruction of the
 plants to the extent of from 75 to 100% and from 84 to
 99%. An increase in the dosages did not raise the per-
 centage of the plant destruction but it accelerated the

CARD: 1/2

*) Engineering and Improvement.

COUNTRY :
CATEGORY :
ABS. JOUR. : RZhBiol., No. 1959, No. 11227
AUTHOR :
INST. :
TITLE :
ORIG. PUB. :
ABSTRACT : destruction and increased the depth of the injury to the roots. The cereal weeds (barnyard grass etc.), not water-loving, were destroyed to the extent of 84% by the spraying with dichlorolurea at the rate of 40 kilograms/ha. The results of the experiments were corroborated by the full-scale testing in 1956 during the chemical clearing of the canals over the length of 50 kilometers with the herbicide 2,4-D at the rate of 3 kilograms/ha.
— N. N. Sokolov

CARD: 2/2

011

USSR/Weeds and Weed Control

Abstr. Jour : Ref Zhur - Biol., No 9, 1956, No 39529

Author : Birkova, L.F., Gudshvbidze N.I.
Inst : Georgian Scientific Research Institute of Hydraulics and
Land Reclamation
Title : Experimental Applications of Herbicides to Control Excessive
Growths of Weeds in Canals in Colchis

Orig. Pub : Gidrotekhn. i Melioratsiya, 1957, No 4, 41-48

Abstract : The Georgian Scientific Research Institute of Hydraulics
and Land Reclamation cleansed drainage canals in Colchis
with the following chemical preparations: 2,4-D (I) in doses
of 1-6 kg/ha; 2,4-D butyl ether (II) in doses of 0.6-3 kg/ha
and dichloroacetic acid (III) in doses of 16-30 kg/ha. The
first two preparations were applied by surface spraying (one
or two applications), and the third one was introduced in
the soil, in addition to the spraying. Two days after the
application of these chemicals, arrowhead (*Sagittaria*), water
plantain (*Alisma plantago*), the hornetbill (*Equisetum*),

Card : 1/2

USSR/Weeds and Weed Control

Russ Jour : Ref Zhur - Biol., No 9, 1958, No 39629

N

Sorrel (Rumex) and Chinese bell flower (Abutilon) showed clear signs of withering. Elder (Sambucus) and bur marigold (Bidens) was lodged. The action of the herbicides on rush and sedge was noticed on the 14th day. The root system of the bur reed (Sparganium) died away a month after spraying. I and II had no effect on barnyard millet and polygony (Paspalum). Elder (Sambucus) and water pepper were strongly affected but did not perish. The optimum dose for one spraying of I is 3 kg/ha. For a single spraying of II, the best dose is 1.5 kg/ha (acid equivalent). Double spraying of 1 kg/ha of I and of 0.5 kg/ha of II affected all dicotyledonous. Polygony and barnyard millet did not suffer much. The introduction in the soil of a dose of 40 kg/ha of III was the most effective (37.1 percent of its plants were destroyed). The same dose sprayed on the surface caused the destruction of 84.9 percent of the plants. Barnyard millet and polygony, which resisted to I and II, were almost completely (85 percent) destroyed by III. -- L.D. Stonov

Card

: 2/2

BIRKAYA, A.F., kand.tekhn.nauk; GUDZHABIDZE, N.I., mladshiy nauchnyy
sotrudnik

Using herbicides in controlling the filling of canals with aquatic
vegetation in Colchis. Biul.VNIICHISK no.2:181-189 '57. (MIRA 15:5)

(Colchis--Irrigation canals and flumes)
(Herbicides) (Aquatic weed control)

GUDZHABIDZE, N.I.

Moisture regime of drained, heavy, turf-gley soils with various
land-improvement measures. Trudy Gruz NIIGiM no.21:241-246 '60.
(MIRA 16:1)

(Soil moisture) (Land improvement)

GUDZHABIDZE, Sh. I.; LYUBCHENKO, S. D.; MARMYSHEVA, V. V.

Using Soviet oil of chenopodium for the control of helminthiasis. Med. paraz.
i paraz. bol. no. 4:346-351 J1-Ag '53. (MLRA 6:9)
(Worms, Intestinal and parasitic)

GUDZHABIDZE, Sh.I.; LYUBCHENKO, S.D.

Role of composting of organic wastes in the control of ankylostomiasis and ascariasis. Med.paras.i paraz.bol. 37 no.5:576-578
S-O '59. (MIRA 13:5)

1. Iz parazitologicheskogo otdeleniya Gudautskoy ob'yedinennoy bol'nitsy (glavnyy vrach M.B. Guniya).
(HOOKWORM INFECTION prev. & control)
(ASCARIASIS prev. & control)
(REFUSE DISPOSAL)

GUDZHABIDZE, V.V.

Territorial distribution of the population of Zolkhida.
Soob. AN Gruz. SSR 40 no.2:343-350 N '65.

(MIRA 19:1)

GUDZHEJZMANI, B.I.
CA

8

Tar-like "spinelite" in the coals of the Thribal' deposit. Yu. A. Zhermchashnikov and B. I. Gudshedzhani. *Khim. Tsvetogo Topiva* 6, (199-703) (1985).—The dull coals of the Thribal' deposit rich in macro- and microscopic tar should be classified according to petrographic and chem. features with the "spinelite" group.

They were formed from the remnants of remains of higher type plants. A. A. Polozov

AS A - 514 METALLURGICAL LITERATURE CLASSIFICATION

Common Elements

Common Elements

Common Elements

Common Elements

KHENTAGUROV, A.I.; GUDZHEDZHIANI, B.I.

Work practices using hydraulic filling in Tkibuli Coal Trust mines.
Trudy Inst. met. i gor. dela AN Gruz. SSR 2:197-215 '49. (MIRA 11:1)
(Tkibuli--Hydraulic mining)

15-57-8-11340

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 2,
pp 175-176 (USSR)

AUTHOR: Gudzhedzhiani, B. I

TITLE: Properties of Tkibuli Coals as Related to Their
Petrographic Composition (Vzaimosvyaz' petrografi-
cheskogo sostava tkibul'skikh ugley s ikh obogati-
most'yu i khimiko-tekhnologicheskimi svoystvami)

PERIODICAL: Tr. Labor. geol. uglya. AN SSSR, 1956, Nr 6, pp 268-
278

ABSTRACT: The Tkibuli deposit and its explored area--the
Shaorskaya ploshchad' (area)--contain gas-producing
coals with a low ability to clinker. These coals are
of three types: semi-lustrous clarain-type, semi-dull
durain-type, and dull liptobiolithic. Investigations
have established that the basic chemical and techno-
logical properties (ash content, yield of light

Card 1/2

Properties of Tkibuli Coals (Cont.)

15-57-8-11340

fractions, etc.) vary with the petrographic composition and the stratigraphic position of the strata. Clarain-type coals exhibit the greatest indices of enrichment and of coking ability.

Card 2/2

Ye. G. Martynov

TAVADZE, P.N., *otv. red.*; AGLADZE, R.I., *red.*; ARCHVADZE, Sh.R., *red.*;
VACHNADZE, N.D., *red.*; GVELESIANI, G.G., *red.*; GUDZHEDZHIANI, B.I., *red.*;
DZHANELIDZE, A.I., *red.*; DZOTSENIDZE, G.S., *red.*; DURMISHIDZE,
S.V., *red.*; KETSKHOVELI, N.N., *red.*; MIKELADZE, I.S., *red.*;
RUBINSHTEYN, M.M., *red.*; TVALCHRELIDZE, A.A., *red.*, [deceased];
TSITSISHVILI, G.V., *red.*; SHENGELIYA, P.G., *red.*; FRODOT'YEV,
K.M., *red. izd-va.*; GUSEVA, A.P., *tekhn. red.*

[Natural resources of the Georgian S.S.R.] Prirodnye resursy
Gruzinskoi SSR. Moskva. Vol. 1. [Metalliferous minerals] Metallicheskie
poleznye iskopaemye. 1958. 230 p. (MIRA 11:11)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Sovet po izucheniyu
proizvoditel'nykh sil. 2. Chlen-korrespondent AN Grus. SSR (for Tavadze).
(Georgia--Ore deposits)

~~GUDZHEDZHIANI~~, B.I., red.; KADZHAYA, Ye.A., red.izd-vs; TODUA, A.R.,
tekhred.

[Problems in the development of the coal industry of the
Georgian SSR] Nekotorye voprosy rasvitiia ugol'noi pro-
myshlennosti Gruzinskoi SSR. Tbilisi, Izd-vo Akad.nauk
Gruzinskoi SSR, 1960. 239 p. (MIRA 14:4)

1. Akademiya nauk Gruzinskoy SSR. Tiflis. Sovet po izucheniyu
proisvoditel'nykh sil.
(Georgia--Coal mines and mining)

GUDZHEDZHIANI, B.I.; CHICHUA, B.K.; PETROVSKIY, G.D.; KOMETIANI, G.A.;
AZMAYPARASHVILI, M.V.; AVALISHVILI, E.Ye. [deceased];
MIRZIASHVILI, T.M.; SHCHERBAKOV, D.I., glav.red.; ARCHVADZE, Sh.R.,
red.; BOGOLYUBOVA, L.I., red.; VAL'TS, I.E., red.; TAVADZE, F.N.,
red.; YABLOKOV, V.S., red.; PEVZNER, G.Ye., red.izd-va; MAKUNI, Ye.V.,
tekh. red.

[Coal atlas of the Caucasus] Atlas uglei Kavkaza. By B.I. Gudzhedzhiani
i dr. Moskva, Izd-vo Akad.nauk SSSR, 1961. 167 p. (MIRA 14:12)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Sovet po izucheniyu proiz-
voditel'nykh sil.

(Caucasus--Coal geology)

CHIKHELIDZE, S.S.; TAVADZE, F.N., akademik, ctv. red; AGLADZE, R.I., red.;
ARCHVADZE, Sh.H., red.; VACHNADZE, N.D., red.; GVELISIANI, G.G.,
red.; GUDZHEDZHIANI, B.I., red.; DZHANELIDZE, A.I., red.;
DZOTSENIDZE, G.S., red.; DURMISHIDZE, S.V., red.; KETSKHOVELI, N.N.,
red.; MIKELADZE, I.S., red.; RUBINSHTEYN, M.M., red.; TVALCHRELIDZE,
A.A., red.[deceased]; TSITSISHVILI, G.V., red.; SHENGELIYA, P.G.,
red.; FEDOT'YEV, K.M., red.izd-va; DOROKHINA, I.N., tekhn. red.

[Natural resources of the Georgian S.S.R.] Prirodnye resursy Gru-
zinskoi SSR. Moskva, Izd-vo Akad.nauk SSSR. Vol.3. [Mineral water]
Mineral'nye vody. 1961. 438 p. (MIRA 14:12)

1. Akademiya nauk Gruzinskoy SSR, Tiflis. Sovet po izucheniyu pro-
izvoditel'nykh sil. 2. Akademiya nauk Gruzinskoy SSR (for Tavadze).
(Georgia--Mineral water)

BETEKHTIN, A.G., glav. red. [deceased]; AVALIANI, G.A., red.;
BRAUN, G.A., red.; GUDZHEDZHIANI, B.I., red.;
DZIDZIGURI, A.A., red.; DOLIDZE, D.P., red.
KERESSELIDZE, K.G., red.

[Chiatura manganese deposit] Chiaturskoe mestorozhdenie
margantsa. Moskva, Izd-vo "Nedra," 1964. 243 p.
(MIRA 17:6)

1. Georgia. Geologicheskoye upravleniye.

GUDZHEV, I.

Coloring of Glass Articles through Cementation. LEKA PROMISHLENOST
(Light Industry) 4:27:April 55

Gudzhev, Iv.

Bulgaria / Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31516

Author : Gudzhev Iv.

Title : Colored Faience Tile

Orig Pub: Leka promishlenost, 1956, 5, No 9, 23-25

Abstract: To produce colored tile the coloring agents are usually added only to opaque glaze. As opacity imparting agents are used either $ZrSiO_4$ or SnO . As a substitute for these materials, which are in short supply, Al_2O_3 in the form of calcined kaolin can be incorporated in the glaze. Al_2O_3 prevents running of the glaze and the tiles can be fired in vertical position. Best results

Card 1/2

Bulgaria /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31516

were obtained on firing the tiles in furnaces
with a stable, neutral or slightly oxidizing
atmosphere. On firing under other conditions
it is difficult to attain a good color and a
uniform tint of the tile.

Card 2/2

BULGARIA/Chemical Technology. Chemical Products H
and Their Applications: Ceramics. Glass.
Binding Materials! Concrete. - Ceramics.

Abs Jour : Ref Zhur-Khimiya, No 6, 1959, 20180

Author : B"charov, Sv., Gudzhev, Iv., Yelinov, K.
Inst : -
Title : Improvement of the Physico-mechanical
Properties of Faience Covered Tiles.

Orig Pub : Leka promishlenost, 1957, 6, No 3, 19-22

Abstract : No abstract.

Card : 1/1

BULGARIA/Chemical Technology. Chemical Products and Their H-13
Application. Ceramics. Glass. Binding Materials.
Concrete.

Abs Jour: Ref Zhur-Khim., No 2, 1959, 5525.

Author : Gudzhev, Iv.; B"charov, Sv.; Velinov, K.
Inst :
Title : Preparation of Some Kinds of Colored Covering Glazes.

Orig Pub: Leka promishlenost, 1957, 6, No 8, 20-23.

Abstract: Covering glazes of various colors were prepared uti-
lizing local Bulgarian raw materials. The frit for
black and ivory glazes does not contain the unavailable
tin oxide. The burning of tiles covered with such
glazes can be carried out in ordinary furnaces. 8 re-
cipes of glazes of seven colors are presented. - V.
Ryzhikov.

Card : 1/1

BULGARIA / Chemical Technology. Chemical Products and H
Their Applications. Glass.

Abs Jour: Ref Zhur-Khimiya, 1959, No 4, 12597.

Abstract: and whiteness of the glaze. Several compositions were investigated which were obtained by the damping (D) method indicated: No 1 - with 60% SnO₂, No 2 - with 56% SnO₂, No 3 - with 50% SnO₂ and 10% ZnO₂. D of the type described has a spinel structure. Addition of D comprises 10 weighed parts per 100 weighed parts of frit; in addition, to 100 g of prepared glaze 5 weighed parts of SnO₂. The whiteness of the porcelain tiles on the basis of the proposed D exceeds the whiteness of Czechoslovakian and German tiles with a higher content of SnO₂.

Card 2/2

51

BUCHVAROV, S.; GUDZHEV, I.

Production of fine household procelain. Khim i industriia 23 no.6:
168-170 '61.

IVANOVA, EL.; BANKOV, St.; GUDZHEVA, V.; POPOV, R.

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treatment. *Suvr.med.* 14 no.11:51-58 '63.

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GUDZHEVA, V.

Apropos of balneotherapy of neurasthenic neuroses. Suvr. med.
14 no.9:28-33 '63.

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no.1:26-30 '63. (MIRA 16:4)

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Preparative fractionation of blood proteins by the method
of continuous electrophoresis in the EFP-2 apparatus.
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