

GAYVORONSKIY, A.A.

Stresses developing in a cement ring. Trudy VNIIBT no.14:63-76  
'65. (MIRA 18:5)

GAYVORONSKIY, A.A.; SHUL'GA, G.P.

Investigating the plugging properties of cement grouting. Trudy  
VNIIBT no.14:77-91 '65. (MIRA 18:5)

ACC NR: AP7006290

(A)

SOURCE CODE: UR/0437/66/000/010/0024/0025

AUTHOR: Gayvoronakiy, A. A.; Shul'ga, G. P.

ORG: VNIIBT

TITLE: Cement slurries reinforced with high-strength fiber materials

SOURCE: Bureniye, no. 10, 1966, 24-25

TOPIC TAGS: cement, glass fiber, synthetic fiber, bending strength, tensile strength

ABSTRACT: The authors discuss the possibility of using glass and viscose fibers for increasing the strength of cement. The fibers were 15-30 mm long with a thickness of 10-12  $\mu$  for glass and 30-40  $\mu$  for viscose. The tensile strength of the glass fibers was 140 kg/mm<sup>2</sup> while that of the viscose fibers was 80 kg/mm<sup>2</sup>. Standard specimens made from sealing cement produced at the Zdolbunov Plant were tested for bending and tensile strength. The results show that addition of a relatively small quantity of glass or viscose fiber (0.5-3.0 wt.%) increases the strength of the cement by a factor of 1-5. Viscose fiber was found to be less effective than glass. Orig. art. has: 1 figure, 3 tables.

SUB CODE: 11/ SUBM DATE: None

Card 1/1

UDC: 62.243

GAYVORONSKIY, A.G.; GASMAN, I.I.; GOROZHANKIN, V.I.; MERILOV, A.Ya.;  
KARGOPOLOV, V.A., inzhener, redaktor.

[Manual on the DT-54 tractor] Bukovodstvo po traktoru DT-54.  
Pod red. B.A.Kargopolova. Moskva, Gos. izd-vo sel'khoz. lit-  
ry, 1953. 307 p. (MLRA 7:2)  
(Tractors)

GAYVORONSKIY, A. G.

Manual on the tractor DT-54 2. dop. izd. Moskva, Sel'khozgiz, 1954.

*GAYVORONSKIY, A.G.*

SIDEL'NIKOV, M.S., redaktor; CHERNYSHEV, M.D., redaktor; ~~GAYVORONSKIY, A.G.,~~  
redaktor; FEDOROV, N.A., redaktor; KRASHENINNIKOVA, V.F., tekhnicheskiy redaktor

[Labor productivity of the Stalingrad Tractor Plant; practices of a group of tractor builders] Proizvoditel'nost' truda na Stalingradskom traktornom zavode; iz opyta raboty kollektiva traktorostroitelei. [Stalingrad] Stalingradskoe kn-vo, 1955. 190 p.  
(Stalingrad--Tractors) (MLRA 9:12)

GAYVORONSKIY, Aleksandr Grigor'yevich; MERILOV, A.Ya., redaktor

~~\_\_\_\_\_~~  
[Dismantling and assembling the DT-54 tractor] Razborka i sborka  
traktora DT-54. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 338 p.  
(Tractors) (MLRA 10:3)

GAYVORONSKIY, Aleksandr Grigor'yevich; GOROZHANKIN, Viktor Ivanovich;  
MERILOV, A.Ia., inzhener, redaktor; PRISTRYAKOV, A.I., redaktor;  
FEDOTOVA, A.F., tekhnicheskiy redaktor

[The DT-54 tractor and its modifications] Traktor DT-54 i ego  
modifikatsii. Pod red. A.Ia.Merilova. Moskva, Gos. izd-vo  
sel'khoz. lit-ry, 1957. 246 p. (MLRA 10:6)  
(Tractors)



~~GAYVORONSKIY, Aleksandr Grigor'evich; GOROZHANKIN, V.I.; KATS, I.I.;~~  
SANDIGORSKIY, D.M.; PESTRYAKOV, A.I., red.; BALLOD, A.I., tekhn.red.

[Dismantling and assembling the DT-54 tractor and its variant models] Razborka i sborka traktora DT-54 i ego modifikatsii.  
Izd. 2., ispr. i dop. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958.  
423 p., diagrs. (MIRA 12:2)

(Tractors)

SOV/123-59-15-58877

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 15, p 9 (USSR)

AUTHOR:            Gayvoronskiy, A.G.

TITLE:             Methods of Speeding up the Designing of New Machines

PERIODICAL:       Staligr. prom-st' (Sovnarkhoz Staligr. ekonom. adm. r-na), 1958,  
Nr 4, pp 3 - 6

ABSTRACT:        The necessity is proved to carry out a number of organizational measures in order to improve on the quality of the staff of designers, particularly to increase the test period for newcomers to designing work from one to 5 - 6 months. The work of the conference of Designers of the machine plants in the Stalingrad Economic Rayon on the problems of utilization of new machines is elucidated. In order to accelerate designing it is suggested to simplify as far as possible the execution of complex drawings, e.g. to substitute the layout of units with a multitude of projections by simplified drafts to scale, not to draw bolts, nuts and other simple machine parts and to replace part of the drawings by short text notes.

K.A.A.

Card 1/1

GAYVORONSKIY, A.G.

In the M.I.Kalinin Lead Plant in Chimkent. TSvet.met. 34  
no.10:12-13 0 '61. (MIRA 14:10)

1. Direktor Chimkentskogo svintsovogo zavoda.  
(Chimkent--Lead industry)

GAYVORONSKIY, Aleksandr Grigor'yevich; GOROZHANKIN, Viktor Ivanovich;  
PESTRYAKOV, A.I., red.; GOR'KOVA, Z.D., tekhn.red.

[The DY-54 tractor] Traktor DT-54. Izd.2., ispr. i dop.  
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 237 p. (MIRA 13:7)

(Crawler tractors)



**GAYVORONSKIY, A.S.**

~~Combating corrosion in soda production. Khim. prom. no.1:50 Ja-F~~  
~~'57. (MIRA 10:4)~~

1. Slavyanskiy sodovyy kombinat.  
(Soda industry) (Corrosion and anticorrosives)

МОНД, В.И. (авт. хим. зап.); ОРУ, Б.А.; СОКОЛОВ, В.К.; ОЛЫВОСОНСКИЙ, З.Ф.

Using polyacrylamide as a brightener in zinc plating. Vest.  
nastrostr. 45 no.7:65-67 J1 '65. (MIRA 18:10)

GAYVORONSKIY, I.I.

22374-Gayvoronskiy, I.I.      O Yadrakh Kondensatsii V Svobodnoy Atmosfere.  
Trudy Tsentr. Aerol. Observatorii, Vyp. 4, 1949, S. 46-80

SO: Letopis' No. 30 1949



GAYVORONSKIY, I. I.

35204. Nekotorye Dannye O ProisozhDenii Atmosfornykh Yader Kondensatsii. Trudy Tsentr. Aerol. Observatorii, vyp. 5. 1949, s. 46-57. -- Bibliogr: 6 Nazv.

SO: Letopis' Zhurnal'nykh Statey, Vol. 48, Moskva, 1949

GAYVORONSKIY, I.I. AVERKIYEV, M.S.

Averkiyev, M.S.

" Meteorological Manual." I.I. Gayvoronskiy, M.S. Averkiyev. Reviewed by  
V.S. Samoylenko. Met. i gidrol., No. 5, 1949.

Monthly List of Russian Accessions, Library of Congress, October, 1952. UNCLASSIFIED.

GAYVDRONSKIY, I-I.

7

551.5:63(02)(47)  
 5.2-2 Galvoronkii, I. I. and Petunin, I. M., *Kolkhoznaia agrometeorologicheskaja stantsiia. Agrometeorological stations on collective farms.* Moscow, Gos. izdat., 1952. 235 p. 11 figs. (some colored), form (fold.), 13 refs. DLC—A remarkably thorough treatise describing the stations, instruments and observations provided by the Hydrometeorological service of the U.S.S.R. for the benefit of agriculture by means of a network of stations on the collective farms. In the first chapter the importance of a meteorological service for agriculture, etc. is discussed. The organization of an agrometeorological station, equipment necessary (very extensive, including about 100 items), books, tables, forms for recording each element, etc. occupy the second chapter. Solar radiation, soil and air temperature, soil and humidity, clouds, precipitation, snow, evaporation, pressure and wind each constitute the subject of separate chapters which describe and illustrate all types of instruments used for measuring these elements, the importance of the elements for agriculture, methods of installation and care of instruments and recording observations, besides giving nomograms, scales and definitions of units, etc. Finally, the working up of self-recording instruments (thermo-, baro- and hygrographs), making phenological observations, observations on the status of crops and frost forecasting occupy the last 4 chapters of this handy manual. A sample of the comprehensive form for recording all of the above elements on a daily or 4 times daily basis, for 10 day periods, is attached. This form includes space for phenological, crop condition, soil moisture and temperature, and saturation deficit (air) data. Summaries are made for each 5-day, 10-day and 30-day period. *Subject Headings:* 1. Agricultural meteorology 2. Agrometeorological stations 3. Agrometeorological instruments 4. Collective farms Handbooks 6. U.S.S.R.—M.R.

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*W. J. G.*

W. J. G.

GAYVORONSKIY, I.I.

Investigations in the field of cloud and fog control at the  
Central Aerological Observatory. Trudy TSAO no.26:39-55 '59.  
(MIRA 12:5)

(Weather control)

PHASE I BOOK EXPLOITATION      SOV/5852

Borovikov, Aleksandr Moiseyevich, Ivan Ivanovich Gayvoronskiy, Yelizaveta Germanovna Zak, Vadim Vladimirovich Kostarev, Il'ya Pavlovich Mazin, Vladislav Yevgen' yevich Minervin, Aleksandr Khristoforovich Khrgian, and Solomon Moiseyevich Shmeter

Fizika oblakov (Cloud Physics) Leningrad, Gidrometeoizdat, 1961. 458 p.  
5000 copies printed.

Ed. (Title page): A. Kh. Khrgian; Ed. : V. S. Protopopov; Tech. Ed. :  
M. I. Braynina and O. G. Vladimirov.

PURPOSE: This book is intended for meteorologists and for specialists in forecasting service and aviation.

COVERAGE: The book describes modern methods of studying the development, structure and origin of clouds. Special attention has been given to the forma-

Card ~~10~~

I Cloud Physics

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tion of microscopic elements in clouds. The macroscopic properties of clouds are also studied in detail. Their position in space, motion, as well as their connection with thermodynamic structure of the atmosphere, general circulation, cyclonic activity, etc. are investigated. Flying in clouds is briefly discussed. One chapter deals with cloud modification and seeding. The book is based on Soviet and non-Soviet sources. Ch. I was written by Ye. G. Zak and I. P. Mazin; Ch. II, by A. M. Borovikov, V. Ye. Minervin, A. Kh. Khrgian and S. M. Shmeter; Ch. III, V, and VI, by A. Kh. Khrgian; Ch. IV, by A. Kh. Khrgian and S. M. Shmeter; Ch. VII, by Ye. G. Zak; Ch. VIII, by A. M. Borovikov; Ch. IX, by I. P. Mazin; Ch. X, by I. I. Gayvoronskiy; Ch. XI, by V. V. Kostarev, V. Ye. Minervin and A. Kh. Khrgian. The authors thank L. T. Matveyev and A. M. Baranov. There are 632 references: 274 English, 254 Soviet, 71 German, 30 French, 2 Hungarian and 1 Polish.

Card 2/10

32702

S/049/61/000/012/006/009  
D207/D303

3,5910

AUTHORS: Belyayev, V.I., Gayvoronskiy, I.I., Kolesnikov, A.G.  
and Krasnovskaya, L.I.

TITLE: Propagation of crystallization in supercooled clouds  
on introduction of solid carbon dioxide

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofiziches-  
kaya, no. 12, 1961, 1844 - 1851

TEXT: The paper reports experimental work on dispersal of  
clouds by seeding with CO<sub>2</sub>, carried out by I.I. Gayvoronskiy and L.I.  
Krasnovskaya; the experimental results are compared with theoretical  
relationships derived by the other two authors (A.G. Kolesnikov and  
V.I. Belyayev). Experiments were carried out during autumn and winter  
of 1956 - 7 at the Tsentral'naya aerologicheskaya observatoriya (Cen-  
tral Aerological observatory) using aircraft of the ЛИ-2 (LI-2) type.  
The aircraft flew in a straight line over clouds of St and Sc type  
which were not thicker than 500 m and whose temperatures at the top

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S/049/61/000/012/006/009  
Propagation of crystallization .. D207/D303

did not exceed  $-4^{\circ}\text{C}$ . The clouds were seeded with solid  $\text{CO}_2$  granules of 0.5 - 1 cm diameter. The atmospheric pressure, relative humidity and air temperature were measured during seeding with an aircraft meteorological instrument CM-43 (SM-43). Samples of the clouds were taken and examined microscopically. The amount of condensed water in the clouds was measured by Zaytsev's method [Abstractor's note: No details given]. The wind velocity was determined using a technique developed at the Gosudarstvennyy nauchno-issledovatel'skiy institut Grazhdanskogo Vozdushnogo Flota (State Scientific Research Institute of the Civil Air Fleet). After seeding, the aircraft flew above the clouds measuring the expansion of the cloudless zone produced by  $\text{CO}_2$ ; this was continued until the cloudless zone filled again with clouds. Each experiment in air was preceded by soundings of the clouds from the ground. The results are presented in the form of the dependence (gradual increase) of the cloudless zone width,  $D$ , on time,  $\tau$ , which represents propagation of a crystallization front in a cloud. The experimental curves were compared with the theory developed in 1958 by

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S/049/61/000/012/006/009

Propagation of crystallization ... D207/D303

A.G. Kolesnikov and V.I. Belyayev (Ref.4: Nauchn. dokl. vyssh. shkoly, fiz. mat. nauk, no. 4, 1958). The theory assumes that the process of propagation of a crystallization front in a supercooled cloud can be reduced to turbulent diffusion of ice nuclei produced by solid CO<sub>2</sub> and distillation of water from drops to crystals. For simplicity a cloud is assumed to be bounded by planes of infinite extent in horizontal directions. The cloud is also assumed to consist initially of droplets and particles all of the same size; appearance of particles of various sizes after seeding is allowed for. The theoretical and experimental curves showing  $D(\zeta)$  agreed satisfactorily, even quantitatively. The agreement indicated that crystallization fronts are very narrow and that their propagation is governed primarily by the turbulent diffusion coefficient  $K$  (dimensions  $\text{cm}^2 \text{sec}^{-2}$ ) and, to a lesser extent, by  $\zeta$  which is the density of ice nuclei (dimensions  $\text{cm}^{-2}$ ) induced by CO<sub>2</sub>. There are 4 figures and 4 Soviet-bloc references.

ASSOCIATION: Institut prikladnoy geofiziki, Akademiya nauk SSSR  
(Institute of Applied Geophysics, Academy of Sciences,  
USSR)

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Propagation of crystallization ... S/049/61/000/012/006/009  
D207/D303

(Belyayev, V.I.); Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory) (Gayvoronskiy, I.I. and Krasnovskaya, L.I.); Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova (Moscow State University imeni M.V. Lomonosov) (Kolesnikov, A.G.)

SUBMITTED: February 4, 1961

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ACCESSION NR: AT4040006

S/2789/63/000/051/0014/0019

AUTHOR: Gayvoronskiy, I. I.; Krasnovskaya, L. I.; Seregin, Yu. A.; Smirnova, N. V.

TITLE: The problem of the temperature limits of applicability of the method of artificial modification using solid carbon dioxide

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy\*, no. 51, 1963, 14-19

TOPIC TAGS: meteorology, weather modification, fog, cloud, fog modification, cloud modification, solid carbon dioxide, ice crystal, cloud seeding, dry ice, supercooled cloud, ice formation

ABSTRACT: Information on the temperature limits of effectiveness of solid carbon dioxide as a reagent for the artificial modification of the phase state of supercooled fogs and clouds is contradictory, as demonstrated a review of the Soviet and western literature on this subject. This article therefore reports on theoretical and experimental investigations to resolve this question. The authors used the theory of homogeneous condensation in saturated vapor to study the generation of ice crystal nuclei at different temperatures. A previously derived formula (L. I. Krutskaya, Trudy TsAO, No. 19, 1958) is cited which gives the rate of formation of nuclei of the new phase at the time of introduction of solid carbon dioxide into a supercooled cloud; this formula was used in computing the quantity of nuclei of the

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ACCESSION NR: AT4040006

new phase formed under different conditions. It is shown that the generation of nuclei of ice crystals in a cold chamber and in the atmosphere changes in conformity to different laws. For example, at a temperature of  $-4^{\circ}\text{C}$  the effectiveness of  $\text{CO}_2$  in a cold chamber is two orders of magnitude less than at  $-10^{\circ}\text{C}$ . In natural clouds, when granules of  $\text{CO}_2$  are seeded from an aircraft, the generation of ice crystal nuclei remains quite intense to  $-1^{\circ}\text{C}$ . As a result, the production of a large number of ice crystal nuclei in supercooled clouds and fogs is possible down to temperatures of several tens of degrees below zero. However, to obtain the same effect on the microstructure at a higher temperature, it is necessary to have a higher concentration of propagating crystals. At high temperatures the width of the zone forming from one pass of the aircraft will be smaller than at lower temperatures. Various specific experiments and groups of experiments are described in detail. The following were the general conditions: vertical thickness of clouds and fogs - 100 to 1,000 m; air temperature at upper cloud boundary -  $+0.5$  to  $-4.9^{\circ}\text{C}$ ; temperature at lower boundary - 0 to  $-8.1^{\circ}\text{C}$ ; wind velocity in the cloud or fog layer - not in excess of 3 m/sec. The experiments revealed that it is possible to modify (disperse) clouds and fogs at temperatures as low as  $-2^{\circ}\text{C}$ . The experiments were made at Alma Ata, Frunze and Dzhabul and made it possible to keep the airports at those cities free of fogs and low clouds. It is noted that further work must be done to determine the influence of wind on artificial modification of fogs and clouds and the modification of clouds and fogs associated with frontal processes.

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ACCESSION NR: AT4040006

Orig. art. has: 9 formulas, 1 figure and 3 tables.

ASSOCIATION: Tsentral'naya aerologicheskaya observatoriya (Central Aerological Observatory)

SUBMITTED: 00

ENCL: 00

SUB CODE: ES

NO REF SOV: 001

OTHER: 002

Card: 3/3

KRASNOVSKAYA, L.I.; GAYVONSKIY, I.I., red.

[Physical principles of the modification of supercooled clouds by means of refrigerants.] Fizicheskie osnovy iskusstvennykh vodostvii na pereokhlazhdennye oblaka s pomoshch'iu khladoreagentov. Moskva, Gidrometeoiz dat, 1964. 77 p. (TSentral'naya aerologicheskaya observatoriya. Trudy, no.58) (MIRA 1961)

I 0513-66 ARG/EWT(d)/FBD/EWT(l)/FBO/EWP(c)/FCC/EWP(h)/FCS(k)/ETC(m) WW/GW

ACC NR: AT5028264

SOURCE CODE: UR/2789/65/000/065/0048/0066

AUTHOR: Gayvoronskiy, I. I.; Seregin, Yu. A.

ORG: none

TITLE: Introduction of reagents into clouds to modify hail-forming processesSOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 65, 1965.  
Iskusstvennyye vozdeystviya na oblaka i tumany (Artificial actions on clouds and fogs),  
48-66TOPIC TAGS: hail formation, weather modification, cloud seeding, Oblako rocket,  
aerosol

ABSTRACT: The mechanisms of hail formation and the physical factors involved in seeding hail-forming clouds are discussed. Research data indicated the need for developing effective and reliable rockets which could deliver 3-4 kg of reagents and which could disperse the reagents with an effective radius of at least 8-10 km. The "Oblako" antihail rocket, which was designed to meet these requirements, has the following characteristics (see Fig. 1): the rocket can attain a height of more than 8 km and has an effective radius of up to 10 km; there are two types of nose sections, one which can carry as much as 4.5 kg of dry ice (granules ranging from 3 to 30 mm in diameter) and an explosive cartridge containing 3100 g of  $PbI_2$ , the charge ensuring an 8-km flight in which an aerosol is generated with a concentration of about 400 g/km

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L 9543-66

ACC NR: AT5028264

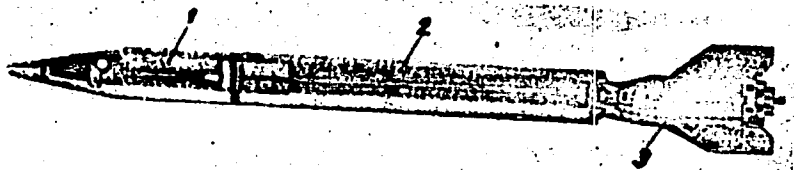


Fig. 1. General (sectional) view of the "Oblako" rocket 13, 4455

- 1 - Head with explosive active smoke cartridge;
- 2 - motor;
- 3 - parachute compartment.

and an activity of  $3 \times 10^{12}$  ice crystals per gram at a temperature of  $-10^{\circ}\text{C}$  and about  $10^{12}$  at  $-6^{\circ}\text{C}$ . The length of the flight, the point at which the aerosol is discharged, and the height at which the dry ice is granulated are regulated by remote control. Aimed launchings at angles of  $40-85$  deg in any direction make it possible to seed clouds over an effective radius of up to 10 km. This 125-mm rocket weighs 33 kg and can be launched from trucks. Parachutes are used in landing the rocket. "Oblako" rockets and their launching devices were tested in 1963 at proving ranges and in field tests; they have passed State and industrial tests, demonstrating adequate antihail effectiveness. Experimental results are tabulated in detail in the original article. Orig. art. has: 3 figures and 1 table.

[EO]

SUB CODE: ES/ SUBM DATE: none/ ORIG REF: 012/ OTH REF: 004/ ATD PRESS: 4157

Card 212



L 12133-66 EWT(1)/FCC GW

ACC NR: AT5028262

SOURCE CODE: UR/2789/65/000/065/0003/0008

AUTHORS: <sup>44,55</sup> Gayvoronskiy, I. I.; <sup>44,55</sup> Leskov, B. N.; <sup>44,55</sup> Seregin, Yu. A. <sup>45</sup> <sup>40 B1</sup>

ORG: <sup>44,55</sup> Central Aerological Observatory (Tsentral'naya aerologicheskaya observatoriya)

TITLE: Experiments in regular application of the methods of artificial dispersion of supercooled clouds and fogs over airports <sup>12,44,55</sup>

SOURCE: Tsentral'naya aerologicheskaya observatoriya. Trudy, no. 65, 1965. Iskusstvennyye vozdeystviya na oblaka i tumany (Artificial actions on clouds and fogs), 3-3

TOPIC TAGS: atmospheric, atmospheric cloud, cloud seeding, fog, climate control, carbon dioxide

ABSTRACT: Aerial and ground methods for dispersing of low clouds and fogs over airports by means of solid carbon dioxide were studied. The aerial work involved the use of Il-14 airplanes (fitted with a semi-automatic device ADG-1, in which blocks of  $CO_2$  were converted to 0.2-1 cm-granules which were dispensed at 300 to 3000 g/min) and an LI-2 sounding plane (fitted with a URTZ-49 device for converting  $CO_2$  to snow-like flakes which were dispensed automatically at rates of 250 to 1800

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ACC NR: AT5028262

g/min). Ground work was performed with a ZhKU-1 unit transported around the airport by a truck GAZ-69. This unit could employ liquid as well as solid  $\text{CO}_2$ . The dispersal was performed successfully in 20 cases attempted in the Alma-Ata region, generally covered by fog during the cold season. Improved flight conditions allowed an additional 87 landings and 179 departures of planes during the test period of January 10-20. Savings from this test amounted to 26 000 rubles. This work was initiated upon the suggestion of academician Ye. K. Fedcrov. Orig. art. has: 1 table.

SUB CODE: 04 SUBM DATE: none / SOV REF: 007/

HW  
Card 2/2

GAYVORONSKIY, I.I.; MORACHEVSKIY, V.G.

Conference on Cloud and Fog Modification. Izv. AN SSSR. Fiz.  
atm. i okean. 1 no.7:774-777 Ji '65. (MIRA 18:8)

GAYVORONSKIY, K.A.

Lenin's theory of socialist revolution. Trudy MIIGAIK no.43:  
3-20 '60. (MIRA 16:7)

(Revolutions)

SOV/129-58-9-13/16

AUTHORS: Gayvoronskiy, L. A., Shustitskaya, Ye. V. and Popov, K.V.

TITLE: Investigation of the Low Temperature Stability of the Steel SKhL-4 After Various Types of Heat Treatment (Issledovaniye khladostoykosti stali SKhL-4 posle razlichnoy termicheskoy obrabotki)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, Nr 9, pp 54-55 (USSR)

ABSTRACT: 20 mm thick steel sheet was investigated in the heat treated state. The composition of the steel was: 0.12% C; 0.77% Mn; 0.9% Si; 0.022% S; 0.024% P; 0.84% Cr; 0.56% Ni. The influence of the heat treatment on the low temperature stability was evaluated on the basis of the change of the critical temperature of transformation of the steel into the brittle state during impact bending of notched specimens. As the critical temperature, the upper boundary of the brittleness temperature range was chosen. In cases when the decrease in the impact strength was continuous the critical temperature was considered arbitrarily that temperature for which the impact strength was 40% below the respective value at room temperature. For determining the tendency of the specimen to ageing in

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SOV/129-58-9-13/16

Investigation of the Low Temperature Stability of the Steel SKhL-4  
After Various Types of Heat Treatment

the as delivered state it was subjected to an extension by 10% with subsequent two hour tempering at 200°C. The properties of the steel after various types of heat treatment are entered in the Table, p 54. It can be seen that hardening from the optimum temperature of 920°C, followed by high temperature tempering, brought about almost no change in the low temperature stability compared to the as delivered state. However, over-heating during hardening by only 40°C brought about an increase in the critical brittleness temperature from -90 to -50°C. In Fig.1 the changes are graphed of the impact strength at various test temperatures for the as delivered state and after deformation ageing. Deformation ageing brought about a considerable reduction of the impact strength at the investigated temperatures but the coefficient of sensitivity to ageing was 0.3, which justifies the assumption that this steel has a low sensitivity to deformation ageing. Annealing of the steel affected the low temperature stability in the same way as deformation ageing. Application for the steel

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Investigation of the Low Temperature Stability of the Steel SKhL-4  
After Various Types of Heat Treatment

SKhL-4 of this widely used softening as the final heat treatment is not recommended in cases in which the manufactured components should have a high low temperature stability. After normalisation annealing at 920°C a certain decrease was observed in the impact strength and an increase in the critical temperature; after normalisation without over-heating, the steel maintains a high impact strength down to -70°C (Fig.2). It is recommended that this type of heat treatment should be tried in industry for certain components in cases in which a better heat treatment (hardening followed by high temperature tempering) cannot be effected for technological reasons or where such a treatment would be difficult to carry out. In the case of heat treatment, and particularly of welding of the steel SKhL-4, it is necessary to bear in mind that over-heating to 1100°C followed by cooling in air (see Fig.2) is capable of increasing appreciably the tendency of steel to brittle fracture.

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Investigation of the Low Temperature Stability of the Steel SKhL-4  
After Various Types of Heat Treatment

There are 2 figures and 1 table.

(Note: This is a complete translation except for the figure  
ASSOCIATION: Vostochno-Sibirskiy filial AN SSSR captions and table)  
(East Siberian Branch of the Ac.Sc., USSR)

1. Steel--Mechanical properties
2. Steel--Heat treatment
3. Steel--Test methods

Card 4/4



AUTHORS: Savitskiy, V.G., Popov, K.V. and ~~SOV/126-7-1-19/88~~  
~~Gayvoronskiy, L.A.~~

TITLE: Investigation of Dynamic Bending of Steels by Deformation  
Diagrams (Issledovaniye dinamicheskogo izgiba staley  
po diagrammam deformatsii)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1959, Vol 7, Nr 1,  
pp 133-136 (USSR)

ABSTRACT: A comparative study of static and dynamic bending of a  
number of steels has been carried out and full deformation  
diagrams have been constructed. A pendulum impact testing  
machine of the type PSVO-1000, provided with an oscillo-  
graphic instrument, was used for the recording of  
deformation during impact testing. This impact testing  
machine has a maximum energy of 10 kg-m. The oscillograph  
has a double-beam cathode tube permitting accurate re-  
cording of the deformation process during impact bend  
testing or during extension, within the co-ordinates  
force - path (deformation) and force - time. In Fig.  
1 a typical full oscillogram for an impact bend obtained  
for the steel St.3 is shown. The deformation diagram  
~~abside~~ occupies the middle portion of the oscillogram.  
Card 1/3 Below it there is a vertical line P, representing the

SOV/126-7-1-19/28

Investigation of Dynamic Bending of Steels by Deformation Diagrams

force scale. The length of this line is proportional to a force of 500 kg acting on the pendulum knife. Above is situated a sine-like curve of the time scale with a period of  $10^{-3}$  sec. The deformation curve scale can be seen in the lower portion of the oscillogram. Its period corresponds to a shift of the pendulum knife by 2 mm. A straight line, representing the traces of the ray on its return to the initial position, is superimposed on this curve after applying the deformation scale. The essential results of tests with specimens of steel 30KhMA in various conditions, obtained by heat treatment and contact butt welding, are shown in Table 1. In Table 2 a comparison of the mechanical characteristics of a few steels, found from deformation diagrams for static and dynamic bending, is given. In Figs. 2-4 diagrams for static and dynamic bending for three types of steel, for which three characteristic different shapes of static and impact deformation curves are observed, are represented on the same scale. The authors conclude that the work of fracture during dynamic bending may be either greater or less than the work of fracture during static bending. The maximum stress

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Investigation of Dynamic Bending of Steels by Deformation Diagrams

withstood by the specimen in testing is always greater during impact application of the load than during its static application. The onset of yield is particularly sensitive to increase in deformation rate. No definite connection between the plasticity of the steel and the nature of the relationship between the mechanical properties during static and dynamic bending of notched specimens was observed. There are 4 figures, 2 tables and 1 Soviet reference.

ASSOCIATION: Irkutskiy filial giproneftemasha, Vostochno-Sibirskiy filial AN SSSR (Irkutsk Branch of the Giproneftemash, East Siberian Branch of the Ac. Sc. USSR)

SUBMITTED: March 5, 1957

Card 3/3

GAYVORONSKIY, M.S., mashinist

Methods of eliminating defects in electrified units. Elek. i  
tepl. tiaga 3 no.1:41-42 Ja '59. (MIRA 12:2)

1. Elektrodepo Nikopol', Stalinskaya doroga.  
(Electric railway motors)

*GAYVORONSKIY, N. A.*

KALASHNIKOV, G.P.; GAYVORONSKIY, N.A.

Two cases of congenital deformations of the spine of platyspondylia type. Vest. rent. i rad. no.4:78-81. J1-Ag '54. (MLRA 7:10)

1. Iz ortopedicheskogo otdeleniya (zav. prof. P.I.Bakov) Odesskoy 2-y oblastnoy klinicheskoy bol'nitsy (glavnyy vrach I.P.Pelyavskiy)  
(SPINE, abnormalities,  
platyspondylisis)  
(ABNORMALITIES,  
platyspondylisis)

GAYVORONSKIY, P.M.

KHIGER, I.Ya.; GAYVORONSKIY, P.M.

Bimetallic bushings with a cast iron base. Lit.proizv. no.7:  
25-26 J1'55. (MIRA 8:10)

(Voronezh--Bearings)

GAYVORONSKIY, V.G.

Fossil oak from the Pliocene of the Taman Peninsula. Dokl. AN  
SSSR 135 no.4:968-970 '60. (MIRA 13:11)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.  
Kirova. Predstavleno akademikom V.N.Sukachevym.  
(Taman Peninsula--Oak, Fossil)

GAYVORONSKIY, V.G.

Taxodiaceous wood from the middle Oligocene of the western  
Caucasus. Paleont.zhur. no.3:134-135 '61. (MIRA 15:2)

1. Lesotekhnicheskaya akademiya im. S.M. Kirova, Leningrad.  
(Caucasus--Trees, Fossil)



GAYVORONSKIY, V.G.

Middle Oligocene conifers from the western Caucasus. Dokl.  
AN SSSR 139 no.6:1463-1466 Ag '61. (MIRA 14:8)

1. Predstavleno akademikom V.N. Sukachevym.  
(Kura-Tsitse region--Coniferae, Fossil)

GAYVORONSKIY, V.G.

Caucasian Casuarina. Dokl. AN SSSR 142 no.2:453-455 Ja '62.  
(MIRA 15:2)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova.  
Predstavleno akademikom V.N.Sukachevym.  
(Caucasus-Casuarina)

GAYVORONSKIY, V.G.

Wood of some deciduous species from Maikop deposits of the western  
Caucasus. Dokl. AN SSSR 142 no.3:687-689 Ja '62. (MIRA 15:1)

1. Leningradskaya lesotekhnicheskaya akademiya im. S.M.Kirova.  
Predstavleno ~~akademikom~~ V.N.Sukachevym.  
(Tsitse Valley--Trees, Fossil)

GAYVORONSKIY, V. G.

Wood of walnut from the Middle Oligocene of the western Caucasus.  
Paleont. zhurn. no.2:170-173 '62. (MIRA 15:10)

1. Leningradskaya lesotekhnicheskaya akademiya imeni S. M. Korova.

(Caucasus, Northern—Trees, Fossil)  
(Walnut)

GAYVORONSKIY, V.G.

Tropical oak from the Oligocene of the western Caucasus. Dokl.  
AN SSSR 148 no.3:691-692 Ja '63. (MIRA 16:2)

1. Lesotekhnicheskaya akademiya im. S.M. Kirova, g. Leningrad.  
Predstavleno akademikom V.N. Sukachevym.  
(Kura-Tsitse region—Oak, Fossil)

S/186/63/005/002/003/005  
E075/E136

AUTHORS: Gayvoronskiy, V.I., Osipov, O.A., and Shagidullin, R.R.

TITLE: Infrared spectra of complex compounds of thorium, zirconium, and uranyl with 8-hydroxyquinoline and tributylphosphate

PERIODICAL: Radiokhimiya, v.5, no.2, 1963, 244-248

TEXT: The authors investigated the structure of the complex compounds by studying infrared spectra of the solid internal complex compounds dispersed in vaseline. For Th and UO<sub>2</sub>, in addition to complexes Th (C<sub>9</sub>H<sub>6</sub>ON)<sub>4</sub> and UO<sub>2</sub>(C<sub>9</sub>H<sub>6</sub>ON)<sub>2</sub>, the complexes with the composition of 1:5 and 1:3 were also synthesized. The spectra of the complexes and those of 8-hydroxyquinoline in the frequency range 700 to 3000 cm<sup>-1</sup> indicate that the double bonds in the aromatic rings conjugate to an increased degree in the complexes. The conjugation is probably transmitted through the complexing metal. There are three strong absorption bands in the spectra of the complexes in the region of 400 - 700 cm<sup>-1</sup>, which are not present in the spectrum of 8-hydroxyquinoline. These bands  
Card 1/2

Infrared spectra of complex ... S/186/63/005/002/003/005  
E075/E136

shift towards longer wavelengths (from 485, 505 and 605  $\text{cm}^{-1}$  to 495, 515 and 615  $\text{cm}^{-1}$ ) on passing from the heavy metals to Zr. Differences were also found between the absorption bands at 700-825  $\text{cm}^{-1}$  of the complexes due apparently to differences in their crystal structure. The strong absorption band for the  $\text{UO}_2$  complex at 917  $\text{cm}^{-1}$ , absent in other complexes, is ascribed to the asymmetric vibration of  $\text{UO}_2$  group. The spectra of the mixtures of the metal chlorides and tributylphosphate (TBP) indicate that a molecular compound between the metals and TBP is formed via the oxygen in  $\text{P} = \text{O}$  group. There are 3 figures and 2 tables.

SUBMITTED: July 5, 1961

Card 2/2

OSIPOV, O.A.; GAYVORONSKIY, V.I.

Complex formation of titanium tetrachloride with ketones studied by  
the infrared spectroscopy method. Zhur.ob.khim. 33 no.4:1346-1349  
Ap '63. (MIRA 16:5)

1. Rostovskiy-na-Donu gosudarstvennyy universitet.  
(Titanium chlorides) (Ketones) (Spectrum, Infrared)



OSIPOV, O.A.; GAYVORONSKIY, V.I.; SHVETS, A.A.

Donor properties of phosphoryl and ester oxygen in tributyl phosphate.  
Zhur.neorg.khim. 8 no.9:2190-2193 S '63. (MIRA 16:10)

GAYVORONSKIY, V.K.

Our practices in controlling ragweed. Zashch. rast. ot vred. i bol.  
8 no.11:50 N 63. (MIRA 17:3)

1. Inspektor Nevinnomysskogo karantinnogo punkta, Stavropol'skiy  
kray.

DALGATOV, D.D.; TERTOV, B.A.; GAYVORONSKIY, V.M.; OSIPOV, O.A.

Structure of 2-formylbenzimidazole. Zhur. VKHO 8 no.5:582-  
583 '63. (MIRA 17:1)

1. Rostovskiy gosudarstvennyy universitet.

KARMANOV, I.A.; BULATOV, A.I.; GAYVORONSKIY, V.V.; OZERKOV, S.A.

Investigating the thickening of cement grouting at high temperatures  
and pressures. Burenis no.7:23-27 '65. (MIRA 18:12)

1. Krasnodarskiy filial Vsesoyuznogo neftegazovogo nauchno-  
issledovatel'skogo instituta.

GAYVORONSKIY, Ya.S.; RUDNAYA, A.I.

Measuring the temperature of the tuyere zone in a blast  
furnace. Met. i gornorud. prom. no.6:5-7 N-D '65.  
(MIRA 18:12)

ACC NR: AT6034606

(N)

SOURCE CODE: UR/3232/66/000/003/0099/0104

AUTHOR: Gayvoronskiy, Ya. S.; Rudnaya, A. I.; Romanyuk, N. A.; Silkina, T. S.

ORG: none

TITLE: A study of silicon photodiodes as the sensitive elements in pyrometers

SOURCE: L'vov. Politekhnicheskiy institut. Kontrol'no-izmeritel'naya tekhnika, no. 3, 1966, 99-104

TOPIC TAGS: silicon diode, photodiode, radiation pyrometer, radiation sensitivity, temperature sensitive element

ABSTRACT: Pyrometers directly measuring a variable proportional to the change in parameters of the radiation receiver are widely used to solve problems in monitoring temperature regimes. Lead sulfide photoresistors, semiconductor photocells, and germanium and silicon photodiodes are used as the radiation receivers in these pyrometers. Silicon and germanium photodiodes are advantageously distinguished by their small size, simplicity, and high sensitivity. Especially promising are silicon photodiodes which can operate in ambient temperatures of 80° to +150°C and are insensitive to radiation energy at frequencies in the range of spectral absorption of water vapor and carbon dioxide gas. Because of the use of photodiodes in temperature sensors it became necessary to study the parameters and characteristics of photodiodes with respect to stability of photocurrent, spectral sensitivity, and photocurrent dependence on load resistance at various ambient temperatures. This paper studies  
Cord 1/2

ACC NR: AT6034606

silicon photodiodes of different designs and manufacturing technique in order to determine their use in radiation pyrometry. The results obtained indicate that silicon photodiodes made by the diffusion technique are most suitable for use in pyrometers directly measuring a signal because they are of good stability. The temperature error of diffusion photodiodes, which is greater than that of those made by the alloy technique, may be reduced by using proper light filters. The authors operate with the fundamental relationship defining short-circuit photodiode photocurrent as a function of the radiation energy of a black body at a certain temperature:

$$I_T = K \int_{\lambda_1}^{\lambda_2} b_{\lambda, T}^0 \gamma_{\lambda} d\lambda. \quad (1)$$

where  $I_T$  is photocurrent at black body temperature  $T$ ;  $K$  is a constant depending on instrument design, and the other notation is standard. Orig. art. has: 3 formulas and 5 figures.

SUB CODE: 09/ SUBM DATE: none/ ORG REF: 003/ OTH REF: 001

Card 2/2

GAIYEK, Karel

We follow the road of socialist realism. Sov. foto 21 no. 2:21  
F '61. (MIRA 14:2)

1. Redaktor chekhoslovatskogo zhurnala "Svet v obrazakh,"  
predsedatel' seksii fotoreporterov.  
(Czechoslovakia--Photography)



ZHIKHOVITSKIY, A.A.; TURKEL'TAUB, N.M.; Prinimali uchastiye: GAYYER, M.;  
LAGASHKINA, M.N.

"Vacancy-chromatography." Dokl. AN SSSR 143 no.3:646-648 Mr '62.  
(MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy  
neftyanoy institut. Predstavleno akademikom P.A.Rebinderom.  
(Chromatographic analysis)

MIKHALICH, V.; GAYYER, M.; RYZHONKOV, D.I.

Investigating processes of simultaneous oxidation of silicon,  
manganese, and chromium in native alloy cast iron. *Izv.vys.*  
*ucheb.zav.; chern.met.* 5 no.11:20-22 '62. (MIRA 15:12)

1. Moskovskiy institut stali i splavov.  
(Cast iron—Electrometallurgy) (Oxygen—Industrial application)

ZHUKHOVITSKIY, A.A.; TURKEL'TAUB, N.M.; GAYYER, M.; LAGASHKINA, M.N.;  
MALYASOVA, L.A.; SHLEPUZHNIKOVA, G.P.

Vacancy chromatography. Zav.lab. 29 no.1:8-13 '63.

(MIRA 16:2)

1. Institut yedernoy geofiziki i geokhimi.  
(Chromatographic analysis)

GAYZLER, Yu.S.; PUTIYEVSKAYA, T.S.

Selection of anesthesia in surgery on perforating wounds of  
the thoracic and abdominal cavities. Trudy Inst. im. N.V.  
Skliř. 9:197-201 '63. (MIRA 18:6)

1. Iz gospi'tal'noy khirurgicheskoy kliniki lechebnogo fakul'teta  
II Moskovskogo gosudarstvennogo meditsinskogo instituta imeni  
Pirogova i 5-y Moskovskoy gorodskoy klinicheskoy bol'nitsy.

VISHNEVSKAYA, M.A.; GAYZLER, Yu.S.; GRISHINA, I.M.; MIKHEL'SON, V.A.

Hemodynamic changes during intubation of the trachea with a regular or a Karlens' tube. Sov.med. 28 no.12:81-84 D '65.

(MIRA 18:12)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. I.S.Zhorov) lechebnogo vechernego fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M.Sechenova na baze 61-y klinicheskoy bol'nitsy i kafedra gospital'noy khirurgii (zav. - prof. V.S.Mayat) lechebnogo fakul'teta II Moskovskogo meditsinskogo instituta imeni N.I.Pirogova na baze 5-y Gorodskoy klinicheskoy bol'nitsy.

ISLITANKER, M.Ya.. BRITV A, M.Ya.. GVA, M.Y.. CA B. P. Ya..

Boring bars for 1 and boring machines. (Serial no. 7323  
J1 '64. (Serial 1738)

GRINKOF, Ya.B.; GAZ, M. S.; TAL'YANKER, M. Ya.

Calculating geometrical and precision parameters of lathes for  
noncopying turning of automobile pistons. Stan. i instr. 35 no.  
5:22-25 My '64. (MIRA 17:7)

KHOTYEV, A.A.; GAZALIYEV, M.V.; MAKSIMOV, I.S., red.; GERASIMOVA,  
Ye.S., tekhn.red.

[Improvement of machinery and technological re-equipment are  
important tasks of the seven-year plan] Sovershenstvovanie  
tekhniki i tekhnicheskoe perevooruzhenie - vazhneishaya sada-  
cha semiletki. Moskva, Gosplanizdat, 1960. 98 p.

(MIRA 13:6)

(Technological innovations)



GAZALIYEV, Maksut Vagidovich; KASUKHIN, Antony Tikhonovich; MAKSIMOV,  
I.S., red.; GERASIMOVA, Ye.S., tekhn.red.

[Efficiency of the specialization and cooperation in the machinery  
industry] Effektivnost' spetsializatsii i kooperirovaniia v  
mashinostroenii. Moskva, Gosplanizdat, 1960. 204 p.

(MIRA 13:5)

(Machinery industry)

QAYZEREBR

VASNEVA, G.A.; GAYZEROV, B.A.; GRIGOR'YANTS, V.V.; YELKIN, G.A.; ZHABOTINSKIY,  
M.Ye.

Phase-lock automatic frequency control of a klystron with respect to  
a molecular oscillator. Radiotekh. i elektron. 2 no.10:1300 Q '57.  
(MIRA 10:11)

1. Institut radiotekhniki i elektroniki AN SSSR.  
(Klystrons)

GAYZHAUSKAS, F. [Gaizauskas, F.]

Meat industry of Lithuania is growing. Mias. ind. SSSR. 30 no.4:24  
'59. (MIRA 12:12)

1.Litovskiy sovnarkhoz.  
(Lithuania--Meat industry)

ROMANOV, D.A., kand.tekhn.nauk, GAYZHUTIS, Ye. K., inzh.

All-purpose cantilever sluice crane with a capacity of 80  
tons. Mekh. stroi. 17 no.6:14-17 Je '60.      (MIRA 13:6)  
(Cranes, derrick, etc.)

GAZ, V.

RT-1054 (Conference on stellar spectroscopy) Konferentsiia po astrospektroskopii.  
Astronomicheskii Zhurnal, 28(1): 64-67, 1951.

GAZA, L., master sporta

What a glider pilot should know about meteorology. Kryl.rod. 11  
no.6:19-20 Je '60. (MIRA 13:7)  
(Gliding and soaring)  
(Meteorology in aeronautics)

GAZA, L., master sporta (g. Praga)

What a glider pilot should know about meteorology. Kryl.rod. 11  
no.7:24-26 JI '60. (MIRA 13:7)  
(Meteorology in aeronautics)  
(Gliding and soaring)

GAZA, N.K.

Bile-secreting function of the liver in pathological conditions of  
the higher nervous function. Trudy Inst. fiziol. 3:32-47 '54.  
(MLRA 8:2)

1. Laboratoriya kortiko-vistseral'noy patologii, zaveduyushchiy  
I.T.Kurtsin.

(BILE, physiology,  
secretion, eff. of conditioned reflex disord.)  
(REFLEX, CONDITIONED,  
disord., eff. on bile secretion)



GAZA, N.K.

Neural regulation of vascular permeability of the anterior portion of the eyeball. Vest.oft. 33 no.3:14-17 My-Je '54.  
(MLRA 7:6)

1. Iz Leningradskogo nauchno-issledovatel'skogo oftalmologicheskogo instituta imeni Grishmana (dir. prof. B.P.Kalashnikov; nauchnyy rukovoditel' chlen-korrespondent ANU SSSR prof. A.V. Lebedinskiy)

(NIR, blood supply,

\*vasc. permeability, neural regulation)

GAZA, N. K.

Gaza, N. K. -- "The Bile-forming and Bile-excreting Function of the Liver in the Case of Disturbances of the Higher Nervous Activity." Acad Sci USSR, Inst of Physiology imeni I. P. Pavlov, Leningrad, 1955 (Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No. 24, Moscow, Jun 55, pp 91-104

GAZA, N.K.

GAZA, N.K.

Physiology of thirst, appetite, and hunger as discussed at the  
Twentieth International Congress of Physiologists. *Physiol. Zhur.*  
43 no.3:297-299 Mar '57. (MIRA 10:8)  
(APPETITE) (HUNGER) (THIRST)

USSR/Human and Animal Physiology. Nervous System.  
Higher Nervous System. Behavior.

T

Abstr Jour: Ref Zhur-Biol., No 20, 1958, 93645.

Author : Gaza, N.K.

Inst :

Title : Changes in Higher Nervous Activity and Biligogenesis  
in Dogs During Experimental Cholecystitis.

Orig Pub: Byul eksperim. biol.i meditsiny, 1957, 43, No 4, 45-49.

Abstract: The irritation of the dog's gall bladder mechanoreceptors resulted in a reduction of the magnitude of exteroceptive and interoceptive salivary conditioned reflexes, the appearance of a balancing and paradoxical phase, a release of differentiation and fluctuations in the quantity of bile secreted on food stimuli. Experimental cholecystitis, produced by irrigating the

Card

: 1/2

*Lal Cortico-Visceral Pathology  
Inst Physiology im Pavlov AS USSR*

GAZA, N.K.; DZIDZIGURI, T.D.; SERGEYEVA, I.V.

Changes in interoceptive reflexes from hemopoietic organs in acute radiation sickness. Trudy Inst. fiziol. 7:416-421 '58. (MIRA 12:3)

1. Laboratoriya kortiko-vistseral'noy patologii (zav. - I.T. Kurtsin)  
Instituta fiziologii im. I.P. Pavlova AN SSSR.  
(RADIATION SICKNESS) (HEMOPOIETIC SYSTEM)  
(REFLEXES)

GAZA, N.K.

Secretory function of the liver in experimental neuroses in dogs.  
Trudy Inst. fiziol. 9:302-307 '60. (MIRA 14:3)

1. Laboratoriya kortiko-vistseral'noy patologii (zaveduyushchiy -  
I.T.Kurtsin) Instituta fiziologii im. I.P.Pavlova.  
(LIVER) (CONDITIONED RESPONSE)  
(NERVOUS SYSTEM—DISEASES)

GAZA, N.K.

Characteristics of the higher nervous activity and bile secretion in dogs with partial extirpation of the premotor zones of the cerebral cortex. Trudy Inst. fiziol. 9:308-317 '60. (MIRA 14:3)

1. Laboratoriya kortiko-vistseral'noy patologii (zaveduyushchiy - I.T.Kurtsin) Instituta fiziologii im. I.P.Pavlova.  
(CEREBRAL CORTEX) (REFLEXES)  
(BILE)

GAZA, N.K.

Higher nervous activity and bile secretion by the liver in neurosis in dogs with partial extirpation of the premotor zones of the cerebral cortex. Trudy Inst. fiziol. 9:318-322 '60. (MIRA 1493)

1. Laboratoriya kortiko-vistseral'noy patologii (zaveduyushchiy - I.T.Kurtsin) Instituta fiziologii im. I.P.Pavlova.  
(CEREBRAL CORTEX) (REFLEXES) (BILE)



MELKUMOVA, T.M.; GAZAICHYAN, Zh.M.

Effect of microelements on the activity and virulence of alfalfa  
nodule bacteria. Dokl. AN Azerb. SSR 20 no.2:53-57 '64. (MIRA 17:6)

1. Institut pochvovedeniya i agrokhimii AN AzerSSR. Predstavleno  
akademikom AN AzerSSR G.A.Aliyevym.

L 52337-65 EWT(m)/EWP(b)/EWP(t) IJP(c) JD

ACCESSION NR: AP5011796

UR/0202/65/000/002/0023/0028

AUTHOR: Agayev, Ya.; Gazakov, O.; Slobodchikov, S. V.

22

21

TITLE: Photoelectric properties of aluminum antimonide

B

SOURCE: AN TurkmSSR. Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 2, 1965, 23-28

TOPIC TAGS: aluminum compound, antimonide, photoelectric property, photosensitivity, temperature dependence, photoresponse, illumination, photoconductivity, light intensity, sulfur, forbidden band

ABSTRACT: The object of the investigation was to measure the distribution of photosensitivity, temperature dependence of the photoresponse, the effect of constant illumination, and the dependence of photoconductivity on light intensity. Samples were aluminum antimonide alloyed with sulfur. Starting material was n-type with low conductivity ( $\sigma \approx 4 \cdot 10^{-5} - 10^{-4} \text{ ohm}^{-1} \text{ cm}^{-1}$ ). Concentration of the current carrier in these samples at room temperature was  $\approx 10^{13} - 10^{14} \text{ cm}^{-3}$ . The samples measured  $0.8 \times 0.4 \times 0.04 \text{ cm}^3$ . A type ZMR-2 mirror "monochromator" with a glass prism was

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L 52337-65

ACCESSION NR: AP5011796

used as a source of monochromatic light. In many compensated semiconductor compounds with a wide forbidden band there is often observed an additional photoconductivity which exceeds the true photoconductivity. However, for low resistance uncompensated aluminum antimonide tested at room temperature, the true photoconductivity was predominant. The width of the forbidden band, evaluated for  $\lambda_1$ , was 1.6 ev. Variation of the photoresponse with temperature was measured over the interval 80-100°K. The light source was an incandescent tungsten lamp. An FS-7 filter was used to give only the short wave part of the light. Measurements were also made with white light. Strength of the electrical field was approximately 120 v/cm. A sublinear relationship with a slope of approximately 0.7 was determined between the current and the intensity of the white light falling on the sample. Orig. art. has: 6 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN Turkmenskoy SSR  
(Physicotechnical Institute of the Academy of Sciences, Turkmen SSR)

SUBMITTED: 05May64

ENCL: 00

SUB CODE: MM, EM

NR REF SOV: 002

OTHER: 004

Card 2/2 *748*

L 58396-65 EWT(1)/EWT(m)/EEC(t)/EWP(t)/EWP(b) Pz-6 IJP(c) JD/AT

ACCESSION NR: AP5016444 UR/0202/65/000/003/0096/0097

AUTHOR: Agayev, Ya.; Gazakov, O.; Slobodchikov, S.V.

28  
B

TITLE: Photoconductivity in p-type Al-Sb

SOURCE: AN Turkm SSR, Izvestiya. Seriya fiziko-tekhnicheskikh, khimicheskikh i geologicheskikh nauk, no. 3, 1965, 96-97

TOPIC TAGS: alloy photoconductivity, zonal transition diagram, photoconductivity admixture effect, aluminum alloy, antimony alloy

ABSTRACT: In a previous communication, the authors discussed the photoconductivity of high-resistance samples of compensated n-type AlSb (Izvestiya AN TSSR, ser. FTKhIGN, no. 2, 1965). The present short communication investigates the photoconductivity of low-resistance p-type AlSb samples, establishes the general pattern of the zonal transitions (see Fig. 1 of the Enclosure), and discusses the role of admixtures in photoconductivity effects. Orig. art. has: 2 figures.

ASSOCIATION: Fiziko-tekhnicheskii institut AN Turkmenskoy SSR (Physics and Engineering Institute, AN Turkmen SSR)

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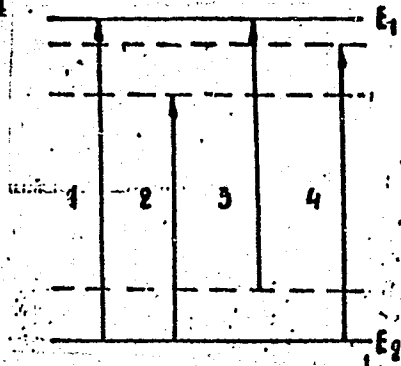


Fig. 1. The pattern of possible basic transitions in AlSb:  
1 - zone-zone 1.62 eV transition; 2 - zone-impurity level  
1.3 eV transition; 3 - n-type sample  $\sim$ 1.4 eV transition;  
4 - low temperature (sometimes room temperature) 1.55  
eV transition.

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GAZALEY, N. V.

N. V. Gazalei

Error analysis of the measuring instrument Repeal'd 11

Pulkovo, The main Astronomical Observatory

18, 5(146) 1951, 151

From: Monthly list of Russian Accessions, Dec. 1951, Vol. 4, No. 9, p. 36  
(Trans. Copy)

Gerasimov, M.V.

30(5);25(5)

PHASE I BOOK EXPLOITATION

SOV/2224

Moscow. Nauchno-issledovatel'skiy ekonomicheskiy institut

Voprosy planirovaniya i razmeshcheniya promyshlennosti; sbornik statey  
(Problems in the Planning and Distribution of Industry; Collection of  
Articles) Moscow, Gosplanizdat, 1959. 226 p. 5,000 copies printed.

Sponsoring Agency: USSR. Gosudarstvennaya planovaya komissiya.

Resp. Ed.: P. M. Alampiyev, Doctor of Economic Sciences; Ed.: P. V.  
Kuznetsov; Tech. Ed.: Ye. S. Gerasimova.

PURPOSE: This book is intended for economists, party workers, and  
engineering and technical personnel of the machinery-manufacturing industry.

COVERAGE: This collection of articles discusses problems connected with  
planning and distribution of Soviet industries. The first two articles  
present the problems and advantages of specialized production planning  
in machinery manufacturing, emphasizing the importance of specialization  
and cooperation in the development of Soviet industry. Electric power  
systems and the relation of proper distribution of electric power stations

Card 1/4



Problems in the Planning and Distribution of Industry (Cont.) SUJ/2224

to the overall electrification of the national economy are discussed in the third article. Several articles deal with the machinery-manufacturing industry and its development. The following six factors influencing the distribution of machinery-manufacturing plants are pointed out: 1) proximity of raw material, 2) power engineering resources, 3) transportation links, 4) qualified workers, engineers, and technicians, 5) presence of scientific, research, and design organizations, and 6) contact with users. The development of Soviet economic regionalization and the factors affecting it are also presented. These factors include production scale and structure, technical progress in industry, the existence and distribution of natural resources, manpower resources, and the development of transportation links. Another article is devoted to the effectiveness of capital investments in the development of the national economy. Problems in the amortization of fixed industrial assets are examined. The planning of new amortization norms and classification and revaluation of fixed assets are discussed. The final article traces the development of the organic chemistry industry in the United States and gives data on the chemical production of major European countries and Japan. No personalities are mentioned. There are no references.

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Problems in the Planning and Distribution of Industry (Cont.) SOV/2224

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PHASE I BOOK EXPLOITATION      SOV/4670

Khoteyev, A.A., and M.V. Gazaliyev

Sovershenstvovaniye tekhniki i tekhnicheskoye perevoorzheniye - vazhneyshaya zadacha semiletki (Perfection of Technology and Replacement of Technical Equipment-the Most Important Tasks of the Seven Year Plan) Moscow, Gosplanizdat, 1960. 98 p. 10,000 copies printed.

Ed.: I.S. Maksimov; Tech. Ed.: Ye. S. Gerasimova.

PURPOSE: This booklet is intended for general readers concerned with engineering problems of the Seven Year Plan.

COVERAGE: The authors discuss general reconstruction of operating industrial establishments, modernization and replacement of obsolete equipment, and the introduction of advanced techniques. They advocate certain improvements in the designing bureaus and testing laboratories of the machine-building industry, which, when combined with other measures, should result in increased production. No personalities are mentioned. There are no references.

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