

BOCHAROV, V.F., inzh.; BLOKH, G.A., doktor khimicheskikh nauk, prof.

Vulcanizing effect of resorcin and pyrocatechin in the ion
deposition of the neutralized L-7 latex. Izv. vys. ucheb. zav.;
tekh. leg. prom. no.3:17-22 '63. (MIRA 16:7)

1. Dnepropetrovskiy khimiko-tehnologicheskii institut. Rekom-
mendovana kafedroy tekhnologii reziny.
(Rubber, Synthetic) (Vulcanization)

ca

21

Use of ammonia liquor vs. coal tar in the hydraulic main of a coke oven. K. S. ZARIBDO AND Y. G. BOGOMOLOV. *J. Chem. Ind. (Moscow)* 6, 1780-91 (1929) - The purpose of this work was to det. if weak NH₃ liquor or coal tar should be used in the hydraulic main of the coke ovens of Makeyevskii coke-oven works. Tests were made with coke ovens using weak NH₃ liquor and ovens using coal tar. Pressure and temp. of the gas at different points of the hydraulic main, temp. of liquid used and analysis of NH₃ liquor and coal tar were tabulated and the results were compared. Conclusion: 1. Weak NH₃ liquor can be very successfully used in the hydraulic main; it was not found to interfere with any of the later-stage processes of the gas plant. 2. "Fusa," a viscous mass formed in the hydraulic main (a mixt. of coal and coke dust, coal tar and products of its decompn and mineral salts), should be used as a fuel.

JAMES SOMMER

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

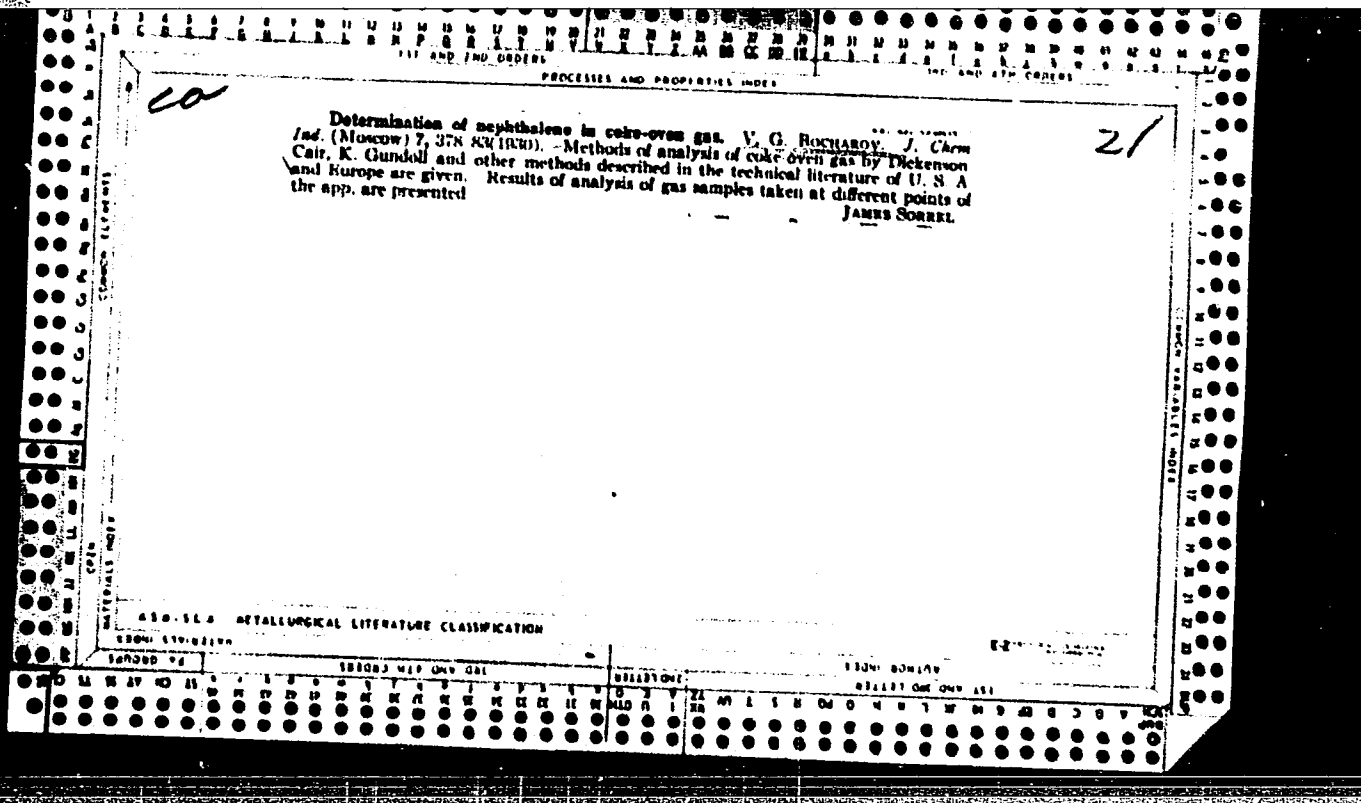
CA

21

Formation of carbon deposit in the hydraulic main and methods of its utilization.
V. G. BOCHARDY. *J. Chem. Ind. (Moscow)* 7, 1013(1950). Causes of formation of "fus" (C residue left from tar distil by the heat of passing gases in the hydraulic main) are discussed. When tar was used in the hydraulic main about 10 times more "fus" was formed than when ammonia water was used. The best means of utilizing "fus" was to mix it with sand, limestone and cinder as a material for highway construction.
JAMES SORREL.

ASME-ISA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
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1ST AND 2ND ORDERS PROCESSES AND PROPERTIES INDEX 3RD AND 4TH ORDERS

CA 21

Dry purification of gas. M. G. Kazhdan and V. G. Bogharov. *J. Chem. Ind. (U. S. S. R.)* 19, No. 8, 54 (1958).—When coke gas is passed through finely divided coke at 18–33°, the H₂S and tar droplets in it are removed. H. M. Leivster

COMMON ELEMENTS

COMMON VARIABLES INDEX

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

350M 51A511A

1ST AND 2ND ORDERS 3RD AND 4TH ORDERS

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

Bocharov V.G.

AUTHORS: Bass, F.G. and Bocharov, V.G.

109-3-2-3/26

TITLE: The Theory of Scattering of Electromagnetic Waves on a Statistically Nonuniform Surface. (K teorii rasseyaniya elektromagnitnykh voln na statisticheski nerovnoy poverkhnosti)

PERIODICAL: Radiotekhnika i Elektronika, 1958, vol.III, No.2, pp. 180 - 185 (USSR).

ABSTRACT: The problem is dealt with by means of the perturbation theory as developed by Al'pert and others (Ref.4). It is assumed, on the basis of the theory, that a deviation of the surface from a certain plane can be regarded as a small correction. A statistically non-uniform surface $z = \zeta(x,y)$ is assumed to be situated below a radiating dipole. If the surface is ideally conducting, the boundary conditions for the electrical field can be written as

$$E_x + E_z \frac{\partial \zeta}{\partial x} = 0; \quad E_y + E_z \frac{\partial \zeta}{\partial y} = 0 \quad (1)$$

and the field vector \vec{E} can be expressed as a series in terms of ζ or by:

Card1/3

$$\vec{E} = \vec{E}(0) + \vec{E}(1) + \vec{E}(2) + \dots \quad (3)$$

The Theory of Scattering of Electromagnetic Waves on a
Statistically Nonuniform Surface.

109-3-2-3/26

where $\vec{E}(0)$ is the field of the dipole over the ideally conducting plane. From the above, it follows that the field in the plane $z = 0$ can be expressed by Eqs.(4) and (5). On the other hand, the field at any point in the space can be evaluated from Eqs.(6) where k is the wave vector, λ is the wavelength and ρ is the distance between the point of observation and the point of integration; the integration in Eqs.(6) is performed over the surface $z = 0$. The statistical properties of the scattered electro-magnetic field are characterized by the mean field \bar{E}_i and the dispersion tensor

$$S_{ik} = (\bar{E}_i - \bar{E}_i) \times (\bar{E}_k - \bar{E}_k)$$
 If the radiating dipole is vertical and has an intensity p , the fields can be expressed, in the first approximation, by Eq.(8), where θ and φ are the angles of a spherical co-ordinate system (Ref.4). For a horizontal dipole, the field is given by Eqs.(9). From the above, it is found that the components of the dispersion tensor for the vertical dipole are given by Eq.(11) and those for the horizontal dipole are expressed by Eqs.(12). In the above equations, S is the area of the scattering surface,

Card2/3

109-3-2-3/26

The Theory of Scattering of Electromagnetic Waves on a Statistically Nonuniform Surface.

Q is the amplitude of the correlation function as given by Eq.(10) and α and β are two vectors having components $(\sin\vartheta, 0, 0)$ and $\frac{\partial \rho}{\partial x}, \frac{\partial \rho}{\partial y}, \frac{\partial \rho}{\partial z}$, respectively.

In the second approximation, the field is given by Eq.(16), in which the function $\bar{A}(\vartheta)$ can be determined from the correlation function and the directivity of the dipole. From the above, it is found that the Poynting vector for the scattered radiation can be written as shown in Eq.(19), where c is the velocity of light. Under certain conditions (see Eq.(20)), the Poynting vector can be expressed by Eq.(21), where F and Q are defined by Eqs.(22). The paper contains one appendix and 6 references, 3 of which are Russian and 3 English.

SUBMITTED: January 13, 1957

AVAILABLE: Library of Congress

Card 3/3

1. Electromagnetic waves-Scattering 2. Mathematical analysis

30V-109-3-4-25/28

AUTHORS: Bocharov, V. G. and Bass, F. G.

TITLE: Scattering of Electromagnetic Waves on a Statistically Non-Uniform Surface (O rasseyanii elektromagnitnykh voln statisticheskoi neodnorodnoy poverkhnost'yu)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol 3, Nr 4, pp 577-578 (USSR)

ABSTRACT: The aim of this note is to find an expression for the average electromagnetic field and the average energy scattered from a portion of a statistically non-uniform surface, having a complex permittivity $\epsilon(x, y)$. If the incident wave impinging on the surface ($z = 0$) is radiated from a vertical dipole, the boundary conditions for the electric field at the surface can be written as Eqs.(1), where $\eta = 1/\sqrt{\epsilon}$, k is the wave vector, \vec{E} is the electric field and ϕ is the glancing angle. The field at an arbitrary point can be expressed by Eqs.(2), in which S is the area of the scattering portion of the surface, ρ is the distance between the point of scattering and the point of observation. It is shown that the average scattered field can be expressed by Eqs.(4), in which R_0 is the distance between the dipole and the centre of the scattering area and the observation point and

Card 1/2

SOV-109-3-4-25/28

Scattering of Electromagnetic Waves on a Statistically Nonuniform Surface

$\vec{\alpha}$ and $\vec{\beta}$ are vectors having components $\cos \phi$, 0 , 0 and $\frac{\partial \rho}{\partial x}$, $\frac{\partial \rho}{\partial y}$, $\frac{\partial \rho}{\partial z}$ respectively. On the other hand, the average value of the Poynting vector can be expressed by Eqs.(5), where c is the velocity of light. The letter contains 2 Soviet references.

SUBMITTED: April 11, 1957

- 1. Electromagnetic waves--Scattering
- 2. Mathematics--Applications

Card 2/2

BOCHAROV, V. G.; PENKINA, A. F.

Spectral methods of comparing the optically bleaching
substances. Zav. lab. 28 no.12:1454-1456 '62.
(MIRA 16:1)

1. Institut organicheskikh poluproduktov i krasiteley.
(Bleaching materials—Spectra)

L 10165-63

FMT(m)/HDS—RM

ACCESSION NR: AP3000307

S/0048/63/027/005/0590/0595

AUTHOR: Bocharov, V. G.; Levshin, L. V.

54

51

TITLE: Association of rhodamine 6G molecules in binary solvents [Report;
Eleventh Conference on Luminescence held in Minsk 10-15 Sept. 1962]

SOURCE: Izvestiya AN SSSR. Seriya fizicheskaya, v. 27, no. 5, 1963, 590-595

TOPIC TAGS: molecular association, rhodamine 6G, absorption in solvents

ABSTRACT: The purpose of the work was to investigate the influence of the polar component of a binary solvent on the association of rhodamine 6G molecules as evinced by the absorption spectra of the dye. The nonpolar component in all cases was carbon tetrachloride; the polar solvents were normal alcohols (methyl to amyl), iso-alcohols (propyl to amyl) and secondary and tertiary butyl alcohols. The binary mixtures were proportioned so that the molar ratio of the polar and nonpolar components remained constant. There was observed the variation of the long wavelength electronic absorption band of rhodamine 6G as a function of the concentration (the microdensitometer traces are reproduced). It was found that the monomer absorption decreases in going from methyl to high alcohols, while the

Card 1/2

L 10165-63

ACCESSION NR: AP3000307

3

dimer absorption increases. The change in monomer absorption is attributed to changes in dipole-dipole interaction between the dye molecules and the solvent molecules. For the mixtures used the monomer absorption coefficient is proportional to the sum of the dipole moments in a unit volume of solvent. It is concluded that the different concentration induced alterations in the absorption spectra of rhodamine 6G are due to two factors: different dipole-dipole interactions between the dye and solvent molecules, and difference in the interaction between the dye molecules, resulting in different degrees of association in different solvents. "In conclusion the authors thank Ye. A. Byrsak and Z. A. Gorbunova for assistance in carrying out the work." Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Fizicheskiy fakul'tet Moskovskogo gos. universiteta im. M. V. Lomonosova (Physics Dept, Moscow State University)

SUBMITTED: 00

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH
Card 2/2 *elm/dyk*

NR REF SOV: 011

OTHER: 001

BOCHAROV, V.G., mladshiy nauchnyy sotrudnik; ZAPOROZHETS, N.Ya., laborant

New method for determining dye concentration on fabrics by the reflection spectra. Tekst. prom. 23 no.10:23-26 0 '63.

(MIRA 17:1)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley (for Bocharov). 2. Koloristicheskaya laboratoriya Nauchno-issledovatel'skogo instituta organicheskikh poluproduktov i krasiteley (for Zaporozhets).

BOCHAROV, V.G.

Method for determining the bleaching effect of fluorescent
substances. Vest. Mosk. un. Ser. 3: Fiz., astron. 19 no.4s
52-55 J1-Ag '64. (MIRA 17:10)

1. Kafedra optiki Moskovskogo universiteta.

BOCHAROV, V.G.

Effect of color concentration on the intensity of reflected
and passing light in a colored plane-parallel layer. Vest.
Mosk. un. Ser. 3: Fiz., astron. 20 no.5:3-9 S-O '65.

(MIRA 18:11)

1. Kafedra optiki Moskovskogo universiteta. Submitted
October 23, 1963.

BOCHAROV, V.G.; LEVSHIN, L.V.

Effect of molecular interactions on the optical properties of
molecules of the rhodamine 6G dye in binary solvents. Vest.
Mosk.un. Ser. 3: Fiz., astron. 20 no.4:78-82 J1-Ag '65.

(MIRA 18:12)

1. Kafedra optiki Moskovskogo gosudarstvennogo universiteta.
Submitted May 24, 1964.

L 33213-66 EWT(m)/EWP(j) RM

ACC NR: AR6016196

SOURCE CODE: UR/0058/65/000/011/D027/D028

AUTHOR: Bocharov, V. G.; Levshin, L. V.

TITLE: Influence of intermolecular interaction on the optical properties of molecules of rhodamine 6Zh dye in binary solvents

38
B

SOURCE: Ref. zh. Fizika, Abs. 11D213

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 313-318

TOPIC TAGS: molecular interaction, optic property, dye chemical, absorption band, solution concentration, monomer, organic solvent

ABSTRACT: The authors investigated the concentration effects in solutions of rhodamine 6Zh dye dissolved in binary mixtures of 10 different alcohols with CCl₄ and water. It is shown that the concentration changes of their electronic absorption bands, and also the concentration luminescence quenching, depend strongly on the nature of the solvent. It is established that the concentration changes in the absorption spectra are due both to the formation of associated molecules of dye, and to unequal influences exerted on the absorption band of its monomers and associates on the part of the molecules of the different binary solvents. Taking these effects into account, the degrees of association are calculated for all the investigated solutions and the absorption spectra of the molecules of rhodamine 6Zh, which are in a monomer and associated states, are determined. [Translation of abstract]

SUB CODE: 20, 07/

Cord 1/1 *dy*

BOCHAROV, V.I.

Obshchii kurs dressirovki sluzhebnykh sobak (General course for the training of war dogs). (Al'bom). Moskva, 1953. 26 p. (Vsesoiuz. dobrovol'noe o-vo sodeistviia Armii, Aviatsii i Flotu)

SO: Monthly List of Russian Accessions, Vol 7, No 9, Dec 1954

BOCHAROV, V. I.

Service dogs. Voen.znan. 29 no.5:23 My '53.

(MIRA 6:6)
(Dogs, War use of)

BOCHAROV, Vladimir Ivanovich

~~BOCHAROV, Vladimir Ivanovich; ORLOV, Aleksandr Pavlovich; KANEVSKAYA, M.D.,~~
red.; TSIGEL'MAN, L.I., tekhn.red.

[Training working dogs] Dressirovka sluzhebnykh sobak. Moskva.
Izd-vo DOSAAF, 1957. 196 p. (MIRA 11:1)
(Dogs--Training)

ZUB, K.Ya.; BOCHAROV, V.I.; KHASAY, V.P., inzh.; KOPTSOV, N.S.;
KODINTSEV, I.; STANISLAVCHUK, P.E.; POROKHIN, Ye.;
SIDOROV, N.I., inzh. red.; USENKO, L.A., tekhn. red.

[The VL60 electric locomotive] Elektrovoz VL60; instruktsion-
naya kniga. Moskva, Transzheldorizdat, 1963. 250 p.
(MIRA 16:8)

1. Novocherkasskiy elektrozostroitel'nyy zavod.
(Electric locomotives)

BOCHAROV, V.I.

Modernization of the electrical machines of the N60 electric locomotive. Elek.i tepl.tiaga 7 no.2:30-34 F '63.

(MIRA 16:2)

1. Nachal'nik byuro elektricheskikh mashin otdela glavnogo konstruktora Novocherkasskogo elektrovostroitel'nogo zavoda.
(Electric locomotives—Electric equipment)

BOCHAROV, V. I., BOCHAROV, V. I. (FTI, Tomsk)

"The Back Scattering of Radio Waves by the Lower Ionosphere".

Reported on an interesting theoretical and experimental investigation of the radio wave back scattering in irregular heterogeneities of the ionosphere.

report presented at the All-Union Conference on Statistical Radio Physics, Gor'kiy, 13-18 October 1958. (Izv. vyssh uchev zaved-Radiotekh., vol. 2, No. 1, pp 121-127) COMPLETE card under SIFOROV, V. I.)

15(6)

AUTHOR:

Danilov, N. N., Candidate of Technical Sciences, SOV/98-59-7-5/22
Bocharov, V. I., Engineer

TITLE:

The Use of Infra-Red Rays in the Manufacture of Combined Reinforced Concrete

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 7, pp 23 - 27 (USSR)

ABSTRACT:

The experiments described in this article were conducted at the NIIZh concrete research station. Three types of infra-red radiators suitable for use in the production of reinforced concrete are discussed here in detail: 500 watt electric lamps (Fig 1); flat metal generators, produced by the V. V. Kuybyshev MISI works (Fig 2); and carborundum rods of various diameters. Experiments show that the flat metal generators radiate the most uniform warm stream and are in general most suitable for industrial use. Table 1 contains details of durability tests carried out on various types of infra-red treated concrete, while Table 2 shows the results of further experiments made on isothermally pre-exposed concrete. Conclusions drawn from the tests are: 1) the most suitable

Card 1/2

The Use of Infra-Red Rays in the Manufacture of Combined Reinforced Concrete SOV/98-59-7-5/22

temperature for the exposure of concrete is 70-80°C; 2) prolongation of pre-exposure beyond setting-point of cement has no effect on durability; and 3) the raising of the temperature of the concrete in the initial stages is also to no avail. The apparatus for radiation tests consisted of a detachable panel with infra-red ray generators, mounted on a moving metal dolly, shown in Fig 3. A description of an actual infra-red treatment process used in the production of corrugated roof-sheeting, carried out at the Kvybyshev Hydro-Electric Board, follows, metal frames equipped with 16 radiators with a total power of 35 kw being inserted between the sheets. Information concerning the temperatures and electric power involved conclude the article, in addition to a general resumé stressing the industrial potential of the process. There are 2 tables, 2 diagrams, and 1 graph.

Card 2/2

67527

9,9100

SOV/141-2-3-4/26

AUTHORS: Yakovlev, O.I. and Bocharov, V.I.

TITLE: On the Back Scattering of Short Radio Waves by the Lower Ionsphere

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 3, pp 370 - 373 (USSR)

ABSTRACT: The theory of the scattering of radio waves by statistical irregularities in the medium is applied to the problem of back scattering of short radio waves by the lower ionosphere. A calculation is given of the scattered energy and the correlation coefficient for signals received by distributed aerials. In the associated experimental work, a 50 kW source working on 12 Mc and having a pulse length of 50 μ sec was used. Experiments suggest that the back scattering of radio waves by the ionosphere is a regularly observed phenomenon and is due to a region 10 - 20 km thick and located at an altitude of 90 - 140 km. There are 2 figures and 6 English references.

Card 1/2

BOCHAROV, V. I.

PHASE I BOOK EXPLOITATION

SOV/5129

Danilov, Nikolay Nikolayevich, Candidate of Technical Sciences,
and Vadim Ivanovich Bocharov, Engineer

Primeneniye infrakrasnykh luchey pri proizvodstve sbornykh
zhelezobetonnykh konstruksiy i detaley (Application of
Infrared Rays in the Production of Sectional Ferroconcrete
Constructions and Components) Moscow, Gosstroyizdat, 1960.
69 p. 6,000 copies printed.

Ed. of Publishing House: V. Ya. Udod; Tech. Ed.: L. M. Osenko;
Sci. Ed.: K. S. Nekrasov, Engineer.

PURPOSE: This booklet is intended for technical personnel in
construction, design, and scientific research organizations.

COVERAGE: The authors discuss the use of infrared rays for the
thermal treatment of concrete used in the production of sec-
tional ferroconcrete structures. The following are con-
sidered: results of testing infrared-ray generators (including

Card 1/3

Application of Infrared Rays (Cont.)

SOV/5129

recently produced models), methods and results of investigating the qualitative characteristics of concrete whose hardening process has been intensified by infrared rays, the introduction of new techniques into production, and technical and economic data concerning the effectiveness of applying infrared rays to sectional ferroconcrete production. Recommendations regarding the practical application of the infrared-ray technique in plants and construction yards are also given. No personalities are mentioned. There are 10 references, all Soviet.

TABLE OF CONTENTS:

Introduction	3
Ch. I. Modern Establishments Producing Sectional Ferroconcrete Constructions and Components	5
Ch. II. Intensification of Concrete Hardening by Infrared Rays	10
Card 2/3	

S/097/60/000/011/005/007
A053/A029

AUTHORS: Danilov, N. N., Candidate of Technical Sciences,
Bocharov, V. I., Engineer

TITLE: Experiments With Radiant Energy Used for Thermic Treatment of
Structures

PERIODICAL: Beton i zhelezobeton, 1960, No. 11, pp. 519-521

TEXT: Experimental investigations with infrared rays used for thermic treatment of open surfaces of concrete elements showed that the best results are obtained by imparting to the concrete a temperature between 70 and 90°C. Thermic treatment should not be started before the concrete has commenced setting. Greater effect is obtained from radiation in closed or semiclosed compartments, in which case the temperature rises more quickly in the material exposed to radiation and the moisture is better retained which is beneficial to the hardening process of the concrete. Multi-cavity plates lend themselves particularly well to infrared thermic treatment. In this case rod-shaped metal generators of infrared rays are introduced inside the cavities. The basic part of this generator is a 12 - 25 mm steel tube on which

Card 1/3

S/097/60/000/011/005/007
A053/A029

Experiments With Radiant Energy Used for Thermic Treatment of Structures

over an asbestos insulation a Nichrome wire is wound, which heats up to 750 - 800°C. The full production cycle of multi-cavity plates lasts 11 hours: 3 hours allowed for preliminary concrete setting, 4 hours for infrared thermic treatment, 4 hours for allowing the plate to cool in the mold. The infrared thermic treatment is also being applied to the production of sectional 18-m reinforced concrete beams. A trial stand was assembled and tested by Mosoblstroy No. 7. Thermic treatment is performed from two sides (top and bottom) in a semi-closed compartment. The radiation devices are placed under the metal casing and under the hood which is placed over the mold, they are fed from an a-c net of 220 v. The hood which covers the beam during thermic treatment consists of three sections: a rectangular one for the central part of the mold and two trapezoid shaped hoods for the two supporting ends. The weight of each section of the hood does not exceed 700 kg. The production of 18-m sectional beams in the Mosoblstroy No. 7 Plant is done in three shifts. After the mold has been filled with concrete the top surface is covered with a polyamide film and the hood placed over the mold. Four hours after the form has been filled with concrete, the

Card 2/3

S/097/60/000/011/005/007
A053/A029

Experiments With Radiant Energy Used for Thermic Treatment of Structures

thermic treatment is being started and lasts 12 hours. After 5 hours of heating a temperature of 85 - 90°C in the concrete is obtained; isothermic heating continues during 7 hours at a temperature of the concrete of 85 ± 5°C. The consumption of electric power for the thermic treatment of one beam amounts to 510 - 525 kw-hr. One of the principal advantages of the infrared thermic treatment consists in the economy of time, labor (26 %) and cost (28 %). This method does away entirely with steam chambers, boilers, etc., required for thermic steam treatment. The infrared thermic treatment is being extended to the production of long girders and of panels produced in vertical frame molds. There are 4 photographs, 2 diagrams and 1 graph.

Card 3/3

6.4300

S/058/61/000/006/053/063
A001/A101

AUTHOR: Bocharov, V.I.

TITLE: An investigation of the structure of an ultrashort wave field by means of a helicopter

PERIODICAL: Referativnyy zhurnal. Fizika, no. 6, 1961, 391, abstract 6Zh510 ("Uch. zap. Tomskiy un-t", 1960, no. 36, 87 - 90)

TEXT: The author describes a method of investigating the structure of a field of ultrashort waves in the vertical plane by means of a helicopter. He presents the records of variations of the signal level with the altitude for decimeter wavelength range over two ground routes.

[Abstracter's note: Complete translation]

✓B

Card 1/1

4.9300

S/194/62/000/010/054/084
A061/A126

AUTHORS: Bocharov, V.Ir., Nesterova, O.M., Nesterova, I.I.

TITLE: Scattering of short radio waves in the F₂ layer of the ionosphere

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 10, 1962, 27, abstract 10Zh179 (Tr. Sibirsk. fiz.-tekh. in-ta pri Tomskom un-te, 1960, no. 38, 74 - 79)

TEXT: The possibility of the scattering of waves in the short wave and the lower part of the ultrashort wave ranges in the F layer of the ionosphere, which has been established, is evidence of the presence of small-scale inhomogeneities in the spectrum of inhomogeneities. Experimental data on the scattering of 21.12 Mc waves in the F₂ layer of the ionosphere over an extension of 1,340 km are given. It is shown that it is possible to establish communication at frequencies exceeding by 2 - 3 times the maximum usable F₂-layer frequency. The approximate formula analytically obtained by Uilon (RZhFiz, 1958, no. 5, 11340), which takes account of the effect of refraction on radio wave scattering, is shown to agree well with experimental data. ✓

[Abstracter's note: Complete translation]

Card 1/1

PETROV, I.I., doktor tekhn.nauk, prof.; SYROMYATNIKOV, I.A., doktor tekhn. nauk, prof.; LITVINOV, V.H.; FROM, A.A.; GERSHKOVICH, S.F.; POPOV, S.N.; BOCHAROV, V.I.

In regard to the letter written by V.V.Artamonov, A.A.Fedorov, and M.I.Kiselev on "Improvement in the training of specialists in the field of electrification of industrial enterprises." Prom. energ. 15 no.9:55-59 S '60.
(MIRA 13:10)

1. Nachal'nik elektrotsekh, g.Krasnoyarsk (for Litvinov). 2. Glavnyy energetik Kazgiprotsvetmet (for From). 3. Glavnyy energetik Novo-Kemerovskogo khimkombinata (for Gershkovich). 4. Sverdlovskiy sov-narkhoz (for Popov). 5. Frunzenskiy politekhnicheskiy institut (for Bocharov).

(Electricians--Education and training)
(Electrification)

(Artamonov, V.V.) (Fedorov, A.A.) (Kiselev, M.I.)

FEDOROV, Anatoliy Anatoliyevich. Prinsipialni uchastiye: AFANAS'YEV, N.P.;
KAMENNEVA, V.V., inzh. GRUDINSKIY, P.G., prof., rezensent;
SERBINOVSKIY, G.V., dotsent, rezensent; BOCHAROV, Y.I., dotsent,
kand.tekhn.nauk, rezensent; VORONIN, K.P., tekhn.red.

[Electric-power supply of industrial enterprises] Elektrosnabzhe-
nie promyshlennykh predpriatii. Izd.3., perer. i dop. Moskva,
Gos.energ.izd-vo, 1961. 742 p. (MIRA 14:4)

1. Frunzenskiy politekhnicheskiy inatitut (for Bocharov).
(Electric power distribution)

BOCHAROV, V.I., kand.tekhn.nauk

Choice of electric power supply systems for industrial enterprises.
Trudy Frunz. politekh. inst. no. 6:3-6 '62. (MIRA 17:9)

BOCHAROV, V.I., kand.tekhn.nauk; RUZIYEV, B.T., inzh.; YAKOVLEV, V.A., inzh.

Automatic device for controlling humidity in cloth. Trudy Frunz.
politekh. inst. no. 6:85-88 '62. (MIRA 17:9)

L 19650-63

SSD Pz-4/Pe-4/Pi-4/Pl-4 RB/PT-2/JHB/GW EWT(1)/EWG(k)/BDS/EEG-2/ES(v) AFFTC/ASD/AFMDC/ESD-3/APGC/

ACCESSION NR: AR3007002

S/0058/63/000/008/H033/H034

SOURCE: RZh. Fizika, Abs. 8Zh217

AUTHOR: Vetshev, Zh. N.; Bocharov, V. I.; Afonina, L. Ya. *
44 B

TITLE: Experimental investigation of statistical properties of a signal in ionospheric propagation at frequencies above the limiting reflection frequency

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vy*p. 41, 1962, 109-119

TOPIC TAGS: Radio signal, statistical property, ionospheric propagation, reflection, meteor reflection

TRANSLATION: A study was made of the statistical characteristics of the amplitude of a signal scattered at 21 Mc (1340 kilometers) and at 20.46 Mc (1560 kilometers). For spatially-diverse reception, the

Card 1/3

L 19650-63

ACCESSION NR: AR3007002

base of antenna separation was varied in a direction perpendicular to the path. The distribution of the amplitudes of the autocorrelation functions and of the mutual-correlation functions of the diversity reception were plotted by processing of the recorded signals. Electronic computation was used to determine the correlation function along with a method of successive approximation. An analysis of 150 sessions (lasting approximately 1 minute) showed no dependence of the distribution on the frequency and on the length of the path, 25% of the distribution were of the Rayleigh type, 53% of the generalized Rayleigh type, and 22% of the Gaussian type. Thus, in 75% of the cases a coherent component was observed in the scattered signal. The spatial correlation radius for 21 Mc was $\sim 3\lambda$, while for 46 Mc it was $\sim 6\lambda$. These radii turned out to be of the same order as the dimensions of the effective scattering inhomogeneities in the ionosphere. An analysis of the correlation functions (under the assumption that the change in the volume of the inhomogeneities is due to regular drift) has shown that the average velocity of ionospheric

Card 2/3

L 12650-63

ACCESSION NR: AR3007002

5.
drift is ~140, 110, and ~47 m/sec for 21, 20 and 46 Mc, respectively. These data agree with the results of other drift measurements. The statistics of the sharp bursts contained in the scattered signal were analyzed. The most frequent bursts had a duration of 0.2 second. It was established that the hourly number of strong bursts exceeds this number for meteor reflections. This indicates that the formation of scattering configurations of ionization is connected not only with meteor activity, but also with other mechanisms (atmospherics; ionization of polar aurora). Great attention was paid to the methodological aspect of the research (estimate of statistical error, data reduction procedure, etc.). S. Mikrotan.

DATE ACQ: 06Sep63

SUB CODE: PH, CC

ENCL: 00

Card 3/3

BOCHAROV, V.I.; GOROKHOVSKIY, V.I.; DANILOV, N.N.

Using a method of heating concrete with infrared rays.
Prom. stroi. 40 no.9:29-31 '62. (MIRA 15:11)
(Precast concrete)
(Infrared rays—Industrial applications)

59216-65 BWT(1)/EWG(7)/TCG/TEG-h/EWA(h) Po-1/Pe-5/Pq-h/Pae-2/Peb/Pi-h RB/
GW/RS-h

ACCESSION NR: AR5017555

UR/0058/65/000/006/H017/H017

SOURCE: Ref. zh. Fizika, Abs. 62h124

AUTHORS: Belkina, L. M.; Bocharov, V. I.

TITLE: Apparatus for the measurement of absorption of radio waves in the ionosphere by observing extraterrestrial radio emission *qm* *40*
3

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 45, 1964, 120-127

TOPIC TAGS: ionospheric absorption, radio wave absorption, cosmic radio emission, daily variation, critical frequency, ionosphere layer

TRANSLATION: The authors present a block diagram and the main parameters of apparatus for the measurement of absorption of radio waves in the ionosphere by observing the cosmic radio emission at 30 Mcs. It is shown that 30 Mcs is the optimal frequency for the measurements. The apparatus consists of a 7-element antenna of the wave-channel type, connected through a converter to an R-250 receiver. The converter contains a cascade amplifier and a mixer with quartz-controlled heterodyne. The signal from the output of the intermediate frequency amplifier is fed to a bridge detector and then to the input of an automatic-recording potentiometer

Card 1/2

L 59216-65

ACCESSION NR: AR5017555

PRS-0.1. The sensitivity of the receiving equipment is not worse than 0.05 μ V at a bandwidth of 1 kes. The equipment is calibrated by replacing the antenna with a noise generator. The absorption was determined from the formula $L = -10 \log(P_1/P_0)$, where P_1 is the noise level for the given measurement session, and P_0 is the noise level for minimum absorption in the ionosphere, taken to be the absorption during quiet winter nighttime hours. Results are presented of measurements carried out in Tomsk in March--May 1962. The daily fluctuations of the absorption did not exceed 3 dB. The maximum absorption was observed during the daytime hours. The variation of the absorption is in good agreement with the variation in the critical frequencies of the E and F layers.

SUB CODE: IE, EC

ENCL: 00

Card

dm
2/2

BOCHAROV, V. I., Cand Tech Sci -- (diss) "^{Electric}Systems of Power
~~Supply~~ to Deep Coal-Pits (^{Reliability}~~Dependability~~ and ^{Intensity of}~~Voltage Intensity~~)."

Len, 1957. 13 pp (Min of Higher Education USSR, Leningrad Order
of Lenin and Labor Red Banner Mining Inst im G. V. Plekhanov,
Chair of Mining Electrical ^{Engineering}~~Technology~~), 100 copies (KL, 47-57,
87)

23

BOCHAROV, V. I.

VASILENKO, G.V., inzhener; ~~BOCHAROV, V.I., inzhener.~~

Ways of improving the traction characteristics of electric locomotives. Elek.i tepl.tiaga no.8:21-22 Ag '57. (MLRA 10:8)
(Electric locomotives)

BOCHAROV, V.I., inzhener.

Analyzing the reliability of electrical supply systems for deep coal mines. *Elektrichestvo* no.10:25-28 0 '57. (MIRA 10:9)

1. Leningradskiy gorany institut.
(Electricity in mining)

BOCHAROV, V.I., inzh.

Method of determining the number and degree of reserve capacity of mine power transformers. Izv. vys. ucheb. zav.; gor. zhur. no.1:137-142 '58. (MIRA 11:5)

1. Leningradskiy gornyy institut.
(Electricity in mining)

BOCHAROV, V.I., gornyy inzh.; ANTONOV, B.V., gornyy inzh.; BELYAYEV, V.F.,
gornyy inzh.

Rapid mining in Ural copper mines. Gor. zhur. no.2:69-70 F '58.

(MIRA 11:3)

1. Institut Unipromed'.

(Ural Mountains--Copper mines and mining)

BOCHAROV, V.I.

AUTHORS: Bocharov, V.I., and Antonov, B.V., Engineers 118-58-5-8/18

TITLE: The Mechanization of the Basic Processes of a Drifting Cycle at Ore Mining Enterprises (Mekhanizatsiya osnovnykh protsessov prokhodcheskogo tsikla na gornorudnykh predpriyatiyakh)

PERIODICAL: Mekhanizatsiya Trudoyemkikh i Tyazhelykh Rabot, 1958, Nr 5, pp 27-28 (USSR)

ABSTRACT: The drilling of shot holes and the removal of the blasted rock are the most labor-consuming processes of horizontal mine working. As a rule, the drilling of shot holes is carried out by hammer-drills OM-506, PM-508, PR-35 and PR-30k, fixed on pneumatic supports. To cut the time required for stope boring, the number of drillers is usually increased (see table 3). Drawing 1 shows carriage BK-4, with 4 hammers, operated simultaneously by 3 drillers. By using this carriage a 12-man team of the Degtyarka mednyy rudnik (Degtyarka Copper Mine) drifted the workings at a speed of 180-230 meters per month. The efficiency of drilling carriages is illustrated in table 2. The Degtyarka mine used 23.5% less time for boring than the Kirovograd mine, and production increased 42% by using the carriage core hammers as compared with

Card 1/2

118-58-5-8/18

The Mechanization of the Basic Processes of a Drifting Cycle at Ore Mining Enterprises

hammer PR-30k. Drilling from the carriages is easier and more convenient, time saving on auxiliary operations and gives a higher output. There is a possibility of manufacturing a carriage with 8-10 hammer-drills operated by 1-2 drillers. Such a device will considerably increase production and cut work time by 2-3 times. The author recommends the use of plates for the exchange of mine cars near the loading machine. There are 2 tables and three figures.

AVAILABLE:

Library of Congress

Card 2/2

1. Mining engineering-USSR
2. Drilling machines-Applications

AUTHOR: Bocharov, V. I., Mining Engineer SOV/127-59-1-4/26

TITLE: The Reserves of Labor Productivity Increase in the Ural Copper Mines (Rezervy rosta proizvoditel'nosti truda na mednykh rudnikakh Urala)

PERIODICAL: Gornyy zhurnal 1959, Nr 1, pp 15-17 (USSR)

ABSTRACT: This is a study of labor productivity in the Ural copper mines and of the possible reserves for its increase. The new mining methods were insufficiently used. The organization and mechanization of auxiliary works was inefficient and the number of hewers was out of proportion to the number of auxiliary workers. The author considers that the most effective means of increasing labor productivity is to reduce the number of auxiliary workers and to organize compound workers' brigades in which the drillers and miners could also execute blasting operations. The introduction of improved mining machinery is also recommended. There is 1 table and 1 Soviet reference.

ASSOCIATION: Unipromed', Sverdlovsk.

Card 1/1

VASILENKO, G.V., inzh.; BOCHAROV, V.I., inzh.

Possible methods of further improving the traction characteristics
of the VL22^m electric locomotive. Elek. i tepl. tiaga 3 no.3:8-9
Mr '59. (MIRA 12:5)

(Electric locomotives)

BOCHAROV, V.I., inzh., otv. za vypusk. Prinimali uchastiye: SHESTAKOV,
A.N., inzh.; PROLOV, K.I., inzh.; SYSOYENKO, N.A., inzh.;
MOISEYEVA, V.G., inzh.; SIMAKOV, V.I., tekhnik; SEROV, V.I.,
tekhnik; BOBROVA, Ye.N., tekhn.red.

[Album of drawings of electric machinery of the N8 and VL23
electric locomotives] Al'bom chertezhei elektricheskikh mashin
elektrovozov N8 i VL23. Moskva, Vses.izdatel'sko-poligr.ob'edi-
nenie M-va putei soobshcheniia, 1960. 325 p. (MIRA 13:10)

1. Novocherkasskiy elektrovostroitel'nyy zavod.
(Electric locomotives)

POYARKOV, M.F., prof., doktor tekhn.nauk; KALININ, N.F., dotsent; BOCHAROV,
V.I., dotsent, kand.tekhn.nauk; KIRPA, I.I., inzh.

"Electric power supply of industrial enterprises" by A.A.Fedorov.
Reviewed by M.F.Poiarkov and others. Prom.energ. 16 no.6:52-53
Ju '61. (MIRA 15:1)

(Electric power distribution)

BOCHAROV, V.I.

Load distribution in a coal mine according to the degree of
importance of the operations. Prom.energ. 16 no.7:39-41 J1 :61.
(MIRA 15:1)

(Electricity in mining)

BOCHAROV, Vasilii Ivanovich; ZOLOTAREV, Petr Alekseyevich;
NAKHODKIN, M.D., kand. tekhn. nauk, red.; KHITROVA, N.A.,
tekhn. red.

[Traction motors of a.c. electric locomotives] Tiagovye dvigateli
elektrovozov peremennogo toka. Moskva, Transzheldorizdat, 1962.
94 p. (MIRA 15:6)

(Electric railway motors)

BOCHAROV, V.I., inzh., otv. za vypusk; SHESTAKOV, A.N., inzh.;
FRLOV, K.I., inzh.; SOTNIKOV, I.A., inzh.; SYSOYENKO,
N.A., inzh.; MOISEYEVA, V.G., inzh.; SIMAKOV, V.M.,
inzh.; PREDKOV, A.G., inzh.; KHITROVA, N.A., tekhn. red.

[Album of drawings of electric machinery and transformer
equipment for the VL60 electric locomotive] Al'bom cher-
tezhei elektricheskikh mashin i transformatornogo oboru-
dovaniia elektrovoza VL60. Moskva, Transzheldorizdat,
1963. 353 p. (MIRA 16:12)

1. Novocherkasskiy elektrovozostroitel'nyy zavod.
(Electric locomotives--Design and construction)

TUSHKANOV, Boris Andreyevich, inzh.; BOCHAROV, Vasilii Ivanovich,
inzh.; KRUZE, Valeriy Vladimirovich, inzh.; SOFIN, Naum
Abramovich, inzh.; KALININ, V.K., red.; AYBASHEVA, T.V.,
red.;

[VL60 and VL80 main line a.c. locomotives] Magistral'nye
elektrovozy peremennogo toka VL60 i VL80. [By] B.A.
Tushkanov i dr. Moskva, Transport, 1964. 555 p.
(MIRA 17:7)

BOCHAROV, V.I., kand. tekhn. nauk

Statistical method for determining the reliability of power
distribution in open pit mines. Elektrichestvo no.4:37-41
Ap '65. (MIRA 18:5)

1. Leningradskiy gornyy institut.

BOCHAROV, V.K.

BR 7

S/549/61/000/104/001/018
D237/D304

AUTHORS: Tikhmenev, S.S., Tronina, V.P., Chikin, V.A., Knyazev, G.
N.L. Gulyayev, M.P., Zakharov, Yu.Ye., Chikina, I.S., Lyamin, V.I., Bocharov, V.K., Shigin, Ye.K., and Krotov, V.P.

TITLE: Scientific, pedagogical and general activities of Professor V.V. Dobronravov

SOURCE: Moscow, Vyssheye tekhnicheskoye uchilishche [Trudy], no. 104, 1961. Mekhanika, 7 - 18

TEXT: On the occasion of his 60th birthday and the 35th anniversary of the scientific and pedagogical activity of Professor, Doctor of Physical and Mathematical Sciences, Vladimir Vasilyevich Dobronravov who is at present Professor of Theoretical Mechanics at MVTU im. N.E. Baumana (MVTU im. N.E. Bauman), eleven of his students present this appreciation. V.V. Dobronravov was born on March 17th, 1901. In 1924 he obtained his degree in mathematics at the Saratovskiy Gosudarstvennyy universitet im. N.G. Chernyshevskiy (Saratov State University im. N.G. Chernyshevskiy). In 1927 he accepted the
Card 1/3

1

S/549/61/000/104/001/018
D237/D304

Scientific, pedagogical and ...

post of Assistant to the Professor of Physics at the Astrakhan State Medical Institute, where in subsequent years he published a paper in neuro-biophysics. During 1929-31, he was Professor of Mathematics at the Saratov Agricultural Institute and lectured at Saratov University. From 1931 he worked in a number of higher educational establishments in Moscow and was associated with Moscow University from 1931 to 1952. In 1946 he was awarded a doctorate at Moscow State University and in 1951 he was elected to the Department of Theoretical Mechanics at MVTU im. N.E. Bauman, where in subsequent years, under his guidance, courses in specialized branches such as stability of motion, gyroscopy, oscillation, variational method etc. were developed. During his career the main contributions made were in the field of mechanics of non-holonomic systems. After 1950 he published papers on kinetics of motion of rigid body (Trudy MIKhM, no. 2, (10), 1950), stability of linear systems of diff. equations with constant coefficients in (Avtomatika i Telemekhanika, v. 17, no. 3, 1956) etc. In the 1950's he also became interested in astronautics. He has been a member of the Moscow Mathematical Society since 1944, and is an active member of the Methodological Commission.

Card 2/3

Scientific, pedagogical and ...

S/549/61/000/104/001/013
D237/D304

tion on the Theoretical Mechanics of the Ministry of the Secondary and Higher Education of USSR. At present he is engaged in preparing a monograph on non-holonomic systems.

ASSOCIATION: Moskovskoye ordena Lenina i ordena trudovogo krasnogo znameniy vyssheye tekhnicheskoye uchilishche im. Bauman (Moscow Order of Lenin and Order of the Red Banner of Labor Higher Technical School im. Bauman)

Card 3/3

KOLGAT, M.I., Ekonom. nauk; BOCHAROV, V.N.

Methodology for analyzing the utilization of the capital assets
of the textile industry. Tekst. prom. 25 no.5:74-79 My '65.
(MIRA 18:5)

I. Vedushchiy ekonomist NIi SNKh SSSR (for Bocharov).

Bocharov V.M.
MYAND, Kh.I., [Mänd, H.I.]; BOCHAROV, V.M., inzhener; DOROFEYEV, V.N., inzhener.

System of direct connectors for telegraph lines. Vest. sviazi 17
no.3:3-6 Mr '57. (MLRA 10:4)

1. Nachal'nik Tallinskogo tsentral'nogo telegrafa (for Myand)
(telegraph lines)

BOCHAROV, V.M.; MUNKEVICH, A.K.

New fumigation chamber on a state farm. Zashch. rast. ot vred. 1
bol. 9 no.3:26-27 '64. (MIRA 17:4)

1. Direktor Nizhnegorskogo plodopitomnicheskogo sovkhoza,
Nizhnegorskiy rayon, Krymskoy oblasti (for Bocharov).
2. Glavnyy agronom Nizhnegorskogo plodopitomnicheskogo sovkhoza,
Nizhnegorskiy rayon, Krymskoy oblasti (for Munkevich).

BOCHAROV, V.N.; DUDAYEVA, L.M.; YEVDOKIMOV, V.M.; KOLOSOV, A.F.;
KRASOVSKIY, V.P.; LUK'YANOV, E.B.; MUSATOVA, V.A.; NOVIKOV,
M.S.; SUKHOVANCHENKO, G.P.; TABELEV, V.V.; TOLKACHEV, A.S.;
CHERTKO, V.F. [deceased]; SHTANSKIY, V.A.; PAK, G.V., red.;
SELESNEVA, A.D., mlad. red.

[Structure of capital investments in the U.S.S.R. and the
U.S.A.; analysis and methods of comparison] Struktura kapi-
tal'nykh vlozhenii SSSR i SShA; analiz i metody sopostav-
lenia. Moskva, Ekonomika, 1965. 250 p. (MIRA 18:5)

1. Moscow. Nauchno-issledovatel'skiy ekonomicheskii insti-
tut.

BOCHAROV, V.P., inzh.

Unit for obtaining low stable consumption of fluid in hydraulic drives. Mashinostroenie no.4:50-51 JI-ag '64. (MIRA 17:10)

L 19504-65 AEDC(b)/AEDC(a)/AFWL/ASD(f)-3/ASP(a)

ACCESSION NR: AP4048322

S/0145/64/000/008/0082/0088

15
10
B

AUTHOR: Bazhta, T. M. (Doctor of technical sciences, Professor); Bocharov, V. P.
(Engineer)

TITLE: Problems in the volumetric regulation of low fluid flow rates

SOURCE: IVUZ. Mashinostroyeniye, no. 8, 1964, 82-88

TOPIC TAGS: fluid flow regulation, fluid flow, volumetric regulation, hydraulic drive,
flow rate

ABSTRACT: Hydraulic devices for low flow rates are used when it is necessary to ensure low (creeping) speeds of machine parts. Sometimes a delivery rate of 4-12 mm/min is needed on machine tools with large cylinders of up to 200 mm. Leakage is the main defect preventing the use of throttles for delivery at these speeds. However, volumetric regulation allows low rates of fluid flow to be achieved in these cases. The lowest flow attainable with throttles is 60 cc/min. The authors have therefore designed a power cylinder which utilizes the differential variation of the working volumes of two axial-plunger pumps mounted on a common electric motor shaft. By precise regulation of the flow from the power cylinder (see Fig. 1 of the Enclosure), they designed and assembled a unit with low plunger

Card

1/3

L 19504-65

ACCESSION NR: AP4048322

5

velocities. The equation derived in the paper determines the plunger velocity depending on the fluid leakage in the pumps. Friction in the power cylinder is a positive factor, to some extent. Tests were carried out to determine the relationships in the system with steady motion. Plunger motion was recorded by the "K4-5 oscillograph" with an accuracy of 3-5 cc/min. Simultaneously, the working and carrying pressures were recorded by EDMC units, while the fluid temperature was recorded by the P-1 unit using the "TUE-48 telethermometer". The tests showed the lowest stable flow of 3 cc/min. for 25 minutes at a constant temperature of 20C and pressure of 56 kg/cm². The tests also showed that even when the required flow is commensurate with the leakage, the losses for small temperature differences have high stability. By increasing the pressure in the drainage chambers of the pumps to a value equal to the flow pressure, the leakage may be made equal to zero. On the basis of these tests and previous publications, leakage may be compensated for by means of a differential hydraulic drive. The complexity of this system is explained by the lack of a compact differential unit, thus leading to the use of two pumps. Foreign firms attempting to improve machine tools have made the hydraulic drives even more complicated. The present investigation showed that maximum flow variation is observed during changes of working pressure. The lack of temperature stability at low flow rates is in the allowable range. Volumetric regulation thus has a wide future for low rates of flow. Orig. art. has: 6 figures and 2 equations.

Card 2/4

L 1950⁺-65

ACCESSION NR: AP4048322

ASSOCIATION: Kafedra gidravliki i gidroprivodov letatel'nykh apparatov, Kiyevskiy
Institut grazhdanskogo vozdušnogo flota (Department of Hydraulics and Hydraulic Drives,
Kiev Institute of Civil Aeronautics)

SUBMITTED: 16Sep63

ENCL: 01

SUB CODE: ME, PR

NO REF SOV: 005

OTHER: 002

Card

3/4

BASHTA, T.M., doktor tekhn. nauk; BOCHAROV, V.P., inzh.

Volumetric proportioning of minor fluid consumptions. Izv. vys.
ucheb. zav.; mashinostr. no.8:82-88 '64.

(MIRA 17:11)

1. Kiyevskiy institut grazhdanskogo vozdušnogo flota.

BOCHAROV, V.S.

BEREZIN, M.M.; TIKHOMIROV, S.M. (g. Vladimir); NIKOLAYEV, S.D.; GRITSYUK,
I.P.; KNYAZEV, P.V. (g. Shakhty Kamenskoy oblasti); BOCHAROV,
V.S.; YERSHOV, V.V.; SHUMILOV, D.

Useful advice. Fiz. v shkole 17 no.3:62-64 My-Je '57.

(MLRA 10:6)

1. Gorodskoy institut usovershenstvovaniya uchiteley, g. Moskva
(for Berzin). 2. Klyuchevskaya semiletnyaya shkola Sasovskogo
rayona Ryazanskoy oblasti (for Nikolayev). 3. 27-ya shkola, g.
Kherson (for Gritsyuk). 4. Dokshukinskaya srednyaya shkola
Kabardinskoy ASSR (for Bocharov). 5. 48-ya shkola, g. Chelyabinsk
(for Yershov). 6. Gorodskoy institut usovershenstvovaniya uchi-
teley, g. Chelyabinsk (for Shumilov).

(Physics--Experiments)

Bocharov, V.V.

BOCHAROV, V.V., inzh.

~~_____~~
Correcting deformations resulting from leaf warping in two-leaf
sluice gates. Rech. transp. 17 no.2:29-30 F '58. (MIRA 11:2)
(Sluice gates)
(Deformations (Mechanics))

BOCHAROV, V.V., insh.

Experience in operating horizontal sliding gates in
hydraulic engineering structures. Rech.transp. 17 no.9:52-53
S '58. (MIRA 11:11)

1. Upravleniye kanala imeni Moskvy.
(Gates, Hydraulic)

14(10)

SOV/98-59-2-17/22

AUTHOR:

Bocharov, V.V., Engineer

TITLE:

Improve the Gate Sealing Devices of Hydro-
technical Installations
(Sovershenstvovat' uplotnyayushchiye
ustroystva zatvorov gidrotekhnicheskikh
sooruzheniy)

PERIODICAL:

Gidrotekhnicheskoye stroitel'stvo, 1959,
Nr 2, p 54-56 (USSR)

ABSTRACT:

The author stresses the importance of sealing
devices to insure the waterproofness of gate
contours, the water infiltration of which
causes vibration and their icing in winter.
The author recommends the use of rubber
side-sealing as used on the canal imeni
Moskva, or the bottom sealings as used on

Card 1/2

14(10)

SOV/98-59-2-17/22

• **Improve the Gate Sealing Devices of
Hydrotechnical Installations**

the Volga-Don Canal. The author also describes subsequent improvements in these devices. He also advises to choose these sealings carefully after studying them under working conditions. There are 4 diagrams.

Card 2/2

BABIYEVSKIY, M.S.; BOCHAROV, V.V.

Experience in the operation of the motorship "Grigori
Ordzhonikidze." Biul. tekhn.-ekon. inform. Tekhn. upr. Min. mor.
flota 7 no.4:7-12 '62. (MIRA 16:4)

1. Kapitan teplokhoda "Grigoriy Ordzhonikidze" for Babiyevskiy).
2. Starshiy mekhanik teplokhoda "Grigoriy Ordzhonikidze" (for Bocharov).

(Merchant marine--Cost of operation)

(Merchant ships--Passenger accomodation)

BOCHAROV, V.V.; USTIMENKO, P.G.

Technical and economic indices of deep entrances used in the
Tashkent municipal power distribution network. Trudy IIEI
no.41:72-76 '62. (MIRA 17:6)

1. Upravleniye energokhozyaystvom Uzbekskoy SSR.

BOCHAROV, V. Ya.

BOCHAROV, V. Ya.: "The anatomy of the intraorganic lymphatic system of the human kidneys." Min Health RSFSR. Leningrad Sanitary-Hygiene Medical Inst. Leningrad, 1956. (Dissertation for the Degree of Candidate in Medical Sciences)

Source: Knizhnaya letopis' No. 28 1956 Moscow

USSR / Human and Animal Morphology (Normal and Patho- S-2
logical). Methods and Apparatus.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 79006.

Author : Bocharov, V. Ya.

* Inst : ~~Not given~~

Title : Method of Double Sevavit [sic] Celloidin Cor-
rosion.

Orig Pub: Arkhiv anatomii, gistol. i embriol., 1957, 34,
No 6, 103-105.

Abstract: A description is given of a method worked out by
the author for corrosive mountings by means of
infusion of lymph vessel with a 25-50% solution
of sevavit (synthetic latex) in distilled water
and of blood vessels with a 3-7% solution of col-
loidin in a mixture of various quantities of al-
cohol and ether. Mounts prepared of the human
spleen and intestine are useful for macro - and
microscopic investigation.

Card 1/1

8

* КАФЕДРА НОРМАЛЬНОЙ АНАТОМИИ ЛЕНИНГРАД-
СКОГО САНИТАРО-ГИГИЕННИЧЕСКОГО
МЕДИЦИНСКОГО ИНСТИТУТА.

BOCHAROV, V. Ya.

Anatomy of the intraorganic lymphatic and blood systems of the wall of the human gall bladder. Arkh. anat. gist. i embr. 41 no.9:3-15 S '61. (MIRA 15:1)

1. Kafedra anatomii cheloveka (zav. - chlen-korrespondent AMN SSSR prof. D.A.Zhdanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova. Adres avtora: Moskva, Mokhovaya ul. 11, I Moskovskiy ordena Lenina meditsinskogo instituta imeni I.M.Sechenova kafedra anatomii cheloveka.
(GALL BLADDER__BLOOD SUPPLY) (LYMPHATICS)

BOCHAROV, V.Ya.

Age-related characteristics of the lymphatic system of the kidneys and cortices renis in man. Trudy LSGMI 65:158-167 '61.

Changes in the intraorganic lymph vessels of the human kidney under pathological conditions. Ibid.:168-176

Intraorganic anatomy of lymphatics and blood vessels of the kidney pelvis and ureter in man. Ibid.:177-185 (MIRA 17:4)

1. Kafedra normal'noy anatomii Leningradskogo sanitarno-gigiye-nicheskogo meditsinskogo instituta (zav. kafedrov - prof. V.N.Nadzhdin).

BOCHAROV, V.Ya.; SATYUKOVA, G.S.

Eighth (annual) Working Conference of the Czechoslovak Anatomical Society (the section of the Czechoslovak J.E.Purkyne Medical Society), 6/29 - 7/2, 1964, in Prague. Arkh. anat., gist. i embr. 49 no.7:125-128 J1 '65. (MIRA 18:10)

BOCHAROV, V. Ya.; KIRPATOVSKY, I.D.

Regeneration of the lymph and blood vessels of the wall of the small intestine of dogs after different types of intestinal sutures. *Cesk. morf.* 13 no.2:170-174 '65

1. Department of Normal Anatomy, 1st Moscow Medical Institut and Laboratory for organ and tissue transplantation, Academy of Medical Sciences U.S.S.R., and Department of Operative Surgery, P.Iumumba University, Moscow, U.S.S.R.

BOCHAROV, V.Ya.; KIRPATOVSKIY, I.D.; KULIK, V.P.

Anatomicoexperimental study of lymphatic and blood vessels of the small intestine in dogs following its total auto- and homotransplantation. Trudy 1-go MMI 42:214-223 '65.

(MIRA 19:2)

1. Kafedra anatomii cheloveka I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova i laboratoriya po peresadke organov i tkaney AMN SSSR.

ACC NR: AR6034652 (A) SOURCE CODE: UR/0299/66/000/008/M020/M020

AUTHOR: Bocharov, V. Ya.; Kirpatovskiy, I. D.; Kulik, V. P.

TITLE: Experimental anatomic investigation of lymphatic and blood vessels of the small intestine of dogs after its total auto- and homotransplantation

SOURCE: Ref. zh. Biologiya, Part II, Abs. 8M116

REF SOURCE: Tr. 1-go Mosk. ped. in-ta, v. 42, 1965, 214-223

TOPIC TAGS: autotransplantation, homotransplantation, medical research, biologic transplant, biology, intestine, intestine transplantation, grafting

ABSTRACT: Autotransplantation of the small intestine was performed on 9 dogs, and homotransplantation of the same on 7 dogs. The upper mesenteric artery and vein were joined to the main blood vessels of the host. The lymphatic vessels were either completely ligated, with conservation or extirpation of lymph nodes, or else 1-2 large lymphatic vessels were ligated, leaving a free lymph drainage into the abdominal cavity through the remaining lymphatic vessels. The material was investigated in the process of the operation, after 1-2 days, 1-2 weeks, 1-2

Card 1/2

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months and more. More clearly expressed reaction changes in blood and lymphatic vessels were observed during homotransplantation than during autotransplantation. The earliest changes in blood and lymphatic vessels took place in the area of the vascular crus and intestinal anastomoses. The intestines showed more sharply defined changes in the venous system than in the arterial system. The area of the intestinal suture joined to the blood vessels towards the end of the first week. Drainage of lymph from the transplanted intestine was resumed in the end of the second week. Extirpation of mesenteric lymph nodes delayed the regenerative processes in the lymphatic vessels of the small intestine. Transplants diverting the lymphatic vessels formed at the end of the second month. The vessel cuff helped the regeneration of lymphatic and blood vessels. It is deduced that in cases of total transplantation of the small intestine it is indispensable to restore blood circulation, and likewise to rebuild main and abducent lymphatic vessels. [Translation of abstract] [GC]

SUB CODE: 06/

Card 2/2

BOCHAROV, Ye.

Construction organizations serving several collective farms in
Novosibirsk Province. Sel'.stroi. 11 no.11:16 N '56.

(MLRA 10:1)

(Novosibirsk Province--Construction industry)

BOCHAROV, Ye.

Large-panel construction in Siberia. Sel'. stroi. 13 no.6:12-15
Je '58. (MIRA 11:6)

1. Zamestitel' zaveduyushchego sel'khozotdelom Novosibirskogo obkoma
Kommunisticheskoy partii Sovetskogo Soyuz. (Toguchin District--Concrete blocks)

BOCHAROV, V.A.

6

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30879
S/148/61/000/009/001/012
E071/E135

AUTHORS: Yavoyskiy, V.I., Chernega, D.F., Dudko, D.A.,
Tyagun-Belous, G.S., Bektursunov, Sh.Sh.,
Bocharov, V.A., Agamalova, L.L., Molotkov, V.A.,
Yakobshe, R.Ya., and Potanin, Ye.M.

TITLE: Electrolytic phenomena in the process of electroslag
heating of ingots

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Chernaya
metallurgiya, no.9, 1961, 32-43

TEXT: Electroslag heating of ingots is based on the ionic
nature and structure of slag. On passing a current through the
slag, situated on the surface of the shrinkage head, a considerable
amount of heat is evolved, sufficient to maintain the slag and
metal in the upper part of the ingot during its crystallisation
in the molten state. The object of the present investigation was
to elucidate the influence of the kind of electric current on the
processes taking place during electroslag heating of ingots. It
is advantageous to carry out the heating of the ingot tops in such

Card 1/5

20872
Electrolytic phenomena in the process... S/148/61/000/009/001/012
E071/E135

a manner that in addition to increasing the yield of good metal there should be an improvement in the metal quality resulting from the electrolytic effect and also from the transfer of a part of the segregating elements into the slag. The experiments were made with four ingots of a square cross-section, weighing 3.4 tons, of steel 10Г2СД (10Г2SD), smelted in 75 ton basic open hearth furnaces. The electroslag heating was with direct and alternating current. For the first ingot the electrode introduced into the head part was connected to the cathode and the plus to the ingot (straight polarity); the second ingot was heated with direct current of reverse polarity (minus to the bottom of the mould, plus to the electrode in the head part); the third ingot was heated with a 50 c.p.s. alternating current; the fourth ingot was cast by the usual practice and was used as a blank experiment. The first three ingots were top poured through an intermediate funnel and the fourth ingot was bottom poured. A generator capable of producing 1000 A at 60 V was used for heating with direct current. The heating conditions were as follows: voltage 48 V, current for the first 60 minutes 950 A and then

Card 2/5

30877

Electrolytic phenomena in the process. S/148/G1/000/009/001/012
E071/E135

700 A; the duration of heating 90 minutes. The flux for the formation of slag consisted of 25% fluorospar, 45% finely crushed freshly ignited lime, 30% chamotte powder. The ingots were rolled into slabs 500 x 250 mm. Four templets were cut from each slab and then cut into strips from which test specimens were made. Non-metallic inclusions were determined metallographically and electrolytically. It was found that the distribution of non-metallic inclusions in the ingot was the most advantageous on heating it with direct current of "straight" polarity. This type of heating lowers chemical non-uniformity in comparison with ingots cast by the usual works technology and heated with alternating current, or direct current of reverse polarity. There is a tendency for sulphur to be shifted towards the positive pole, whereupon sulphur near the positive pole is distributed unevenly along the cross-section of the ingot in the form of segregation "spots". No shift of carbon towards the negative pole was established. During the heating with direct current of straight and reverse polarity, in addition to electrolytic phenomena, the Perrin-Tochinskiy effect leading to the refining

Card 3/5

30879
S/148/61/000/009/001/012
Electrolytic phenomena in the process... E071/E135

of the metal of the head part of the ingots was observed. No noticeable effect of direct current on changes in the content and distribution of nitrogen in the rolled metal was observed. It was established that the content of hydrogen in the shrinkage head decreases during crystallisation of the ingot heated with a direct current of reverse polarity and increases with direct polarity (minus on the electrode). The mechanical properties of the metal of the ingot teemed with heating by current of direct polarity are most uniform throughout the whole volume of the slab. The specific gravity of the metal of all the ingots was almost the same. The pickling ability of the metal (weight loss of cylindrical specimens in a solution of 65 wt. parts of HCl, 25 wt. parts of H₂SO₄ and 10 wt. parts of water at 70 °C during 40 minutes) along the whole slab is the highest on heating with direct current of "straight" polarity and lowest on heating with direct current of reverse polarity. On heating with alternating current of an industrial frequency the quality of the ingot metal was better than that of the "blank" ingot and was nearly the same as on heating with direct current of "straight" polarity.

Card 4/5

30879
Electrolytic phenomena in the process... S/148/61/000/009/001/012
E071/E135
There are 6 figures, 4 tables and 9 references; 8 Soviet-bloc
and 1 non-Soviet-bloc.
ASSOCIATION: Moskovskiy institut stali
(Moscow Steel Institute)
SUBMITTED: May 24, 1961

Card 5/5

DREYZIN, R.S.; ZUBOVA, Z.F.; YAVOROVSKAYA, V. Ye.; BOCHAROV, Ye.F.;
FOKINA, G.I.; BALANDINA, A.M.; ROZINA, E.E.; VOROB'YEVA, N.N.;
ZALESSKIY, G.D.; ZHDANOV, V.M.

Serological properties and pathogenicity of the R-virus in
suckling mice. Vop. virus 9 no.4:462-468 J1-Ag '64

1. Institut virusologii imeni D.I. Ivanovskogo AMN SSSR,
Moskovskiy nauchno-issledovatel'skiy institut virusnykh
preparatov i Novosibirskiy meditsinskiy institut.

BOCHAROV, Ye. I.

BOCHAREV, Ye. I. -- "Certain Problems of the Spectrum Transparency of
Clouds and Fogs." Geophysical Inst Acad Sci USSR^U, Moscow, 1955.
(Dissertation for the Degree of Candidate in Physicomathematical
Science)

SO: Knizhnaya Letopis¹: No. 39, 24 Sept 55

49-58-5-14/15

AUTHOR: Bocharov, Ye. I.

TITLE: ~~Spectral Transparency~~ of Clouds (Spektral'naya prozrachnost' oblakov)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, 1958, Nr 5, pp 678-685 (USSR)

ABSTRACT: Data on the transparency of clouds and mists are essential in calculations on the heat balance of the atmosphere and clouds, for estimations of visibility in mists and also for calculations on radio- and infra-red- location in hazy conditions. The spectral transparency of clouds has been frequently considered (Refs.1-3), but, nevertheless, experimental material is insufficient in practice and sometimes disagrees with scattering theory. The present work is based on a method, perfected on the Mt.Elbruz expedition, for the determination of the microstructure of clouds, which permits a comparison of scattering theory with experiment and also an estimation of the absorption index in the given spectral region as it depends on the microstructure of the cloud. (Ref. 4).

Description of Apparatus. The general layout is given in Fig.1. It consists of a radiation source 1, a resolving system 3, a radiation receiver 4, an amplifier 6, and a

Card 1/8