

AL'BREKHT, Vladimir Georgiyevich, prof.; BOLOTIN, Vasilii Ivanovich,  
inzh.; KARPOV, N.A., kand. tekhn. nauk, retsenzent; SERGEYEVA,  
A.I., inzh., red.; VERINA, G.P., tekhn. red.

→ [Small-scale mechanization of the operations in track maintenance  
and repair] Malaia mekhanizatsiia v putevom khoziaistve. Moskva,  
Tranzheldorizdat, 1962. 124 p. (MIRA 16:1)  
(Railroads--Track)  
(Railroads--Equipment and supplies)

BOLOTIN, Vasily Ivanovich; ZHEREBIN, Mikhail Isakovich; SOROKIN,  
Nikolay Nikolayevich; OSIPOV, M.I., inzh., retsenzent  
[deceased]; POTOTSKIY, G.I., inzh., red.; USENKO, L.A.,  
tekhn. red.

[Manual for a track foreman] Posobie brigadiru puti. Moskva,  
Transzheldorizdat, 1962. 346 p. (MIRA 15:6)  
(Railroads--Maintenance and repair)

BOLOTIN, V.I.

Make wider use of the snow thawing method. Put' i put.khoz.  
6 no.12:4 '62. (MIRA 16:1)

1. Nachal'nik distantsii puti, st. Moskva-Savelovskaya.  
(Railroads--Snow protection and removal)

ULYUYEV, D.I., inzh.; ~~POLOTIN, V.I., inzh., retsenzent;~~ BELETSKIY,  
V.V., inzh., retsenzent; SERGEYEVA, A.I., inzh., red.;  
KHITROVA, N.A., tekhn. red.

[Handbook for the track maintenance worker] Posobie putevomu  
rabochemu. Moskva, Transzheldorizdat, 1963. 322 p.  
(MIRA 16:8)

(Railroads--Track)

(Railroads--Equipment and supplies)

ULYUYEV, D.I., inzh.; BOLOTIN, V.I., inzh., retsenzont; BELETSKIY,  
V.V., inzh., retsenzont; SERGEYEVA, A.I., inzh., red.

[Manual for a track worker] Posobie putevomu rabochemu. Mo-  
skva, Transzheldorizdat, 1963. 322p. (MIRA 17:5)

BOLOTIN, V.I.; LEKHNO, I.B.; LIDERS, G.V.

Book on track overhauling. Put' i put. khoz. 8 no.1:39  
'64. (MIRA 17:2)

BOLOTIN, V.I., inzh.

Effect of tie tamping on the control of splashes. Vest. TSNII  
MPS 23 no.6:44-46 '64. (MIRA 17:10)

1. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta.

BOLOTIN, V.V., doktor tekhn nauk, prof.

Survey of studies on the statistical dynamics of elastic systems. Rasch.  
na proch. no.10:211-260 '64.  
(MIRA 18:1)



BOLEVIN, V.V. (Moskva)

Vibrations of multilayer curvilinear rods. Inzh. zhur. 4 no. 42  
705-712 '64 (MIRA 18:2)

BOLOTIN, Vladimir Vasil'yevich, prof., doktor tekhn. nauk;

[Statistical methods in structural mechanics] Statisticheskie metody v stroitel'noi mekhanike. Izd.2., perer. i dop. Moskva, Stroiizdat, 1965. 278 p.

(MIRA 18:5)

BOLOTIN . V.V., prof., red.; RABINOVICH, I.M., prof., red.,  
SMIRNOV, A.F., prof., red.; LUZHIN, O.V., kand. tekhn.  
nauk, nauchn. red.

[Problems of stability in structural mechanics] Problemy  
ustoychivosti v stroitel'noi mekhanike; trudy. Moskva,  
Stroizdat, 1965. 474 p. (MIRA 18:5)

1. Vsesoyuznaya konferentsiya po problemam ustoychivosti  
v stroitel'noy mekhanike, Moskva, 1963.

BOLOTIN, V.V. (Moskva)

Theory of reinforced bodies. Izv. AN SSSR. Mekh. no.1:74-80  
Ja-F '65. (MIRA 18:5)

L 61710-65 EWT(a)/EWT(1)/EWP(m)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/EPR/EWP(k)/EWA(h)/  
 FCS(k)/EWA(1) Pd-1/Pf-4/Peb/P1-4 WW/EM  
 ACCESSION NR: AP5016233 UR/0373/65/000/003/0077/0083

AUTHORS: Bolotin, V. V. (Moscow); Makarov, B. P. (Moscow) 35  
 B

TITLE: Approximate solution of certain statistical dynamics problems

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 3, 1965, 77-83

TOPIC TAGS: Markov process, boundary value problem, reliability

ABSTRACT: The authors find an approximate solution of determination of the mean time for attaining the boundary of a multidimensional Markov process by applying the method of Galerkin to Pontryagin's boundary value problem. The accuracy is estimated by comparison with known exact solutions. The problem is of interest in reliability and lifetime fatigue problems. They apply their method to a study of a simplified model of an elastic shell subject to random forces of white noise type. Orig. art. has: 6 figures and 34 formulas.

ASSOCIATION: none  
 SUBMITTED: 21Dec64 ENCL: 00 SUB CODE: MA  
 NO REF SOV: 009 OTHER: 000  
 Card 1/1 ee

BOLOTIN, V.V. (Moskva); KURANOV, B.A. (Moskva); MAKAROV, B.P. (Moskva)

Oscillations of circular transformer windings. Izv. AN SSSR. Energ. i  
transp. no.4:86-90 J1-Ag '65. (MIRA 18:10)

BOLOTIN, V.V., doktor tekhn. nauk, prof.; MAKAROV, B.P., kand. tekhn. nauk;  
MISHENKOV, G.V., kand. tekhn. nauk; NAGORNNOV, L.N., inzh.;  
POMAZI, L., aspirant

Some problems of dynamic stability of elastic rings subjected  
to sudden loading. Izv. vys. ucheb. zav.; mashinestr. no.6:  
76-82 '65. (MIRA 18:8)

1. Moskovskiy energeticheskiy institut.

L 32736-66 EWP(w) EM

ACC NR: AT6015982

(N)

SOURCE CODE: UR/2572/65/000/011/0031/0063

AUTHOR: Bolotin, V. V. (Doctor of technical sciences, Professor)

ORG: none

34  
E+1

TITLE: Strength, stability and oscillations of multilayered plates

SOURCE: Rascheti na prochnost'. Teoreticheskiye i eksperimental'nyye issledovaniya prochnosti mashinostroitel'nykh konstruktsiy. Sbornik statey, no. 11, 1965, 31-63

TOPIC TAGS: sandwich structure, flat plate, stress analysis, plate vibration, variational method, Lagrange equation, Hamilton equation

ABSTRACT: The theory of sandwich structures consisting of soft and rigid layers is analyzed. The condition for a rigid and soft layer is given respectively by the set of inequalities

$$\varphi > \delta, \frac{\gamma^2}{\psi} < \delta, \frac{\gamma^4}{\varphi^2} < \delta$$

and

$$\varphi < \delta, \frac{\gamma^2}{\psi} > \delta, \frac{\gamma^4}{\varphi^2} < \delta.$$

where

$E = \varphi \bar{E}, E_s = \gamma_s \bar{E}, G = \psi \bar{E}$ , and  $\delta$  is a small positive number. The analysis is generalized to an arbitrary

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ACC NR: AT6015982

sequence of soft and rigid layers which are constant in thickness and are elastic. The governing equations are derived from Lagrange's variational principles, and the following expression is derived for the potential energy of the structure

$$\begin{aligned} \bar{U}_n = & \frac{1}{2} \iint_{\Omega} B_n \left[ \left( u_{n+1} - u_n + r'_n \frac{\partial w_{n+1}}{\partial x} + r'_n \frac{\partial w_n}{\partial x} \right)^2 + \right. \\ & \left. + \left( v_{n+1} - v_n + r'_n \frac{\partial w_{n+1}}{\partial y} + r'_n \frac{\partial w_n}{\partial y} \right)^2 \right] dx dy + \frac{1}{2} \iint_{\Omega} C_n (w_{n+1} - w_n)^2 dx dy. \end{aligned}$$

The governing Ostrogradskiy-Euler equations for  $\alpha = 2, 3, \dots, n-1$  are then given by

$$\begin{aligned} D_n \Delta \Delta w_n + C_{n-1} (w_n - w_{n-1}) - C_n (w_{n+1} - w_n) - B_{n-1} r'_{n-1} \left[ \frac{\partial}{\partial x} (u_n - u_{n-1}) + \frac{\partial}{\partial y} (v_n - v_{n-1}) + r'_{n-1} \Delta w_n + \right. \\ \left. + r'_{n-1} \Delta w_{n-1} \right] - B_n r'_n \left[ \frac{\partial}{\partial x} (u_{n+1} - u_n) + \frac{\partial}{\partial y} (v_{n+1} - v_n) + r'_n \Delta w_{n+1} + r'_n \Delta w_n \right] = q_n \end{aligned}$$

( $\alpha = 1, 2, \dots, n$ ).

For  $\alpha = 1$  and  $n$ ,  $B_0 = C_0 = 0$  and  $B_n = C_n = 0$ . The analysis of the boundary conditions on the free contour of the structure permits the proper selection of the system of internal stresses. Special and limiting solutions are considered first. For example, for  $B_\alpha = 0$  one obtains the equations of a plane rigid layer and  $B_\alpha = C_\alpha = 0$  leads to the classical problem of plates. Next, the case of a regular sandwich is considered, composed of homogeneous soft and rigid layers with an external load given by

$$q_c = Q \sin k_1 x \sin k_2 y \left( k_1 = \frac{p_1 \pi}{a}, k_2 = \frac{p_2 \pi}{b} \right).$$

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The boundary conditions for the problem are stated as

$$w = \frac{\partial^2 w}{\partial x^2} + \nu \frac{\partial^2 w}{\partial y^2} = 0 \quad (x = 0, x = a),$$

$$w = \frac{\partial^2 w}{\partial y^2} + \nu \frac{\partial^2 w}{\partial x^2} = 0 \quad (y = 0, y = b),$$

$$\frac{\partial u_n}{\partial x} + \nu \frac{\partial v_n}{\partial y} = u_n = 0$$

$$(x = 0, x = a; a = 0, \pm 1, \pm 2, \dots, \pm n_1)$$

$$\frac{\partial v_n}{\partial y} + \nu \frac{\partial u_n}{\partial x} = v_n = 0$$

$$(y = 0, y = b; a = 0, \pm 1, \pm 2, \dots, \pm n_2)$$

For the case of the structure with a very large number of layers it is shown that the problem becomes equivalent to substituting the inhomogeneous plate with some uniform but anisotropic plate. Finally, Hamilton's principle is used to derive the governing equations for the plate oscillation, and Trefftz's principle is used to obtain the equations of neutral equilibrium for the zero-moment case. The critical load is then determined for a regular, rectangular, and transversally rigid plate. Orig. art. has: 82 equations and 5 figures.

SUB CODE: 13,12/ SUBM DATE: none/ ORIG REF: 010/ OTH REF: 003

Card 3/3

vmb

AP0008398  
AUTHOR: Bolotin, V. V.

(A)

SOURCE CODE: UR/0374/66/000/001/0011/0019

ORG: Moscow Order of Lenin Power Engineering Institute (Moskovskiy ordena Lenina energeticheskiy institut) 56 B

TITLE: Theory of an elastic medium reinforced with layers with initial random imperfections

SOURCE: Mekhanika polimerov, no. 1, 1966, 11-19

TOPIC TAGS: layer theory, complex function, random process, mechanical stress, elastic modulus, fiberglass, reinforced plastic

ABSTRACT: An elastic medium reinforced with slightly curved elastic layers was investigated. A Method suggested in papers (V. V. Bolotin, Izv. AN SSSR, OTN, Mekh. i mashinostr., 1964, 1, and V. V. Bolotin, Mekh. polim., 1965, 2, 27) is used for the evaluation of the basic equations. It is assumed that functions describing the initial imperfections are stationary random ergodic functions of the coordinates. Using the method of canonical expansions (Pugachev, V. S., Teoriya sluchaynykh funktsiy i yeye primeneniye k zadacham avtomaticheskogo upravleniy, Fizmatgiz, 1960) the formulas for statistical characteristics of the stresses, strains, and displacements are derived. The theory is applied for explaining the well-known test of lowering the elasticity moduli of laminated fiberglass reinforced plastics as

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UDC: 678:531.0+539.219.1

ACC NR: AP6008398

compared to values calculated for an ideal reinforced medium. The decrease can be sufficient even in the case when the initial imperfections are relatively small. Orig. art. has: 3 figures and 6 basic formulas. [Based on author's abstract.] [NT]

SUB CODE: 11/ SUBM DATE: 25Oct65/ ORIG REF: 005/

Card 212 MQ5

AM0004541

Monograph

UR/

Bolotin, Vladimir Vasil'yevich (Professor; Doctor of Technical Sciences)

Statistical methods in structural mechanics (Statisticheskiye metody v stroitel'noy mekhanike) 2d ed., rev. and enl. Moscow, Stroyizdat, 65. 0278 p. illus., biblio. 6,500 copies printed.

TOPIC TAGS: probability theory, material fracture, solid mechanical property, structure vibration, mechanical vibration, structure stability, elasticity, elastic oscillation, earthquake

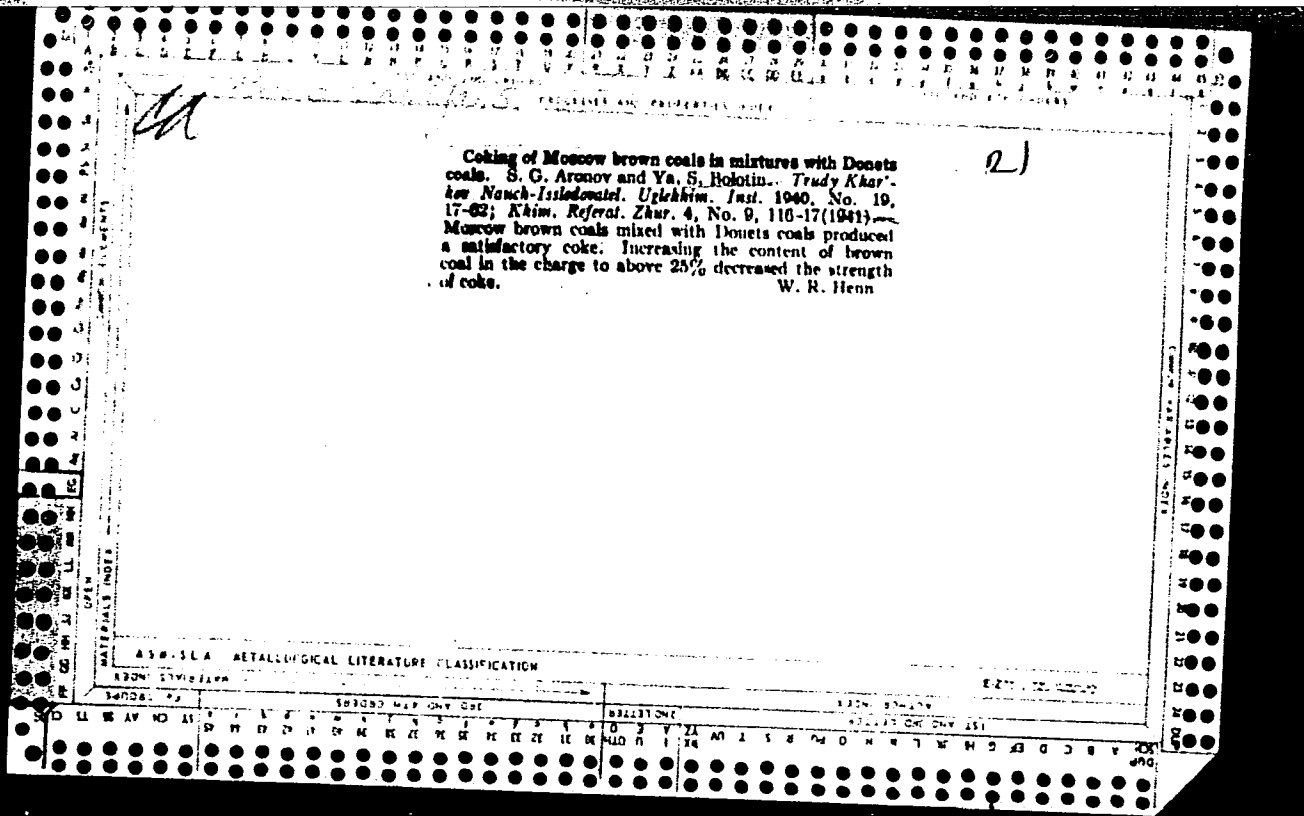
PURPOSE AND COVERAGE: The book systematically presents problems of applying the probability theory and mathematical statistics to various problems of the mechanics of materials and structures. Besides the traditional problems, the book examines a number of new problems in conjunction with calculations of the durability of structural designs in machinery manufacture, aviation, and other fields of modern engineering. In particular the book devotes much attention to the problem of vibrations and stability of elastic systems in the presence of accidental disturbances and the problem of accumulated impairments in the structures. An effective solution to these problems can be obtained only in using statistical methods. The book is intended for engineers-designers, scientific workers, aspirants and students of advanced courses; specializing in the field of construction, machinery manufacture and also other fields demanding fuller knowledge on problems of material and structure durability.

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UDC: 624.04

Foreword --3  
Introduction --5  
Ch. I. Elements of the probabilities theory and mathematical statistics --12  
Ch. II. Statistical methods of substantiating norm calculations -42  
Ch. III. Statistical theory of damage --68  
Ch. IV. Use of statistical methods in problems of stability --102  
Ch. V. Vibration of structure under accidental forces --134  
Ch. VI. Accumulation of impairments and evaluation of reliability under accidental loads 189  
Ch. VII. Statistical methods in the theory of earthquakerproofness --265  
Bibliography --267

SUB CODE: 20,12,13 / SUEM DATE: 27Jan65/ ORIG REF: 119/ OTH REF: 092



AUTHORS: Bolotin, Ya.S. and Belousov, S.P. SOV/68-59-4-17/23  
TITLE: On the Operation of Combustion Chambers on the  
Khanzhenskovo Coking Works (O rabote kamer  
dozhiganiya na Khanzhenskovskom koksokhimicheskom zavode)  
PERIODICAL: Koks i Khimiya, 1959, Nr 4, pp 56-60 (USSR)  
ABSTRACT: On the above works the carbonisation of pitch is  
carried out without collection of the volatile products  
which were let into the atmosphere causing excessive  
air pollution. As a preventative measure special  
combustion chambers were built on the path of the waste  
gas from the main flue to the stack of the battery.  
The design and operation of these combustion chambers  
is designed and illustrated (fig 1 to 4). The  
distribution of temperatures and draught along the path  
of waste gases is given in tables 1 and 2 respectively.  
The above measure considerably decreased the atmospheric  
pollution and is recommended for other works operating

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SOV/68-59-4-17/23  
On the Operation of Combustion Chambers on the Khanzhenkovsk  
Coking Works

without the collection of volatile carbonisation  
products. There are 4 figures and 2 tables.

ASSOCIATION: Teploekstantsiya; and Khanzhenkovskiy Koksokhimicheskiy  
Zavod (Khanzhenkovo Coking Works)

Card 2/2

BOLOTIN, Ya.S.

Brick lining of coke-oven doors. Koks i khim. no.1:37 '60.  
(MIRA 13:6)

1. Teplotekhnstantsiya, Kaliningrad,  
(Kaliningrad--Coke ovens)

BOLOTIN, Ya.S.; MADGOL'NIY, V.F.

Rapid firing of wide-chamber, small size Dinas brick coke  
ovens. Koks i khim. no.2:31-33 '60. (MIRA 13:5)

1. Koksokhimstantsiya.  
(Kaliningrad--Coke ovens)

BOLOTIN, Ya.S.; NADGOL'NYI, V.F.

Methods for determining the air flow sections of gas and air valves. Koks i khim. no.5:29-31 '60. (MIRA 13:7)

1. Koksokhimstantsiya.  
(Coke ovens)

BOLOTIN, Ya.S.; LITMANOVICH, I.M.; ZAKHARCHENKO, A.P.; ROMANENKO, V.P.

Modernization of coal drying systems at the Yasinovka Coke and Coal  
Chemicals Plant. Koks i khim. no.11:14-17 '63. (MIRA 16:12)

1. Koksokhimstantsiya (for Bolotin). 2. Yasinovskiy koksokhimicheskiy  
zavod (for Litmanovich, Zakharchenko, Romanenko).

BOLOTIN, Ye.

"Permanent Aerial Photographic Bases are Needed by Aeroflot,"  
by Engineer Ye. Bolotin, Grazhdanskaya Aviatsiya, No 4, Apr  
55, p 36

Citing the importance of aerial photography to geologists, land managers, geodesists, and topographers, the author sets forth the desirability and importance, in the continuation and perfection of this work, of permanent bases. In conjunction with the plans of the Ministries of Geology and Mineral Conservation, of the Timber and Paper Industry, of the Petroleum Industry, and others, permanent bases would be established within a radius of 300-400 km of cities having facilities to handle heavy air transports.

The economies to be gained by such an organized network of bases are set forth.

The ever-increasing demands for high-quality large scale photographic aerial prints are also cited.

SUM. 1287

BOLOTIN, Ye.

Unsystematic working methods in the meteorological service for  
aerial photographic subdivisions. Grazh.av.13 no.3:35 Mr '56.  
(Meteorology in aeronautics) (MLRA 9:7)

BOLOTIN, Yu.A.; DEVYATOV, I.Kh.

Air drilling. Razved. i okh. nedr 29 no.11:49-51 N 163.

1. Bashkirskoye geologicheskoye upravleniye.

(MIRA 17:12)



ACCESSION NR: AP4031154

S/0056/64/046/004/1331/1334

AUTHORS: Akhiezer, I. A.; Bolotin, Yu. L.

TITLE: On the theory of interactions between charged particles and a nonequilibrium plasma

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 4, 1964, 1331-1334

TOPIC TAGS: plasma stability, charged particle, plasma oscillation, correlation technique

ABSTRACT: In view of the possibility of anomalously large fluctuations arising in an almost unstable nonequilibrium plasma, which can lead to an anomalously large cross section for the scattering of light in such a plasma and to anomalously large coefficients for the scattering of longitudinal waves and conversion of such waves into transverse waves, the authors investigate the interaction between charge particles in a nonequilibrium plasma consisting of hot elec-

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ACCESSION NR: AP4031154

trons moving with respect to cold ions. The analysis is confined to linear theory and no attempt is made to find any limitation on the growth of the critical fluctuations or to determine their ultimate amplitude. The energy lost by a particle interacting with the plasma traversed by a compensated beam of charge particles is also considered. A difference is found to exist in the structure of the expressions for the particle energy loss due to excitation of Langmuir oscillations when  $\theta_0 \sim 1$  and  $\theta_0 \ll 1$  ( $\theta_0$  is the angle between the particle and beam velocities) is explained. It is shown that the particle loss due to the excitation of plasma oscillations become anomalously large as the plasma approaches an unstable state. "In conclusion we wish to thank A. I. Akhiezer, A. A. Vedenov, and K. N. Stepanov for valuable discussions." Orig. art. has: 10 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainiskoy SSR (Physicotechnical Institute, Academy of Sciences UkrSSR)

Card 2/3

ACCESSION NR: AP4031154

SUBMITTED: 16Sep63

DATE ACQ: 07May64

ENCL: 00

SUB CODE: ME, EM

NR REF SOV: 003

OTHER: 002

Card 3/3

BOLOTINA, A.

Bolotina, A. - "On the clinical treatment and therapy of peptic ulcers of the mouth region", Sbornik rabot Studench. nauch. o-va Khar'k. med. in-ta, No. 8, 1949, p. 76-82.

SO: U-4110, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 19, 1949).

BOLOTINA, A.

Bolotina, A. - "A case of chloroleukemia", Sbornik rabot Studench. nauch. o-va Khar'k. med. in-ta, No. 8, 1949, p. 113-17.

SO: L-4110, 17 July 53, (Letopis 'Zhurnal 'nyka Statev, No. 10, 1950).

EPSHTEYN, Ye.G.; BOLOTINA, A.A.; RASKIN, A.Ya.; KUDRYASHEVA, Ts.G.

Vernal anti-recurrent treatment of tertian malaria with acrichine.  
Sovet. med. no.5:19-21 May 1951. (CJML 20:9)

1. Of the Institute of Malaria, Medical Parasitology, and Helminthology (Director--Prof. P.G. Sergiyev).

BOLOTINA, A. L.

"The Problem of Penicillin Therapy in Pneumonia of Young Children." Cand  
Med Sci, Khar'kov Medical Inst, Khar'kov, 1954. (RZhBiol, No 8, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations  
Defended at USSR Higher Educational Institutions (16).

GITTIK, L.S., kand.med.nauk; BOLOTINA, A.L., kand.med.nauk

General clinical characteristics of cerebral rheumatism.  
Vop.revm. 1 no.3:79-86 J1-S '61. (MIRA 16:4)

1. Iz nevrologicheskogo otdeleniya (zav. - kand.med.nauk L.S. Gittik) Volynskoy oblastnoy bol'nitsy (glavnyy vrach A.N. Krayzman) i Volynskogo oblastnogo otdela zdravookhraneniya (zav. P.I.Levashko).

(RHEUMATIC FEVER)

(BRAIN--DISEASES)



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

68-J. High-Frequency Heat Treating  
Parts of Heat-Processing Equipment.  
(In Russian.) A. V. Bolotina. *Trudy  
Promyshlennost' (Heat Industry)*, v. 26,  
Nov. 1968, p. 17-18.

Characteristics of induction fur-  
nace used and method of oil or water  
quenching. Optimum operating con-  
ditions for parts of different com-  
positions. (J2, ST)

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND 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	00
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FRANKE, Zinovy Ilich; LYAPIN, Aleksey Grigor'yevich; TOLIK, Nikolay Vasil'yevich; BOKSTEN, A.V., red.

[Structures made of aluminum alloys; reference materials]  
Konstruktsii iz aluminicovykh splavov; spravochnye materialy. Moskva, Stroiizdat, 1964. 193 p.

(MIRA 17:12)

ZABOROV, V.I.; KLYACHKO, L.N.; ROSIN, G.S.; BOLOTINA, A.V., red.

[Noise control by sound insulation] Bor'ba s shumom meto-  
dami zvukoizoliatsii. Moskva, Izd-vo lit-ry po stroit.,  
1964. 121 p. (MIRA 17:5)

STAROVEROVA, A.G.; BOLOTINA, A.V.; MILOVANOVA, V.I.; EL'BERG, S.I.

Effect of nonspecific activity of folic acid on the state of immunity  
against diphtheria. Zhur.mikrobiol.epid.i immun. 30 no.10:28-32 O '59.  
(MIRA 13:2)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny i  
Detskoy ob"yedinennoy bol'nitsy No.12.  
(DIPHTHERIA immunol.)  
(FOLIC ACID ther.)

VAKHURKIN, V.M.; GLADSHTEYN, L.I.; KARMILOV, S.S.; KLIMOV, S.A.;  
LEVITANSKIY, I.V.; MALININ, B.N.; NOSOV, A.K.; PAL'M,  
Yu.A.; POLYAK, V.S.; POPOV, G.D.; RASSUDOV, V.M.;  
KRASYUKOV, V.P.; SOKOLOV, A.G.; Primalni uchastiye:  
GORBATSKIY, Ye.I.; MATVEYEV, S.S.; STRELETSKIY, N.S.,  
prof., retsenzent; MUKHANOV, K.K., dots., retsenzent;  
BOLOTINA, A.V., red.; MIKHEYEVA, A.A., tekhn. red.

[Light-weight supporting metal structures] Oblegchennye  
nesushchie metallicheskie konstruktsii. Moskva, Gos-  
stroizdat, 1963. 282 p. (MIRA 17:2)

KORNEV, N.A., kand.tekhn.nauk,red.; BOLOTINA, A.V.,red.; KASIMOV,  
D.Ye., tekhn. red.

[Large-panel elements of lightweight concrete for build-  
ings] Krupnopanel'nye konstruktsii zdaniy iz legkikh be-  
tonov. Pod red. N.A.Korneva. Moskva, Stroiizdat, 1964.  
144 p. (MIRA 17:3)

1. Moscow. Nauchno-issledovatel'skiy institut betona i  
zhelezobetona.

NIKOLAYENKO, N.A., kand. tekhn. nauk, dots.; BOLOTINA, A.V., red.;  
KASIMOV, D.Ya., tekhn. red.

[Dynamics and seismic stability of structures supporting  
tanks] Dinamika i seismostoikost' konstruktsii nesushchikh  
rezervuary; posobie dlia rascheta. Moskva, Gosstroizdat,  
1963. 155 p. (MIRA 16:8)  
(Tanks--Plastic properties)  
(Earthquakes and buildings)

POLYAKOV, S.V., doktor tekhn. nauk, prof., red.; BOLOTINA, A.V.,  
red.; RODIONOVA, V.M., tekhn. red.

[Seismic stability of precast large-panel buildings]  
Seismostoikost' sbornyykh krupnoelementnykh ~~zdanii~~.  
Pod obshchei red. S.V.Poliakova. Moskva, Gosstroiz-  
dat, 1963. 205 p. (MIRA 16:11)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut  
stroitel'nykh konstruksii.  
(Precast concrete construction)  
(Earthquakes and building)



OSTRETSOV, Valeriy Mitrofanovich; BRILING, Yevgeniy Romanovich;  
LEVONTIN, N.B., inzh., nauchn. red.; ZUBKOVA, M.S., red.;  
BOLOTINA, A.V., red.

[Examples of calculations of elements for large-panel apart-  
ment houses] Primery rascheta konstruktsii sovremennykh  
krupnopanel'nykh zhilykh zdanii. Moskva, Stroiizdat, 1964.  
191 p. (MIRA 17:7)

YUDIN, Ye.Ya., doktor tekhn. nauk, prof., red.; KOVRIGIN, S.D.,  
kand. tekhn. nauk, nauchn. red.; BOLOTINA, A.V., red.;  
ZUBKOVA, M.S., red.

[Noise control] Bor'ba s shumom. Moskva, Stroiizdat, 1964.  
700 p. (MIRA 17:7)

BOLOVINA, A.Ye.

Some factors determining the effectiveness of seasonal preventive  
bicillin therapy in recurrences of rheumatic fever. Sov. med. 28  
no.9:21-25 S '65. (MIRA 18:9)

1. Institut revmatizma (dir. - deystvitel'nyy chlen ANN SSSR  
prof. A.I.Nesterov) ANN SSSR, Moskva.

BOLOTINA, A.Yu.; GALACH'YANTS, O.P., kand.med.nauk; BORODIYUK, N.A., kand.  
med.nauk

Immediate results of bicillin prevention of rheumatic fever exacer-  
bations. Sov.med. 23 no.12:94-99 D '59. (MIRA 13:4)

1. Iz 1-y kafedry terapii (zaveduyushchiy - deystvitel'nyy chlen  
AMN SSSR prof. M.S. Vovsi) Tsentral'nogo instituta usovershenstvo-  
vaniya vrachey, bol'nitsy No.52 (glavnyy vrach P.S. Petrushko) i  
laboratorii streptokokkovykh infektsiy Instituta epidemiologii i  
mikrobiologii imeni N.F. Gamalei (direktor - deystvitel'nyy chlen  
Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I. Lenina  
(VASKhNIL) (prof. S.N. Murontsev).  
(PENICILLIN rel.cpds.)  
(RHEUMATIC FEVER ther.)

LYAMPERT, I.M.; BORODIYUK, N.A.; AGABABOVA, E.R.; SHCHEGLOVA, A.S.;  
BOLOTINA, A.Yu.; YARESHKO, N.T.

Streptococcal antigens in patients with rheumatic fever at various stages of the disease. Zhur.mikrobiol., epid. i immunit. 32 no.10: 58-64 0 '61. (MIRA 14:10)

1. Iz Instituta epidemiologii i mikrobiologii im. Gamalei AMN SSSR, I Moskovskogo ordena Lenina meditsinskogo instituta im. I.M.Sechenova i Revmatologicheskogo kabineta Leningradskogo rayona, Moskva.  
(RHEUMATIC FEVER) (STREPTOCOCCAL INFECTIONS)

LYAMPERT, I.M.; GALACH'YANTS, O.P.; AGABABOVA, E.R.; RAL'F, N.M.;  
SMIRNOVA, M.N.; YARESHKO, N.T.; BOLOTINA, A.Yu.; SOSHKINA, N.M.

Diagnostic significance of certain immune reactions in rheumatic  
fever. Zhur.mikrobiol.epid.i immun. 32 no.3:35-43 Mr '61.

(MIRA 14:6)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei AMN SSSR,  
fakul'tetskoy terapevticheskoy kliniki I Moskovskogo ordena Lenina  
meditsinskogo instituta imeni Sechenova i revmatologicheskogo  
kabineta Leningradskogo rayona Moskvyy.

(RHEUMATIC FEVER)

(ANTIHEMOLYSIS)

(HYALURONIDASE)

LEYTES, B.G., prof.; BOLOTINA, A. Yu.

Out-of-town ten-day courses as a form of improvement of the  
qualifications of rheumatologists. Vop. revm. 2 no. 2:78-79  
Ap-Je'62 (MIRA 17:3)

BORODIYUK, D.A.; GALAGHIZANIS, O.P.; SMIRNOVA, M.N.; BOLOTINA, A.Ye.

Determination of streptococcal antigens in the blood of patients with rheumatic fever during the interparoxysmal period by the complement fixation reaction with rabbit antistreptococcal serum. Vop. revm. 3 n. 4:8-14 G.D. '63. (MIRA 17:2)

1. Iz otzela streptokokkovykh infektsiy (za. -- doktor med. nauk I.M. Lyampert) Instituta epidemiologii i mikrobiologii imeni N. F. Gamalei (dir. -- prof. A.P. Vershilova) AMN SSSR i revmaticheskogo kabineta Leningradskogo rayona Moskvy (nauchnyy rukovoditel' -- prof. M.S. Vovsi [deceased]).



SVERDLOV, L. M.; BOLOTINA, E. N.

Calculation of the thermodynamic functions of gaseous 1,3-butadiene from spectroscopic data. *Zhur. fiz. khim.* 36 no.12: 2765-2767 D '62. (MIRA 16:1)

1. Saratovskiy politekhnicheskii institut.

(Butadiene—Thermodynamic properties)  
(Spectrum analysis)

L 49780-65 EPF(c)/EPR/EWP(j)/EWA(c)/EWT(1)/EWT(m) Pz-4/Pr-4/PS-4  
IJP(c)/RPL WW/RM

ACCESSION NR: AR5012234

UR/0058/65/000/003/D015/D015

SOURCE: Ref. zh. Fizika, Abs. 3D100

AUTHORS: Bolotina, E. N.; Kapshtal', V. N.; Kraynov, Ye. P.; Klochkovskiy, Yu. V.;  
Kikina, V. S.; Sverdlov, I. M.

TITLE: Calculation and interpretation of vibrational spectra of molecules of various classes

CITED SOURCE: Tr. Komis. po spektroskopii. AN BSSR, vyp. 1, 1964, 120-124

TOPIC TAGS: vibrational spectrum, organic molecule, isotopic substitute, force field, double bond

TRANSLATION: A calculation was made of the normal vibrations, and a complete interpretation is presented for the vibrational spectra of 25 molecules: cyclobutane, spiro-pentane, thiphane, cis-trans-dimethyldiborane, trimethylborane, C<sub>2</sub>F<sub>4</sub>, C<sub>2</sub>Cl<sub>4</sub>, C<sub>2</sub>Br<sub>4</sub>, Fe<sub>2</sub>C-CHF, ClFC-CH<sub>2</sub>, F<sub>2</sub>C-CHCl, cis-trans-C<sub>2</sub>H<sub>2</sub>F<sub>2</sub>, cis-trans-C<sub>2</sub>H<sub>2</sub>Br<sub>2</sub>, and certain isotopic substitutes. The features of the force field of these mole-

Card 1/2

L 49780-65

ACCESSION NR: AR5012234

ules are clarified. In particular, the strength of the C=C double bond increases upon successive substitution of the H atoms in ethylene by F atoms.

SUB CODE: EP, OP

ENCL: 00

359  
Card 2/2

BOLOTINA, F.Ye.; GAMBARYAN, Kh.P.; DENISOVA, G.A.; DUBROVINA, L.I.;  
KOZHINA, I.S.; KYURKCHAN, V.N.; MAKAROVA, T.I.; PAVLOVA,  
U.G.; REZVETSOV, O.A.; SMIRNOVA, V.V.; SURZHIN, S.N.,  
kand. tekhn. nauk; TAMAMSHYAN, S.G.; TRUSOVA, S.A.;  
FILOGRIYEVSKAYA, Z.D.; CHINENOVA, E.G.; SHISHKINA, N.N.;  
IL'IN, M.M., zasl. deyatel' nauki RSFSR, doktor biol. nauk  
prof., red.; PRITYKINA, L.A., red.; ZARSHCHIKOVA, L.N.,  
tekhn. red.

[Spice and aromatic plants of the U.S.S.R. and their use  
in the food industry] Priano-aromaticheskie rasteniia SSSR  
i ikh ispol'zovanie v pishchevoi promyshlennosti. Moskva,  
Pishchepromizdat, 1963. 430 p. (MIRA 17:2)

USSR Chemical Technology

USSR, Chemical Technology, Chemical Products and I-12  
Their Application--Water treatment. Sewage  
water

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 9144

Author : Trusova, S. A., Bolotina, F. Ye., and Potapova, A.A.  
Inst : Not given  
Title : On the Composition of Water Softened by Cation  
Exchange for Utilization in Vodka Production

Orig Pub: Spirt. prom-st, 1955, No 4, 17-18

Abstract: Experimental data on the effect of the alkalinity  
of water on the permissible concentration of  $Ca^{2+}$   
in alcohol-water solution of strength 40, 50, and  
56% permit a rational selection of a treatment  
scheme to be applied to the water used in vodka  
production depending on the quality of the un-  
treated water. For water of alkalinity  $< 5.0$  and  
total hardness  $< 15$  me/liter, the use of the Na  
cycle is recommended; for water of alkalinity  $> 5.0$

Card 1/2

USSR Chemical Technology, Chemical Products and I-12  
Application--Water treatment. Sewage water  
"APPROVED FOR RELEASE: 06/09/2000" CIA-RDP86-00513R000206120013-6"

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 9144

Abstract: me/liter, mixed H-Na cation exchange or line-  
soda softening followed by Na cation exchange are  
recommended.

Card 2/2

TRUSOVA, S.A.; FAYERSHTERN, Ya.D.; BOLOTINA, F.Ye.

Improvement of a standard technological system for the fruit  
liqueur industry. Trudy TSNIISP no.7:130-135 '59. (MIRA 13:9)  
(Liquor industry)

110-58-6-13/22

AUTHORS: Boletina, G.M., Candidate of Technical Sciences,  
Al'tshuller, S.L., Engineer and Kubanova, V.G.,  
Technician

TITLE: High-strength Enamelled Aluminium Wires (Vysokoprochnyye  
emalirovannyye alyuminiyevyye provoda)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Nr 6,  
pp 56 - 57 (USSR)

ABSTRACT: Aluminium wire is difficult to enamel and there is little Soviet experience in this field. Recently, Ukrkabel' has been producing enamelled aluminium wire up to 0.15 mm dia., which is being used for instrument manufacture. The enamel is Vinifleks. Also, experimental batches of wire, 1.20 dia., with this enamel have been made by Ukrkabel' and Moskabel'. This article gives the results of work carried out at Moskabel' in 1957 on enamelling aluminium wires of 0.86 - 1.50 mm dia. with Viniflex. When Isoperlon is used to enamel aluminium wire, the output is lower than with Viniflex and this enamel takes longer to apply to aluminium than to copper. Enamelled aluminium wire was made and subjected to tests, including ageing at 125 °C. The results with the wire in the initial condition are given in Table 1; the thickness and the elasticity are

Card 1/2

High-strength Enamelled Aluminium Wires

110-58-6-13/22

the same as on copper wire, grade PEV-1. On ageing at 125 °C, the results of which are given in Table 2, the elasticity was as good as that of PEV-1 up to 24 hrs, but was somewhat lower at 168 hrs; further ageing up to 720 hours had little effect. Experimental batches of enamelled aluminium wire of various sections are now being tested in windings manufactured under normal production conditions. There are 2 tables.

ASSOCIATION: Zavod "Moskabel'" ("Moskabel'" Works)

SUBMITTED: September 27, 1957

Card 2/2      1. Aluminum wire--Coating      2. Enamel coatings--Test results



1003

✓ Optical activity and vibration. N. M. Boshenov, M. V. Vukobratovich, and I. A. Borotova. *Zhur. Tekh. Fiz.* 25, 1861-3 (1955).—In measurements of colophony an abrupt change in optical properties sets in near 24°. Measurements were made at 546 mμ from 8 to 40° in intervals of 0.1°. Over this interval  $n$  drops from about 1.550 to about 1.544, with indication of a break in the curve  $n$  vs.  $T$  at 24°, yet this is per se not the reason for the abrupt change in the  $\rho$ - $T$  curve at 24° ( $\rho$  = angle of rotation), which marks the transition from the liquid to the glassy state. The true reasons are revealed by examn. of the terms of the Lorentz-Lorenz equation:  $(1/\rho)(d\rho/dT) = [1 + ((n^2 - 1)(n^2 - 2)/6n^2)](1/\rho)(d\rho/dT) + (1/2)(dg/dT)$ , where  $\rho$  is the d. The 1st term remains almost const. at 0.04 over the temp. interval indicated; but the other 2 terms, if plotted vs.  $T$ , show a discontinuity of the curves. Both curves consist of 2 separate branches, and the point of discontinuity is near 24°.

CH

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(2)

Werner Jacobson

BOLOTINA, I.A., Cand Phys Math Sci -- (diss) "Optical activity  
and vitrification." Len, 1959, 16 pp (Acad Sci U.S.S.R. Inst of  
high~~er~~ Molecular Compounds) 150 copies (KL, 28-59, 122)

- 4 -

VAZINA, A.A.; BOLOTINA, I.A.; VOL'KENSHTEYN, M.V.; LYASOTSKAYA, I.;  
FRANK, G.M.

Configuration of a polypeptide chain in G- and F-actin.  
Biofizika 10 no.4:567-570 '65. (MIRA 18:8)

1. Institut biologicheskoy fiziki AN SSSR, Moskva, i Institut  
vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad.

BULOTINA, I.A.; BAZHENOV, N.M.; VOL'KENSHTEYN, M.V.; SOGOMONYANTS, Zh.S.

Effect of the vitrification of polymers on their optical activity.  
Fiz. tver. tela 1 no.3:489-498 Mr '59.      (MIRA 12:5)

1. Institut vysokomolekulyarnykh soyedineniy, Leningrad.  
(Polymers--Optical properties)



Vitreous State (Cont.)	501/5035	
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Frenkel's, K.S. General Problems of Structure and Properties of Glasses		59
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Mechanism of Vitrification		
Vol'kenskikh, K.V. On the Structural and Kinetic Characteristics of the Vitreous State		152
Anufriyeva, Ye.V., and M.V. Volkovskiy. On the Luminescence Method of Studying the Vitrification of Polymers		158
Botolova, I.A. Optical Activity and Vitrification		172
Card 8/22		

SAMSONOV, G.V.; PONOMAREVA, R.B.; BOLOTINA, I.A.

Study of physicochemical characteristics of  $\alpha$ -chymotrypsin and  
its B and C chains. Biofizika 10 no.3:520-522 '65.  
(MIRA 18:11)

1. Institut vysokomolekulyarnykh soyedineniy, Leningrad.  
Submitted Nov. 21, 1964.

ANUFRIYEVA, Ye.V.; BOLOTINA, I.A.; VOLCHEK, B.Z.; ILLARIONOVA, N.G.;  
KALIKHEVICH, V.I.; KOROTKINA, O.Z.; MITIN, Yu.V.; PTITSYN, O.B.;  
PURKINA, A.V.; ~~ESKIN~~, V.Ye.

Study of synthetic polypeptides. Report No.1. Transitions-intra-  
molecular  $\beta$ -structure-coil in poly-S-carbobenzoxymethyl-L-cysteine.  
Biofizika 10 no.6:918-928 '65. (MIRA 19:1)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR, Leningrad.  
Submitted April 22, 1965.



BOLOTINA, I.M.; RASTVOROVA, V.A.; SAKHAROVA, Ye.I.

Erosion "basins" on the Angara. Priroda 50 no.6:100-101 Je '61.  
(MIRA 14:5)

1. Hidroproyekt, Moskva (for Bolotina). 2. Institut fiziki Zemli imeni O.Yu.Shmidta AN SSSR, Moskva (for Rastvorova). 3. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova (for Sakharova).  
(Angara Valley—Alluvial lands)

BOLOTINA, I.S., redaktor; DAKHOV, V.S., tekhnicheskii redaktor

[Production norms for engineering plans paid on a piece work basis]  
Normy vyřabotki na proektnye raboty, oplachivaemye sdel'no. Moskva,  
Gos. izd-vo lit-ry po stroit. i arkhitekture. Pt.23. [Water and  
sewerage systems and installation outside the house] Vneshnie seti i  
sooruzheniia vodoprovoda i kanalizatsii. 1954. 59 p. (MLRA 8:3)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva.  
(Wages) (Labor productivity) (Construction industry)

BOLOTINA, K.S. (Moskva)

Computing flow through Lavalle nozzles taking into account  
viscosity and heat transfer and the transition into supersonic  
speed. Izv.AN SSSR.Otd.tekh.nauk no.5:3-11 My '56. (MLRA 9:8)  
(Supersonic nozzles)

BOLOTINA, K. S.

Evaluating the thickness of stationary shock waves during the flow of a viscous heat-conducting gas in pipes of variable cross section and nozzles. Nauch. dokl. vys. shkoly; energ. no.2: 157-162 '58. (MIRA 11:11)

(Shock waves)

BOLOPINA, K.S., Cand Phys<sup>S</sup>-Math Sci -- (diss) "Study of currents  
with friction and heat exchange in supersonic jets." Mos, 1959.  
8 pp (Mos State U in N.V. Lomonosov<sup>Physics Faculty</sup>). 150 copies (IL, 39-59,100)

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37140

S/179/62/000/001/009/027  
E114/E181

26.5200  
AUTHOR: Bolotina, K.S. (Moscow)  
TITLE: Conditions for free convection currents in a duct  
of rectangular section  
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye  
tekhnicheskikh nauk. Mekhanika i mashinostroyeniye,  
no.1, 1962, 73-76  
TEXT: To determine conditions under which, in a duct  
filled with fluid, a transition occurs from molecular heat  
transfer to free gravitational convection, it is necessary to  
determine particular solutions of certain linear boundary  
problems. This article establishes general equations for a  
vertical duct of rectangular cross-section, generalising  
equations derived previously by A. Pellew and R.V. Southwell  
(Ref.4: On maintained convection motion in a fluid heated from  
below, Proc. Roy. Soc., no.176A, 1940) for the simple case of  
isothermal walls. The solutions are asymptotic, suitable for  
a wide range of boundary conditions. The analytical methods  
Card 1/3

Conditions for free convection ...

S/179/62/000/001/009/027  
E114/E161

now employed were originally proposed by V.S. Sorokin (Ref.7: PAM, v.17, no.1, 1953). Starting with the equation for incompressible fluid, it is assumed that the function of the temperature gradient is given and it is required to find a critical value of that gradient corresponding to transition from molecular heat transfer to heat transfer by convection. An equation is derived for a vertical duct of infinite length and uniform section. This is applied to the elementary case of a rectangular channel with isothermal walls. In general, the problem does not have an exact solution, but can be solved asymptotically by means of substitutions in the form of wave equations. The solution is reduced to finding wave numbers and determining particular temperature gradients. The corresponding velocity fields and temperature fields can then be plotted. The velocity and temperature functions are obtained by adding together several functions beginning at the four walls of the duct. Curves are plotted showing the relation between wave numbers and proportions of the duct for various values of the non-dimensional coefficient of heat loss when the walls are

Card 2/3

Conditions for free convection ... S/179/62/000/001/009/027  
E114/E181

insulated adiabatically and again when the walls are isothermal. A second set of curves is constructed showing the relationship between the critical Raleigh numbers and the proportions of the duct. In a practical case, in which the condition of the walls is somewhere between adiabatic and isothermal, this method will give rise to an error, the order of magnitude of which will depend on the attenuation of the exponential correction term in the wave equation. A priori, the error of this method is of the order of a few per cent.

There are 4 figures.

SUBMITTED: August 1, 1961

4

Card 3/3



DAYN, A.I., dotsent; KACHEROVA, B.A., mladshiy nauchnyy sotrudnik;  
BOLOTINA, N.B., starshiy inzh.; LOGINOV, P.F., inzh.

Ways to lower the net cost of stone, crushed stone, gravel, and  
sand for construction. Sbor. trud. NIIZHelezobetona no.3:147-158  
'60. (MIRA 15:2)  
(Building stones) (Stone, Crushed) (Sand and gravel industry)

BOLOTINA, N.D., inzh.

Survey of wholesale prices. Sbor. trud. NIIZHelezobetona no.8:  
177-179 '63 (MIRA 18:1)

BOLOTINA, Nina Grigor'yevna, doyarka; KHUDYAKOV, G.V., red.; TSYURKO,  
M.I., tekhn. red.

[Five thousand kilograms of milk per cow] 5000 kilogrammov moloka  
ot korovy. Orenburg, Orenburgskoe knizhnoeizd-vo, 1960. 10 p.

(MIRA 14:9)

1. Kolkhoz "Zavety Lenina " Aleksandrovskego rayona (for Bolotina).  
(Orenburg Province—Dairying)

BOLOTINA, N.I.

Condition of nutrients in virgin deep Chernozems. Pochvovedenie  
no. 7:61-72 JI '65 (MIRA 19:1)

1. Pochvennyy institut imeni V.V. Dokuchayeva, Moskva. Submitted  
November 1, 1963.

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*ca*

PROCESSING AND PROPERTIES INDEX

The degree of uniformity of distribution of available nutrients in various soils and their dynamics during the vegetation period. A. T. Kirsanov, N. I. Bolotina, A. G. Senyushov and V. A. Filippovich. *Trudy Dzhuzharskogo Inst. (U. S. S. R.)* 12, 66-102 (1955). - There is not much variation in H<sub>2</sub>O-sol. P during the entire vegetation period in the soils of the podzol type investigated. A similar uniformity was noted for P on a 0.2 N HCl ext. With depth in profile the P content as a rule increases. A similar tendency was noted for K. The nitrate content varies within the season and there can be no time period set to sample the soil for nitrate. Hydrolyzable N (Tyurin method) shows no relation to nitrate; it decreases toward the end of the vegetation period. The  $pH$  increases toward the end of the season in the plowed and subplowed layers. On the brown-podzols and pod-gli podzols the  $pH$  drops toward the fall. The Fe content decreases and the exchangeable cations increase toward the fall. For chernozem the P behaves as for the podzols. The quantity extd. varies in the different plots sampled and from these data groups are established in relation to the P required. There is no uniformity in the distribution of nitrate in chernozem. The K data also show poor uniformity of distribution during the vegetation period.

J. E. Joffe

METALLURGICAL LITERATURE CLASSIFICATION

FROM BROWSE

SERIES ONE ONE ONE

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

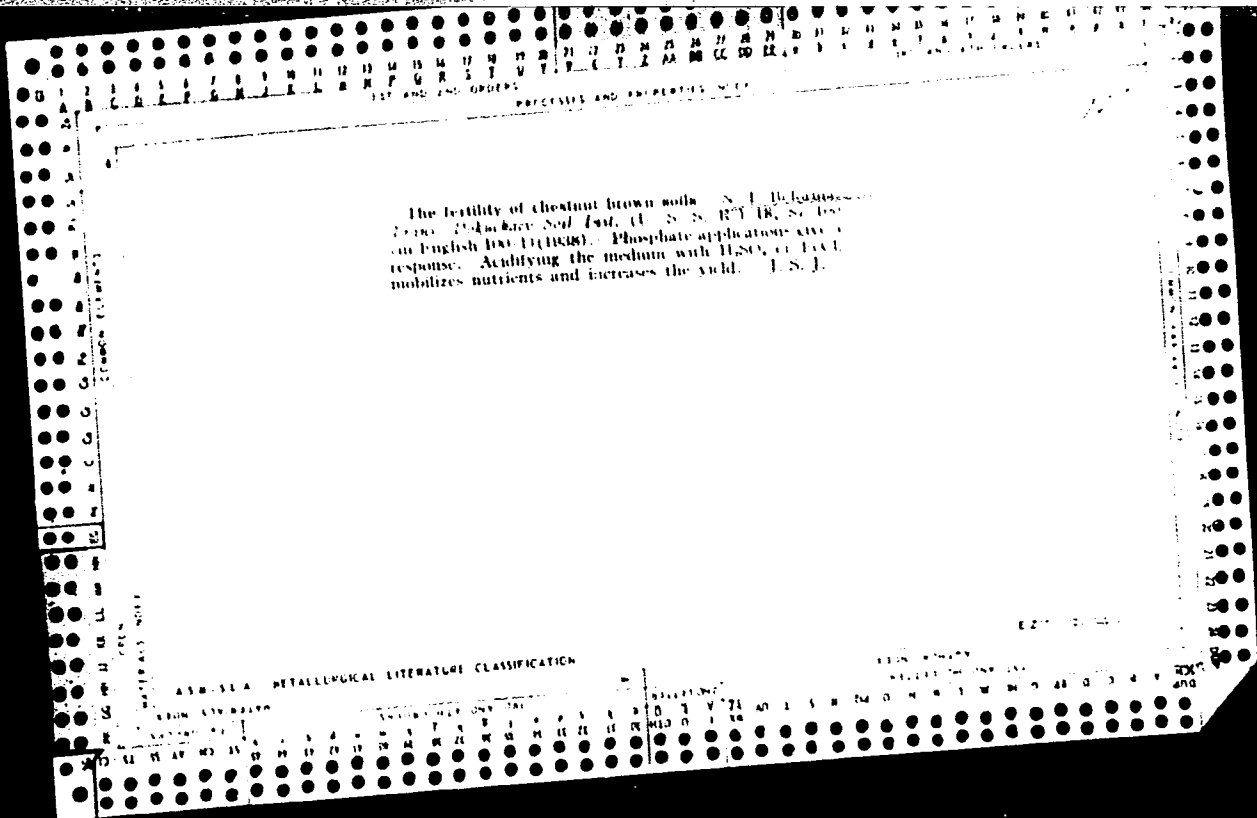
ca 15

A comparison of the results of field experiments with chemical tests of soils and an analysis of the reliability of field experiments. N. I. Bolotina, V. A. Filippovich and A. T. Kiranov. *Tranz. Dobruzhsk. Sov. Inst. (U.S.S.R.)* 12, 103-41 (1935).—Fertilizer field expts. with rye, flax, potatoes, sunflower, oats and vetch on podzol soils are analyzed statistically and compared with tests made on 0.2 N HCl exts. The voluminous data vary and no clear-cut conclusions can be drawn. J. S. Joffe

ASB-ILA METALLURGICAL LITERATURE CLASSIFICATION

GROUPS

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
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EST AND 2ND GROUPS

PROCESSES AND PROPERTIES INDEX

EA

Humus and nitrogen in the main soil types of the U.S.S.R. N. J. Dolotina. *Podology (U.S.S.R.)* 1967, 277-80. — A compilation of data on the C and N content in the profiles of the different zonal soil types. J. S. J.

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OPEN  
MATERIALS INDEX

AS & SLA METALLURGICAL LITERATURE CLASSIFICATION

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



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*Soil & Fertilization*

**Soil conditions for the development of red clover** N. I. Bolotina, *Trudy Pochvennogo Inst. im. V. V. Dokuchaeva*, *Ibid. Nauk S.S.S.R.* 31, 270-91(1950).—To maintain a better stand of clover in a clover-grass mixt. the elimination of Al in soln. is of prime importance. Above 7-8 mg. of Al per 100 g. of soil there is a sharp drop in the percentage of clover in the mixt. Lime eliminates the soln. of Al. Manure also decreases the sol. Al in the soil. Applications of P-K fertilizers increase the sol. Al, but increase the clover stand. With the reduction of sol. Al, the N content of the clover increases. J. S. Joffe

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red. [deceased]; ZAVARI'SKIY, V.N., red.; MUZYCHKIN,  
Ye.T., red.; FEDOROVSKIY, D.V., red.; BOLOTINA, N.I.,  
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