

LAPUSHINA, M. Ya.

Work of the department of intestinal infections of the Sixth
Minsk Polyclinic. Zdrav. Belor. 5 no.7:52-53 J1 '59.
(MIRA 12:9)

1. Zaveduyushchaya kabinetom kishhechnykh infektsiy 6-y
polikliniki g. Minska.

(INTESTINES--DISEASES)

ABELE, M.K. (Riga); LAPUSHKA, K.K. (Riga)

Observations of artificial earth satellites with a triaxial
guided camera. *Biul.sta.opt.nabl.isk.sput.Zem.* no.29:5-7 '62.
(MIRA 1642)

1. Astronomicheskaya observatoriya Latviyskogo gosudarstvennogo
universiteta im. Petra Stuchki.
(Artificial satellites—Tracking) (Astronomical photography)

ABELE, M.K. (Riga); LAFUSHKA, K.K. (Riga)

Electronic computer for automatic measurement and processing
of negative plates with the UIM-21 microscope. *Biul.sta.opt.*
nabl.isk.sput.Zem. no.29:7-12 '62. (MIRA 16:2)

1. Astronmicheskaya observatoriya Latvviyskogo gosudarstvennogo
universiteta im. Petra Stuchki.
(Electronic computers)

LAPUSHKIN, A. D.

LAPUSHKIN, A. D. Front-line bases for the restoration of railroad property. Moskva, Gos. transp. zhel-dor. izd-vo, 1944. 74 p. (50-48660)

TF85.L26

Lapushkin, A D

N/5
755.41
.L3

Priyemka materialov na skladakh zheleznykh dorog [Acceptance of materials
at railroad warehouses]

Moskva, Transzheldorizdat, 1950.

330 p. Diagr., Tables.

Lapushkin, A.D.

VEYS, D.A.; KOKHTEV, A.A.; IEL'YANOV, V.A.; MALYNICH, V.I.; POVOLOTSKIY, L.I.;
RASKATOV, V.M., inzhener; TOPORNIN, G.S.[deceased]; LAPUSHKIN, A.D.,
dotsent, retsenzent; USPASSKIY, P.P., professor, retsenzent; ARKHAN-
GEL'SKIY, V.M., kandidat tekhnicheskikh nauk, retsenzent; REGIHER, Z.
I., kandidat tekhnicheskikh nauk, retsenzent; SHAROV, M.Ya., kandidat
tekhnicheskikh nauk, retsenzent; YUR'YEV, M.G., inzhener, retsenzent;
LYUTIKOV, A.F., redaktor; MODEL', B.I., tekhnicheskij redaktor.

[Manual on materials for the construction of locomotives and railroad
cars] Spravochnik po materialam dlia lokomotivo- i vagonostroenia.
Pod obshchei red. V.M. Raskatova. Moskva, Gos. nauchno-tekhn. izd-vo
machino-stroit. lit-ry, 1956. 481 p.

(Locomotives--Construction) (Railroads--Cars--Construction)

LAPUSHKIN, Andrey Dmitriyevich; LIVSHITS, Natan Yevlevich; KONDRASHOV,
A.V., red.; VERINA, G.P., tekhn.red.

[Supplying transportation construction with materials and
equipment] Material'no-tekhnicheskoe snabzhenie transportnogo
stroitel'stva. Moskva, Gos.transp.zhel-dor.izd-vo, 1959.
157 p.

(Transportation)

(MIRA 12:6)

LEVIN, B.I.; ANPILOGOV, R.G.; BOGATYREV, A.F.; BRYKIN, S.V.; GOL'DMAN,
M.S.; DAVYDOV, G.V.; ZADORIN, B.M.; ZHEKINOV, A.M.; LAPUSHKIN,
A.D.; LEDYEV, V.I.; MURAV'YEV, V.I.; OGANESOV, I.S.; PETROV,
N.I.; SIDORIN, V.K.; SOLDATOV, Ye.G., obshchiy red.; KARAMYSHEV,
I.A., red.; PESKOVA, L.N., red.; KHITROV, P.A., tekhn.red.

[Manual for studying the economics of construction in the
transportation industry] V pomoshch' izuchaiushchim ekonomiku
transportnogo stroitel'stva. Moskva, Gos.transp.zhal-dor.
izd-vo, 1959. 271 p. (MIRA 12:7)
(Construction industry) (Transportation)

LAPUSHKIN, D.M., elektromekhanik

Improved schematics for connecting railroad station intercommunication networks. Avtom., telem.i sviaz' 6 no.5:39 My '62. (MIRA 15:4)

1. Fayansovskaya distantiya signalizatsii i svyazi Moskovskoy dorogi.

(Railroads--Communication systems)

LAPUSHKIN, D.M., elektromekhanik

Elimination of shortcomings in long-distance service apparatus.
Avtom., telem. i sviaz' 6 no.6:43 Je '62. (MIRA 15:7)

1. Fayansovskaya distantsiya signalizatsii i svyazi
Moskovskoy dorogi.

(Railroads--Electronic equipment)
(Railroads--Communication systems)

LAPUSHKIN, G.A.

TARASOV, I.I., inzhener; LAPUSHKIN, G.A., inzhener.

Introduce modern techniques in the spinning industry. Izobr. v SSSR
1 no.6:14-18 D '56. (MLRA 10:4)
(Spinning machinery)

87145

16.6500 16.3500 16.3900

S/041/60/012/003/009/011
C111/C222

AUTHOR: Lapushkin, I.T.

TITLE: On the Question on the Solution of Difference Approximations of Biharmonic Equations According to the Method of Successive Approximations

PERIODICAL: Ukrainskiy matematicheskiy zhurnal, 1960, Vol. 12, No. 3, pp. 346 - 349

TEXT: The author considers linear homogeneous operators \bar{S} with an axial symmetry which are applied to functions defined in the knot points:

$\bar{S}u(A) = \sum_k d_k u(A + A_k)$ (A_k is the increase of the coordinates of the point $A = (x, y)$). Here it is 1) $d_k = d(A + A_k) = d(A_k) = d(-A_k) = d(A_k) = d(-A_k')$ 2) $d_k \geq 0$ 3) $d_k \neq 0$ only for finitely many points $(A + A_k)$; 4) $\pm A_k = (\pm x_k; \pm y_k)$, $\pm A_k' = (\mp x_k; \pm y_k)$. Let

$$(2) Su(A) = \sum_n a_n \bar{S}_n u(A) = \sum_n a_n \sum_k d_k u(A + A_k)$$

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On the Question on the Solution of Difference Approximations of Biharmonic Equations According to the Method of Successive Approximations

The functions $\exp [i(\alpha x + \beta y)]$ are eigenfunctions of S ; the eigenvalues are $\lambda(\alpha, \beta) = \sum_n a_n \sum_k d_k \exp [i(\alpha x_k + \beta y_k)]$.

The difference approximations of the biharmonic operator given in (Ref. 2) have the form (2), e.g.

$$u_0 = \sum_{k=1}^4 \frac{8}{20} u_k - \sum_{k=5}^8 \frac{2}{20} u_k - \sum_{k=9}^{12} \frac{1}{20} u_k \quad (\text{remainder term is missing, } a_n \neq 1)$$

For usual successive approximations these formulas are inapplicable since here the spectrum of S has negative eigenvalues the absolute value of which is smaller than 1 . The author gives the following applicable formula for a quadratic net :

$$25h^4 \Delta \Delta u_0 = 212u_0 - 38 \sum_{k=1}^{20} u_k + 7 \sum_{k=9}^{20} u_k + 2 \sum_{k=21}^{24} u_k + O(h^6)$$

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On the Question on the Solution of Difference Approximations of Biharmonic Equations According to the Method of Successive Approximations (the numeration of the knots is given in figure 1)

Fig 1

122	18	10	17	121
14	6	2	5	13
11	3	0	1	9
15	7	4	8	16
23	19	12	20	24

FIG. 1.

or for a triangular net :

$$\frac{h^4}{8} \Delta \Delta u_0 = 18u_0 - 4 \sum_{k=1}^6 u_k + \sum_{k=7}^{12} u_k + O(h^2)$$

where the knots are numbered as in figure 2)

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On the Question on the Solution of Difference Approximations of Biharmonic Equations According to the Method of Successive Approximations

Fig. 2

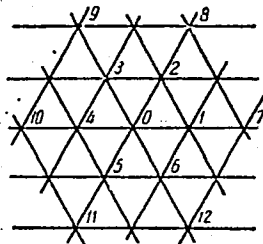


FIG. 2.

It is pointed out that the approximations given in (Ref. 2) can also be used if they are submitted to some transformations.

There are 2 figures and 2 references: 1 Soviet and 1 German.

[Abstracter's note : (Ref. 2) concerns Collatz, Numerical Treatment of Differential Equations]

SUBMITTED: June 17, 1959

Card 4/4

LAPUSHKIN, I. T.

Cand Phys-Math Sci - (diss) "Use of the finite differences method in the solution of one class of boundary problems of the theory of elasticity." Kiev, 1961. 8 pp; (Joint Academic Council of the Institutes of Mathematics, Physics, and Metallophysics of the Academy of Sciences Ukrainian SSR); 200 copies; price not given; bibliography on pp 7-8 (11 entries); (KL, 5-61 sup, 173)

LAPUSHKIN, I.T.

Existence and uniqueness of solutions of a class of boundary
value problems in the theory of elasticity. Ukr.mat.zhur. 13
no.2:231-235 '61. (MIRA 14:8)
(Boundary value problems) (Elasticity)

28699

S/021/61/000/003/002/013
D274/D301

16.3500 16.3900 16.6500

AUTHOR: Lapushkin, I.T.

TITLE: The method of successive approximations as applied to solving difference approximations of biharmonic equations

PERIODICAL: Akademiya nauk UkrSSR. Dopovidi, no. 3, 1961, 278-281

TEXT: An approximation to the biharmonic operator $\Delta\Delta u$ is found for equilateral-triangle nets. Using square- and equilateral-triangle nets, problems relating to the buckling of rigidly fixed plates were solved by the electronic computers СЕЛМ (SELM) and КИВ (Kyiv). The biharmonic equation

$$\Delta\Delta u (x,y) = \bar{f}(x,y) \tag{1}$$

is given in the bounded domain G. The domain G is replaced by the net region G_h by means of square or equilateral-triangle nets. The

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The method of successive...

normal derivatives of the boundary conditions are approximated by unilateral or central differences. Only the values of the function at the nodal points are considered; $\Delta\Delta u$ is approximated by differences. Setting

$$T_{G,h}u(A) = \sum_n a_n \sum_{k_n} d(A_{k_n}) u(A + A_{k_n}), \quad (3)$$

where A_{k_n} are the coordinate-increments on passing from nodal point A to the neighboring nodal point $(A + A_{k_n})$, one obtains a system of m difference equations with m unknowns:

$$u(A) = T_{G,h}u(A) + f(A), \quad (4)$$

where the linear operator $T_{G,h}$ is a symmetrical matrix with elements $a_n d(A_{k_n})$ (a_n is either +1 or -1). Further, only almost-periodic functions are considered. The eigenfunctions of the operator T_h are found. The eigenvalues of the operators $T_{G,h}$ lie in the interval

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The method of successive...

$$-\gamma h < -\gamma_{G.h} \leq \lambda_{T.G.h} \leq \mu_{G.h} < \mu h. \quad (6)$$

It follows from these inequalities that, in general, the method of successive approximations cannot be used for solving system (4). In order that the successive approximations should converge to the exact solution of system (4), Eqs. (4) are transformed as follows:

$$u(A) = \frac{T_{G.h} + tE}{1 + t} u(A) + \frac{1}{1 + t} f(A) \quad (7)$$

or

$$u(A) = (E - kE + kT_{G.h}) u(A) + kf(A) \quad (8)$$

where $k \neq 0$, $k \neq 1$, and the real constants t and k are determined by the conditions

$$\frac{\gamma_{G.h} - q}{1 + q} \leq t \leq \frac{-\mu_{G.h} + q}{1 - q} \quad (9)$$

and

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The method of successive...

$$\frac{1 - q}{1 + \mu_{G,h}} \leq k \leq \frac{1 + q}{1 + \gamma_{G,h}}, \quad (10)$$

where $0 < q < 1$;

$$q \geq \frac{\mu_{G,h} + \gamma_{G,h}}{2 - \mu_{G,h} + \gamma_{G,h}}. \quad (11)$$

For the case $\gamma_{G,h} \leq \mu_{G,h}$, q can be taken according to

$$\gamma_{G,h} < q < \mu_{G,h} \quad (13)$$

Inequality (13) requires finding such difference approximations to $\Delta\Delta u$, for which the operators T_h would have eigenvalues such that

$$-1 \leq -\gamma_h \leq \lambda_{T,h} \leq \mu_h \leq 1.$$

Such approximations can be found; in particular, for equilateral triangle nets, such an approximation is given by

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D274/D301

The method of successive...

$$\frac{9}{8} h^4 \Delta \Delta u_0 = 18u_0 - 4 \sum_{i=1}^6 u_i + \sum_{j=7}^{12} u_j + O(h^6), \quad (14)$$

where i and j are the nodal points which are neighbours with respect to the central nodal point. The fastness of convergence of the successive approximations (in solving Eq. (7) or (8), and Eq. (4) by approximation (14)), is characterized by

$$\|u - u_n\| \leq \frac{q^n}{1-q} \|u_1 - u_0\|,$$

where u is the exact solution of system (4), and u_n - the approximate solution found at the n -th step of the process. The latter inequality is also an indication of the convergence of the method of successive approximations, independent of the initial approximation chosen, and independent, too, of possible errors in the calculations. There is 1 figure and 4 references: 2 Soviet-bloc and 2 non-Soviet-bloc.

Card 5/6

X

L 29910-66 EWP(k)/EWT(d)/EWT(m)/EWP(w)/EWP(v) IJP(c) EM/WW

ACC NR: AR5028214 SOURCE CODE: UR/0044/65/000/008/R064/R064

52
B

AUTHOR: Lapushkin, I. T.

TITLE: Difference analogues of boundary value problems for differential equations of the theory of plates and shells

SOURCE: Ref. zh. Matematika, Abs. 8B342

REF SOURCE: Visnyk Kyyivs'k. un-tu. Ser. matem. ta mekhan., no. 6, 1964, 81-86

TOPIC TAGS: solid mechanics, mathematic physics. mathematics, differential equation, boundary value problem, [] boundary layer problem, algorithm

ABSTRACT: Differential analogues of the first and second boundary value problems (basic) for differential equations of homogeneous (including anisotropic) plates and of corresponding problems for inclined isotropic shells are considered from the standpoint that there is but one solution and a justifiable selection of an algorithm for this solution.

SUB CODE: 12,20/ SUBM DATE: none

Card 1/1 CC

UDC 517.9:539.3

PUL'MANOV, N.V.; LAPUSHKIN, N.A., kand. tekhn. nauk, retsenzent; NIKITIN,
A.G., inzh., red.; UVAROVA, A.F., tekhn. red.

[Internal-combustion engines for construction and road machinery]
Dvigateli vnutrennego sgoraniia stroitel'nykh i dorozhnykh mashin.
Izd.3., dop. i perer. Moskva, Gos. nauchno-tekhn. izd-vo mashino-
stroit. lit-ry, 1961. 542 p. (MIRA 14:8)
(Gas and oil engines)

L 54053-65 EWT(l)/EWT(m)/EPF(c)/EPF(n)-2/EWG(m)/EPR/EWP(j) Pc-4/Pr-4/Ps-4/
P1-4/Pu-4 RPL WW/JW/GS/RM

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BT1

ACCESSION NR: AT5010479 UR/0000/65/000/000/0003/0028

AUTHOR: Koshkin, V. K. (Doctor of technical sciences); Kuznetsov, V. V. (Engineer);
Kutyurin, I. N. (Candidate of technical sciences); Lapushkin, N. A. (Candidate of
technical sciences) (Deceased)

TITLE: Use of the endothermic coolant decomposition effect for increasing the cooling efficiency

SOURCE: Issledovaniye teploobmena v potokakh zhidkosti i gaza (Investigation of heat exchange in liquid and gas flows). Moscow, Izd-vo Mashinostroyeniye, 1965, 3-28

TOPIC TAGS: coolant, endothermic decomposition, coolant decomposition, heat exchange, cooling efficiency, energy storage capacity

ABSTRACT: Heat exchange processes can be accelerated not only by the use of endothermic phase transitions but also by means of additional endothermic reactions within the coolant. In view of the absence of appropriate data which could influence the choice of the best coolants with optimal cooling decomposition effects, the authors carried out theoretical analyses and approximate evaluations of the energy storage capacity of various dissociating coolants, and determined such capacities experimentally within a given temperature range during heat exchanges between the wall and a moving coolant. The results of this thorough study show

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L 54053-55

ACCESSION NR: AT5010479

that methyl and ethyl alcohols, ethylene glycol, lithium hydride, lithium ammoniate, ammonium fluoride, and acetic, oxalic, and formic acid exhibit the largest specific energy-storing capacity while ammonia, pentane, isopentane, and air proved to be unsuitable. In spite of the large enthalpy of hydrogen, it can hardly be used as a coolant in mobile devices because its low density makes the use of large reservoirs mandatory. The best are ammonium acetate, a 70% aqueous solution of methyl alcohol, and pure ammonium bicarbonate; all other coolants are close to water vapor. All coolants with the exception of pure ammonium bicarbonate and its 20% aqueous solution leave solid deposits. Orig. art. has: 26 formulas, 17 figures, and 3 tables.

ASSOCIATION: None

SUBMITTED: 11Dec64

ENCL: 00

SUB CODE: TD

NO REF SOV: 005

OTHER: 003

Card 2/2

LAPUSHKIN, P.S.

Our experience of treating direct inguinal hernias according to
E.I.Kukudzhinov's method. Sov.med. 18 no.5:22 My '54. (MLRA 7:5)

1. Iz khirurgicheskogo otdeleniya Sareptskoy zheleznodorozhnoy
bol'nitsy (nachal'nik A.P.Tsaplin) Privolzhskoy zheleznoy dorogi.
(Groin--Diseases) (Hernia)

LAPUSHKIN, P.S., (st. Sarepta, Privolzhskoy zheleznoy dorogi,
zheleznodorozhnaya bol'nitsa)

Training of anesthesiologists. Vest. khir. 77 no.2:112-113 F '56
(MLRA 9:6)

1. Iz Sareptskey zheleznodorozhnoy bol'nitsy (nach. O.G.
Korabel'nikova) Privolzhskoy zheleznoy dorogi.
(ANESTHESIOLOGY, educ.
in Russia)

LAPUSHKIN, S. A. Cand. Tech. Sci.

Dissertation: "Heat Capacity of Chromium Steel and Certain Aviation Alloy Steels."
Moscow Order of Lenin Aviation Inst imeni Sergo Ordzhonikidze, 27 Jun 47.

SO: Vechernyaya Moskva, Jun, 1947 (Project #17836)

Rubber Abstracts

*Volcanised
Natural Rubber*

Apparatus for recording the residual deformation
of rubbers. S. A. JAKUSHKIN, F. A. MEVIS, and
V. S. BROMSHVAGIN (U.S.S.R.P. 60060; Chem.
Abstr., 1949, 43, 2650). 644244

1949

LAPUSHKIN, S. A. ✓

Heat capacity of the halides potassium chloride, potassium bromide, and potassium iodide at high temperatures. S. M. Skuratov and S. A. Lapushkin (Moscow State Univ.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 21, 2217-20 (1951). High-accuracy detns. were made by the mixing method in a Cu calorimeter, with a resistance thermometer reading within 0.001°. The mean heat capacity in the temp. ranges 20-400° and 20-660° for KCl and KBr, and 20-350° and 22-660° for KI, is a linear function of the temp. θ , and is expressed by equations of the type $\bar{c}_p = \bar{A} + \bar{B} \times 10^{-3} \theta$, with the following values of \bar{A} and \bar{B} : KCl, $\bar{A} = 0.1612$, $\bar{B} = 3.21$; KBr, 0.1021 and 1.94; KI, 0.0723 and 1.69. The deviations of the exptl. values from the equations are generally 0.1% or less, and only occasionally attain 0.3%. The true sp.-heat capacities, $c_p = d[\bar{c}_p(\theta - 20)]d\theta$, in cal./g., are described by $c_p = A + B \times 10^{-3} \theta$, with KCl, $A = 0.1605$, $B = 6.4$; KBr, 0.1017 and 3.9; KI, 0.0725 and 3.4. For the mol. heat capacities $C_p = A + B \times 10^{-3} \theta$, KCl, 11.96 and 4.79; KBr, 12.11 and 4.61; KI, 12.04 and 5.60.

N. Thon

LAPUSHKIN, S. A.

"Specific Heat of Chromium and Several Complex Alloys of Steel," by S. A. Lapushkin, Tr. Mosk. aviats. in-ta, Issue 51, 1955, pp 15-34 (from Referativnyy Zhurnal -- Mashinostroeniye, No 1 Jan 57, Abstract No 76)

"Studied the influence on the specific heat of one percent carbon steel, of a chromium content within the limits of from 0 up to 11 percent. Also studied the specific heats of six grades of aviation steel: EZh-2, EI-107, 12KhNZA, U-10, 30KhGS, and EI-69. The specific heat was determined by the calorimetric method with an accuracy of up to 0.3 percent. Test results of alloys with different chromium content showed that chromium leads to a reduction of the mean specific heat in all temperatures. The difference in the mean unit of the specific heat among the separate aviation steels was not significant. EI-69 austenitic class steel has a reduced mean unit value of specific heat in comparison with steels with a ferrite base. The heat contents of steels containing chromium and of aviation steels were computed at different temperatures. In the temperature interval from 300 to 700 degrees the heat content of the alloys increases. Over 700 degrees, for nonchrome alloys, the heat content gives a sharp rise up to temperatures of 730-735 degrees. For an alloy containing 2.65 percent chromium, the sharpest increase of heat content comes at about 770 degrees. Over 770-780 degrees the heat content is decreased according to a linear law. For an alloy with 8.72 percent chromium, the steepest rise comes at a temperature close to 760 degrees. Beginning with 810 degrees, the heat content is increased linearly with rising temperatures. For an alloy containing 11 percent chromium, the sharpest increase of heat content is found at a temperature of approximately 740 degrees.

Sum. 1322

LAPUSHKIN, S.A.

According to the absolute value the maximum difference in the heat content between a nonchrome alloy and the alloy containing 11 percent chromium was reached at 810 degrees and consists of 6 percent. The nonchrome alloy has the greatest heat content. The actual specific heats were computed according to the heat-content curve. The actual specific heat of alloys having different chromium contents, in relation to temperature, has a sudden jump in the interval from 730-780 degrees. For the alloy not containing chromium, the maximum jump correlates with the temperature from 730 to 735 degrees; for the alloy with 2.65 percent chromium, 775 degrees; for the alloy with 8.75 percent chromium, 760 degrees; and for the alloy with 11 percent chromium, 740 degrees.

"The heat contents of aviation-type steels in the temperature interval up to 600 degrees were practically the same.

"The graph produced is incorrectly constructed: it does not conform with the text and tables, according to which the temperature maximum for all of the alloys lies in the interval from 700 up to 800 degrees, while on the graph the maximum is located in the temperature interval from 600 to 700 degrees." (U)

Sum 1322

LAPUSHKIN, S.A.

ASTAKHOV, P.H., kandidat tekhnicheskikh nauk; GROMOV, S.A., kandidat tekhnicheskikh nauk; LAPUSHKIN, S.A., inzhener.

Some conclusions from tests of the TE7 diesel locomotive.
Elek.i tepl.tiaga no.5:6-10 My '57. (MIRA 10:7)
(Diesel locomotives--Testing)

KHRAPOV, M.N., inzh.; LAFUSHKIN, S.A.

Basic traction and thermal characteristics of the
Czechoslovak ChME2 diesel locomotive. Vest.TSNII
MPS 19 no.5:25-28 '60. (MIRA 13:8)
(Czechoslovakia--Diesel locomotives)

Lapushkin S.A.

KHRAPOV, M.N., inzh.; LAFUSHKIN, S.A., inzh.

Traction and fuel consumption characteristics of the VMEL diesel
switcher. Vest. TSNII MPS 20 no.2:24-27 '61. (MIRA 14:3)
(Diesel locomotives)

5.3700

2209 only

8617L
S/096/61/000/001/012/014
E194/E184

AUTHORS: Sokolov, S.N., Candidate of Technical Sciences,
Lapushkin, S.A., Candidate of Technical Sciences, and
~~Kopylov, N.I., Candidate of Technical Sciences~~

TITLE: The Thermal-Physical Properties of Silicone in the
Liquid Phase

PERIODICAL: Teploenergetika, 1961, No. 1, pp. 79-81

TEXT: Although silicones are of considerable technological
interest, very little published data exist about their thermal-
physical properties. The silicone investigated in the present
work was diethylpolysiloxane liquid of the following
characteristics: molecular weight, 400; density 956 kg/m³ at
20 °C; boiling point, 282 °C at 760 mm mercury; freezing point,
- 70 °C; dynamic viscosity at 20 °C, 9.9 x 10⁻⁴ kg.sec/m²; and
the corresponding kinematic viscosity, 10.1 cS. The experimental
procedures used to measure specific heat density, thermal
conductivity and other properties are described. The experimental
data are given in Table 1. Table 2 gives smoothed data for

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86174
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E194/E184

The Thermal-Physical Properties of Silicone in the Liquid Phase

temperature, pressure, density, specific heat at constant pressure, thermal conductivity, viscosity, latent heat of vapourisation and Prandtl's number. ✓

There are 2 tables and 7 references: 6 Soviet and 1 French.

ASSOCIATION: Moskovskiy aviatsionnyy institut
(Moscow Aviation Institute)

Card 2/2

SOKOLOV, S.N., kand.tekhn.nauk; LAPUSHKIN, S.A., kand.tekhn.nauk; KOPYLOV,
N.I., kand.tekhn.nauk

Thermal properties of silicone in the liquid phase. Teploenergetika
8 no.1:79-81 Ja '61. (MIRA 14:4)
(Silicones--Thermal properties)

27853

S/535/61/000/132/009/012
EO30/E484

11.1210
11.0132

AUTHOR: Lapushkin, S.A. Candidate of Technical Sciences

TITLE: Equations for estimating the thermal conductivity of liquid fuels

SOURCE: Moscow. Aviatsionnyy institut. Trudy. no.132. 1961. 109-115. Teplofizicheskiye svoystva nekotorykh aviatsionnykh topliv v zhidkom i gazoobraznom sostoyanii.

TEXT: It is claimed that overestimates of 20 to 40% are made by using Cragoe's prediction formula:

$$\lambda = \frac{0.1008}{\gamma_{15}} (1 - 0.00015 t) \text{ kcal/m hr } ^\circ\text{C} \quad (1)$$

Instead, the formula of Predvoditelev-Vargaftik is advised:

$$\lambda = \frac{1}{\alpha} A_0 c_p \gamma^{4/3} M^{-1/3} \text{ kcal/m hr } ^\circ\text{C} \quad (2)$$

where α is a constant related to the degree of association (and equals 1 for unassociated liquids), $A_0 = 1.54$, being a universal

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27863

S/535/61/000/132/009/012

E030/E484

Equations for estimating ...

constant, γ is the specific gravity, M is the molecular weight and c_p is the specific heat at $1/2 T_{crit}$. It is further known that:

$$\lambda_{ocp} M^{-1/3} = B \quad (3)$$

where B is a constant for a liquid, so that for unassociated liquids,

$$\lambda = B\gamma^{4/3} \text{ kcal/m hr } ^\circ\text{C} \quad (4)$$

Comparison of Eq.(4) for liquid hydrocarbons, associated liquids (water and alcohol) and low-boiling liquids (nitrogen, methane and ethylene) give deviations less than 5%. Applying the formulae over a wide temperature range (-20 to +140°C) to oils only, the maximum discrepancy is 2.6%. The best data on Dowtherm, from 20 to 357°C give less than 2% deviation. Applying the formula to gasoline B-70 (B-70), T-1 and T-5 (data of A.V.Kozyukov, p.94 and S.N.Pyatibratov, p.31 of this volume) give greater deviations, up to 6-9% because of their chemical inhomogeneity, using as values of B , 0.146 for B-70, 0.128 for T-1 and 0.125 for T-5. H

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S/535/61/000/132/009/012
E030/E484

Equations for estimating ...

All the above comparisons were made using an experimentally determined B-value in the formula; it is further shown that if B is calculated, it is then possible without any experiments to estimate the thermal conductivity of a liquid to 10%. In general, the temperature dependence of the conductivity is known to 1 to 3%. V.N.Popov, N.V.Tsederberg and V.V.Kerzhentsev are mentioned in the paper. There are 4 figures, 2 tables and 5 references: 4 Soviet and 1 non-Soviet. The reference to an English language publication reads as follows:
Ref.5: Proceeding of the International Conference on the Thermodynamic Properties of Fluids, London, 1957, p.142.

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Card 3/3

LAPUSIKIN, S.A., kand.tekhn.nauk

Equations for calculating the thermal conductivity of liquid
fuels. Trudy MAI no.132:109-115 '61. (MIRA 14:7)
(Liquid fuels—Thermal properties)

LAFUSHKIN, S.A., inzh.

Improved starter circuit of diesel engines on diesel locomotives
with hydraulic drive. Elek.i tepl.tiaga 6 no.4:13-14 Ap '62.
(MIRA 15:5)

(Diesel locomotives---Hydraulic drive)

LAPUSHKIN, S.A., inzh.; TITOVA, R.P., inzh.

D021 diesel train; design and testing results. Elek.i tepl.
tiaga 5 no.11:32-34 N '61. (MIRA 14:11)
(Diesel locomotives)
(Railroads--Trains)

S/152/63/000/003/004/005
B117/B186

AUTHORS: Vargaftik, N. B., Kopylov, N. I., Lapushkin, S. A.,
Pyatibratov, S. N., Sokolov, S. N.

TITLE: Thermophysical properties of monoisopropyl diphenyl

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy., Neft' i gaz,
no. 3, 1963, 75-78

TEXT: Results are given of detailed investigations into the thermo-physical properties of monoisopropyl diphenyl in the liquid phase and the pressure of its saturated vapor. Properties of the sample investigated: molecular weight 197, $n_D^{25} = 1.5696$, density at 20°C $\rho = 0.969 \text{ g/cm}^3$, boiling point 286°C (760 mm Hg). Conventional measuring methods were used. The specific heat (c_p) and the density (ρ) were measured with a calorimeter at $20-398^\circ\text{C}$ and 10 atm with a maximum error of 0.3% for the density and 1.5% for the specific heat. The heat conductivity (λ) was measured with a heated wire at $30-209^\circ\text{C}$, under atmospheric pressure, with an accuracy of 1%. The viscosity (η) under the pressure of saturated monoisopropyl
Card 1/3

Thermophysical properties of ...

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diphenyl vapor was measured at 20-340°C with a maximum error of 1%. The pressure of the saturated vapor (p_s) was measured at 96-309°C. The error was 0.2°C for the temperature determination and 2 mm for the pressure. To determine the thermophysical properties of monoisopropyl diphenyl, the experimental amounts were generalized for smoothed temperature values, as tabulated (Table 2). The table also gives calculated values of the heat of vaporization (r) and the Prandtl numbers required for calculating the heat exchange. There are 2 tables.

ASSOCIATION: Moskovskiy aviatsionnyy institut im. S. Ordzhonikidze
(Moscow Aviation Institute imeni S. Ordzhonikidze)

SUBMITTED: January 17, 1963

Table 2. Smoothed values for the thermophysical properties of monoisopropyl diphenyl.

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Thermophysical properties of...

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B117/B186

t, °C	$\rho, \text{g/cm}^3$	$c_p, \text{cal/g} \cdot \text{°C}$	$\lambda \cdot 10^5$	$\eta \cdot 10^2$	P_s	r	Pr
			cal cm·sec·°C				
20	0.969	0.412	303	14.1	—	—	19
40	0.962	0.432	297	6.29	—	—	91.5
60	0.953	0.446	289	3.47	—	—	53.4
80	0.943	0.462	283	2.22	—	—	36.2
100	0.932	0.478	278	1.57	1.5	77.0	27.0
120	0.920	0.494	272	1.17	3.5	75.8	21.3
140	0.907	0.510	266	0.89	8.5	75.0	17.1
160	0.893	0.526	261	0.69	19	74.2	13.9
180	0.878	0.542	255	0.55	39	73.3	11.8
200	0.861	0.560	247	0.45	77	72.5	10.3
220	0.845	0.578	241	0.38	142	71.6	9.22
240	0.827	0.597	236	0.32	240	70.6	8.35
260	0.809	0.616	230	0.28	418	69.2	7.74
280	0.791	0.637	225	0.25	671	67.7	7.19
300	0.773	0.658	216	0.22	1042	65.7	6.76
320	0.753	0.681	211	0.19	1570	63.5	6.39
340	0.734	0.705	205	0.175	2291	60.9	6.02
360	0.714	0.730	200	0.155	3266	57.9	5.66
380	0.694	0.758	192	0.137	4539	54.5	5.41
400	0.674	0.788	183	0.114	6194	50.0	5.34

Card 3/3

KHRAPOV, Mitrofan Nikolayevich; LAPUSHKIN, ~~Sergey~~ Alekseyevich;
DOLGANOV, A. N., inzh., retsenzent; SOBAKIN, V. V., inzh.,
red.; VOROTNIKOVA, L. F., tekhn. red.

[Locomotive tests on the line] Opytnye poezdki s lokomotivami.
Moskva, Transzheldorizdat, 1963. 183 p. (MIRA 16:3)
(Locomotives--Testing)

NEMUKHIN, V.P., kand. tekhn. nauk; LAPUSHKIN, S.A., inzh.

Results of the testing of the TE3L diesel locomotive electric
driving. Trudy TSNII MPS no.272:165-174 '64. (MIRA 17:9)

LAUFUSIMIN Y... L...

"Hydrographic Knowledge of the Seas in the Soviet Union and Their Mapping", Trudy Vses.
vtorogo geogr. s'yezda (Proceedings of the All-Union Second Geographic Congress)
Vol I, 1948 (223-239)

SO: U-3039, 11 Mar 1953

SOV/137-58-9-19751

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 233 (USSR)

AUTHORS: Kot, M.V., Lapushner, S.Kh.

TITLE: Electrical Conductivity [and] Thermo-emf of an SbZn Alloy
With Admixtures of Foreign Atoms (Elektroprovodnost' termo-
e.d.s. soyedineniya SbZn s primesyami chuzherodnykh atomov)

PERIODICAL: Uch. zap. Kishinevsk. un-t, 1957, Vol 29, pp 139-145

ABSTRACT: A study of the temperature relationship (in the 250-625°K range) of the electrical conductivity σ and thermo-emf α of an SbZn alloy with admixtures of Cd, Pb, and Bi. An increase of σ and a decrease of α are observed with an increase in the impurity content. All the $\sigma(T)$ and $\alpha(T)$ curves have a similar appearance; in the high-temperature range a semiconductive character of the relationship $\alpha(T)$ becomes apparent. Upon a variation in the concentration of Cd from 0.1 to 5.0 atom-% σ varies from 20.0 to 50.0 mho/cm, ΔE varies from 0.56 to 0.35 ev and α from 239 to 116 $\mu\text{v}/\text{degree C}$. These parameters undergo similar variations for specimens that contain Pb and Bi impurities. $\alpha(T)$ was measured in relation to Cu at a temperature gradient on the specimen equal

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SOV/137-58-9-19751

Electrical Conductivity [and] Thermo-emf of an SbZn Alloy (cont.)

to 20°C. For all the specimens the relationship $\alpha(T)$ is the same; in the low-temperature range α increases with an increase in temperature, whereas in the high-temperature range α decreases. A decrease in α is observed upon an increase in the impurity content, which phenomenon is especially pronounced with Pb. Upon alloying of Cd, Pb, and Bi the value for α remains positive. An attempt is made to explain the absence of electron-type ("n") conductivity upon the introduction of an admixture of Cd by the formation of CdSb compounds which have hole-type ("p") conductivity.

L.M.

1. Antimony-zinc alloys--Conductivity
2. Antimony-zinc alloys--Temperature factors
3. Chemical impurities--Electrical effects

Card 2/2

BROVKOVA, M.; LAPUSHONOK, Yu., inzhener.

Preparation for removing oil from polished wooden surfaces.
Prom.koop. no.11:32-33 N '55. (MLRA 9:5)

1. Zaveduyushchiy Eksperimental'noy laboratoriyey Latpromsoveta.
(Furniture industry)

LAPUSHKOV, Yu., inzhener.

Composition stepper. Prom. keep. no. 2:23 P '56. (MLRA 9:7)

1. Rizhskaya eksperimental'naya laboratoriya.
(Botling) (Cerk)

LAPUSHONOK, Yu.(Riga); BAYARS,V.[Bajars,V.](Riga); DALBIN'SH,Ya.
[Dalbins,J.](Riga)

High-speed semicoking of peat in the experiment installation
using gas heat transfer medium. In Russian. Vestis Latv ak no.3:
127-134 '60. (KRAI 10:7)

1. Akademiya nauk Latvyskoy SSR, Institut khimi.
(Peat) (Coke) (Gases)

KARLSON, K.P. [Karlsons, K.], red.; BAYARS, V. [Bajars, J.], red.
STONANS, Ja., red.; DALBIN', M.Ya. [Dalbins, M.], red.;
FLATNIYEKS, R.F. [Platnieks, R.], red.; LAPUSHONOK,
Yu.K., red.; TEYTEL'BAUM, A., red.; BITAR, A., tekhn.
red.

[Transactions of the Conference on the New Methods of the
Efficient Use of Local Fuels held in Riga, September 2 to
5, 1958] Trudy soveshchaniia po novym metodam ratsional'-
nogo ispol'zovaniia mestnykh topliv, Riga, 1958.

(MIRA 16:5)

1. Soveshchaniye po novym metodam ratsional'nogo ispol'zo-
vaniya mestnykh topliv, Riga, 1958. 2. Institut khimii Akademi
nauk Latviyskoy SSR (for Bayars, Dalbin').
(Fuel--Congresses)

LAPUSONOKS, J.

Content of amino acids in hen eggs and in chicken, as a function of the feed and of the seasons of the year. J. Laputonoki. *Latvijas PSR Zinātnu Akad. Vēstis* 1959, no. 2 (vol. 10, 79), 83-95 (in Russian; Latvian summary, 95).—Following contents of amino acids, in % of the total N compds., were found in the hen eggs and chicken, resp.: cystine 1.5, 3.8, methionine 1.4, 3.3, tyrosine 3.7, 5.7, tryptophan 0.6, 2.6, arginine 2.3, 6.6, and histidine 0.6, 2.7. Vitamins A and D increased the content of the amino acids, with little change in arginine and histidine but with considerable increase in cystine and tyrosine. Methionine and tryptophan increased in chicken during the winter season.
Andrew Dravnieks

LAPUSONOK S, J.

U S S R .

Amino acid content in calfskin leather. J. Lapusonok. *Letskaya Prom.* 12, No. 12, 23-4(1952). Amino acid content of calfskin leather is markedly decreased in skins affected by microbial decay (cystine 8.9, methionine 26.19, tyrosine 26.95, arginine 17.24, histidine 8.42, and lysine 1.70% decrease, resp.). The N content in both normal and infected skins is the same, indicating a possible decarboxylation of I, leading to formation of amines. E. Barabash

LAFUSHONOK, Yu. K.

Larushorok, Yu. K.

"The Amino-Acid Composition of Hens' Eggs and of Young Chicks after Incubation Depending on the Nutrition of the Hen and the Season of the Year." Acad Sci Lithuanian SSR. Inst of Biolog. Vil'nyus, 1955. (Dissertation for the Degree of Candidate in Biological Sciences)

CO: Knizhnaya letopis' No. 27, 2 July 1955

LAPUSONOKS, J

✓Chemical characteristics and feed value of the green mass of clover and lucerne. J. Lapusonoks. *Latvian SSR Zinātnu Akad. Vēstis* 1955, No. 6 (Whole No. 94), 89-94 (in Russian).—The content of proteins and vitamins in the green mass of clover and lucerne was higher before than after blooming. The juice obtained by pressing contained considerable amts. of valuable feed substances and was suitable for prepn. of cattle feed pastes. A. Dravnieks

MD

LAPUSHONOK, Yu.K., kand. biolog. nauk; BRAKSH, N.A., kand. khim. nauk

Some data on the characteristics of peat wax properties. Torf.
prom. 40 no.6:30-31 '63. (MIRA 16:10)

1. Institut khimii AN Latvyskoy SSR.

LAPUT', V.A.

Petroleum potential of the Pripet Graven according to data from
a fluorescence bituminological analysis. Dokl. AN BSSR 4 no.8:
347-350 Ag '60. (MIRA 13:8)

1. Institut geologicheskikh nauk AN BSSR. Predstavleno akad. AN
BSSR K.I. Lukashchym.

(Pipet Valley--Petroleum--Geology)

LAPUT', V.A.

Chlorine content of Devonian terrigenous and terrigenous-carbonate deposits of the Pripet downwarping. Dokl. AN BSSR 5 no.11:506-510 N '61. (MIRA 15:1)

1. Institut geologicheskikh nauk AN BSSR. Predstavleno akademikom AN BSSR K.I.Lukashevym.
(Pripet Valley--Chlorides) (Petroleum geology)

LAPUT', V.A.

Sulfur content in Devonian deposits of the Pripet Depression as an indicator of the oxidation-reduction conditions of sediment accumulation. Dokl. AN BSSR 6 no.7:445-447 J1 '62.

(MIRA 16:8)

1. Institut geologicheskikh nauk AN BSSR. Predstavleno akademikom AN BSSR G.V. Bogomolovym.

(Pripet Valley—Geology, Stratigraphic)

LAPUT', V.A. [laputs', V.A.]; GARMASHOVA, L.F. [Garmashova, L.F.]

Some characteristics of the change in the depth of the occurrence
of oil and bitumens in the Devonian sediments of the Isper Valley.
Vestsi AN BSSR. Ser. fiz.-tekhn. nav. no.4:92-99 163.

(MIRA 17:12)

LAPUT', V.A.

Use of geochemical investigation methods for the determination of the boundary between the Devonian and the overlaying sediments in the Pripet graben. Dokl. AN BSSR 9 no. 5:315-317
My '65 (MIRA 19:1)

1. Institut geologicheskikh nauk Gosudarstvennogo geologicheskogo komiteta SSSR. Submitted May 18, 1964.

LAPUTIN, Aleksandr Yakovlevich; GORBACHEVA, A.N., red.; FEKLISOVA, T.D.,
tekh.red.

[Spin tackle fishing] Lovlia ryby spinningom. Moskva, Gos.izd-vo
"Fizkul'tura i sport," 1960. 134 p. (MIRA 13:11)
(Fishing)

VASIL'YEV, V.M.; AVILOV, A.A.; ALMAZOV, A.D.; BALASHOV, A.V.; VOLKOV, A.M.;
YELIZAROV, H.G.; LAPUTIN, A.Ya.; RYABOV, V.M.; SABUNAYEV, V.B.;
SAMARIN, D.A.; SUSTIN, V.A.; KHERSONSKIY, Kh.N.; TSETEL'MAN, F.Y.;
GORBACHEVA, N.A., red.; TRIPOL'SKIY, L.G., red.; MANINA, M.P.,
tekhn.red.

[The angler's reference book] Nastol'naiia kniga rybolova-sportsmena.
Moskva, Gos.izd-vo "Fizkul'tura i sport," 1960. 237 p.
(Fishing) (MIRA 14:1)

LAPUTIN, K.A.

Exposition of the law of Archimedes. Fiz.v shkole 23 no.1:86
Ja-F '63. (MIRA 16:4)

1. 6-ya srednyaya shkola, Balakhna Gor'kovskoy oblasti.
(Fluid mechanics--Study and teaching)

LAPUTIN, N. (Kuybyshev)

Good order saves time. Grazhd. av 17 no.8:33 A₈ '60. (MIRA 13:9)
(Aeronautics, Commercial--Freight)

NARBUTT, K.I.; LAPUTINA, I.P.

Feasibility of determining the oxidation degree of uranium
from X-ray emission spectra. Izv. AN SSSR. Ser. fiz. 26 no.3:
409-411 Mr '62. (MIRA 15:2)

(Uranium oxide)
(X-ray spectroscopy)

NARBUTT, K.I.; LAPUTINA, I.P.; SHUBA, I.D.; KARDAKOV, K.A.; SAMOYLOV,
G.P.

Isotopic composition of ore lead and age of minerals con-
taining U, Th, and Pb according to the data of mass spectro-
metry and X-ray spectrum. Trudy IGEM no.28:122-137 '59.

(Lead--Isotopes) (Geological time) (X rays)
(MIRA 13:4)

35600
S/048/62/026/003/012/015
3102/3104

21.4100
AUTHORS:

Narbutt, K. I., and Laputina, I. P.

TITLE:

A possibility of determining the extent of uranium oxidation from X-ray emission spectra

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 3, 1962, 409 - 411

TEXT: Experiments were made with a longwave X-ray fluorescence spectrometer of the type APYC-2 (DRUS-2) to determine the spectral characteristics of different uranium oxides. The X-ray tube used operated with 20 kv and 40 ma, and the electrodes were well cooled. A bent quartz plate (radius of curvature: 500 mm) of 10.65 mm was used as crystal analyzer, a gas counter with a 20- μ Lavsan window served as recorder. The valence effects on the X-ray emission M-spectrum were studied with UO_2 , UO_3 and U_3O_8 . The last emission lines of the M_V -spectrum were found to be most sensitive to a change in valence. These lines are due to electron transitions from filled uranium levels to deeper M_V -levels. The range most sensitive to

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A possibility of determining...

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the uranium valence was between the M_{α} -line at 3.473 \AA and the line of the $N_{IV}-M_{III}$ transition at 3.514 \AA . The intensity ratio, i.e. the ratio of the line areas for UO_3 and UO_2 was 1.6, a value which is in quite good agreement with the valence ratio 6:4. The shortwave edge of the U-IV emission band is shifted to lower energies by 2 ev, which is possibly due to the lattice extension when the U^{6+} ion is replaced by the larger U^{4+} ion. The U_3O_8 intensity spectrum is located between those of UO_2 and UO_3 and shows an energy shift toward the latter. R. L. Barinskiy is thanked for discussions. There are 2 figures and 1 Soviet reference. 4

Card 2/2

LAPUTINA, K.V., ordinator

Treatment of diaphysary fractures of the shin. Nauch.trudy Ghetv.
Mosk.gor.klin.bol'. no.1:131-137 '61. (MIRA 16:2)

1. Iz kliniki travmatologii i ortopedii 2-go Moskovskogo gosudarstvennogo meditsinskogo instituta imeni N.I. Pirogova (zav. klinikoy prof. V.A. Chernavskiy) na baze Moskovskoy gorodskoy klinicheskoy bol'nitsy No.4 (glavnyy vrach G.F. Papko).
(LEG—FRACTURE)

LAPUT'YEVA, N.I., assistant

Some characteristics of nuclear and cellular reproduction
in the cytotrophoblast of the chorionic placental zone in
the human embryo. Uch. zap. Stavr. gos. med. inst. 12:
155-156 '63. (MIRA 17:9)

1. Kafedra gistologii i embriologii (zav. prof. P.S. Revutskaya)
Stavropol'skogo gosudarstvennogo meditsinskogo instituta.

LAPUZIN, A.G.

Lapuzin, A. G. O Travo-smesyakh Dlya Polevykh Sevooborotov Zasushlivci
Zony Yugo-Vostoka. Sov. Agronomiya, 1949, No. 7, S-57-47- Bibliogr:

15 Nazv.

SC: Letopis No. 30, 1949

S/096/62/000/012/001/003
E194/E135

AUTHORS: Komm, P.S., Lapuzin, V.S., Nemirov, V.S.,
Fridman, A.Ye., and Shcherbina, S.A. (Engineers)

TITLE: The control system of a 50 MW gas turbine of the
Khar'kov Turbine Works

PERIODICAL: Teploenergetika, no.12, 1962, 37-44

TEXT: The 50 MW gas turbine type ГТТ-800 (GTU-800) is of
open cycle design, burns natural gas at a pressure of 22 atm, and
provides heat for district heating. The h.p. combustion chamber,
turbine, compressor and l.p. compressor and starting motor are on
one shaft. On a second shaft, side by side with the first, are the
l.p. combustion chamber, turbine, and m.p. compressor, alternator
and geared exciter/starter motor. The first shaft speed is
variable and at full-load is 3600 r.p.m; the second shaft runs at
a constant speed of 3000 r.p.m. The gas distribution arrangements
are described. The control arrangements, described in detail,
consist of two main systems: speed control and anti-surfing
control; in addition there are auxiliary systems for run-up
control, overspeed protection on dropping load, excess temperature
Card 1/3 ✓

The control system of a 50 MW gas ... S/096/62/000/012/001/003
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protection and others. The speed control pick-up is a low output centrifugal pump (impeller) on the l.p. shaft; there is a two-stage amplification with hydraulic positive and negative feedback. An accelerator (differentiator) is provided to make the speed governor operate quickly. The anti-surging control is very similar in principle to the speed governor and also uses two-stage amplification; the pick-up operates according to the speed of the h.p. shaft instead of according to the compressor air flow and pressure, which is the more usual. The operation of the system is explained and the construction of the various valves and other components is illustrated diagrammatically. The run-up controller takes over when the starter motor has run the l.p. shaft up to 1200-1400 r.p.m. and automatically brings its speed up to 2750 rpm, when the speed governor takes over. Auxiliary circuits which prevent false starts when the electrical load is thrown off are described. The temperature controller uses as pick-ups low inertia thermocouples in the h.p. and l.p. turbine exhaust ducts; they commence to operate if the temperature rises 15 °C above the normal value and shut down the set at 25 °C excess temperature.

Card 2/3

The control system of a 50 MW gas ... S/096/62/000/012/001/003
E194/E135

The overspeed governor is independent of the main speed governor and cuts off the fuel supply. Selection of the control arrangements is discussed and design principles are explained, with particular reference to dynamic stability. Transient process performance curves of the control system show that it is stable. There are 9 figures.

ASSOCIATION: Khar'kovskiy turbinnyy zavod
(Khar'kov Turbine Works)

Card 3/3

KOMM, P.S., inzh.; LAPUZIN, V.S., inzh.; NEMIROV, V.S., inzh.; FRIDMAN,
A.Ye., inzh.; SHCHERBINA, S.A., inzh.

Control system of a 50 Mw. gas turbine manufactured by the
Kharkov Turbine Plant. Teploenergetika 9 no.12:37-44 D
'62. (MIRA 16:1)

1. Khar'kovskiy turbinnyy zavod. (Gas turbines)

KOMM, P. S., inzh.; LAPUZIN, V. S., inzh.; MEMIROV, V. S., inzh.;
FRIDMAN, A. Ye., inzh.; SHCHERBINA, S. A., inzh.

Dynamics of the control of a GTU-50-800 gas turbine system
manufactured by the Kharkov Turbine Plant. Energomashinostroenie
8 no.12:1-7 D '62. (MIRA 16:1)

(Gas turbines)

VELLER, V.N., doktor tekhn.nauk; KIRAKOSYANTS, G.A., kand.tekhn.nauk;
LAPUZIN, V.S., inzh.; LEVIN, D.M., inzh.; ROZHANSKIY, V.Ye., inzh.;
RULLIT, R.A., inzh.; FRIDMAN, A.Ye., inzh.

Water system for the regulation of the K-150-130 turbine developed
by the Kharkov Turbo-Generator Plant. Teploenergetika 9 no.11:10-
17 N '62. (MIRA 15:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy teplotekhnicheskii institut
i Khar'kovskiy turbogeneratorny zavod.
(Kharkov—Steam turbines). (Hydraulic ~~servo~~mechanisms)

LAPUZOV, S. M.

"Catalytic esterification of benzyl alcohol without addition of acid".
Koton, M. M. and Lapuzov, S. M. (p. 1713)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1949, Vol. 19, No. 9

LAFYK, B. B.

22466. LAFYK, B. B. Priblizheniye Metody Resheniya E adach Ovizhenii
Prirodiykh Gaeov V Poristykh Plastikh Trudy Mook. Neft. In-ta Im. Akad Gubkina,
VYP. 9, 1949, S.45-57-Bibliogr: 11 Naev.

SO: Letopis' No. 30, 1949

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PHASE I BOOK EXPLOITATION

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Moscow, Institut stali.

Novoye v teorii i praktike proizvodstva martenovskoy stali (New [Developments] in the Theory and Practice of Open-Hearth Steelmaking) Moscow, Metallurgizdat, 1961. 439 p. (Series: Trudy Mezhdvuzovskogo nauchnogo soveshchaniya) 2,150 copies printed.

Sponsoring Agency: Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya RSFSR. Moskovskiy institut stali imeni I. V. Stalina.

Eds.: M. A. Glinkov, Professor, Doctor of Technical Sciences, V. V. Kondakov, Professor, Doctor of Technical Sciences, V. A. Kudrin, Docent, Candidate of Technical Sciences, G. N. Oyka, Professor, Doctor of Technical Sciences, and V. I. Yavoyskiy, Professor, Doctor of Technical Sciences; Ed.: Ye. A. Borko; Ed. of Publishing House: N. D. Gromov; Tech. Ed.: A. I. Karasev.

PURPOSE: This collection of articles is intended for members of scientific institutions, faculty members of schools of higher education, engineers concerned with metallurgical processes and physical chemistry, and students specializing in these fields.

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New [Developments] in the Theory (Cont.)

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COVERAGE: The collection contains papers reviewing the development of open-hearth steelmaking theory and practice. The papers, written by staff members of schools of higher education, scientific research institutes, and main laboratories of metallurgical plants, were presented and discussed at the Scientific Conference of Schools of Higher Education. The following topics are considered: the kinetics and mechanism of carbon oxidation; the process of slag formation in open-hearth furnaces using in the charge either ore-lime briquets or composite flux (the product of calcining the mixture of lime with bauxite); the behavior of hydrogen in the open-hearth bath; metal desulfurization processes; the control of the open-hearth thermal melting regime and its automation; heat-engineering problems in large-capacity furnaces; aerodynamic properties of fuel gases and their flow in the furnace combustion chamber; and the improvement of high-alloy steel quality through the utilization of vacuum and natural gases. The following persons took part in the discussion of the papers at the Conference: S.I. Filippov, V.A. Kudrin, M.A. Glinkov, B.P. Nam, V.I. Yavovskiy, G.N. Oyks and Ye. V. Chelishchev (Moscow Steel Institute); Ye. A. Kazachkov and A. S. Kharitonov (Zhdanov Metallurgical Institute); N.S. Mikhaylets (Institute of Chemical Metallurgy of the Siberian Branch of the Academy of Sciences USSR); A.I. Stroganov and D. Ya. Fovolotskiy (Chelyabinsk Polytechnic Institute); P.V. Umrikhin (Ural Polytechnic Institute); I.I. Fomin (the Moscow "Serp i molot" Metallurgical Plant); V.A. Fuklev (Central Asian Polytechnic Institute);

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and M.I. Beylinov (Night School of the Dneprodzerzhinsk Metallurgical Institute).
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New [Developments] in the Theory (Cont.)

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